

Development of Software for Developing Communicative Competences Using Digital Technologies

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Abstract: This article highlights the issues of developing software aimed at improving the communicative competencies of students in technical higher education institutions through digital technologies. The advantages of using modern digital platforms in the educational process, opportunities for establishing effective communication among students, and the development of written and oral speech skills are analyzed.

Keywords: Communicative competence, digital technologies, software, educational platform, interactive communication, technical higher education institutions, educational process.

Introduction: Today, the application of digital technologies in the field of education creates significant opportunities to improve the quality of education for students. Digital educational technologies not only help in the effective organization of the educational process but also play an important role in developing communicative competences among students at technical higher education institutions. Creating software to help enhance students' communicative competences provides the opportunity to teach the skills necessary for successful communication in changing technological and social environments. Such software fosters effective and dynamic interactions among students using interactive communication tools. This research analyzes the process of developing software aimed at enhancing communicative competences among students of technical higher education institutions using digital technologies, as well as its methodological foundations. State documents concerning the development of digital technologies primarily place the crucial issue of informatizing society on the basis of digital technologies at the top of the agenda. For instance, Decree No. UP-6079 dated October 5, 2020, "On the approval of the 'Digital Uzbekistan - 2030' strategy and measures for its

effective implementation," and similar state documents consider the development of digital technologies and their widespread practical application as one of the priority directions of state policy.

The research conducted by our country's scientists on the development of a software platform designed to enhance the communicative competencies of students in technical higher education institutions through digital technologies is focused on investigating the methodological aspects of creating digital educational platforms and fostering students' communicative skills via these tools. By leveraging digital educational technologies, it is possible to effectively organize the educational process and intensify interactive communication among students.

When developing software aimed at improving the communicative competencies of students in technical higher education institutions using digital technologies, it is essential to adhere to the following key requirements:

1. Didactic Requirements – The software must be specifically designed to enhance the students' communicative competence. It should incorporate interactive elements that encourage active student

participation. The platform must offer personalization capabilities to align with the knowledge level and individual needs of each student. Furthermore, it is essential to provide users with the opportunity to analyze, assess their own activities, and identify their errors.

2. Methodological Requirements – Tasks that stimulate both written and oral communication (such as forums, dialogues, and role-playing games) must be integrated. The software should include interactive exercises that challenge students to think critically and solve problems. The structure must facilitate a systematic and step-by-step educational process. Additionally, it should develop diverse communicative skills through the integration of text, audio, video, and graphics.

3. Technical and Technological Requirements – The software must ensure full compatibility and stable performance across computer systems. The user interface must be simple, intuitive, and user-friendly. High standards of data security must be maintained to protect user information. Additionally, the platform should feature monitoring and assessment tools for educators to track and evaluate student progress.

4. Communicative-Functional Requirements – The platform should present tasks that reflect real-life communication scenarios. It is necessary to create an environment conducive to group work, the exchange of ideas, and academic debate. Effective communication mechanisms between students and instructors must be firmly established within the system.

The organizational structure for developing a platform aimed at enhancing communicative competencies in students through digital technologies consists of the following key sections:

1. Project Goals and Objectives The primary goal of the project is to create software specifically focused on developing students' communicative competencies. To improve skills such as communication, listening, comprehension, information exchange, and problem-solving through digital technologies, the program offers interactive learning modules.

2. Core Functional Modules of the Software Through interactive communication modules, students can simulate various communication scenarios and test their communicative skills. Additionally, a comprehensive testing and assessment system for each

communicative competence will be integrated. Video and audio materials will be utilized to enhance students' listening and comprehension skills. The platform will also include group-oriented tasks and problems, as well as forum and chat functionalities to allow students to express their ideas.

3. Technical Implementation A user-friendly web platform will provide students access to various training modules. Simultaneously, an administrative dashboard will be available for instructors to monitor students' achievements and identify potential challenges.

4. Training and Integration To ensure effective utilization of the software, training sessions on digital technologies will be organized for educators. Furthermore, training courses and instructional manuals will be developed to help students familiarize themselves with the program and engage in integrated activities. Continuous monitoring will be conducted to track student progress and evaluate the development of their communicative competencies.

5. Automated Assessment and Feedback An automated grading system based on completed tasks and tests will be implemented. The software will analyze student responses and feedback to generate valuable insights for both instructors and students.

6. Innovative Approaches and Gamification To develop students' communicative competencies, innovative methods such as gamification and incentive systems will be applied. Artificial Intelligence (AI) technologies will be utilized to provide personalized learning materials tailored to the needs of both students and teachers.

7. Feedback System and Continuous Improvement A feedback mechanism will be established, allowing students to share their experiences and suggestions regarding the program. The software and its modules will be regularly updated to incorporate new educational methodologies.

8. Technical Support Services A dedicated technical support service will be established to resolve any technical issues that may arise during the use of the software.

This organizational structure defines the primary directions for software development aimed at providing effective support to students and teachers, while fostering the systematic growth of communicative competencies.

CONCLUSION

The objective of this research is to create effective software that facilitates the development of students' communicative competencies through the application of digital technologies. Furthermore, this study analyzes the significance of digital platforms and software within the educational process, the methods and technologies employed to enhance communicative competencies among students of technical higher education institutions, and the approaches to equipping students with the essential skills for academic and professional success. Evaluating the effectiveness of the software and determining its contribution to the educational process are considered critical factors in organizing high-quality education.

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