



THE USE OF DIGITAL TECHNOLOGY TECHNIQUES IN IMPROVING THE QUALITY OF PRACTICAL TRAINING

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Annotation; The article discusses the use of digital technology methods to improve the quality of practical training, the principles of creating organizational and didactic structure components of the development of digital technologies in students through electronic educational tools, the didactic content of developing digital competence in students through electronic educational tools.

Keywords: e-learning, digital competence, internet, social media, digital security, digital literacy, interactive lecture, online simulation.

In recent years, the Republic has been creating regulatory framework for the implementation of international standards for the assessment of the quality of education and training, improving the quality and efficiency of the activities of higher education institutions, creating effective mechanisms for the practical implementation of scientific and innovation achievements.

The following approaches are noteworthy when considering methodological approaches for future teachers in the digital age:

- technological pedagogical content knowledge: this approach emphasizes the integration of technological, pedagogical and content knowledge in teaching;

- active learning and experiential learning: it promotes active learning techniques that encourage students to actively engage in technology through hands-on activities, problem-solving, and project-based learning.

Practices, industrial collaborations, or technology-based experienced learning strategies provide students with direct experiences in real-world technology contexts.

Blended Learning and Flipped Classroom: it combines traditional face-to-face teaching with online learning platforms, digital resources, and interactive technologies. This allows for interactive and discussion-based learning during face-to-face classes, where students can access online content before class.

Gamification and game-based learning: it is considered important to apply gameplay elements and game-based learning principles to attract students and enhance their educational experience. In this case, it is advisable to use educational games, stimulations and immersive virtual environments to actively participate among students, solve problems and develop critical thinking.

Developing design-specific thinking: it develops students ' thinking about design to develop innovative and creative problem-solving skills. These approaches encourage students to think systematically, solve complex problems, and develop innovative solutions using technology.

Collaborative learning and peer-to-peer teaching: it is the promotion of a collaborative educational environment in which students can work together as a team, exchange ideas and solve problems together. In doing so, students take turns teaching and collaborating and implementing mutual educational strategies

using technology tools to communicate.

Personalized and personalized education: in this case, students use digital tools and personalized learning platforms that they can adapt to their individual needs and preferences. The use of data analysis in the adaptation of guidelines to assess student progress, provide personal feedback and optimize educational outcomes is considered expedient.

The use of digital citizenship and ethical technology: it is the use of ethical technology to promote responsible digital citizenship among students, emphasizing information literacy, online security, and respectful online behavior. It is also considered important to teach students about digital rights, privacy, and cybersecurity measures to create a responsible and informed digital community.

Continuous professional development: this is to encourage future teachers to engage in continuous professional development to keep them updated with emerging technologies, advanced experiences and pedagogical approaches. It is necessary to provide them with the opportunity to participate in seminars, conferences and online courses aimed at technology integration in education.

By applying these methodological approaches, future teachers are instrumental in solving problems and taking advantage of the opportunities that the digital age offers. This provides effective and interesting technology training.

In this regard, foreign Methodists have made a significant contribution to the development of digital competence in students and its application in education. They introduced innovative approaches, tools and techniques that helped teachers improve students' digital literacy, critical thinking, problem-solving and collaborative skills. Examples of these include:

SAMR model: developed by Ruben Puentedura, this model is used in teaching to assess the level of technology integration. This directs teachers to the use of modern and person-oriented technology by abandoning traditional methods to some extent.

The SAMR model defines four levels of online education, presented in terms of complexity and transformative power as follows:

- Substitution (Disambiguation);
- Augmentation;
- Modification;
- Redefinition (redefinition).

When switching to an online format, teachers typically focus on the first two levels, which involve replacing traditional materials with digital materials: converting lessons and worksheets to PDF and placing them online or recording lectures on video and allowing them to be used for asynchronous learning.

Tpack Foundation: developed by Punya Mishra and Matthew Kohler, this foundation focuses on the intersection of technology, pedagogy and content. It helps teachers develop an effective educational experience by integrating technology with pedagogy and content.

According to the TPACK model, specialized tools consisting of hardware, software, and specific applications can provide a powerful mechanism for effective learning if used correctly. Tpack base technology is often compared to the SAMR model, but they differ dramatically in scale. Since SAMR is considered very simple, it does not cover many aspects in depth.

The tpack model fills this gap by briefly describing a roadmap for classroom application of technology. In the tpack system, the three types of knowledge theories, TK, PK and CK, can be combined in different substitutions and combinations as follows:

Technological and pedagogical knowledge, in which the connection between various technological tools and the pedagogical methodologies that are carried out with them are covered in detail. This combination uses technology to ensure how much teachers can simplify the subject and deliver it effectively to students.

Pedagogical and meaningful knowledge in it, the relationship between various pedagogical methodologies and the specific educational goals associated with them is covered in detail. This combination focuses on how to adapt training methods to achieve accurate results. This ensures maximum efficiency in the class. This combination discusses how technology affects content goals. For example, we can consider that cursive handwriting is an important part of the school curriculum. But as we have seen the growth of computers, the need to learn cursive handwriting has decreased, and everything has become

digital assignments. Technological content knowledge (TCK), it develops the convergence between technological tools and training goals. The combination of this finally leads to Tpack, which takes into account the relationship between the three areas and educational professionals working in this area.

A teacher can often understand the intellectual capacity of a class and change teaching methods, but the same cannot be the case for a teaching video. Regardless of the intellectual abilities of the student watching the video, the video remains unchanged. If the teacher does not use technology enough, the training session will become more technology than content and pedagogy. Integration of the tpack frame into the class. Let's consider using the TPACK system to teach a trigonometry lesson in the classroom. To implement this framework, we must provide the following parameters when planning a lesson.

Content knowledge (CK): the teacher must have a strong knowledge of content that must be presented alongside specific learning goals. The teacher should know trigonometry deeply.

Pedagogical knowledge (PK): the teacher must understand the intellectual capabilities and environment of the class. Taking advantage of this, they must be able to adapt the content effectively and follow the best delivery practices. Technological knowledge (TK): the teacher must know all the digital tools available to them and what tools should be used to teach technical and logical topics such as trigonometry. For this lesson, students need to be able to visualize concepts and understand the logical reasoning behind the formulas to keep them strong.

Since its creation, TPACK theory has become widespread worldwide, being used effectively for professional and research purposes. Thus, the TPACK system proves to be a practical solution to address deficiencies in the application of educational technology to the teaching process.

Reverse class: popularized by John Bergmann and Aaron Sams, this approach involves transforming the traditional Class model by delivering out-of-class learning content through video or other digital resources and using active learning, collaboration, and problem solving in a timely manner in training.

Flipped learning technology has been modified to suit the specific characteristics and educational needs of higher education students. In addition to studying digital learning materials designed in a convenient way for students, they also have the opportunity to ask questions, comment and recommendations from the audience in advance with the teacher.

As a result of the implementation of technology, under the analysis of pedagogical and social influence, learners and research students study educational materials in depth, develop professional skills, communication skills, self-reflection, the ability to plan their own cognitive activity.

Flipped learning is a technology that is perceived as the implementation of the idea of a radical revision of the organizational foundations of the educational process. The essence of this technology is to independently master the main theoretical teaching materials outside the classroom based on the use of audiovisual didactic tools and practically consolidate new knowledge and skills in the classroom under the guidance of a teacher.

Technology is also known as "reverse class," "circular lesson," "turn learning". The teacher goes through countless paths in the course of teaching this technology, as they determine which features of the study synopsis and goals are most useful. This technology is creating a wide variability by allowing lecture to take place in extracurricular time-usually by some electronic means-to move reading and practical program assignments and provide students with extended learning opportunities. Project-based education: this approach, pioneered by foreign Methodists such as John Dewey and Seymour Papert, emphasizes inquiry-based, collaborative and real-world problems and person-oriented education. This directs students to receive education and form research skills through independent research. The basic idea of project-based learning is that real-world problems arouse student interest and encourage critical thinking as students discover and apply new knowledge in the context of problem solving. The teacher plays the role of a facilitator, works with students to compose good questions, organize meaningful activities, teach the development of knowledge and skills of society and critically assess what students have learned from what is happening.

Project-based education replaces traditional teaching models such as themes, workbook-based events, and questions as the preferred way to present the main themes in the curriculum.

While working on the project, students learn to manage obstacles effectively, often learning to judge and make changes until they are satisfied with their work. Students learn to manage projects and tasks more efficiently, explore their passions, ask questions and develop a new love of study, occupy, reflect on their

projects and enjoy their development and achievements. The lesson on the application of project-based educational technology was brought by our development in Appendix 6.

In general, foreign methodologists played an important role in the formation of methods for the development and application of digital competence in education. Their contribution helped teachers create more interesting, interactive and personalized learning experiences that prepare students for the digital age.

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