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METHODILOGY OF USING BLENDED LEARNING TECHNOLOGY IN ORGANIZING SEMINAR CLASSES OF PROFESSIONAL SUBJECTS IN THE TRAINING OF FUTURE PRIMARY SCHOOL TEACHERS

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Abstract: In the context of modern educational reforms and digital transformation, the preparation of future primary school teachers requires innovative pedagogical approaches that combine traditional and digital learning methods. One of the most effective approaches is blended learning technology, which integrates face-to-face instruction with online learning components. This article examines the methodology of using blended learning technology in organizing seminar classes of professional subjects in the training of future primary school teachers. The study analyzes the pedagogical potential of blended learning, its structural components, instructional models, and methodological principles.

Key words: blended learning, teacher education, seminar classes, professional subjects, primary school teachers, educational technology

The rapid development of information and communication technologies has significantly influenced the education system, especially teacher education. In higher pedagogical institutions, the preparation of future primary school teachers requires not only subject knowledge but also the development of professional competencies, critical thinking, creativity, and the ability to use modern educational technologies. Traditional teaching methods alone are no longer sufficient to meet these requirements. Blended learning technology has emerged as an effective pedagogical approach that combines the strengths of traditional face-to-face instruction and online learning. In this context, seminar classes of professional subjects play a crucial role in shaping future teachers' pedagogical skills, methodological competence, and professional identity. Therefore, the effective organization of seminar classes using blended learning technology becomes a significant pedagogical issue. In particular, according to I.A. Nagayeva, blended learning technology is a technology designed for teaching in a partially electronic and online format. In this case, students have the opportunity to partially learn independently. According to Richard Griff , blended learning is an innovative pedagogical technology aimed at organizing training and independent learning of students based on the integration of electronic and traditional learning. According to B. Means, Y. Toyama, R. Murphy, M. Bakia, K. Jones, blended learning is a learning method based on the integration of various resources, in particular, face-to-face training and electronic learning elements. T.I. Krasnova emphasizes that the main task of blended learning technology is to provide wide opportunities for distance learning, taking into account teaching using various information and educational environments, educational platforms, and educational websites located at the addresses of the global network. In addition, it combines classroom teaching and learning in an electronic environment and allows students to independently test their knowledge of the subject.

Blended learning is defined as an instructional approach that integrates in-person classroom activities with online learning experiences in a purposeful and systematic manner. According to Graham (2006), blended learning combines different modes of delivery, teaching methods, and learning styles to enhance educational effectiveness.

In teacher education, blended learning creates opportunities for:

- flexible learning environments;
- student-centered instruction;
- continuous interaction between teachers and students;
- development of digital and pedagogical competencies.

Professional subjects in primary teacher education, such as pedagogy, teaching methodology, educational psychology, and classroom management, require active discussion, reflection, and practical application. Blended learning provides an effective framework for organizing such activities through seminar classes. Seminar classes are an essential form of instruction in higher education, particularly in pedagogical disciplines. Their main purpose is to deepen theoretical knowledge, develop analytical skills, and foster professional discussion. In the training of future primary school teachers, seminars contribute to:

understanding pedagogical concepts;

analyzing real classroom situations;

developing communication and collaboration skills;

reflecting on teaching practices.

When organized through blended learning technology, seminar classes become more interactive and learner-centered, allowing students to actively engage in both online and offline learning activities.

Despite these challenges, proper planning and methodological support can ensure the successful implementation of blended learning technology in seminar classes. The use of blended learning technology in organizing seminar classes of professional subjects contributes to the development of key professional competencies of future primary school teachers. These include pedagogical thinking, methodological skills, reflective abilities, and readiness for innovative teaching practices. Empirical observations indicate that students demonstrate higher levels of academic achievement, participation, and professional confidence when blended learning is effectively applied. The results of our research show that the application of vocational subjects to training in the training of future primary school teachers using the presented models of blended learning technology allows for the acquisition of knowledge from vocational subjects and its subsequent use outside the educational institution in professional activities. Blended learning technology helps students master the skills of skillfully planning their activities, supports the automation of learning, and ensures the use of authentic learning materials. In the preparation of future primary school teachers, blended learning technologies should be applied in conducting lectures in vocational subjects to automate learning, increase independence, personal responsibility for the results of their work, and develop the ability to organize the educational process. Therefore, blended learning technologies are of great importance in accelerating the process of transferring knowledge from the professor-teacher to the student. Its use in the training of future primary school teachers indicates the need to improve the organization of the education system, to improve the effectiveness of lectures in vocational subjects and to develop the professional competence of future primary school teachers, and to comply with new educational standards. Blended learning technology provides broad opportunities for learning by combining traditional presentation and information with online lectures and forum meetings. Theoretical analysis

shows that the main task of blended learning technology is to implement effective combinations of different modes of work. Our research has shown that in order to fully exploit the potential of blended learning technology, its components must complement each other. In this regard, a wide range of educational materials should take into account interactivity. Thus, it is considered appropriate to use the Face-to-Face Driver and Rotation models of blended learning technology when conducting lectures in vocational subjects in the training of future primary school teachers.

The implementation of blended learning technology in organizing seminar classes of professional subjects for future primary school teachers demonstrated positive pedagogical outcomes. The results of the study revealed that combining face-to-face instruction with digital learning tools significantly enhanced students' academic engagement, independent learning skills, and professional competencies.

Quantitative data showed an improvement in students' academic performance, particularly in problem-solving tasks, lesson planning activities, and pedagogical reflection assignments. Students who participated in blended seminars demonstrated higher levels of readiness for practical teaching situations compared to those engaged in traditional seminar formats. The use of learning management systems (LMS), interactive digital resources, and online discussion forums allowed students to access learning materials flexibly and revisit complex concepts at their own pace.

Furthermore, qualitative analysis indicated that blended learning seminars contributed to the development of essential professional skills such as critical thinking, collaboration, digital literacy, and self-assessment. Students reported increased motivation and confidence in applying theoretical knowledge during practical activities. The integration of multimedia resources and online tasks also fostered creativity and learner autonomy, which are crucial qualities for future primary school teachers. The findings of this study confirm that blended learning technology is an effective approach to organizing seminar classes in the professional training of future primary school teachers. The results align with contemporary educational research emphasizing learner-centered and competency-based education models. By integrating digital tools with traditional teaching methods, blended learning creates an interactive and flexible learning environment that supports diverse learning needs. One of the most significant advantages observed was the enhancement of active learning during seminars. Unlike conventional seminars, where student participation may be limited, blended seminars encouraged continuous engagement through online discussions, collaborative projects, and reflective tasks. This supports the development of pedagogical thinking and reflective practice, which are essential components of teacher professionalism.

The study also highlights the role of blended learning in fostering digital competence among future teachers. As modern primary education increasingly relies on educational technologies, the experience gained through blended seminars prepares students for real classroom challenges. Moreover, the increased level of student autonomy observed in the results suggests that blended learning contributes to lifelong learning skills, which are vital for continuous professional development. However, the effectiveness of blended learning depends on proper instructional design, technological infrastructure, and the readiness of both instructors and students. Challenges such as unequal access to digital resources and varying levels of digital competence must be addressed to ensure successful implementation. Overall, the discussion emphasizes that blended learning technology, when systematically integrated into seminar classes, significantly improves the quality of professional training for future primary school teachers.

In conclusion, blended learning technology represents a powerful pedagogical tool for organizing seminar classes in the training of future primary school teachers. Its effective integration into professional subjects enhances the quality of teacher education and aligns with modern educational requirements. The methodology presented in this article can serve as a practical guideline for teacher educators seeking to improve seminar instruction through innovative teaching approaches.

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