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# METHODOLOGY OF ORGANIZING INDEPENDENT WORK OF FUTURE QUALIFIED WORKERS IN BLENDED LEARNING CONDITIONS

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## Abstract

*Relevance.* The research is driven by changes in the field of professional education, the implementation of blended learning in professional (vocational-technical) education, the necessity for distance and online learning, preparation of future qualified workers for independent learning and self-organization, which requires the search for new approaches by pedagogical staff in organizing their independent work, and the need to develop a methodology for organizing the independent work of future qualified workers in blended learning conditions.

*The aim* is to highlight the results of the research and methodology of organizing the independent work of future qualified workers in blended learning conditions, to enhance the effectiveness of organizing and conducting independent educational work by pedagogical staff, and the quality of its execution by educational seekers.

*Methods:* studying scientific literature, normative-legal documents, empirical data regarding the organization of independent work of future qualified workers in blended learning conditions, to identify the current state, analyze the methods of organizing independent work of educational seekers in the conditions of blended learning in institutions of professional (vocational-technical) education.

*Results:* Based on the analysis of scientific literature, normative-legal documents, and empirical data, trends in organizing independent work in institutions of professional (vocational-technical) education have been identified and analyzed; a methodology for organizing the independent work of future qualified workers in blended learning conditions has been developed; its concepts and implementation stages have been defined.

*Conclusions:* The implementation of the developed methodology contributes to the successful performance of educational tasks by learners, mastery of professional knowledge, formation of skills and abilities, development of self-organization skills, work and time planning, self-control, enhancement of the level of digital culture, which prospectively will manifest through increased levels of confidence and independence of the individual, ability to plan one's time, interact in a digital society, be competitive in the labor market, mobile, and professionally grow throughout life.

**Keywords:** *independent work, blended learning, future qualified workers, methodology of organizing independent work in blended learning conditions, professional (vocational-technical) education.*

**Introduction.** In the context of the martial law legal regime in Ukraine, blended learning has become one of the forms that enables institutions of vocational (vocational-technical) education

(hereinafter referred to as V(TE)E) to carry out professional training for future skilled workers. The widespread implementation of blended learning in Ukraine took place in 2020, due to COVID-19

quarantine restrictions, and in 2022, in connection with the onset of mass military actions on the territory of Ukraine. Until 2020, according to survey results, only 4.8% of V(TE)E institutions deliberately introduced blended learning into the professional training of future skilled workers, taking into account the curricula and programs. By blended learning of future skilled workers, we mean the effective combination of various forms and methods of learning, digital technologies, and independent work, for their high-quality professional training.

Under the conditions of a pandemic or martial law, the access of education seekers to face-to-face attendance at educational institutions is limited, hence substituting with distance and online learning. In these circumstances, blended learning becomes an alternative form of education, with independent work being the primary means for future skilled workers to master theoretical material. The volume of independent work of future skilled workers in blended learning compared to face-to-face (traditional) education increases, as does the time spent using digital technologies, requiring learners to be technically and psychologically prepared to work independently and self-organize, with a sufficient level of information technology usage.

Thus, under these circumstances, independent work in blended learning is not just a method, means, type, or form of education, but becomes the basis of professional-theoretical training, requiring a review of approaches to its organization, which prompted our study on the methodology of organizing independent work of future skilled workers in blended learning.

**The purpose of this article is** to highlight the results of the research and the developed methodology for organizing the independent work of future skilled workers in blended learning, to enhance the effectiveness of the organization and implementation of independent educational work by educational staff, and the quality of its execution by learners.

**Methods:** studying scientific literature, normative-legal documents, empirical data regarding the organization of independent work of future skilled workers in blended learning, to identify the current state, analysis of methods of organizing independent work of learners in V(TE)E institutions.

**Results and discussion.** Independent educational work in pedagogy is considered as a

form of organizing the educational process, as a method of teaching, a means or type of educational activity and does not have a univocal definition. For instance, S. Honcharenko (1997) defines independent educational work of students as various individual and collective types of activities of learners, conducted within or outside the educational institution, at home, under the guidance of an educational staff member, but without their direct participation. V. Lozova (2008) considers independent educational work as a form of educational activity of learners, performed during classes in the premises of the institution, outside classrooms, at home, under the direct or indirect guidance of an educational staff member, who determines its purpose, tasks, ways, and methods of organization, and serves to develop qualities of independence in the individual.

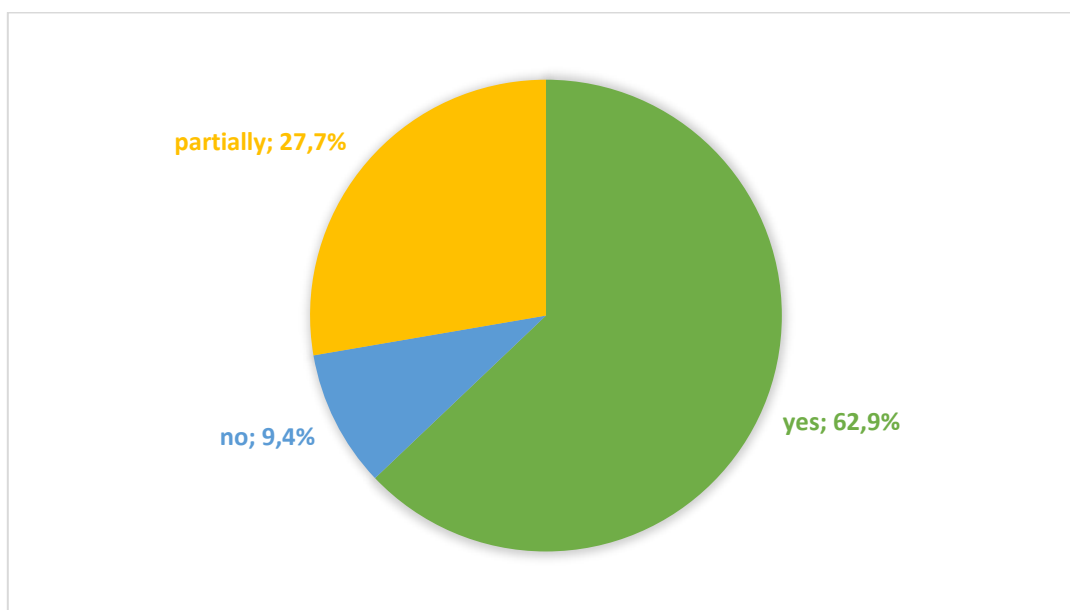
The issue of organizing the independent work of learners is presented in the works of a wide range of domestic scientists and practitioners I. Bekh, V. Bondar, V. Buryak, O. Vashchuk, S. Honcharenko, I. Ziazun, Yu. Zinkovsky, V. Kozakov, M. Kasyanenko, N. Lukinova, Yu. Malovanoy, P. Oliynyk, V. Palamarchuk, O. Savchenko, P. Pidkasisty, L. Sushchenko, L. Ternavska, M. Shkilya, O. Yaroshenko, and others. The independent work of learners of V(TE)E institutions is highlighted in the works of R. Hurevych, V. Bronnikova, A. Kononenko, P. Luzan, I. Mosya, S. Osypenko, T. Pashchenko, H. Romanova, V. Umanets, V. Yagupov, and others. However, the issue of the methodology of organizing independent work of future skilled workers in blended learning is not sufficiently addressed.

To determine the current state and peculiarities of organizing the independent work of future skilled workers in blended learning, we conducted an online survey of educational staff of V(TE)E institutions. In the survey (2022), 3142 educational staff participated, including teachers (49.8%), masters of industrial training (37.6%), methodologists (4.2%), senior masters (1.8%); directors and deputy directors (1.5%), educators, social pedagogues, psychologists, club leaders, librarians (5.1%).

To summarize the survey results, it should be noted that the technical readiness of educational staff for blended learning, particularly in the aspect of distance or online education, is satisfactory. The majority of educational staff are equipped with technical devices of various generations, which only affects the quality of their interaction,

communication, and mobility with learners. The qualitative indicator of the absence of technical

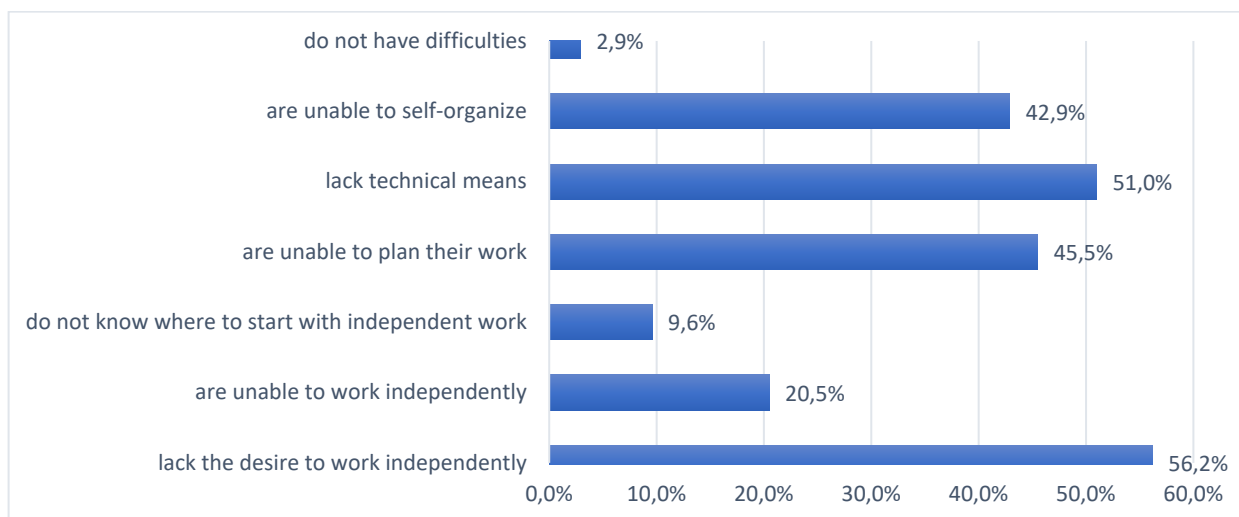
equipment for online learning among educational staff amounts to 9.4% (Fig. 1).



*Fig. 1. Quality indicator of pedagogical staff's provision with technical means for blended learning implementation*

The technical preparedness of learners to participate in online education at an excellent level is 31.1% of learners; 41% are at a good level; satisfactory – 18.4%; and unsatisfactory level constitutes 2.9%. Therefore, the average indicator of the level of technical preparedness of learners to participate in online education is satisfactory. However,

pedagogical workers have noted difficulties faced by future skilled workers during the performance of independent tasks, particularly the lack of motivation, desire, and ability to work independently, plan work and time, and self-organize, etc. Only 3% of learners do not experience difficulties while performing independent tasks (Fig. 2).



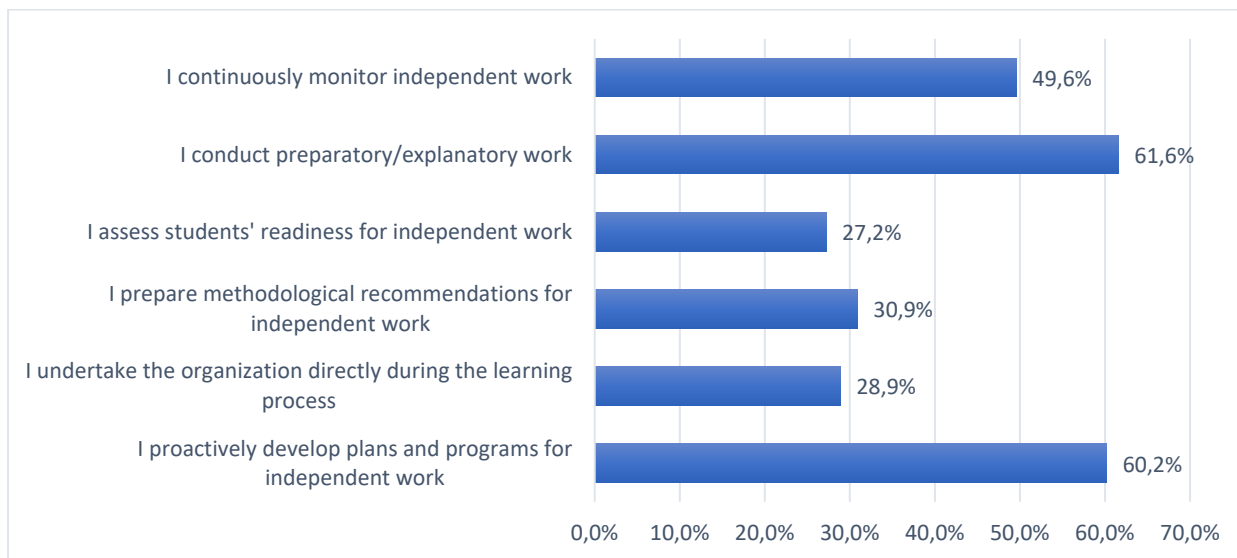
*Fig. 2. Quantitative and qualitative indicators of challenges faced by future skilled workers during independent work in blended learning environments*

The analysis of the organization of independent work by pedagogical staff in Vocational Education and Training (VET) institutions for future skilled workers under blended learning conditions revealed that about 30% of educators adopt a holistic approach to organizing independent work. In their

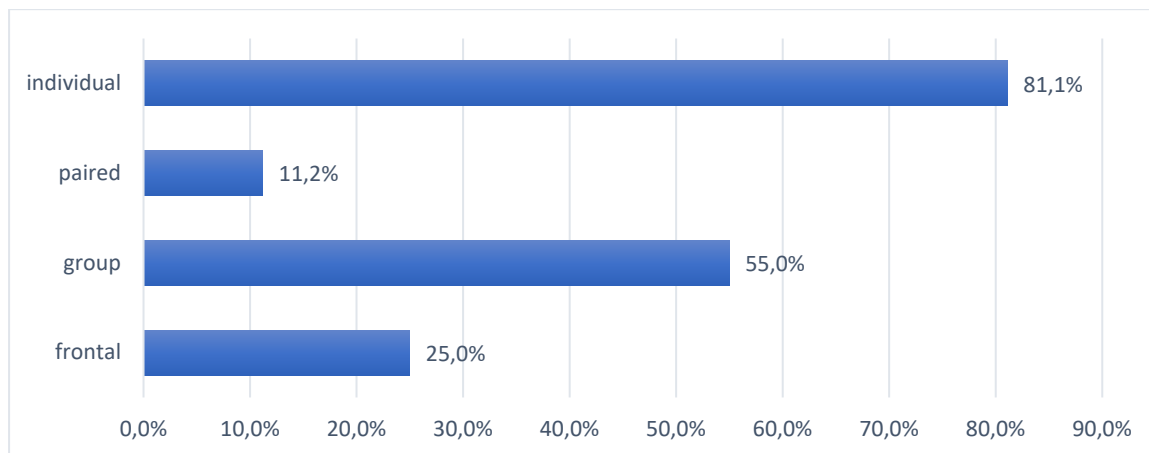
educational activities, they utilize various organizational forms, types, and methods of independent work, develop methodological recommendations for learners' independent work, assess their readiness, work on student motivation, and employ project-based and creative tasks.

Approximately 50% of pedagogical staff organize independent work conservatively, limiting themselves to monotypic organizational measures, forms, methods, and types of independent work, with insufficient differentiation and variability of tasks, which hinders an individualized learning approach. In 20% of pedagogical staff, a formal attitude towards

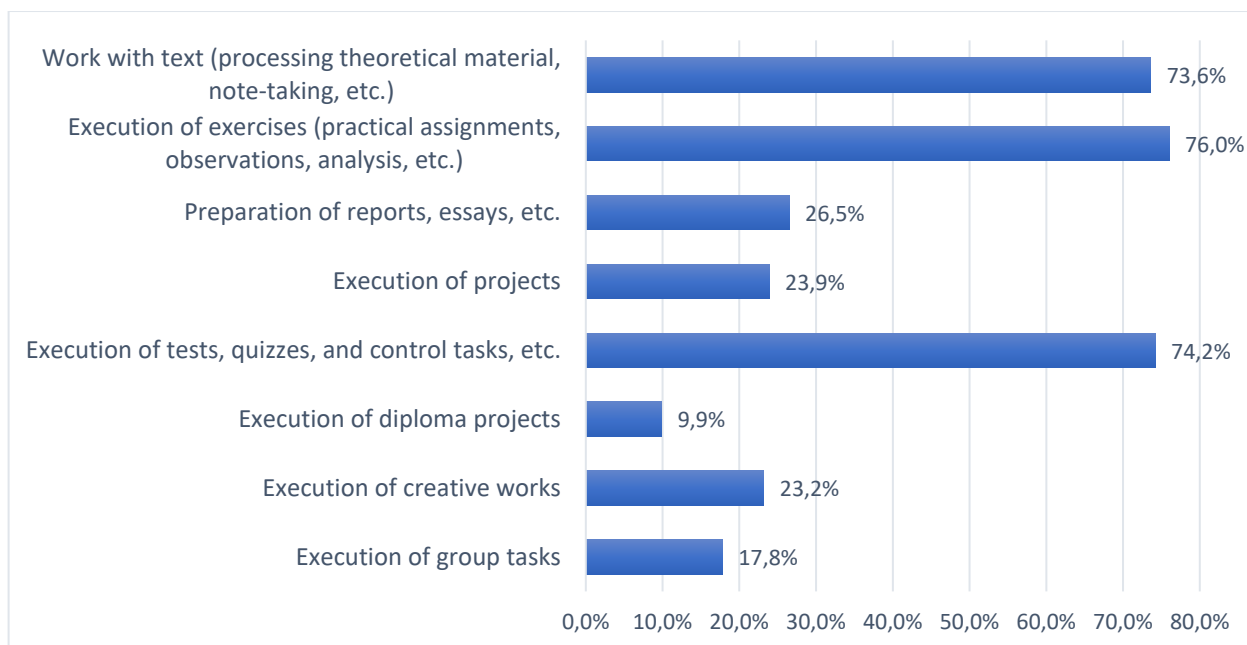
the organization and execution of independent work by learners is observed, characterized by a situational approach (Figs. 3-5). Overall, there is a lack of a systematic approach to organizing independent work for future skilled workers in blended learning contexts.



*Fig. 3. Quantitative and qualitative indicators of measures for organizing independent work by pedagogical staff for future skilled workers in blended learning environments*



*Fig. 4. Quantitative and qualitative indicators of organizational forms of independent work employed by pedagogical staff in vet institutions in blended learning conditions*



*Fig. 5. Quantitative and Qualitative Indicators of Types of Independent Work Performed by Future Skilled Workers in Blended Learning Conditions*

The above considerations have necessitated the development of a methodology for organizing the independent work of future skilled workers in the context of blended learning. The methodology for organizing the independent work of future skilled workers in the context of blended learning is understood as a set of organizational actions (measures) by educational staff aimed at preparing learners for independent work, diagnosing the formation of independent work skills, developing tasks, methodology of organization, and control of the independent work of future skilled workers in the context of combining face-to-face and distance learning forms using digital educational tools.

The goal of the methodology for organizing the independent work of future skilled workers in the context of blended learning is to improve the effectiveness of organizing independent work by educational staff, thereby enhancing the quality of vocational education in vocational education and training (VET) institutions in a blended learning environment.

The tasks of the methodology are to enhance the effectiveness of organizing independent work by educational staff, improve the quality of professional training in a blended learning environment, and develop skills in self-organization, planning and managing learning time, self-control in performing independent tasks, and digital literacy for successful self-realization in the information society.

The essence of the methodology lies in the sequential execution of interrelated actions (preparatory, diagnostic, active, control-analytical

stages), which enables educators to ensure effective organization and execution of tasks for independent work by future skilled workers.

The content of the methodology is focused on enhancing the quality of professional training in VET institutions under blended learning conditions, developing skills in self-organization, time management, self-control, and digital culture through interaction and partnership between educational staff and learners.

The stages of implementing the methodology for organizing the independent work of future skilled workers in blended learning conditions are as follows:

Preparatory stage, focused on:

- compiling and agreeing on educational-methodological documentation for planning the educational process, analyzing program sections, and determining educational themes, materials for independent tasks;
- defining the purpose, tasks, forms, methods, means, content, and duration of independent tasks;
- preparing necessary material-technical and comprehensive-methodological support for independent tasks.

Diagnostic stage, aimed at determining/checking the technical, psychological, and professional readiness of future skilled workers for independent work in a blended learning environment, specifically:

- technical readiness of future skilled workers for communication, practical

implementation (execution) of independent work in an online mode, using digital technologies;

- psychological readiness of future skilled workers for independent learning, task execution, determined by the level of self-organization, motivation, anxiety, etc.;

- professional readiness – determining the basic knowledge, skills, and abilities of future skilled workers necessary for performing assigned independent tasks.

The activity stage involves:

- conducting introductory and ongoing briefings on independent work by teaching staff;

- activating cognitive and professional motives for the independent learning activities of future skilled workers;

- the sequential completion of independent work tasks by future skilled workers;

- ongoing control, assistance, and correction of errors, adjusting the independent educational activities (work) of learners, their motivation, educational tasks, etc., for successful completion;

- ongoing analysis of the psychological state/readiness, particularly motivation, anxiety, etc.

The control-analytical stage includes:

- assessment by teaching staff of the independent work completed by learners;

- reflection by teaching staff on the conducted independent work;

- considering successes and mistakes in future teaching activities, prospective adjustment of educational tasks of independent works, updating of comprehensive methodological support, etc. The pedagogical and socio-economic effectiveness of the methodology for organizing independent work of future skilled workers in blended learning conditions includes:

- pedagogical effectiveness lies in the fact that the implementation of the developed methodology contributes to the successful completion of

educational tasks by learners, mastery of professional knowledge, development of skills and abilities, development of self-organization skills, planning of work and time, self-control, increasing the level of digital culture;

- the social effect is expected, in the short term, to manifest through increased levels of confidence and independence of the individual, ability to work independently, self-organize, plan personal time, interact in a digital society. In the long-term social perspective through competitiveness in the labor market, mobility, professional growth throughout life.

- the economic effect will manifest through an increase in the employment rate of skilled workers.

**Conclusions.** The organization of independent work of future skilled workers in blended learning conditions requires careful preparation and organization by the teaching staff, formation of a complex of variable tasks of independent works, diagnostics of motivation, self-organization, gradual involvement in independent work, use of approaches of learning 'from simple to complex', etc. The quality of their execution by future skilled workers, the level of mastery of professional knowledge, skills and abilities, digital culture, motivation, ability to work independently and plan personal time depend on the well-chosen forms, methods, types, tasks of independent works. Independent work not only contributes to the formation of professional competence (knowledge, skills, and abilities) but also develops speech activity, thinking, learning new things, skills of self-organization and self-control, the ability to take responsibility, independently solve professional tasks, interact in a digital society, etc. Effectively organized independent work of future skilled workers in blended learning conditions is a guarantee of their professional and personal growth throughout life, mobility, competitiveness in the labor market, etc.

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# МЕТОДИКА ОРГАНІЗАЦІЇ САМОСТІЙНОЇ РОБОТИ МАЙБУТНІХ КВАЛІФІКОВАНИХ РОБІТНИКІВ В УМОВАХ ЗМІШАНОГО НАВЧАННЯ

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## Реферат:

*Актуальність* дослідження зумовлено змінами у сфері професійної освіти, впровадження змішаного навчання у професійній (професійно-технічній) освіті, необхідністю дистанційного й он-лайн навчання, підготовки майбутніх кваліфікованих робітників до самостійного навчання й самоорганізації, що вимагає пошуку нових підходів до організації педагогічними працівниками їх самостійної роботи, потребою розробки методики організації самостійної роботи майбутніх кваліфікованих робітників в умовах змішаного навчання.

*Мета* полягає у висвітленні результатів дослідження та методики організації самостійної роботи майбутніх кваліфікованих робітників в умовах змішаного навчання, задля підвищення ефективності організації й проведення педагогічними працівниками самостійної навчальної роботи, якості її виконання здобувачами освіти.

*Методи:* вивчення наукової літератури, нормативно-правових документів, емпіричних даних щодо організації самостійної роботи майбутніх кваліфікованих робітників в умовах змішаного навчання, задля виявлення сучасного стану, аналізу методик організації самостійної роботи здобувачів освіти в умовах змішаного навчання в закладах професійної (професійно-технічної) освіти).

*Результати:* на основі аналізу наукової літератури, нормативно-правових документів, емпіричних даних виявлено та проаналізовано тенденції організації самостійної роботи в закладах професійної (професійно-технічної) освіти; розроблено методику організації самостійної роботи майбутніх кваліфікованих робітників в умовах змішаного навчання; визначено її поняття та етапи реалізації.

*Висновки:* реалізація розробленої методики сприяє успішному виконанню здобувачами освіти навчальних завдань, оволодінню професійними знаннями, формуванню умінь й навичок, розвитку навичок самоорганізації, планування роботи й часу, самоконтролю, підвищення рівня цифрової культури, що перспективі виявлятиметься через підвищення рівня впевненості та самостійності особистості, вмінні планувати власний час, взаємодіяти у цифровому суспільстві, бути конкурентоздатним на ринку праці, мобільним, професійно зростати впродовж життя.

**Ключові слова:** самостійна робота, змішане навчання, майбутні кваліфіковані робітники, методика організації самостійної роботи в умовах змішаного навчання, професійна (професійно-технічна) освіта.

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