APPLICATION OF CONTEXT-BASED LEARNING IN MODERN PEDAGOGY

[a]IHOR ANDROSHCHUK, [b]DMYTRO POHREBNIAK,
[c]VITALII KULCHYTSKYI, [d]LESIA ZELMAN, [e]HALYNA
KUZNETSOVA, [f]IRYNA ZHYHORA

[a]*Department of Technological and Professional Education and Decorative Arts, Faculty of Humanities and Pedagogy, Khmelnytskyi National University, Khmelnytskyi, Ukraine*
[b]*Department of Physical Education, Special Physical Training and Sports, Educational and Scientific Institute of Physical Culture and Sports and Health Technologies, National Defence University of Ukraine named after Ivan Cherniakhovskyi, Kyiv, Ukraine*
[c]*Department of Higher School Pedagogy and Social Studies, Faculty of Medicine, I. Horbachevsky Ternopil National Medical University, Ternopil, Ukraine*
[c]*Department of Social and Humanitarian Sciences, Faculty of Journalism, Institution of higher education Lviv University of Business and Law, Lviv, Ukraine*
[e]*Ukrainian Language, Literature and Teaching Methdos Department, Oleksandr Dovzhenko Hlukhiv National Pedagogical University, Hlukhiv, Ukraine*
[f]*Department of Preschool and Primary Education, Faculty of Pedagogy, Psychology and Arts, Volodymyr Vynnychenko Central Ukrainian State Pedagogical University, Kropyvnytskyi, Ukraine*
email: [a]lemen77@ukr.net, [b]dimanyoy@gmail.com,
[c]kulchytskyjvy@tdmu.edu.ua, [d]zelman_lesya@ukr.net,
[e]prorektor15@gmail.com, [f]i.zhugora@gmail.com

Abstract: At the present stage of modernization of higher education in Ukraine, practice-oriented training systems are becoming increasingly important, allowing organizing the educational process in institutions of higher pedagogical education, taking into account the specifics of the future profession. Modern pedagogical education has been changing its vector from training a teacher-specialist who can only reproduce the traditional model of pedagogical activity, to training a competent professional teacher who is able to build one's own professional activity in accordance with the actual conditions and work requirements. One of the most productive in this direction is context-based learning, during which occupational and social content is studied through the language of individual sciences and with the help of the entire system of traditional and new forms, methods and means of training, as well as the activities of the future teacher are modelled. At the same time, currently, the significant factor is the presence of differences in the skills acquired during the educational process and the requirements of practical work, which is due to the contradiction between the content, forms, conditions of cognitive activity and future professional activity. The purpose of the academic paper lies in identifying the basic trends and establishing the features of the application of context-based learning in modern pedagogy. In the process of writing the academic paper, an analysis of the scientists' works from different countries of the world was made, and the results of a questionnaire survey of teaching staff engaged in training activities in institutions of higher, vocational and special secondary education were studied. Based on the results of the research conducted, tendencies in studying the context-based approach by modern teachers and scientists were traced, as well as the results of the questionnaire survey of teachers regarding the factors influencing the success of the context approach, the most important prerequisites for the effective implementation of context-based education, and tools that are most effective for achieving learning goals in context-based learning.

Keywords: context-based learning, modern pedagogy, innovative learning, context-based approach to the learning process, context educational environment, lecture of context type.

1 Introduction

Within recent years, scientists have developed a number of modern approaches to training future teachers and educators of higher educational institutions to work on adaptive, communicative and problem-oriented methods. Contemporary issues of higher education are best solved with the help of context-based learning, thanks to which the future teacher is able to comprehend how to reconcile a number of theoretical and practical models of the past, cognitive activity in the present and modelling of professional situations in the future. Therefore, in the modern conditions of modernization of higher pedagogical education, fundamentally new requirements have been established for training modern teachers as highly qualified specialists of the new formation, namely: active, creative, capable not only of reproducing information, but also of non-standard pedagogical activity, those that can change, generate, develop, implement and disseminate innovative ideas, search for new tools and methods of advanced training based on the use of modern technologies.

Within the framework of the modern process of upgrading higher education in Ukraine in the direction of its humanization and focus on the "personal dimension", practice-oriented educational systems are becoming increasingly important, allowing improving the educational process in higher educational institutions, taking into account the specifics of future professions. Context-based learning is the most productive in this regard, forasmuch as it involves overcoming a number of contradictions that exist in traditional higher education and lead to such shortcomings as lack of professional motivation, formality of knowledge, inability to apply them in practice, the duration of the transition from student thinking to high-quality professional activity, etc.

2 Literature Review

A modern specialist of any profile should be professionally mobile, in demand on the labour market, and sociable. This requirement for specific training of young professionals is the result of constant changes in various areas of the life of today's society and the growing need to adapt to innovations (Gencel, & Saracaloğlu, 2018).

The goal of the pedagogical educational institution lies in training specialists with a high level of knowledge and sufficient handling competence in the pedagogical field (Cox, 2017).

Currently, in society's best interest it is advisable to change the direction and priorities, modify and modernize education, update its content, teaching and educational technologies, forms of organization and the educational model itself. However, these requirements for training students of higher pedagogical educational institutions do not fully correspond to the modern labour market. The teacher should master such professionally important qualities as: communicative competence, high level of intellectual development, social adaptability, stable neuropsychological stability, etc. (Rashawn, Sacks & Twyman, 2017).

Along with this, the teacher should adhere to a clearly defined professional standpoint, which is the basis for the professional formation and development of a specialist; it directs the individual to professional creative self-fulfilment and self-development. For this reason, when training a teacher in the system of higher education, it is necessary to pay particular attention to the formation of a stable professional standpoint of the future teacher (Weiland, 2018).

In order for the future teacher to realize the importance and social nature of his profession, it is necessary to use innovative educational technologies that will not only help equip students with more effective theoretical knowledge, but also contribute to the formation of professional skills (Yefremova, 2020).

Particular emphasis should be paid to the process of gradual transition from cognitive form within the walls of the higher educational institution to the main forms of professional activity, namely, from pedagogical and cognitive activities of an academic nature to quasi-professional activities (role-playing and business games), including specialized pedagogical and professional activities through educational - industrial practice, internship. According to this approach, fundamental disciplines are proposed to be taught within the framework of professional activities, minimally using the practice of academic presentation of scientific material (Kolb, 2017).

Pedagogical education at the present stage is in the process of reforming; it is constantly looking for new ways to align the content with individual needs for each speciality and international standards. New realities put forward new

requirements towards the quality of education, in particular, the universality of teacher training, the improvement of his professional culture, as well as his adaptation to social conditions, the personal orientation of the educational process, and its computerization (Donovan, T., Bates, T., Seaman, Mayer, Paul, Desbiens & Poulin, 2019).

An innovative educational and nurturing process is "a series of consistent, purposeful actions aimed at updating it, changing the purpose, content, organization, forms and methods of teaching and education, aimed at adapting the educational process to new social-historical conditions" (Bersin, 2017). The introduction of concepts of innovative learning is based on thorough innovative investigations developed in domestic and foreign pedagogical science over the past years.

Currently, a number of studies of world scientists are aimed at identifying the leading organizational forms of context-based learning, such as lectures of contextual type, business games as forms of context learning.

M. Grimus proves the usefulness of introducing virtual bench-scale laboratory work as an innovative form of context learning, within which, through a certain didactic complex, the social and professional competencies of a future specialist are formed (Grimus, 2020).

Currently, a number of methods have been developed for the systematic selection of forms of the educational process based on the theory of context-based learning; the expediency of choosing methods of context learning based on technical qualifications, curriculum and classification of active learning methods has been substantiated (DeMink-Carthew, Olofson, LeGeros, Netcoh, & Hennessey, 2017).

A lecture of the context type, as one of the forms of context-based learning, has its own features and advantages that distinguish it from a traditional lecture. According to the viewpoint of R. Bolstad, the lecture of the context type is aimed at achieving three goals, namely: mastering theoretical knowledge, development of theoretical thinking, the formation of cognitive interest in the content of the subject and motivation of future professional activity (Bolstad, 2017).

The fundamentals of context-based learning technology are as follows: the concept of context as the influence of the content of the student's future professional activity on the process and results of his educational activities; activity approach to learning, generalization of experience using various forms and methods of active learning (Auer, Guralnick & Simonics, 2018).

The scholars consider context-based learning in the investigations as a system for implementing a dynamic model of the student's actions, namely: from actual learning (for example, in the form of lectures) to quasi-professional (game forms, special courses) and pedagogical and professional (research work) (Tiko, 2017).

From among the latest developments on the context-based issue outlined, the scientific works of C. Ukala and O. Agabi are especially significant, considering context-based learning as an educational system and a technology. The researchers define the concept of "context-based learning of future teachers" as a system that models the professional and social content of his future professional activities aimed at reproducing the professional and social contexts of effective future professional activities of school teachers (Ukala & Agabi, 2017).

In the theory of context-based learning, three models of education are distinguished, which are determined by the specifics of the process of preparation for professional activity, namely:

▪ the semiotic model of learning takes the form of oral or written texts with theoretical information. The units of the education seeker's activity in the framework of this model

are language action and demonstration of acquired skills of solving standard problems (algorithms), the nature of the student's educational activities in accordance with this model is mostly reproductive;

▪ the simulation training model is a specially modelled situation of future professional activity, which requires analysis and decision-making based on theoretical information. The unit of the student's activity in this case is a professional action, the main purpose of which is the practical transformation of professional situations; the type of activity is a partial search, reproductive and creative;

▪ the model of social learning is a problem situation or a fragment of professional activity that is analysed and transformed by students into a form of joint activity. The basic unit of the student's activity is social-pedagogical action, and the type of activity is mostly creative.

J. Tondeur considers the theoretical and practical fundamentals of context-based learning within the framework of a pedagogical master's program. The scientist notes the basic principles of context-based learning as follows: psychological and pedagogical support of personal participation of students in educational activities; consistent modelling of the holistic content, forms and conditions of future professional activity in the students' educational activities; search for ways to solve meaningful issues of education when they are used in the educational process, the correspondence of the forms and methods of educational activity of the education seekers to the goal and content of education; subjectivity of teacher-student relations; effective student-student relationships; pedagogically meaningful combination of new and traditional pedagogical techniques, open learning, etc. (Tondeur, 2018).

It should be noted that scientists often outline the problem situation to be the fundamental unit of the content of education in context-based learning, especially in the process of training specialists in primary education. For instance, N. Myronchuk believes that a system of carefully planned problem situations allows dynamically developing the content of training, defining the scope of actions for modelling professional activity and creating opportunities for integrating knowledge in various disciplines (Myronchuk, 2018).

3 Aims

The purpose of the research lies in establishing the features of the components of the context-based approach and outlining the practical aspects of its application in the practice of teachers of institutions of higher, vocational and general secondary education.

4 Materials and Methods

The practical study of the application of context-based learning in modern pedagogy was carried out by interviewing 118 teachers conducting training activities in the following educational establishments, namely: higher educational institutions (Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Ternopil Volodymyr Hnatiuk National Pedagogical University, Drohobych State Pedagogical University of Ivan Franko), vocational (vocational and technical) educational institutions carrying out training of specialists in working specialities SVTEI "Snovske Higher Vocational School of Forestry", SVTEI "Chernihiv Vocational Construction Lyceum", SVTEI "Chernihiv Higher Vocational School of Consumer Services"), and teachers of lyceums (Chernihiv Lyceum № 32, Kyiv Lyceum № 142, Kyiv Lyceum "Euroland"). All institutions on the basis of which the questionnaire survey was conducted are located in the territory of Ukraine.

The survey was conducted through an online questionnaire, during which the respondents were asked to answer 4 questions, evaluating each of the answer options as a percentage, after which the average value of the answers of all survey participants was calculated per respondent.

5 Results

Based on the results of the questionnaire survey of teaching staff, the most significant factors influencing the success of the

context-based approach in the educational process were identified (Figure 1).

Figure 1: Factors influencing the success of the context-based approach in the educational process, %.
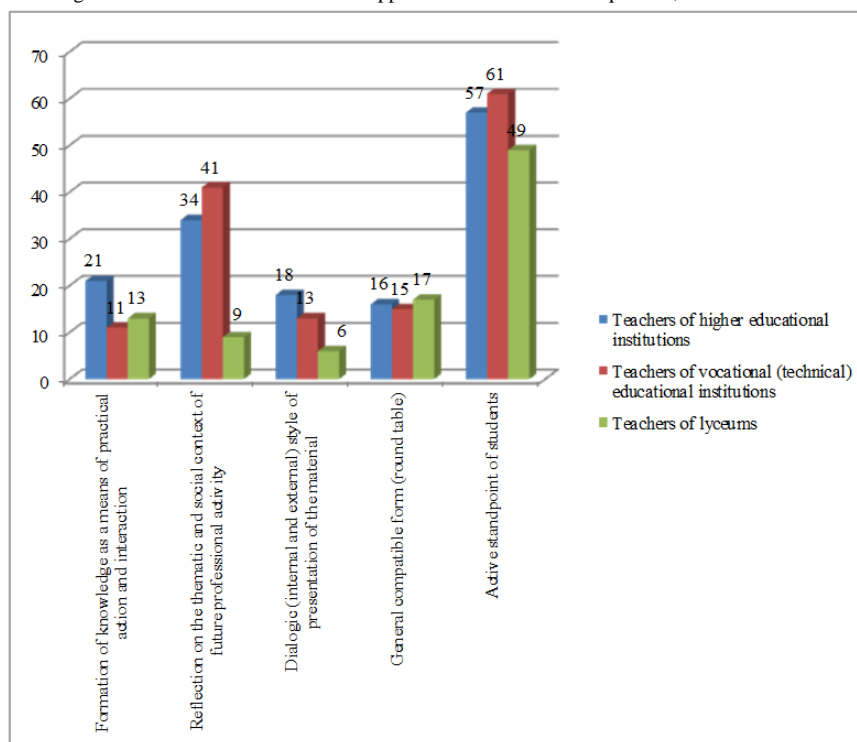
According to the results of the questionnaire survey, the most important factors for teachers of vocational schools were the reflection on the thematic and social context of future professional activity and the active position of students, which was assessed at 61 % by this category of respondents.

For teachers of higher educational institutions, the most important factors are the active position of students and the formation of knowledge as a means of practical action and interaction.

Studying the prerequisites for the introduction of contextual education in the professional and pedagogical training of teachers, the following outcomes were found (Figure 2).

As it can be seen from Figure 2, the most important prerequisites for the effective implementation of context-based learning, according to respondents' viewpoints are as follows: the mastery of interactive methods of work, the formation of positive motivation, awareness of the goals and objectives of learning by the education seeker, which encourage his self-improvement, creating a real problem situation for future professional activity, which will ensure the process of professional development of the individual, organizing the consistent implementation of a multilevel education system in order to form one's own attitude to the problem, substantiate one's own standpoint and develop a methodological base by mastering various methodological methods for solving simple problems.

Taking into consideration the importance of interactive methods in the educational process as an important tool for context-based learning, respondents were asked to choose the most effective interactive tools that, from the point of view of the survey

participants, are the most effective in achieving learning outcomes (Figure 3).

As it can be observed from Figure 3, the most effective tool for learning, from the point of view of respondents of all three categories, is the modelling of pedagogical situations. At the same time, educational and pedagogical imitation, role play and "brainstorming" are also effective.

In the course of the survey, it has been revealed that, according to the respondents' viewpoints, it is possible to develop professional competence within the framework of context-based learning with the help of a system of stimulating the effectiveness of educational activities, which consists in the use of various means of encouraging an increase in the practical effectiveness of teaching.

Assessing the effectiveness of the educational process, which focuses the attention of future and current teachers not only on the assimilation of scientific and educational information in accordance with the national standard, but also on the creative application of knowledge in practice using special creative research tasks, the respondents were asked to choose a list of approaches contributing to effective learning (Figure 4).

The research has revealed that such tools are as follows: the use of non-standard methods and techniques of teaching, analysis of curricula, programs and textbooks in terms of the requirements of pedagogical innovation, comprehension of new information in terms of tactical and strategic goals of learning, forming one's own standpoint by reading and discussing literature, writing works, selection of materials on innovative pedagogical approaches, under the guidance of masters of pedagogical work.

Figure 2: Prerequisites for the introduction of contextual education in the professional and pedagogical training of teachers, %.
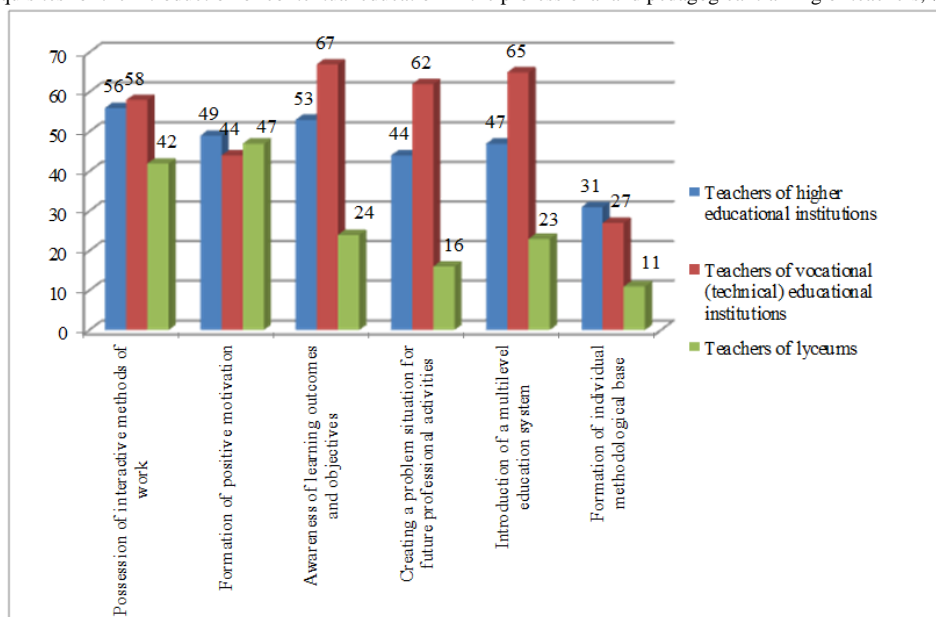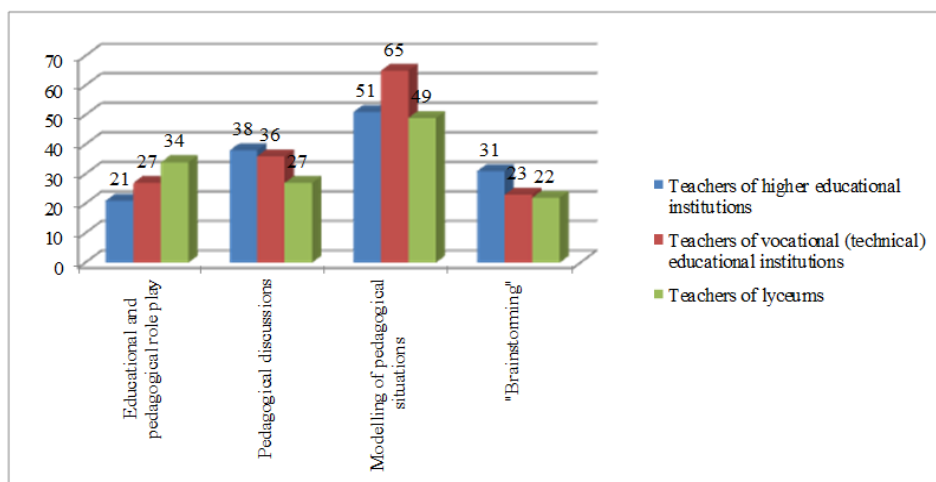

Figure 3: Interactive tools that are the most effective for achieving learning outcomes under conditions of applying context-based learning, %.


6 Discussion

Thus, the analysis of special scientific and psychological and pedagogical literature attests to the fact that the context-based learning technology is the guiding idea of modernizing higher pedagogical education, designed to monitor and reproduce social experience through pedagogical and problem situations that model a process similar to the work of a teacher, the unity of professional, social and psychological contexts. Context-based approach is aimed at improving the skills of teachers, increasing the quality of pedagogical training and promoting competitiveness in the labour market.

According to the viewpoint of N. Myronchuk, properly organized quasi-professional activity as a form of context learning is a transitional link between educational and professional activities of students. As the author notes, quasi-professional activity plays a special role in the pedagogical process in the process of training teachers. It is based on the technique of context modelling as a purposeful operation and

includes three contexts: substantive, social and psychological. The essence of quasi-professional activity lies in the fact that it takes place in real conditions and ensures the unity of educational and practical processes. In general, future labour activity directs students to setting goals, analysing and assessing problem situations, self-assessment of professional activities, building interaction models, understanding the content of activities in the variability of pedagogical training (Myronchuk, 2018).

Context learning in pedagogy, as in other fields of activity, may contain an educational text in the form of sign systems (hence "sign context-learning"), containing information to be studied. However, the feature of context-based learning lies in the fact that information structured mainly through tasks and problem situations represents true information about future professional activity (hence the name "sign-context learning"). The concept of "context" indicates the degree of personal involvement of the student in the processes of cognition and its relationship with professional activities (Weber-Lewerenz, 2022).

Figure 4: Approaches contributing to increasing the effectiveness of learning under conditions of the context-based learning process, %
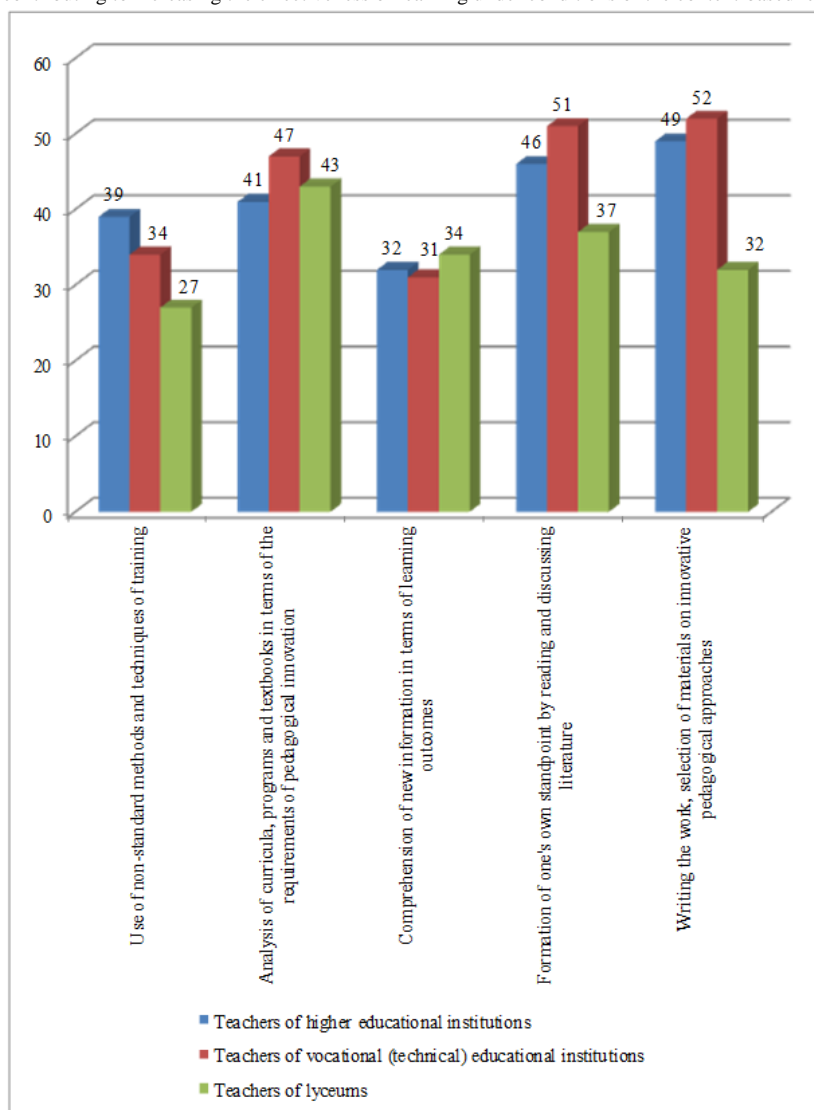
According to the viewpoint of M. Baran and M. Sozbilir, context-based learning should be organized in compliance with the requirements as follows:

▪ adherence to the principle of semiotics – the ordering of symbolic information;
▪ psychological and didactic organization of the process, which facilitates the assimilation of educational material;
▪ scientific character – the discipline should reflect scientific training
▪ compliance with the established general requirements for the implementation of professional activities that create a meaningful activity context (Baran & Sozbilir, 2017).

The idea of context learning has a number of advantages that are important for training specialists in any field. However, the training of teachers, according to this approach, has particular features, forasmuch as the professional sphere of the teacher's activity is represented by three main blocks, namely: theoretical knowledge, methods of activity, the formation of social maturity (acquisition of individual values, own worldview, morality, responsibility in the process of education) (Weber-Lewerenz, 2022).

From the standpoint of the context-based learning theory, we have identified the problematic areas of traditional training of future teachers as follows:

▪ in theoretical training: the problem of choosing the optimal, systematically organized set of learning content necessary for future professional activity;
▪ in activity training: the problem of the advantage of focusing on the acquisition of theoretical knowledge over their practical application in future pedagogical work;
▪ in the process of social maturity formation: the problem of lack of purposeful development of social-moral and civic qualities of the future teacher (Bersin, 2017).

A feature of training students in pedagogical institutions of higher education is that when conducting educational activities, students prepare for professional work, the main content of which lies in organizing educational activities of students in similar forms. At the same time, within the framework of training in a pedagogical educational institution, students obtain the necessary knowledge in academic disciplines, and to a much lesser extent, future teachers acquire skills related to practical professional activities. Practical experience, combining theoretical knowledge and practical skills, is gained in the process of applying existing knowledge and performing professional duties (Rashawn, Sacks & Twyman, 2017).

The success of the teacher's activity as a specialist depends on the extent to which the level of theoretical training of the specialist and his professional orientation are related to the challenges of practice. The formation of the student's personal

qualities will make it possible to more effectively carry out activities in order to educate the younger generation.

Taking this into consideration, L. Kolb notes that the understanding of educational material by both teachers and students should be based on a reflective understanding of contexts in which specific educational material can be used in educational practice, thus, implementing the updated concept of "context educational environment" (Kolb, 2017).

According to the viewpoint of H. Yefremova, the context educational environment involves the use of context textbooks. The scholar believes that a textbook of the context type is a pedagogical system created on the principles of context-based learning. It is a subsystem of a holistic system of subject teaching, which is designed to depict the future professional activity of the student in its technical and social aspects through context" (Yefremova, 2020).

Therefore, the context form of learning has key advantages ensuring the effectiveness of the learning process, namely:

- the student is in an active engagement from the very beginning;
- such kind of the learning process contains all the opportunities for joint decision-making;
- knowledge is acquired by students in the process of solving simulated professional situations, determining the development of cognitive and professional motivation of the future specialist, the personal significance of the learning process;
- a combination of individual and collective forms of student's work is used, which allows developing the business and communicative qualities of the individual;
- a model of "subjective" relations between a teacher and a student is introduced, contributing to the formation of "subjective position", the ability to reflect (Yefremova, 2020).

Thus, according to the basic provisions of the technology of context-based learning, when working with students of a pedagogical university, it is necessary to try to model the professional and social content of professional activity in the educational process.

For context-based learning to be effective, it should meet the requirements as follows:

- to provide meaningful and contextual reflection of pedagogical activity in the form of students' educational activity;
- to combine different forms and methods of training, taking into account the didactic principles and psychological requirements for the organization of the educational process;
- to use the modularity of the system and its adaptation to the specific conditions of training future teachers;
- to ensure the growing complexity of learning content and forms of context-based learning from the beginning to the end of the holistic learning process (Tondeur, 2018).

Subject to the above-mentioned requirements, the construction of the educational process of pedagogical educational institutions on the basis of context learning will bring the educational process closer to the practical implementation of the methods, forms and principles of pedagogy and make the transition from educational to professional activities gradual and consistent with the purpose of the pedagogical educational process (Grimus, 2020).

7 Conclusions

Thus, context-based learning is a type of building an educational process in which the professional and social content of the future professional activity of education seekers is consistently modelled using the entire system of traditional and new forms,

methods and tools of training. The conducted analysis has revealed that this approach to the organization of the educational process has significant advantages, namely: the real "humanization of education", the use to the full extent of the entire potential of students, providing the opportunity to master the curriculum in the process of analysis and solving students' simulated professional situations, a combination of individual and collective forms of students' work.

Therefore, in the process of context-based learning, the main contradiction of modern higher pedagogical education is resolved, namely, the discrepancy between the requirements of the society towards the professional competence of future specialists and the level of their training in the educational system. After all, in the process of changing the forms of students' activity in context education and the corresponding forms of organization of training, the content of future professional activity is gradually reproduced and an effective general and professional development of the specialist takes place.

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