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Practice-Oriented Direction of Professional Preparation of Future Teachers of Primary Education in the Context of European Integration Processes

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Abstract

The article reveals the essence of practice-oriented training of future teachers of primary education on the basis of the implementation of contextual learning technology. An express analysis of the phenomenon of pedagogical thinking was made, certifying that it personifies the level of development of mental, cognitive, creative, and research abilities of the future teacher of primary education, his operational and technological skills, which consist in finding solutions to any problem situation; in shaping pedagogical thinking of future teachers of primary education a special role was played by pedagogical situations that were solved with the help of practice-oriented tasks (pedagogical tasks). In the process of experimental learning, we specifically modeled pedagogical situations that were solved using a system of practice-oriented tasks represented by three groups: general pedagogical, didactic-methodical, and reflexive-design. No less important for the development of pedagogical thinking of future teachers of primary education during practical and laboratory classes was the use of interactive teaching methods, namely: brainstorming, discussion, debate, various types of training, etc. The active introduction of contextual learning technology, based on the practice-oriented activity of teachers, first of all, influenced the formation of a new pedagogical thinking and provided for an understanding of the value-attitude to the future profession, and an awareness of one’s own capabilities that determine professional growth paths.

Keywords: Teacher training, Contextual learning technology, Pedagogical thinking, Reflection, Practice-oriented activity.

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Introduction
Modernization of the process of preparation of future teachers of elementary education in Ukraine is focused on finding ways to implement a social order for competitive European-level teachers. For this purpose, creative work, professional self-development and mobility, and the use of innovative technologies in future pedagogical activities have been considered. In order to meet the challenges of the time, a higher school should respond quickly to changes in primary education, where the implementation of the ideas of partnership pedagogy is a priority as well as overcoming the inertia of thinking, the focus on the development of the Ukrainian identity of junior pupils, creation of author's educational programs, a comfortable educational-subject environment, orientation towards constant dialogue with the parent community, the public, etc. Such a system of preparation of future teachers of elementary education at a higher pedagogical school is possible subject to the active introduction of contextual learning technology, based on the organization of their practice-oriented activities.

The purpose of the article is to reveal the essence of the practice-oriented preparation of future teachers of elementary education on the basis of the implementation of contextual learning technology.

Literature Review
Modern scientific researches show that the problem of preparing teachers on the basis of contextual education is highlighted in various ways, namely: the disclosure of philosophical foundations (V. Andrushchenko, V. Kremen, V. Ohevniuik and others); coverage of the theoretical and practical bases of this process in the conditions of the European vector of development (A. Aleksiuk, N. Batechko, S. Vitvytska, V. Hrynova, N. Huzii, O. Hura, O. Dubaseniuk, V. Kravchenko, V. Lozova, S. Sysoieva, L. Khoruzha and others); definition of conceptual provisions, the essence of the technology of context learning (O. Andrieieva, I. Briukhovetska, A. Verbytskyi, K. Hamburh, V. Kalashnykov, H. Lavrentiev, N. Lavrentieva, O. Larionova, N. Neudakhina and others); implementation of a competent approach in the system of contextual education of future teachers (N. Bakshaieva, A. Verbytskyi, I. Zhukova, H. Kuzmenko, O. Larionova, S. Skvortsova, V. Tienishcheva and others); contextual learning technology in the practice of masters’ professional training (H. Barska, N. Bekuzarova, N. Demianenko, T. Dubovyska, V. Zhelanova, V. Kalashnykov, S. Kachalova, T. Lenenko, O. Tkachenko and others) etc.

The idea of developing the concept of contextual training belongs to A. Verbytskyi (1987), who convincingly proved that the information obtains the status of knowledge only in case of creating situations for future professional activities.

The study of contextual learning problems was relevant to foreign experience as well. In particular, Elaine B. Johnson’s (2002) book “Contextual teaching and learning” examines the history of contextual education as an important direction of education, its formation, and examples of practical implementation in educational institutions throughout the United States.

Discussion
The meaningful concept of technology of contextual learning is the context of future professional activity, which is created by modeling integral fragments (Koval, 2012); the decision by students of the system of practical-oriented tasks (Demianenko, 2013).

According to V. Zhelanova, the implementation of contextual education technology is carried out during the organization and conduct of business games, where students analyze the pedagogical situations and solve quasi-professional (practical-oriented) tasks, which ensures the formation of professional pedagogical thinking (Zhelanova, 2013).

Express-analysis of the phenomenon of pedagogical thinking (O. Akimova, V. Bondar, L. Dzhelilova, T. Diak, A. Zubryk, K. Kostiuchenko, N. Malii, O. Mytnyk, H. Nahorna, S. Karpenchuk, Yu. Kuliutkin, H. Sukhobska, L. Tkachenko and others) proves that it represents the level of development of the intellectual, cognitive, creative and research abilities of the future teacher of primary education, his operational and technological skills, which consist of finding ways to solve any problem situation.
Specifying, we believe that the master’s pedagogical thinking is characterized by efficiency (quick adoption of optimal methodological decisions from the arsenal of familiar decisions or their search), flexibility (separation from the usual stereotypes of professional activity), creativity (creative experimentation, innovation), predictability (taking into account the possibilities of modeling modern occupations and expected results).

In the formation of the pedagogical thinking of future teachers of elementary education special role played pedagogical situations, which were solved with the help of practical-oriented tasks (pedagogical tasks). Pedagogical problem in psychological and pedagogical researches is considered as:
– System, the mandatory components of which is a subject and a model that reflects the state of the subject according to the condition of the problem;
– Model of the problem situation;
– The result of awareness of the personality of the contradictions between the goal of the task and the ways to achieve it;
– Understanding of the pedagogical situation that has developed, and the adoption on this basis of decisions and a plan of necessary actions;
– An analysis of the specific conditions on the basis of which the teacher predicts his activity, chooses effective methods of interaction;
– The teacher’s awareness of the goals of training and education, the conditions and methods of their practical implementation, as a result of which the student develops new formations in the form of knowledge, skills and personal qualities.

The generalization of scientific research (N. Diachenko, N. Kuzmina, Yu. Kuliutkin, M. Kashapov, M. Levyna, A. Markova, I. Mankus, L. Milto, N. Morze, O. Piekhota, Ye. Osypova, H. Sukhobska, A. Starieva and others) allows us to conclude that each pedagogical problem can be solved only on the basis of the analysis of the pedagogical situation. This notion is interpreted as:
– Aspect of pedagogical activity, which points to the contradiction between the desired level of development of students and achieved level;
– Situation of training and education of students;
– A set of conditions, means of communication, motives and goals of subjects of pedagogical activity on one or another subject content;
– Search for personal and professional sense, designing an image and a model, evaluating the results of optimal ways of creative self-development.

Analysis of psychological and pedagogical research (V. Bezpalko, Ye. Bielkin, I. Herbart, I. Lerner, M. Skatkin and others) allows us to consider the sequence (stages) of the creation of pedagogical situations, which will provide simulation of the practice-oriented activity of future teachers of elementary education.

In particular, V. Bezpalko offers the following gradation: reproductive (as a rule, provide for the execution of tasks according to the model or detailed instructions); reproductive-creative (creation of new conditions, announcement of a general idea, acceptance of actions, as a rule, using interdisciplinary connections); problematic (independent creation of ideas and finding ways to solve them) (Bespalko, 1995).

We will separately characterize problem situations, since their active use in the educational process ensured the development of the pedagogical thinking of the future teachers of primary education. The works by A. Brushlynskyi, A. Verbytskyi, N. Havrysh, M. Kashapov, Z. Kalmykova, L. Koval, M. Levina, A. Matiushkin, L. Petukhova, S. Skvortsova, N. Cherviakova and others are devoted to this problem. So, A. Verbytskyi (1987) focuses on the fact that in problematic situations a student does not have a ready-made sample, an algorithm, rules for solving them, but is trying to find it on his own. The scientist states: the creation of personally significant problem situations is the basis for the implementation of contextual training in the vocational training system, which is important for our research.

Pedagogical problematic situations, according to M. Kashapov (2000), have a peculiar psychological basis and directly influence the formation of pedagogical thinking, since they are part of professional activity and
involve the construction of special tasks that allow correlating the mental and practical actions of the teacher with their content, conditions of implementation.

In the study by M. Levina (2001), the process of solving students’ problem situations was described in detail: highlight the problem; organize information and operate it freely; select hypothetical ways of the own actions; create a general positive attitude to achieve results; implement a reflective activity that positively affects the development of pedagogical thinking.

Recently, in scientific sources, scientists argue that the concept of “problem” can only be used as a “question, mainly of a mathematical nature, which is solved by calculations under a certain condition”. In the process of experimental learning we specially modeled pedagogical situations, which were solved with the help of a system of practical-oriented tasks, represented by three groups: general pedagogical, didactic-methodical and reflexive-design (see Table 1).

General pedagogical practical-oriented tasks were offered to future teachers of elementary education in order to form general pedagogical knowledge, which were the scientific and theoretical basis for their preparation for the application of context-based learning technology (“Pedagogy of Higher School”, “Methodology of teaching didactics in high school”).

The didactic and methodological tasks contributed to mastering by future teachers of primary education of relevant knowledge and skills that formed the procedural basis of their preparation for the use of contextual learning technology (“Methods of teaching didactics in higher education”, “Methods of primary education in mathematics in higher education”, “Methods of primary education of Ukrainian language in higher education”).

Reflexive and design tasks were directed at the formation in the future teachers of primary education of the ability to self-development and self-improvement, which provided their full-fledged reflexive process of applying contextual learning technology, modeling pedagogical situations and teaching students to solve them.

<table>
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<tr>
<th>The type of task and its contents</th>
<th>Functional assignment of the task</th>
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<tr>
<td><strong>I. General pedagogical tasks</strong></td>
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<tr>
<td>1. The task of mastering general pedagogical knowledge</td>
<td>formation of positive motivation</td>
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<td>development of mental operations, analysis, synthesis, generalization</td>
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<td>preparation for the organization of the educational process (development of skills to distribute time, to choose forms, methods and means of teaching students, especially interactive educational technologies).</td>
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<td><strong>II. Didactic and methodological tasks</strong></td>
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<tr>
<td>1. The task of mastering by future teachers of the elementary education of theoretical and practical bases on the use of contextual learning technology with subject specificity</td>
<td>awareness of general pedagogical and didactic-methodical theoretical positions</td>
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<td>formation of knowledge and skills of didactic-methodical character from specific educational disciplines</td>
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<td>2. The task of organizing the educational process of students with the use of contextual learning technology, taking into account the specifics of the subject</td>
<td>modeling of pedagogical situations using contextual learning technology taking into account subject specificity (microvision);</td>
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<td>teaching students to simulate practically oriented tasks for students;</td>
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<td>development of pedagogical thinking.</td>
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### III. Reflexive-design tasks

1. The task for the development of the ability to reflect on the use of contextual learning technology with subject specificity
   - the ability to reflect on the introduction of contextual learning technology with subject specificity
   - ability to teach students to reflect on teaching activities

2. The task of forming the ability to self-development and self-improvement
   - finding didactic and methodological mistakes in the process of modeling pedagogical situations and teaching students to solve them in the real educational process of pedagogical higher educational establishment
   - formation of the need to carry out research activities in accordance with the current achievements of pedagogical practice, innovative changes in psychological and pedagogical science;
   - development of skills to find the discrepancy between the criteria and the results of the own pedagogical activities.

Consequently, the inclusion of three groups of practice-oriented tasks in experimental education allowed the future teachers of primary education, on the one hand, to gain experience in the use of contextual training, and on the other, was subordinate to the content of a particular discipline, ensured the readiness to implement this technology in the real educational process of pedagogical education. The development of the ability of future teachers of primary education to model pedagogical situations and train students to solve them contributed to the emergence of a new pedagogical thinking, which made it possible to comprehensively evaluate and create a project of pedagogical influence and interaction, to carry out a creative search, adequate self-esteem and self-control.

An inherent property of pedagogical thinking is reflexive activity, which manifests itself in the application of theoretical knowledge to specific situations. Without reflexive refinement, professional subject knowledge, which makes up complete conceptual concepts, seems to be “scattered” in consciousness, which prevents them from becoming a direct guide to action. That is, the constant reflexive rethinking of the acquired theoretical base from the standpoint of daily solving practical pedagogical tasks ensures the competence of the teacher.

The notion “reflection” (from the Latin “reflexio” – returning back) in various aspects was considered by philosophers (V. Bazhanov, I. Ladenko, V. Lektorskyi, A. Ohurtsov, E. Yudin and others), psychologists (M. Boryshevskyi, A. Zak, A. Karpov, S. Maksymenko, M. Kholodna and others), acmeologists (O. Anisimov, A. Derkach, O. Polishchuk, I. Semenov and others) and teachers (I. Bekh, Yu. Koliutkin, M. Marusynets, V. Slastonin, A. Khutorskyi and others).

The source of innovations and development, the basis for the restructuring of the personality of the teacher, of his individual consciousness, V. Kraievskyi (2006) considers reflexion, which provides the ability to transforming activity, self-overcoming difficulties, self-actualization; creating long-term life programs and professional growth.

Taking into account the individuality of the reflection, O. Dubaseniuk (2013) relates it with the orientation of the teacher to self-development. Therefore, in educational and professional activities, it is necessary to create such situations that would actualize the reflexive position of the future teacher, form his positive self-perception, stimulate the processes of self-affirmation.

Considering various aspects of the formation of pedagogical reflection and considering it as a meta-activity of future teachers of elementary school, M. Marusynets (2015) notes that this is an integral personal entity, which is determined by a set of abilities, methods and strategies that provide for overcoming professional problems in the process of solving pedagogical tasks through awareness, comprehension and rethinking as a result of the internal activity of its subject.

One of the leading factors in the development of a teacher’s ability to reflect is the creation of an
appropriate reflective environment, by which L. Koval (2015) understands a set of conditions for long-term interaction of subjects and a set of specific forms where self-realization of a person is possible. It is absolutely obvious that a reflexive environment is objectively set by creating problem situations, which is the internal mechanism of every teacher’s creativity.

Consequently, pedagogical reflection as meta-activity was a necessary component of the professional formation of a specialist, since it directly influenced the formation of his pedagogical thinking; provided a conscious attitude to pedagogical activity; raised the level of professional skills, which was manifested in the ability of the future teacher of primary education to innovative activity, which contributed to his self-improvement and creative growth.

Researchers (I. Bohdanova, L. Vashchenko, L. Danylenko, I. Dychkivska, O. Dubaseniuk, I. Konovalchuk, V. Kurovskyi, H. Selevko, L. Podymova, O. Shapran, I. Shorobura and others) consider educational innovative activity as a socio-pedagogical phenomenon, which is the most important feature of pedagogical work and which characterizes the complex relationship of the teacher’s general culture, his creative potential and professional orientation; the ability to change the way of activity, the style of thinking.

Modern scientists distinguish technological and personal aspects in innovation activity. The first is related to the creation and use of innovative models and learning technologies. The second characterizes the identification of personal qualities and features of teacher’s self-realization in innovation activity (Dubaseniuk, 2013).

Participation in the innovative activity allows teacher to get rid of authoritarian claims to recognize the correctness of the only own point of view, opens the way for the mastering of variational professional experience.

One of the main features of pedagogical innovations is that the subjective factor plays a decisive role at all stages of this process. Therefore, modern researchers engaged in innovative issues associate it with the study of the individual as a subject and the main element of the innovation system.

Let us call the personally significant qualities of the future teacher of primary education, which characterize not only pedagogical thinking, but also the emotional perception of the phenomena of pedagogical reality, and affect his professional growth.

The modern future teacher of primary education should be: firstly, focused on success, because only those who feel confident in their personal and professional competence can positively influence others and be a source of success for students; secondly, to be expressive – to have the ability to fill the process of communication and interaction with students with positive emotions, to convince in the expediency of applying the contextual learning technology; thirdly, to possess empathy, that is, the ability to understand and respect the student (Koval, 2012).

The innovative potential of the future teacher of elementary education is characterized by: the creative ability to generate new ideas, due to the professional setting for the achievement of priority tasks; skills to design and model in practice: the innovator-teacher has a high cultural and aesthetic level, education, intellectual depth and diverse interests; novelty, originality in conducting studies, research orientation, high performance.

Among the innovations, the most successful for forming in the future teachers of primary education the ability to carry out reflexive activity was micro-teaching, which was used both in the theoretical process (lecture) and practical training (practical and laboratory classes, independent research work, assistant practice, etc.). Analyzing the experience of micro-teaching, N. Machynska (2013) defines the following advantages:

a) A thorough preparation of a part of the class, which enables the student to acquire professional skills at a higher level;

b) Effective psychological and pedagogical and methodical preparation for the assistant practice;

c) The possibility of timely detection of gaps in readiness to perform professional functions of a teacher, the choice of an individual trajectory of training.
A characteristic feature of micro-teaching was the opportunity for the future teachers of primary education to attend each others’ classes, which had a positive effect on the practical development of their ability to analyze and carry out reflexive activity, and further contributed to their professional growth.

It should be noted that mutual visiting is widely used as a form of advanced training and pedagogical development of teachers and contributes to the formation of readiness for professional self-improvement throughout life.

Consequently, the formation in the future teachers of primary education of the ability to reflect on the active implementation of contextual learning as a kind of meta-technology determined their attitude to innovation, was the main mechanism for awareness of professional successes and disadvantages.

No less important for the development of pedagogical thinking of future teachers of primary education during practical and laboratory classes was the use of interactive teaching methods, namely: brainstorming, discussion, debate, various types of trainings, etc.

The brainstorming method provided a solution to the problem during a collective discussion of professionally relevant issues, where each future teachers could express their own thoughts, assumptions, and engage in dialogue. It was considered correct to solve the problem only when all the participants of the discussion shared their own thoughts, analyzed them and found a common opinion.

The discussion as an interactive method was used to form the pedagogical thinking of future teachers of elementary education and was an important means of developing their cognitive activity, which greatly contributed to the formation of critical thinking. In the course of the discussion, knowledge about the discussed problem was deepened, skills for defending their own position, which ensured the ability to organize communicative interaction, were improved.

Debate is a team, role-playing intellectual game that aims to develop critical thinking. The essence of the debate was that some of its participants argued with conviction the ideas chosen for discussion, others were opposed. The duty of each of the teams is to professionally and within a certain time to present their position, their own arguments “for” or “against”. Debates were evaluated by teachers, employers who monitored the observance of democracy, honesty, respect for the opponent, tolerance, providing equal opportunities for all participants. When organizing debates, they adhered to the following sequence: orientation, preparation for holding debates, actual debates, discussions of debates, aftereffect.

The introduction of trainings (education, preparation) and its variants – a moderative seminar and coaching-training was common in organizing practical classes in order to form the pedagogical thinking of future teachers of elementary education.

In the pedagogical dictionary (Yarmachenko, 2001), this term is considered as a form of interactive learning. Training is a set of educational methods aimed at developing the skills of self-knowledge and self-regulation, learning and interpersonal interaction, communicative and professional skills. The use of training is determined by the content of the discipline in general and its individual modules, the purpose and objectives of the occupation in particular (I. Osadchenko, A. Panchenko, O. Pometun and others).

Conducting trainings in our study was based on the following rules: “here and now”; personification of utterances; maximum activity of participants; reliability of information; active research position; confidentiality.

The specificity of the moderating seminar was to provide each of its participants with further personal growth, to provide an opportunity to highlight their own understanding of a particular professional problem that was openly discussed. During the application of different forms of conducting a moderating seminar (individual, paired, subgroup, collective), the maximum visualization of the process of comprehension of the essence of the content of the question was provided, conditions were created to support polylogic communication.

Coach-training provided a system of interaction that allowed solving personal or professional problems, discover hidden opportunities. The very word “couch” appeared in Hungary in the XVI century and meant the “crew”, “carriage”, which allowed you to quickly reach the destination place. At the end of the XIX
century, tutors in England started to be called as “coaches”, and coaching was associated with counseling, instruction.

The peculiarity of the coach-training was that it only helped to solve the problem on its own by a series of questions. The organizer (coach) raised problematic questions that provoked the audience to make discoveries, prompted the activity.

**Conclusions**

The peculiarities of practical classes in the process of preparation of future teachers of primary education are the constant interaction between themselves and the teacher, a high level of responsibility for their actions, conclusions, as well as the activation of cognitive activity, the development of critical thinking, the ability to defend their position. The active introduction of contextual learning technology, based on the practice-oriented activity of masters, first of all, influences the formation of a new pedagogical thinking and provides for an understanding of the value attitude to the future profession, and it is an awareness of one’s own capabilities that determine professional growth paths.

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