

Peculiarities of postgraduate teacher training in the context of the new ukrainian school

Peculiaridades da formação de professores de pós-graduação no contexto da nova escola ucraniana

Peculiaridades de la formación de postgrado del profesorado en el contexto de la nueva escuela ucraniana

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Abstract: *A necessary step to ensure quality school education in Ukraine is the reformation and adaptation of the educational programmes of professional development taking into account the latest challenges. The aim of the research is to study the peculiarities of postgraduate teacher training in the context of the New Ukrainian School. The opportunities were also identified for improving the teachers' professional qualifications in the modern conditions of reforming the educational system of Ukraine. The research employed quantitative methods (surveys and questionnaires), statistical analysis, and content analysis. Results. Most teachers positively assess the role of postgraduate education in improving their skills, in particular in planning lessons, using technology, and developing students' critical thinking. Online learning is perceived as flexible, but has its own challenges, including insufficient interaction with colleagues. Findings. Postgraduate education helps to improve the teachers' qualifications, but there is a need to improve the interactive elements of training programmes and introduce more individual support of teachers during online learning. Academic novelty of the research. The influence of post-graduate education programmes on teaching in the context of war and distance learning is systematized. This study allows for a deeper understanding of the teachers' current needs. Further research may focus on studying the effectiveness of individual approaches to postgraduate teacher education.*

Keywords: *postgraduate teacher training; professional development; New Ukrainian School; school reform.*

Resumo: Um passo necessário para garantir a qualidade da educação escolar na Ucrânia é a reforma e adaptação dos programas educacionais de desenvolvimento profissional, levando em conta os últimos desafios.

O objetivo da pesquisa é estudar as peculiaridades da formação de professores pós-graduados no contexto da Nova Escola Ucraniana. Foram identificadas oportunidades para melhorar as qualificações profissionais dos professores nas condições modernas de reforma do sistema educacional da Ucrânia. Foram utilizados métodos quantitativos (inquéritos e questionários), análise estatística e análise de conteúdo. Resultados. A maioria dos professores avalia positivamente o papel da educação de pós-graduação na melhoria das suas competências, em particular no planejamento das aulas, na

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utilização da tecnologia e no desenvolvimento do pensamento crítico dos alunos. A aprendizagem online é percebida como flexível, mas tem seus próprios desafios, incluindo interação insuficiente com colegas. Resultados. A formação pós-graduada ajuda a melhorar as qualificações dos professores, mas há necessidade de melhorar os elementos interativos dos programas de formação e introduzir mais apoio individual aos professores durante o ensino em linha. Novidade acadêmica da pesquisa. A influência dos programas de pós-graduação no ensino em contexto de guerra e ensino à distância é sistematizada. Este estudo permite uma compreensão mais profunda das necessidades atuais dos professores. Outras pesquisas podem se concentrar no estudo da eficácia de abordagens individuais para a formação de professores pós-graduado.

Palavras-CHAVE: formação de professores pós-graduado; desenvolvimento profissional; Nova Escola Ucraniana; reforma escolar.

Resumen: *Un paso necesario para garantizar la calidad de la educación escolar en Ucrania es la reforma y adaptación de los programas educativos de desarrollo profesional, teniendo en cuenta los últimos desafíos.*

El objetivo de la investigación es estudiar las peculiaridades de la formación de postgrado del profesorado en el contexto de la Nueva Escuela de Ucrania. Se identificaron las oportunidades para mejorar las cualificaciones profesionales de los profesores en las condiciones modernas de reforma del sistema educativo ucraniano. Se utilizaron métodos cuantitativos (encuestas y cuestionarios), análisis estadísticos y análisis de contenido. Resultados. La mayoría de los profesores valora positivamente el papel de la formación de posgrado en la mejora de sus competencias, especialmente en la planificación de las clases, el uso de la tecnología y el desarrollo del pensamiento crítico de los alumnos. El aprendizaje en línea se percibe como flexible, pero tiene sus propios retos, como la insuficiente interacción con los colegas. Resultados. La formación de postgrado ayuda a mejorar las cualificaciones de los profesores, pero es necesario mejorar los elementos interactivos de los programas de formación e introducir más apoyo individual para los profesores durante la enseñanza en línea. Novedad académica de la investigación. Se sistematiza la influencia de los programas de postgrado en la docencia en el contexto de la guerra y la enseñanza a distancia. Este estudio permite profundizar en el conocimiento de las necesidades actuales de los profesores. Otras investigaciones podrían centrarse en el estudio de la eficacia de los distintos enfoques de la formación de postgrado del profesorado.

Palabras clave: *formación de postgrado del profesorado; desarrollo profesional; Nueva Escuela Ucraniana; reforma escolar.*

1 INTRODUCTION

The issue of postgraduate teacher training becomes especially relevant in view of reforming the educational system of Ukraine, in particular in the context of the implementation of the New Ukrainian School (NUS). Postgraduate education is an important element of teachers' professional development, providing the opportunity to adapt to new educational challenges. The main challenges include the integration of innovative teaching methods, improving the quality of teaching and education of students, as well as mastering modern technologies. NUS requires teachers not only to have knowledge of academic subjects, but also to possess competencies that allow students to develop critical thinking, independence, and the ability to work in a team.

The ongoing armed aggression of the Russian Federation in Ukraine had a significant impact on the organization of the educational

process. Teachers are forced to quickly adapt to new conditions, including distance learning and working with children who are in stressful situations. Therefore, it is important to study the current state of postgraduate teacher training and determine ways to improve it in accordance with the teachers' needs, as well as to the war-caused conditions.

The aim of the article is to study the peculiarities of postgraduate teacher training in the context of the implementation of NUS, as well as to identify key challenges and opportunities for improving the professional qualifications of teachers in view of the current reformation in the educational system of Ukraine.

Research objectives:

- a) Analyse the current state of post-graduate education of teachers in the context of NUS.
- B) Determine the main needs and preferences of teachers regarding the content and methods of professional development.

C) Develop recommendations for improving the programmes of postgraduate teacher training taking into account the requirements of the reformed education system and the latest pedagogical approaches.

2 LITERATURE REVIEW

The reform of school education in Ukraine, known as the New Ukrainian School, involves significant changes in approaches to teaching and educating students. This, in turn, requires appropriate training of teaching staff. According to the conceptual principles of the development of postgraduate education (PE) in Ukraine, PE is defined as a continuous process of professional development, which contributes to the improvement of the teachers' qualifications (Kendiukhova, 2022, p. 4). PE is also designed to provide teachers with up-to-date knowledge that meets the modern challenges of education, in particular, the use of digital technologies and a competency-based approach to learning (Kaliuzhna, Samko, 2022, p. 112).

It is important to note that professional development is an important element of the implementation of the policy of continuous professional development and the promotion of the adaptive and mobile teaching staff (Orlova, Kolesnikova, 2023, p. 87; Tafahomi, 2024, p. 167). According to Oleshko (2017, p. 4), the professional mobility of a teacher is ensured through systematic professional development, which enables teachers to quickly adapt to changes in the educational environment.

As Romanenko noted, NUS implies a change in traditional approaches to education, focusing on the competency-based model of education (Romanenko, 2018, p. 13). According to this model, the teacher should not only transfer knowledge, but also contribute to the formation of key students' competencies (New Ukrainian School, 2016). This raises new requirements for the training and professional development of teaching staff.

Interactive learning, in particular, the use of facilitation methods, coaching, work in small groups, and other methods, is of particular importance in the context of NUS. Sjølie *et*

al. noted that these methods contribute to the active students' involvement in the educational process (Sjølie *et al.*, 2021, p. 2). According to Kyvliuk and Zhukova (2019, p. 25), a modern teacher must be flexible and ready to use innovative approaches in teaching.

Today, there is a growing trend to use mixed forms of learning, combining traditional forms (lectures, seminars) with distance and online technologies in the professional education of teachers (Dickie, 2022, p. 31). In particular, it enables teachers to independently choose the pace and methods of learning, which makes learning the material more effective (Karaduman, 2018). The war, which began with the full-scale invasion of Russia on the territory of Ukraine, significantly affected all spheres of life, including education. The postgraduate teacher training was not an exception and faced new challenges that required the adaptation of the educational process to wartime conditions and oriented to the teachers' needs (Haltsova, Dmytrychenko, 2019, P. 23).

Petrenko (2020) investigates the strategic orientations of the professional development of the academic and teaching staff in the context of open education. The researcher emphasizes the need for individualization of education and the use of digital resources. PETRENKO emphasizes the importance of creating a professional development strategy focused on the development of digital literacy and work skills in the educational environment. The author notes that strategic planning of professional development should take into account not only the teachers' individual needs, but also global trends in the field of education (Petrenko, 2020, p. 171). Studies show that postgraduate education programmes include training in classroom management and organizing an inclusive environment. They also include the use of interactive methods and modern information and communication technologies (ICT) (Oliynyk *et al.* 2024, p. 356; Tafahomi, 2022, P. 102). Bobyliev *et al.* (2021, p. 22) noted that the effectiveness of professional teachers' training increases when it is practically oriented towards solving specific professional tasks.

Illiakhova (2019, p. 39) deals with the implementation of creative practices in the professional development of academic and teaching staff, emphasizing the importance of innovations in modern education. The author notes that creativity is one of the key competencies necessary for the teachers' adaptation to rapid changes in the educational environment. She analyses active learning methods that promote the development of critical thinking and creative approaches to problem solving. As part of this concept, Illiakhova emphasizes that creative practices should be integrated into professional development programmes. This will allow academic and teaching staff to become more flexible and open to new ideas (Illiakhova, 2019, p. 40).

Our article was focused not only on theoretical provisions, but also on practical research. For example, the article *The Reasons for Teachers' Preference for Master's Degree* (VURAL, 2021, p. 590) examines the teachers' motivation to enrol in a course for the Master's degree. According to the results of the research, teachers indicate such motives as: professional development, improvement of social status, and economic benefits. This is supported by other studies looking at the academic career prospects and professional opportunities of teachers (Characteristics, 2023; 2024/25 Postgraduate 2024; Swinburne, 2021). At the same time, the research participants faced certain barriers, such as difficulties in obtaining a study permit from the workplace, etc. Moreover, researchers note the importance of increasing incentives, including higher wages or changes in employment conditions after graduation. The participants also noted that the training helped them to develop research skills and make innovative management decisions. It was noted that the existing programmes do not always provide a proper balance between theory and practice.

The article by Selahattin and Fatma (2020, p. 135) examines how PE affects the activities of mathematics teachers, in particular, their pedagogical skills. The main findings of the study indicate a close relationship between the competencies that an ideal teacher should

have and the skills that the PE aims to develop in teachers. The research confirms that most basic skills related to teaching, assessment and professional development are enhanced by PE. In particular, the teachers noted that these skills spread among colleagues through the exchange of experiences. The study also looked at how the acquired skills are used in classrooms. Teachers were mostly able to incorporate new skills into the learning process (Tran, Buckman, 2020, p. 7). However, sometimes their implementation faces difficulties because of infrastructural problems or insufficient training. For example, the use of ICT and effective interaction between different educational environments was not sufficiently developed.

The article by Bobyliev and Vihrova (2021, p. 22) deals with the problems and prospects of distance learning in the context of training students studying to become mathematics teachers. They emphasize the importance of adapting educational methods to the new conditions of distance learning, in particular in the context of the content of training courses, the need to test knowledge and improve teaching technologies.

The study entitled *Contribution of Graduate Education to the Professional Development of Science Teachers* (Gökçe et al., 2022, p. 1409) analysed the impact of PE on the professional development of science teachers. Such basic aspects as: motivation for obtaining education, content of courses, difficulties during study, etc. are considered. The study also emphasizes the importance of PE for teacher development and their ability to adapt to changes in the profession, particularly through the use of modern technology.

3 METHODS AND MATERIALS

The research was conducted in several stages, using a mixed approach that combined quantitative and qualitative methods of data collection and analysis.

The first — preparatory — stage, the target group of the study was determined — teachers who are undergoing postgraduate peda-

gological training or have recently completed it. The questionnaire for a quantitative survey was created that included questions about learning motivation, changes in professional competencies, and challenges faced by teachers during training. At the same time, scenarios were developed for semi-structured interviews, which were aimed at in-depth understanding of these issues.

The second stage was the collection of quantitative data. A survey was conducted among 150 teachers from different regions of Ukraine. For this purpose, an online form was used to collect standardized data on participation in postgraduate educational programmes, as well as to assess the impact of training on their professional activities. The sample provided representation of different levels of professional experience and specialization of teachers.

The third stage is the collection of qualitative and quantitative data. Quantitative data were processed using Excel to identify general trends.

The fourth stage is the integration of the results. At the final stage, the results of the quantitative and qualitative analysis were integrated to create a coherent picture of the impact of postgraduate education on the teachers' professional activity. Recommendations for improving the PE were developed based on this data.

3.1. METHODS A comprehensive approach was used in order to study the impact of postgraduate teacher training programmes on teaching activities in the context of NUS and online learning.

a) Questionnaires surveys:

The main method of data collection was a survey of 150 teachers who have completed or are studying at postgraduate teacher training programmes. The questionnaire contained both closed and open questions. Closed questions related to the evaluation of the effectiveness of the programmes, in particular, the impact on lesson planning skills, the use of educational technologies, the development of students' critical thinking, etc. Through open-

ended questions, the teachers shared their own thoughts on the advantages and disadvantages of online learning and teaching in a wartime.

b) Quantitative analysis:

The data obtained from the survey were analysed using statistical methods. Mean values and percentages were calculated to assess general trends and identify patterns in responses. This method made it possible to accurately assess the frequency and prevalence of certain answers among teachers, which gave grounds to draw generalized conclusions.

c) Content analysis:

Content analysis of survey participants' responses to open-ended questions helped to reveal the main problems and wishes for improving postgraduate training programmes. This method made it possible to generalize the qualitative data and add depth to the quantitative results.

This approach made it possible to create a comprehensive picture of the influence of postgraduate education on teaching activity, which takes into account both objective quantitative indicators and teachers' subjective opinions.

3.2 SAMPLE The research was conducted at 5 leading institutions of postgraduate pedagogical education in Ukraine, which represented different regions of the country. These institutions included: Dnipro Academy of Continuing Education of the Dnipropetrovsk Regional Council; Volyn Institute of Postgraduate Pedagogical Education; The Institute of Postgraduate Education at Borys Grinchenko Kyiv Metropolitan University; Kirovohrad Regional In-Service Teacher Training Institute named after Vasyl Sukhomlynskyi; and Lviv Regional Institute of Postgraduate Pedagogical Education.

A total of 150 teachers were selected for analysis based on the following criteria:

a) Respondents' availability and their willingness to participate in the study (i.e., they are either actively participating in graduate programmes or have recently completed them).

b) Demographics: gender, age, and work experience were taken into account to ensure

representativeness of the groups and to compare the impact of the programmes on different categories of teachers. However, these criteria were not decisive for inclusion in the study, which helped to avoid limitation and reflect greater diversity.

The sample represents educational institutions in different regions of Ukraine and different types of teachers, so 150 respondents is a sufficient number to conduct a quantitative analysis and obtain generalized results. The sample took into account different demographic groups, such as age, work experience, and gender. This made it possible to analyse how different groups of teachers adapted to new educational conditions and distance learning in wartime.

Conducting the survey in wartime required a remote format. The research was conducted during the period when postgraduate education in Ukraine functioned mainly in the distance format. This may have affected the availability of respondents and their willingness to participate in the study, so a sample size of 150 was a practical compromise between size and data collection capability.

From the perspective of statistical analysis, a sample of 150 participants is quite sufficient to obtain significant results. The study employed quantitative methods, and such a sample allows for the identification of trends, dynamics, and impact of postgraduate education programmes.

Instruments. The study used questionnaires that were sent to participants via email with a link to a Google Form for data collection. The survey questionnaire contained closed questions and related to such variables as the effectiveness of postgraduate education in improving teaching practice, the impact of programmes on the development of critical thinking and the use of educational technologies, the teachers' ability to plan and adapt lessons for different groups of students, the perception of the role of the teacher as a facilitator of learning, and the impact of war and distance learning on the quality of teaching and interaction with students. The questionnaires were filled out on a voluntary basis,

which facilitated the participation of teachers who wanted to share their experience. The questionnaire was designed in line with the needs of the study and included questions that allowed participants to express their opinions about the quality and impact of graduate education programmes. The interview allowed the participants to freely answer the questions in order to explore their thoughts and experiences in more depth.

Quantitative data from the survey were processed using EXCEL to calculate percentages. This made it possible to get a clear idea of the impact of structural and procedural features on teachers' teaching. The collected data were analysed both quantitatively and qualitatively, which made it possible to obtain a more complete picture of the impact of postgraduate programmes on the teachers' practice.

4 RESULTS

The study involved 150 people: 40 (26.67%) men, and 110 (73.33%) women. The largest group of respondents (85 people, 56.67%) fell into the age category of 20-30 years, 40 people (26.67%) belong to the age group of 31-40 years. Another 15 (10.00%) and 10 (6.67%) participants are represented in the age groups of 41-50 years and over 50 years, respectively. This suggests that the majority of respondents are young teachers, which may reflect new approaches to teaching.

Among the participants, 40 (26.67%) teach in junior classes, 85 (56.67%) — in middle classes, and 25 (16.67%) — in senior classes. The respondents teach a wide range of subjects. So, 10 (6.67%) teach English, 30 (20.00%) — Mathematics, 10 (6.67%) — Physical education, 15 (10.00%) — Social sciences, and 40 (26.67%) teach other subjects. The obtained data indicate that the respondents are mostly young, most of whom work in middle classes and have less teaching experience. The variety of subjects and experience in teaching subjects indicates the potential for the development and improvement of postgraduate education methods (Table 1).

Table 1- Characteristics of the respondents

Characteristics	Q-ty (n)	Percentage (%)
Gender		
Man	40	26.67
Woman	110	73.33
Age of respondents		
20-30 years	85	56.67
31-40 years	40	26.67
41-50 years	15	10.00
Over 50 years	10	6.67
Teaching levels		
Junior classes	40	26.67
Middle classes	85	56.67
Senior classes	25	16.67
Your subject area of teaching		
English	10	6.67
Mathematics	30	20.00
Physical education	10	6.67
Social sciences	15	10.00
Other	40	26.67
Teaching experience		
Less than 5 years	70	46.67
6-10 years	45	30.00
11-15 years	20	13.33
Over 16 years	15	10.00
Place of work		
Rural area	70	46.67
City	80	53.33
Number of courses		
0-4	60	40.00
4-10	50	33.33
Over 10	40	26.67

Source: Developed by authors (2024).

At the next stage of the research, the teachers' attitude to postgraduate education in the context of NUS during the war was revealed (Table 2).

Table 2- The teachers' attitude to postgraduate education in the context of NUS during the war

Questions	Frequency (n)	Percentage (%)	Comments
1. What advantages do you see in postgraduate education?			
Acquisition of new knowledge	100	66.67	Many teachers noted that they obtain useful knowledge.
Improvement of pedagogical skills	90	60.00	The teachers feel improvement in their methodology.
Possibility of sharing experience	75	50.00	The importance of peer support.
2. What disadvantages do you notice in postgraduate education?			
Lack of practical application of knowledge	60	40.00	Lots of theory, little practice.
Difficulties with the online format	50	33.33	Problems with access to resources.
Psychological fatigue	70	46.67	Online learning leads to fatigue.
3. What methods are used in postgraduate education?			
Online courses	140	93.33	Most courses are conducted online.
Webinars and interactive classes	110	73.33	Teachers actively use new formats.
Practical tasks	80	53.33	Teachers note their importance for learning.
4. How does postgraduate education affect your teaching activity?			
Improving the quality of teaching	95	63.33	Many teachers notice changes in their teaching style.
Enhanced motivation to work	75	50.00	After completing the courses, the teachers feel more motivated.
Emergence of new ideas for teaching	90	60.00	Postgraduate education inspires new approaches.
5. How did the war affect your participation in postgraduate education?			
Reduced opportunities for participation	50	33.33	The war makes access to courses difficult.
Increase in online formats	100	66.67	Many teachers note positive changes in the format.
6. How does online teaching affect your students?			
Preserving the educational process	125	83.33	Most teachers are convinced of the importance of the online format.
The emergence of difficulties with the students' involvement	75	50.00	Some students cannot concentrate.
Positive influence on students' independence	60	40.00	The online format promotes the development of independence.

Source: Developed by authors (2024).

The majority of respondents (66.67%) note the advantages of acquiring new knowledge, which indicates their interest in professional development. Improving pedagogical skills and the opportunity to share experiences also received significant support (60% and 50%, respectively).

Although the majority of teachers believe that PE is useful, 40% of respondents note the lack of practical application of knowledge, which can make the education less effective. A total of 46.67% of participants indicate psychological fatigue from the online format of education.

The majority of teachers (93.33%) take online courses, which indicates the adaptation of the educational process to new conditions. Webinars and interactive sessions are also widely used (73.33%), which can increase participant engagement. Another 63.33% of teachers note that postgraduate education improves the quality of their teaching, and 60% note the emergence of new ideas for teaching. This indicates that the courses really contribute to professional development.

The war had a negative impact on teachers' ability to participate in courses: 33.33% of respondents indicated that it reduced their ability. However, 66.67% note the increased share of online formats, which indicates a positive adaptation to new conditions.

The majority of teachers (83.33%) believe that online teaching helps to preserve the educational process. However, 50% note difficulties in engaging students, which emphasizes the need to find effective methods of interaction in the online environment.

In general, the results of the study demonstrate a positive teachers' attitude towards postgraduate education, despite the challenges associated with the war and online learning formats. However, there are also shortcomings that require attention, such as insufficient practical orientation of the courses and difficulties in involving students in learning. This emphasizes the importance of adapting curricula and methods to ensure maximum effectiveness of postgraduate education in new conditions.

Table 3- Acquisition of skills during postgraduate pedagogical education

Variable	Yes (n)	Percentage (%)	No (n)	Percentage (%)
Planning interesting lessons	120	80	30	20
Developing lessons for different students	115	76.67	35	23.33
Learning to think	130	86.67	20	13.33
Use of educational technologies	125	83.33	25	16.67
Reliance on previous knowledge	145	96.67	5	3.33
Support for problem solving and critical thinking skills	140	93.33	10	6.67
Defining teaching strategies based on student learning	135	90	15	10
Facilitation of group educational activities	135	90	15	10
Providing verbal and written feedback	125	83.33	25	16.67
Management of a diverse student body	130	86.67	20	13.33

Source: Developed by authors (2024).

Table 4 illustrates the results of a survey of 150 teachers regarding the skills they acquire during postgraduate teacher training. A total of 80% of the respondents answered "Yes", which indicates a high assessment of the importance of lesson planning skills, which is undoubtedly key in the context of NUS, which strives for innovative teaching methods. A total of 76.67% of respondents believe that the programme prepares them to develop lessons,

focusing on the students' diversity. This is important to ensure inclusiveness in education. The same number of respondents noted that the programme includes skills aimed at developing critical thinking. This corresponds to the modern trends in education, which emphasizes active learning and analytical skills. Another 83.33% of respondents confirmed that the skills of working with educational technologies are part of the programme. This is especially

important in the context of online learning, which has become necessary because of the war. 93.33% of respondents believe that the programme supports them in solving problems. This confirms the importance of critical thinking in the educational process.

In general, the results of the survey indicate a positive assessment of the postgraduate pedagogical education programme among teachers. The majority of respondents believe that the acquired skills have a significant impact on their teaching activities, and also meet the requirements of modern education, in particular in the context of war and online learning. This confirms the relevance and necessity of continuous education of teachers to adapt to new challenges in the educational process.

5 DISCUSSION

Professional development programmes, in particular postgraduate teacher training programmes, provide teachers with the opportunity for formal and informal learning without breaking away from their main activities. They provide the necessary tools to improve the general practice of teaching (Sevim, Akin, 2021, p. 484). The teaching profession requires constant learning and improvement of existing skills, especially in the context of changes in the demographic situation, technological progress, as well as new pedagogical theories and practices (Aktan, 2020, p. 597).

Studies of post-graduate teacher training conducted over the past five years show that professional development programmes have a decisive influence on the development of teaching practice, especially in view of rapid social changes. For example, the research of KOŞAR *et al.* (2020, p. 380) as well as Dilci (2019, p. 160) emphasize that the integration of research methods into PE programmes improves teachers' ability to critically analyse their work and adapt it to modern challenges. Similar conclusions are made by İlter (2020, p. 934), emphasizing the importance of continuous support for young teachers, which contributes to their confidence and professional

growth. Similar trends were found in our study. Most of the participants noted the positive impact of the programmes on the development of their teaching skills. In particular, 80% of respondents confirmed that the training programmes improved their approaches to lesson planning and classroom management. This result is consistent with Yurchenko's research findings (Yurchenko, 2018), who emphasizes the importance of focusing on the practical aspect of teaching.

Some researchers, for example Kyrpa (2020, p. 225), Nordgren (2021, p. 3), claim that postgraduate education does not always sufficiently take into account the individual teachers' needs in different regions and contexts. This is partially confirmed in our study, as 30% of participants indicated that the programmes do not always correspond to the specifics of their school or class. This indicates the need for further development of programmes that take into account regional and local challenges faced by teachers. KYRPA's research points to the priority areas of teacher training, such as the prevention of professional burn-out, the creation of a new educational space, and the formation of life competencies. These aspects are consistent with our conclusions about the need to introduce innovative teaching methods and create a supportive environment for teachers.

A study by Parpucu and Al-Mabuk (2023, p. 29) emphasizes the importance of feedback in the teachers' professional development in the United States. The authors conduct an in-depth analysis of the methods by which facilitators receive feedback on the effectiveness of their professional sessions. According to their data, feedback is collected at three stages: before, during, and after the sessions. The importance of such an approach is emphasized by other studies, which claim that feedback is an integral part of effective professional development, as it allows to adapt the content of training according to the teachers' needs, and also ensures increased involvement in the learning process (Darling-Hammond *et al.*, 2020; Hertz *et al.*, 2022, p. 144; Hunt *et al.*, 2021, p. 278).

In our study, the main issue about the effectiveness of training in improving feedback skills is foregrounded by the real experience of teachers who have completed the training course. As a result, 83.33% of participants indicated that feedback became more effective after gaining knowledge on the courses, which emphasizes the direct impact of professional education on the teachers' practice in Ukraine. Both studies demonstrate the importance of adapting postgraduate training to the teachers' needs, although the focus on practice in Ukraine reveals contextual differences in education systems.

The study by Berkant and Baysal (2017, p. 156) emphasizes the need to improve social guarantees and economic conditions for teachers, which also reflects the results of our work, where the importance of reforming the postgraduate education system in Ukraine is indicated. However, our study examines specific aspects of educational reforms in Ukraine, while Berkant and Baysal's research focuses on general trends and teachers' needs.

In general, the results of our research are consistent with the most part of the recent studies, confirming the importance of postgraduate pedagogical education in the development of new teachers' competencies. At the same time, there is room for improvement of the programmes, especially in the aspects of individualization of training and increased attention to practical training in real conditions.

5.1. RECOMMENDATIONS

The peculiarities of the postgraduate teacher training in the context of NUS necessitate the development and implementation of the recommendations aimed at increasing the effectiveness of educational programmes. In our opinion, it is important to implement a system of regular feedback from students to evaluate the effectiveness of learning and adjust teaching practice. It is especially important to include feedback from students on teaching in training courses, which will improve the quality of learning.

6 CONCLUSIONS

The study of the peculiarities of postgraduate teacher training in the context of NUS revealed a number of essential aspects that determine the effectiveness of educational programmes and their impact on teaching activities. First, the majority of participants noted a significant motivation to implement new teaching methods, which indicates the positive impact of the programmes on the development of professional skills. This is confirmed by high levels of satisfaction with the acquired knowledge and skills, especially in lesson planning and the use of educational technologies.

Second, the study showed that teachers who are taking postgraduate courses actively implement new teaching strategies with due regard to the students' individual needs. This shows the importance of adapting the learning process to the conditions of modern education, especially in the context of online learning, which became a necessity during the war. The PE programmes have succeeded in developing the critical thinking skills and supporting group learning, which are important for preparing teachers for the challenges of the modern world.

The academic novelty of the conducted research consists in the systematization of data on the influence of PE programmes on the training of teachers in the context of the New Ukrainian School. The specific aspects of the training of Ukrainian teachers were analysed for the first time with an emphasis on the use of modern technologies and the adaptation of educational processes to the students' needs in the context of war. The research reveals new perspectives for further research in the field of pedagogy and postgraduate education.

The practical value of the research is the provided recommendations for improving postgraduate training programmes. The results can be used to develop new training courses that will take into account the teachers' needs and the peculiarities of their teaching activities in the conditions of constant changes. The obtained data can also serve as a basis for the further development of the postgraduate edu-

cation system, contributing to the improvement of the quality of education and professional training of teachers in Ukraine.

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Recebido em 10 de dezembro de 2024
Aceito em 06 de março de 2025

APPENDIX A - Questionnaire

Evaluation of the Effectiveness of Postgraduate Teacher Training in the Context of the New Ukrainian School during the War

This questionnaire will help us to understand your experience and attitude towards postgraduate teacher training in the context of the New Ukrainian School during the war. Please answer the following questions.

1. Your gender:

- Man
 Woman

Your age:

- 20-30 years
 31-40 years
 41-50 years
 Over 50 years

Teaching level:

- Junior classes
 Middle classes
 Senior classes

Your subject area of teaching:

- English
 Mathematics
 Physical education
 Social sciences
 Other (specify): _____

Teaching experience:

- Less than 5 years
 6-10 years

11-15 years

Over 16 years

Your place of work:

Rural area

City

How many courses of postgraduate education have you completed?

0-4

4-10

Over 10

What advantages do you see in postgraduate education?

(You can choose several options)

- Acquisition of new knowledge
 Improvement of pedagogical skills
 Opportunity to share experiences
 Other (specify): _____

What disadvantages do you notice in postgraduate education?

(You can choose several options)

- Lack of practical application of knowledge
 Difficulties with the online format
 Psychological fatigue
 Other (specify): _____

What methods are used in postgraduate education?

(You can choose several options)

- Online courses
 Webinars and interactive classes
 Practical tasks
 Other (specify): _____

How does postgraduate education affect your teaching activity?

(You can choose several options)

- Improving the quality of teaching
 Enhancing motivation to work
 Emergence of new ideas for learning
 Other (specify): _____

How did the war affect your participation in postgraduate education?

(You can choose several options)

- Reduced opportunities for participation
 Increasing online formats
 Other (specify): _____

How does online teaching affect your students?

(You can choose several options)

- Preserved educational process
 The emergence of difficulties with the stu-

dents' involvement

- Positive influence on students' independence
- Other (specify): _____

APPENDIX B - A Semi-Structured Interview on Acquiring Skills during Postgraduate Pedagogical Education

Introduction: "Good afternoon! Thank you for agreeing to participate in our study. Today we would like to discuss your experience of postgraduate teacher training, in particular, what skills you have acquired and how they have influenced your teaching. The conversation will consist of several questions, which relate to different aspects of your studies. Your answers will help us to better understand the impact of postgraduate education on teachers. You can share your experiences and opinions in more detail where appropriate."

1. Planning interesting lessons

The main question:

"Did postgraduate studies help you improve your ability to plan interesting lessons?"

Clarifying questions:

- What specific approaches or tools have you started using to make your lessons more interesting?
- Has your attitude to planning changed after completing the courses?

Yes (80%)

No (20%)

2. Developing lessons for different students

The main question:

"Have you developed the skills to design lessons for students with different needs?"

Clarifying questions:

- How do you adapt lessons for different groups of students, especially those with individual educational needs?
- Do you feel confident in working with different levels of student capabilities?

Yes (76.67%)

No (23.33%)

3. Learning to think

The main question:

"Did your graduate studies help you to develop thinking skills?"

Clarifying questions:

- What methods do you use to develop students' thinking during lessons?

- Have you noticed changes in how students develop their analytical and thinking skills?

Yes (86.67%)

No (13.33%)

4. Use of educational technologies

The main question:

"Did you acquire skills in the use of educational technologies during your postgraduate education?"

Clarifying questions:

- What educational technologies do you use in your work? How do they affect the quality of education?

- Do you feel more confident in using digital tools after training?

Yes (83.33%)

No (16.67%)

5. Relying on students' previous knowledge

The main question:

"Have you acquired skills that help you to build new material on the basis of students' prior knowledge?"

Clarifying questions:

- How do you integrate students' previous knowledge into new topics?

- How does it help students to learn new material better?

Yes (96.67%)

No (3.33%)

6. Support for problem solving and critical thinking skills

The main question:

"Did your teaching help you support the development of students' critical thinking and problem-solving skills?"

Clarifying questions:

- How do you stimulate students to think critically and find solutions during classes?

- Has your approach to teaching changed in this direction after postgraduate education?

Yes (93.33%)

No (6.67%)

7. Defining teaching strategies based on student learning

The main question:

"Have you acquired the skills to identify teaching strategies that focus on student learning?"

Clarifying questions:

- What strategies do you use to target student

needs and outcomes?

- Have the skills acquired during your studies influenced your teaching approaches?

Yes (90%)

No (10%)

8. Facilitation of group educational activities

The main question:

“Did your postgraduate education help you to develop the ability to organize group learning activities?”

Clarifying questions:

- How often do you use group teaching methods in your practice?

- Have you noticed positive changes in the effectiveness of group classes after the courses?

Yes (90%)

No (10%)

9. Providing verbal and written feedback

The main question:

“Has your graduate education helped you to improve your skills in providing feedback to students?”

Clarifying questions:

- What feedback methods do you use most often?

- Did you notice that feedback became more effective after training?

Yes (83.33%)

No (16.67%)

10. Management of a diverse student body

The main question:

“Did you acquire the skills to manage a diverse student body during your postgraduate education?”

Clarifying questions:

- How do you approach working with students who have different levels of preparation or different needs?

- Have you become more confident in working with such groups after completing the courses?

Yes (86.67%)

No (13.33%)

11. Share your thoughts on the advantages and disadvantages of online learning and teaching in wartime.

Thank you for your answers! Your comments are very valuable for our research.