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Using Information Technologies to Train Today Teachers in the Educational Environment

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Abstract: The article studies the characteristics of teacher training for primary school teachers in the information educational environment in higher education institutions (HEIs). It shows that Ukraine's integration into European and world educational space as a prerequisite for determining effective areas in its development is a strong motive to study the systems of teacher training for primary school teachers, reflect on their positive experience, clarify trends and prospects of their development and discover ways to solve the existing issues in teacher education. The article considers the current state of teacher training for primary school teachers in view of applying information technologies in HEIs. Considering teacher training for primary school teachers as the large-scale nationwide objective, the article analyzes this aspect in those Ukrainian HEIs whose activities are related to this particular area. IT is also essential and necessary to study the experience of individual scholars and practitioners implementing the achievements of informatization in their activities. The detailed study of teacher training for primary school teachers has made it possible to reveal significant shortcomings in this process. The findings prove that HEIs do not create favourable organizational conditions for future primary school teachers to develop their innovative professional and personal qualities. These include the following: competitiveness; motivation towards lifelong learning and continuing professional development; knowledge about appropriate ways of personal development; creative and IT skills.

Keywords: *teacher training, primary school, higher education institutions, different organizational forms, information educational environment.*

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Introduction

One of the main indicators of a country's development is the level of teacher training. The analysis of preconditions for today's state of teacher training for primary school teachers shows that the UNESCO adopted the Recommendation concerning the Status of Teachers at the time when they started to build the foundation for continuing teacher education. It was the first international legal document that regulated the professional and socio-economic status of teachers and defined the mechanism of international control over the implementation of the provisions of the Recommendation by member states. Consequently, UNESCO member states have since been obliged to systematically provide information on the legal and factual implementation of the provisions of this document. Importantly, they established a special committee of experts to monitor the implementation of this process.

The fundamental principle of their elaboration implied understanding the impossibility of providing future teachers with the knowledge and skills required for professional activities. This is due to continuous development and renewal of both general and pedagogical knowledge and, accordingly, pedagogical systems (content, forms, methods, tools) under scientific and technological progress (Palamarchuk, Gurevych, Maksymchuk, Gerasymova, et al., 2020; Melnyk, Bidyuk, Kalenskyi, Maksymchuk, et al., 2019; Sheremet, Leniv, Loboda, Maksymchuk, 2019; Gerasymova, Maksymchuk, Bilozerova, Chernetska, et al., 2019; Onishchuk, Ikonnikova, Antonenko, Kharchenko, et al., 2020; Bakhmat, Maksymchuk, Voloshyna, Kuzmenko, et al., 2019).

According to the UNESCO Recommendation concerning the Status of Teachers, teacher training in HEIs should be considered as the first initial fundamental stage of the continuous process of teacher education.

The current concept of continuing teacher education has the following basic positions:

– teacher pedagogical colleges, institutes or universities provide initial fundamental teacher education; in all countries, there is a clear trend of transition to university-based teacher education;

– adaptation and professional development of novice teachers under the guidance of more experienced schoolteachers (mentoring);

– advanced training of working teachers (as well as of those teachers who temporarily interrupted their professional career and are about to work at school again) involves long-term and short-term courses in HEIs, training centres, teacher training centres and schools (the latter type of

advanced training is widespread in England and the United States);

– self-education of teachers (working in libraries, consultations with more experienced teachers and leading university teachers, exchange of views at various teacher meetings, seminars, experience-sharing conferences, as well as conferences on the latest methods and achievements in pedagogy);

– career guidance work covers the focus on the teaching profession and professional selection for teaching degree programmes (applicant and students are to meet identical criteria and requirements).

In Ukraine, one can observe a certain separation of theoretical training for primary school teachers from teaching practice, as well as the impossibility of introducing it into the educational process. One of the main problems in teacher training of primary school teachers is the transition from learning activities in HEIs to professional activities in primary school.

Nowadays, the use of new educational technologies implies a new role of the teacher, new pedagogical methods and new approaches to teacher education. The success of ICT integration in the classroom will depend on teachers' ability to structure the educational environment in a new way to combine new technologies and new pedagogy. They will need to know how to use innovative technologies to improve the educational environment, develop their technological literacy and deepen their knowledge (Panskyi, T., Korzeniewska, E., Serwach, M. et al., 2021).

As noted by Kolesnyk (2007), "the innovative pedagogical, scientific and cultural-artistic community shows eager interest in the implementation of scientifically sound content of education and school practice of advanced didactic principles and teaching methods, which largely depend on the knowledge, skills, beliefs, pedagogical skills of working teachers" (Kolesnyk, 2007, p. 1).

However, teachers today must have profound professional knowledge and show human qualities. Such a combination will allow one to construct the personality-oriented educational system and build the educational process at a high pedagogical level.

Determining and Evaluating the State of Teacher Training Today

Primary education in Ukraine starts at the age of 6, as of the past few years (see Figure 1) (The Global Economy, 2020b). Children at such an early age require a personality-oriented approach and the use of pedagogical methods based on the latest knowledge of child psychology.

The source provides data (1971-2012) on the ratio between teachers and pupils in primary school. In particular, the average value for Ukraine

during this period was 98.74 pupils per teacher with a minimum of 91.38 pupils per teacher in 2000 and not more than 117.44 pupils per teacher in 2005 (The Global Economy, 2020b).

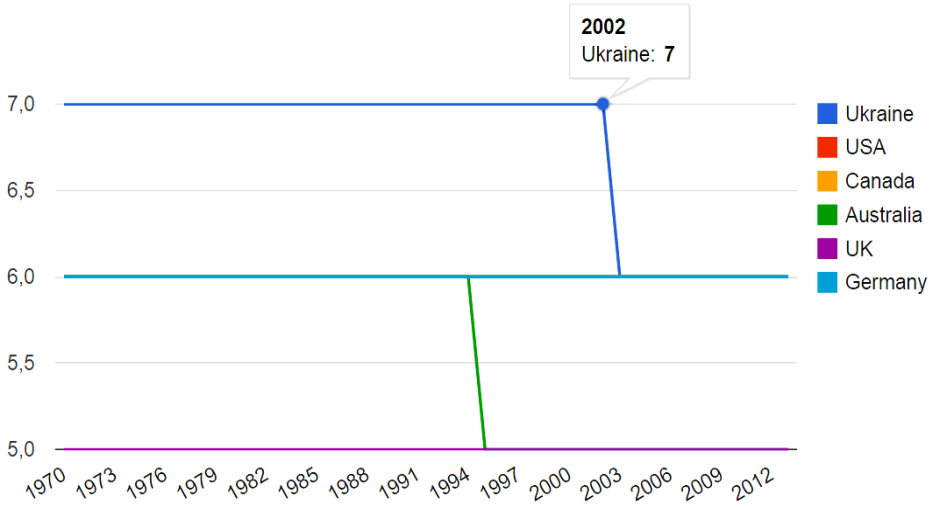


Fig. 1. *School Starting Age in Ukraine*

Figure 2 shows the workload of teachers in Ukraine through the number of primary school pupils divided by the number of primary school teachers. Without a doubt, the efficiency of the educational process is higher when the number of pupils per teacher is smaller (The Global Economy, 2020a). The figures show that primary school teachers in Ukraine have a fairly high level of professional workload.

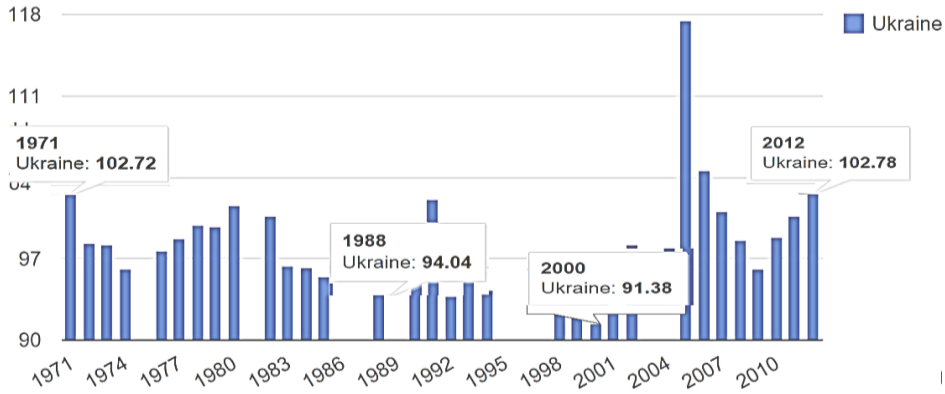


Fig. 2. *Ukraine: Primary School Completion Rate*

The pupil-teacher ratio between 1991 and 2012 for Ukraine is as follows: the average value of 18.58 pupils per teacher; at least 15.58 pupils per teacher in 2009; no more than 22.6 pupils per teacher in 1991 (see Figure 3).

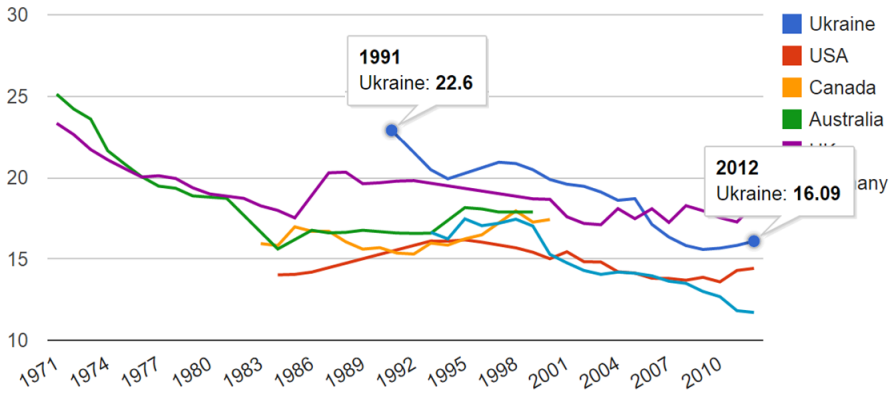


Fig. 3. *The Pupil-Teacher Ratio in Ukraine*

A high level of teacher workload once again urges teachers to develop their pedagogical skills, psychological and personal qualities for the successful and effective implementation of the teaching activity. The fundamental characteristics of primary schools teachers are tolerance; sensitivity to the child's developing personality; communication skills; ability to establish mutual understanding between teachers and pupils, as well as among pupils themselves; professional insight; vigilance, intuition; ability to perceive and understand children, their psychological state; ability to positively influence the development of each pupil's personality; emotional stability (self-control, self-regulation); ability to predict the positive development of the child's personality; creativity; ability to evoke pupils' trust, love and respect for others; ability to solve problematic situations quickly.

Determining and evaluating the state of teacher training for primary school teachers is possible only with a detailed study of the historical development of this process, an analysis of the available findings on the issue in question and the organization of this process in HEIs in Ukraine.

It was Ushynskyi (1983) who first highlighted the issue of teacher training for primary school level. In his work, titled *"Proekt uchytelskoi seminarii"* ("The Project of the Teachers' Seminary" in English), he described the basics of developing pedagogical skills in the system of general teacher

training for primary school level and presented a detailed plan for their training. He claims that teachers should be not only school subjects' teachers but educators and psychologists. They must love their work, show a high level of pedagogical skills and pedagogical diplomacy and have profound knowledge of psychology and pedagogy. His project of the teachers' seminary follows the requirements that, in his opinion, master teachers must meet. These are the following: future primary school teachers should have impeccable knowledge of the teaching profession and be able to write, draw, read clearly and distinctly, and even sing. It is essential to introduce singing, drawing, sketching and calligraphy already in primary school (Polishchuk, 1994).

In Ukraine, teacher education in HEIs dates back to the 19th century, and the first pedagogical institutes were established at Kharkiv University (1811) and Kyiv University (1834). The system of teacher training introduced at universities provided for the acquisition of theoretical knowledge from a group of educational courses and the acquaintance with different ways of teaching through practice. This teaching through practice approach allowed future primary school teachers to develop a certain level of pedagogical skills.

Teacher training institutes prepared specialists parish schools. To do this, they recruited representatives of the rural population and teach them to draw, paint, sing, as well as gymnastics and the basics of pedagogy. However, it must be noted that a large percentage of primary school teachers were trained in short-term pedagogical courses in which they studied general subjects, didactics, school studies, teaching methods in primary school and pedagogy.

Systematic reforms in primary school have a significant impact on the development of and changes in teacher training. Currently, there are four stages in the development of teacher training in HEIs: *the establishment stage* (1956-1971); *the improvement stage* (following reforms in primary school – 1972-1984); *the updates stage* (1985-1995); *the innovations stage* (1996-2014).

At the establishment stage, relevant faculties were established at pedagogical institutes in Kyiv, Vinnytsia, Berdychiv, Izmail and Glukhiv. The primary school did not meet the updated requirements of the post-war society. It was imperative to introduce the achievements of psycho-pedagogical science in the teaching activity to develop the cognitive abilities of younger pupils.

The improvement stage corresponds to reforms in primary school between 1972 and 1984. One can assume that they are interdependent in their implementation, i.e., the first stage is a consequence of the second one.

At that time, the primary school was switching to three years of study and six-year-old children were admitted to the first grade (Chapelle, 1998). Such fundamental features required appropriate updates in teacher education in HEIs. It implied the revision of psycho-pedagogical training, which would aim to prepare future teachers to implement developmental learning, taking into account the peculiarities of learning activities with six-year-old children.

The updates stage focused on the co-existence of two types of primary school (three-year and four-year). Other important factors influencing changes in teacher training of primary school teachers are democratization and globalization of society. One should not forget about information technologies, whose rapid development led to the emergence of information technology training, electronic resources and caused the need for their introduction into primary school.

Nowadays, school, as well as primary school, should strive to develop creative skills in pupils and encourage them towards learning and existence under informatization and globalization. Therefore, it is essential to discover some innovative ways of enhancing teacher training for primary schools' teachers in Ukraine.

A detailed analysis of teacher training in HEIs shows that individual institutes and university faculties in Ukraine provide teacher training for primary school. Listed below is a shortlist of such institutions.

The Institute of Pedagogy and Psychology at Ternopil Volodymyr Hnatiuk National Pedagogical University train future teachers for primary school. The Faculty of Preschool and Primary Education is one of the prestigious faculties at Kherson State University. It provides training for primary school at bachelor's and master's degree levels.

The Faculty of Pedagogy and Psychology at Volodymyr Vynnychenko Central Ukrainian State Pedagogical University trains specialists in primary education. In Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, the Department of Pedagogy and Methods of Primary Education as part of the Faculty of Teacher Training (Grades 1-4) was established in 1960 by well-known scholars and experienced specialists in primary education.

In South Ukrainian National Pedagogical University named after K. D. Ushynsky, the Faculty of Primary Education was founded in 1979. However, in 2011, it was reorganized into the Institute of Primary and Humanities-Technical Education, which includes the Faculty of Primary Education and the scientific-educational laboratory of socio-pedagogical research. The powerful scientific and pedagogical potential of the Institute of Primary and Humanities-Technical Education allows one to successfully

solve the issues of modernization of the educational process. It improves professional training of future teachers, social educators, technology teachers, computer science teachers, as well as activates their professional competence, creativity and independence. (Pivdennoukrainskyi natsionalnyi pedahohichnyi universytet imeni K. D. Ushynskoho, 2020).

In Berdyansk State Pedagogical University, the Department of Primary Education at the Institute of Psychological and Pedagogical Education and Arts provides high-quality professional and methodological training for future primary school teachers.

Studying the Experience of Using IT in Teacher Training

To begin with, it is essential to review relevant studies and practices to study the experience of using IT in teacher training for primary school, strengthen and improve it, as well as create an appropriate educational environment in HEIs or advanced training centres for teachers.

The study finds that Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University has developed a model of professional training of primary school teachers to ensure the continuity of education for preschool and primary school children. As noted by Kolomiiets (2012), this model prepares competent primary school teachers who apply the acquired knowledge, skills and abilities creatively, use the latest pedagogical methods and technologies, strive for professional development and cultivate their reflexive and values-based attitude towards pedagogical interaction with children during their transition from preschool to primary education (Holmes, 1992). This model, as an initial theoretical construct, views readiness as the result of professional training focused on shaping future teachers' multi-subject professional and personal position. Such a position determines a sufficient level of their psychological, pedagogical, methodological and technological readiness to ensure the continuity of education for preschool and primary school children following current requirements, standards and educational priorities. Moreover, it ensures a high level of the professional organization, realization and pedagogical culture, as well as stimulates continuing professional development (Kolomiiets, 2012).

According to Reshetniak (n.d.), teaching practice occupies a special place in teacher training for primary school. It is so because teaching practice is one of the most important components of professional development, and its effectiveness largely depends on preparation for it. In turn, it requires future teachers to observe lessons conducted by more experienced teachers and make corresponding notes in a special journal,

determine and analyze the structure and stages of lessons, allocate time to each lesson stage properly, choose forms and methods appropriate to lesson goals, reflect on each component of the educational process. Besides, it is quite useful for future teachers to view records of specific lessons, analyze methods and technologies used at each lesson stage, taking into account the contingent of pupils, material and technical facilities (Guttman, 2003). Thus, it is vital that lesson planning should cover not only the theoretical analysis of lesson content but also a practical assessment of lessons on specific topics conducted by experienced educators.

Therefore, a video library of lesson recordings is one of the important conditions for effective preparation for teaching practice. It must be noted that teaching practice aims to solve the following issues: 1) one gains the experience of conducting lessons through practice; frequently, there are no classrooms which can simultaneously accommodate pupils and an academic group of students; 2) even when it is possible to do, students cannot comment during the lesson; besides, the presence of a stranger in the classroom can distract pupils, and therefore negatively affects a particular lesson.

Online observation of lessons has the several advantages: first, it eliminates the occupancy problem; second, it allows the supervising teacher to comment on the course of the lesson in real-time; third, it does not disturb both the teacher and pupils.

Another problem in teaching practice organization is the presence of the supervising teacher and methodologist in the classroom. They are entitled to attend a limited number of specific lessons or activities (Kearsley, Blomeyer, 2004). However, if the student does teaching practice at his or her future workplace, their presence is not acceptable. In this case, the use of the latest information technologies is invaluable since it allows the supervising teacher to monitor and analyze the action of the student-teacher, as well as provide him or her with relevant recommendations (Reshetniak, n.d.).

Also noteworthy is the use of ICT in quasi-professional activities of future primary school teachers. Some researchers view the requirements of the information society for teacher training for primary school as dynamic. In this regard, they suggest solving the problems generated by them through the introduction of ICT in professional training in HEIs, in particular in quasi-professional activities. In turn, a quasi-professional activity is seen as an activity educational in form and professional in content. Thus, it acts as a transformation of the content and forms of educational activities in the corresponding content and forms of professional activity (Verbitskiy, Bakshayeva, 2005). A quasi-professional activity is an intermediate stage in

professional training. It is aimed at practice-oriented theoretical training, carried out through modelling integral fragments of pedagogical activity in the form of gaming and project methods (McClelland, 1973). The implementation of ICT in quasi-professional training is quite expedient. Therefore, some researchers recommend creating an information environment with certain content: *technical environment* (personal computers or a computer class); *software environment* (a set of standard computer user programmes, the Internet); *topic-oriented environment* (modelling integral fragments of pedagogical activity); *methodical environment* (instructions, algorithms, methodical recommendations on the interaction between teachers and students using ICT, the use pattern, efficiency estimation).

The author's structure of an information environment also combines the mentioned approaches to the definition of IT: on the one hand, it is technical means (technical and software environment) of working with information; on the other hand, it is a didactic process carried out through the application of information methods (subject-oriented and methodical environment). Thus, the inextricably linked technical means and didactic process in the system create the information environment of professional training of future primary school teachers. IT specialists, as well as operational and technical support, are responsible for the technical support of this process. At the same time, university teachers are to provide information and didactic support.

Motsyk (2014) studies the use of information technologies in teacher training for primary school at Kamianets-Podilskyi National Ivan Ohiienko University. He notes that it is imperative to teach future professionals to acquire the necessary knowledge and skills in using relevant programmes. Modern software has powerful help systems, which collect information about the capabilities of a particular tool and how to use it. Thus, the ability to search for information in help systems can be considered basic skills, without which one cannot work with new information technologies effectively. It is impossible to ensure effective lifelong learning without the exchange of information between professionals (Papert, 1980). In the context of the pedagogical activity, the exchange of ideas and results of methodical research allows teachern to enhance professionalism and improve time management skills. Such an exchange can be both traditional and electronic. Electronic transfer of information in this case has several advantages. Materials are transferred faster, the range of experts who can receive them increases and the geography of communication expands. However, it is all possible only if the teacher has good communication and IT skills. The leading role lies in the ability to search for information on the

Internet and on electronic media (Patarakin, Yarmahov, 2008, p. 122).

At the same time, Patarakin, Yarmahov (2008) study the preparation of primary school teachers to use information technologies during the study of corresponding academic courses. It seems possible to obtain effective results under the integration of IT and pedagogical courses.

Pavlenko (2008) offers her author's approaches to training future primary school teachers to use interactive pedagogical technologies. It involves a set of relevant pedagogical interactive-reflexive conditions: 1) focusing on the development of future teachers' readiness to use interactive pedagogical technologies; 2) to motivate future teachers to cultivate a positive reflection on the use of use interactive pedagogical technologies; 3) to supplement and expand the content of psycho-pedagogical courses in the context of developing knowledge and skills in using interactive pedagogical technologies in primary school; to implement a specialized course of study, called "The Interactive-Reflective Approach in Pedagogical Activities of Primary School Teachers"; 4) to apply a practice-oriented approach to training future teachers to use interactive pedagogical technologies through the use of pedagogical interactive-reflexive forms and methods (business games, training sessions, situational modelling, pedagogical counselling, dialogues, polylogues, discussions); 5) to combine control and self-control over the performance of tasks.

It is also essential to consider the experience of advanced training centres, which focus on finding innovative approaches to specialist training which significantly shorten the duration of the training, facilitate the acquisition of knowledge, as well as make learning interactive, communicative and personality-oriented (Williams, Coles, Wilson, Tuson, 2000). This trend is included in the programme and thematic plans of advanced training courses for primary school teachers at the Transcarpathian Institute of Postgraduate Pedagogical Education. In 2012, they introduced specialized courses of study, workshops, seminars, training sessions, thematic discussions, lectures of student choice in the programme of advanced training courses. Methodical practise shows that not every teacher can perceive and understand the fundamentally important changes taking place today in science and practice without the necessary training. Formal perception of ideas and innovative technologies does not guarantee the professional development of the teacher's personality and successful pedagogical activity (Kiryk, 2017).

According to Kiryk (2017), researchers, lecturers and methodologists from the Transcarpathian Institute of Postgraduate Pedagogical Education are in constant search of modern forms of professional development, which

ensure high-quality training and professional growth of teachers. Quite noteworthy is the implementation of the new systemic-integrative approaches to teaching future professionals the methods of developing language and speech literacy in primary school pupils (Wilson, 1995). Teachers present their achievements and study the issues which occasionally arise in their professional activities. In turn, experienced teachers, researchers, and methodologists from advanced training centres provide them with relevant recommendations. Besides, trainees are to design teaching methods and techniques and build the content of primary education based on the optimal combination of traditional and innovative pedagogical technologies, as well as didactic and methodological approaches. At the same time, traditional forms and methods of teaching serve the basis for their further creative development (Kiryk, 2017).

As noted by Komar (2011), one of the leading aspects of training innovative teachers is their preparation for introducing interactive technologies. Building a system of training future primary school teachers to use interactive technologies "required one to identify several successive stages of its implementation, each of which differs in its purpose and content (Komar, 2011, pp. 22–23): 1) *the introduction stage*, which familiarizes students with pedagogical activities of teachers and the preparation for them in the school, strengthens their interest in innovative pedagogical activities and cultivates their positive attitude towards career in school; 2) *the experimentation stage*, which involves students' first attempts to organize pedagogical activities with the use of interaction and learn how to identify their level of pedagogical skills; 3) *the main stage*, which acquaints students with professional methods of primary education, provide them with systemic psycho-pedagogical knowledge, which enable them to further develop pedagogical skills and abilities; 3) *the reinforcement stage*, which motivates students to practice their pedagogical skills and abilities and interact with pupils based on a certain system of psycho-pedagogical knowledge and theoretical-practical views on pedagogical activities in school; 4) *the completion stage*, which aims to increase the level of students' readiness to perform real pedagogical activities in school and in other alternative educational institutions.

The article presents the results from the theoretical analysis of the conditions of professional training for primary school teachers. They show that enhancing the quality of such training requires finding ways and means to strengthen the practice-oriented focus of teaching in HEIs and develop students' creative skills.

Today, there has appeared the need to review the existing and justify

new theoretical and methodological principles of teacher training. However, it is impossible without improving the educational process in higher education. To solve this problem, one needs to teach students how to use information and communication pedagogical environment, in particular through methods of working with modern educational tools, methods of pedagogical design in a particular lesson, extracurricular activities for primary school pupils (Denysenko, 2013, p. 63).

Professional training of future primary school teachers should result in high levels of professional competencies (knowledge, skills, abilities), appropriate personal development, ability to adapt to new dynamic professional conditions and select the most effective traditional and innovative teaching methods and technologies (Ross, 1992). It will allow them to solve professional tasks efficiently and become competitive in the labour market.

The rapid social transformations in the European Union and the world in the late 20th century – the early 21st century actualize new requirements for reforms in teacher education (Koval, 2010, p. 16). They are the following: 1) enhancing the quality of teacher training, its status and improving working conditions; 2) promoting the professionalization of teaching, which is viewed as a process of comprehending all important aspects of the profession and striving for professional development; 3) establishing national scientific funds and centres which motivate the pedagogical community towards scientific achievements in the field of education, development of new concepts, curricula and examination of innovations; 4) combining different paradigms of education to enhance the quality, efficiency and attractiveness of teacher education.

At the same time, the review of syllabi and programmes of didactic and reference materials of academic pedagogical courses shows that they mostly provide theoretical knowledge with the prospect of their application at the productive level.

The authors of the article believe that there are not enough educational resources (textbooks, manuals), which contain creative, research-related practice-oriented tasks. Besides, students are more focused on theoretical approaches to learning and do not feel the need to use innovative technologies and show professionally important qualities, including competitiveness. In turn, the development trends in the information society lead to the search for ways to train competitive teachers who can work under the demanding conditions of the educational market.

Over the years of its existence, the primary school in Ukraine has gained vast experience in the development of pedagogy, search and use of

areas of professional development under the relentless growth of professionalism. This process is due to reforms in the education system, science development, changes in paradigms and concepts of primary school, as well as the emergence of innovative forms, methods and tools of teaching and learning (Pratsri at al., 2022).

Researchers and practitioners should aim to find ways to motivate primary school teachers to use and enrich such experience, search for factors influencing the cultivation of the need and skills to study and implement it in their professional activities. However, this mostly applies to higher education.

At the same time, one can observe positive steps and trends aimed at the introduction of ICT in the higher education system in Ukraine. The analytical review of the UNESCO Institute for Information Technologies in Education shows that over the past ten years, many positive steps have been taken to implement and effectively use new educational technologies based on ICT. First of all, it concerns the legal support of this area. Indeed, the URAN Ukrainian Scientific and Educational Telecommunication Network provides institutions, organizations and individuals with information services in the field of education and science, as well as provides access to GEANT, the pan-European data network for the research and education community. 100 higher educational institutions, scientific institutions and organizations are connected to the URAN network.

Significant progress has been made in the computerization of HEIs: 1) an average of 92 computers per 1,000 students; 2) access to communication networks: local – 836 HEIs (95% of the total number of institutions), URAN – 86 HEIs (10%); the Internet – 100% of HEIs. Many electronic informational and educational resources have been created: electronic textbooks ~ 17000, electronic laboratory-based works ~ 7000, electronic tests on the courses ~ 9000, e-learning courses ~ 4500.

One should also pay particular attention to the automated information and production system "Education" developed by the Ministry of Education and Science of Ukraine. It ensures the collection of information in the field of education, carries out informational and analytical functions, ensures accountability and control of state documents on education at all educational levels (Institut YUNESKO po informatsionnym tekhnologiyam v obrazovanii, 2009).

Conclusions

Thus, the changes in teacher training and teachers' roles in the late

20th – the early 21st century are closely related to the informatization of HEIs and social demand of the information society promoted in European and world educational space. Besides, they influence the development of Ukrainian traditional and innovative pedagogical technologies significantly.

Given that the teaching activity requires continuous creative pursuits, the importance of teachers' self-education as an important factor in their professional development is growing. Most of all, it is associated with an unprecedented acceleration of progress in all areas of human activity, which generates both reduction and devaluation of professional knowledge and skills.

One can assume that there are now wide opportunities for introducing the latest technologies, namely, building personality-oriented education with the use of IT. Indeed, HEIs tend to apply innovation-oriented theoretical-methodological solutions, focus on personal orientation, strengthen the subject-subject interaction in education and upbringing and ensure the variability of educational systems.

Such a system can serve as an important dynamic resource to improve the quality of teacher training for primary school. In turn, it will become a powerful mechanism for updating the learning system in HEIs in Ukraine and focusing it on the needs and conditions of primary school.

Therefore, one can conclude that strategic educational guidelines of primary school (multidisciplinary and variability of the educational process) are insufficiently implemented in teacher training for primary school in HEIs.

On the one hand, primary school teachers reach a high professional level in practice. On the other hand, it should be the result of professional training in HEIs.

The identified factors in the historical development of teacher training for primary school allows one to view their pedagogical competence as an important component of general professional competence.

The authors of the article support the statement that "one of the most important social and cultural challenges countries all over the world are facing is the integration of educational systems into European and world educational space. Such integration requires each member state to develop a system of continuing education and make a wide network of learning areas available to different socio-cultural, professional and age groups. The prospects for human development mostly depend on the focus and effectiveness of this very system.

Ukraine's integration in the global space, as well as creation and strengthening of links between pedagogical and scientific communities of

different states, causes the need to study principles, tendencies, conditions and prospects for developing teacher education in different countries. It will make it possible to identify the most effective areas in the development of the primary school in Ukraine and implement their positive experience under Ukrainian conditions.

The findings on the realization, development and support of teacher training for primary school in HEIs in Ukraine prove the need to search for innovative approaches to its organization and support to 1) encourage students to identify and solve pedagogical problems independently; 2) to simulate developmental and creative situations and determine individual trajectories of pupils' development following their personal qualities; 3) to discover innovative ways of moving away from patterns and traditions in the organization of the educational process; 4) to develop the mechanisms of professional development.

An in-depth analysis of relevant studies shows that various forms of self-education in school teaching are being introduced. This applies to independent research on a particular profession-related topic under the guidance of university teachers, experienced teachers from intraschool and interschool methodological associations or mentors. Today, one also employs traditional ways, such as an independent study of pedagogical achievements and advanced pedagogical experience, open lessons and events conducted by experienced teachers, creative learning in schools for novice teachers. Besides, teachers are encouraged to participate in methodological and practical seminars, conferences, pedagogical readings and other forms of experience exchange.

However, the study of pedagogical experience, teacher training for primary school and self-education in school teaching shows that the above-mentioned forms of training, support and professional development of competitive teachers can become more effective and efficient under the appropriate use of ICT.

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