

**H.S. Skovoroda Kharkiv National
Pedagogical University**

ISSN 2709-7986 (online)



EDUCATIONAL CHALLENGES

Electronic Scientific Journal

Volume 28

Issue 1

2023

Spring

**2023
Kharkiv**

**H.S. Skovoroda Kharkiv National
Pedagogical University**

ISSN 2709-7986 (online)

EDUCATIONAL CHALLENGES

Electronic Scientific Journal

**Volume 28
Issue 1**

**2023
Kharkiv**

EDUCATIONAL CHALLENGES

Scientific International Journal

2023

Volume 28, Issue 1

© H.S. Skovoroda KhNPU, 2023

Key title: Educational Challenges**Frequency:** twice a year (April & October).**ISSN** 2709-7986 (online)**Official website:**<http://educationalchallenges.org.ua/>**Publisher:**

H. S. Skovoroda Kharkiv National Pedagogical University.

Contact e-mail:educationalchallengesjournal@gmail.com**Publisher's Address, Editorial Board's Address:**

Kostikova Ilona, H. S. Skovoroda Kharkiv National Pedagogical University, Alchevskyh Str., 29, Kharkiv, 61002, Ukraine.

All authors have **ORCID.ORG** digital object identifier.All articles have **DOI**.The journal was founded in 1996, the title "Pedahohika ta psykholohiya" = "Pedagogy and Psychology" [**ISSN** 2312-2471 (print), **e-ISSN** 2313-2361].The journal language is **English**.

The journal is an open access journal.

Free of charge for articles' authors.

Archives of previous issues:<http://journals.hnpu.edu.ua/index.php/pedagogy>The edition is included in the **List of Scientific Professional Publications of Ukraine (category B / категория Б)** based on the Order of the Ministry of Education and Science of Ukraine № 1290 dated 30.11.2021 (Annex 3) in the field of educational sciences.

In 2020 the title was changed to "Educational Challenges" (e-ISSN 2709-7986).

All articles are free for users to access, read, download and print under a **Creative Commons Attribution-NonCommercial 4.0 International License**.

It is recommended for publishing according to the decision of the Scientific Council of H.S. Skovoroda Kharkiv National Pedagogical University (Minutes / Protocol № 3 dated 27 March 2023).

EDITORIAL BOARD**EDITOR-IN-CHIEF:****Ilona KOSTIKOVA**

Doctor of Science (Education), Ph.D. in Education, Ph.D. in Philology, Full Professor, Head of Department of Theory and Practice of the English Language, H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine.

ORCID ID: 0000-0001-5894-4846;**Web of Science ResearcherID:** M-9580-2018;**Scopus Author ID:** 57207981491.**DEPUTY EDITOR:****Emerson Abraham JACKSON**

Ph.D. Scholar, Research Scholar, Centre of West African Studies, University of Birmingham, United Kingdom, Research Economist, Bank of Sierra Leone.

ORCID ID: 0000-0002-2802-6152;**Web of Science ResearcherID:** I-2946-2019;**Scopus Author ID:** 57194773644.**EDITORIAL BOARD:****Michail KALOGIANNAKIS**

Ph.D., Associate Professor, Department of Preschool Education, Faculty of Education, University of Crete, Greece.

ORCID ID: 0000-0002-9124-2245;**Web of Science ResearcherID:** A-1480-2014;**Scopus Author ID:** 8533759300.

- Ana FRUNZA** Ph.D., Ethics & Scientifics, Researcher III, Lecturer, LUMEN Research Center in Social and Humanistic Sciences, "Stefan cel Mare" University from Suceava, Faculty of Law & Administrative Sciences, Romania.
ORCID ID: 0000-0002-6198-3130;
Web of Science ResearcherID: AFL-6422-2022;
Scopus Author ID: 55605075300.
- Martin DJOVČOŠ** Ph.D., Associate Professor, Department of English and American Studies Faculty of Arts, Matej Bel University, Slovakia.
ORCID ID: 0000-0003-2487-4151;
Web of Science ResearcherID: AAO-7765-2020;
Scopus Author ID: 56624528900.
- Claudia-Neptina MANEA** Ph.D., Lecturer, Faculty of Psychology and Educational Sciences, Ovidius University of Constanta, Romania.
ORCID ID: 0000-0003-2528-1286;
Web of Science ResearcherID: AAW-2046-2020;
Scopus Author ID: 57219112187.
- Cleofé ALVITES-HUAMANI** Ph.D., Master's in Teaching at the Higher Level; Coordinator of the Doctorate in Education and Researcher recognized by RENACYT-CONCYTEC P0012213; Teacher at the Graduate School at the University of César Vallejo at the Chair of Scientific Research Methodology, Peru.
ORCID ID: 0000-0001-6328-6470;
Web of Science ResearcherID: DVV-6336-2022;
Scopus Author ID: 57218206870.
- Christopher RUNDLE** Ph.D., Associate Professor, Department of Interpreting and Translation of the University of Bologna, Italy; Honorary Senior Lecturer in Translation and Italian Studies at the School of Arts, Languages and Cultures of the University of Manchester, United Kingdom.
ORCID ID: 0000-0001-7790-3468;
Web of Science ResearcherID: AAO-5711-2020;
Scopus Author ID: 50861689600.
- Natalie KONONENKO** Ph.D., Professor, Kule Chair in Ukrainian Ethnography, Faculty of Arts, Kule Folklore Center, Emerita, University of Alberta, Waterloo, Ontario, Canada.
ORCID ID: 0000-0002-5161-9511;
Web of Science ResearcherID: FHQ-4785-2022;
Scopus Author ID: 35970616200.
- Eduardo SAGUIER** Ph.D., Honorable Director of the Instituto de Historia Argentina e Iberoamericana "Emilio Ravignani"; Professor of Argentine History in the Department of History of the School of Philosophy of the University of Buenos Aires, Argentina.
Web of Science ResearcherID: CCQ-1907-2022;
Scopus Author ID: 8150536400.
- Eda ÜSTÜNEL** Ph.D. in Applied Linguistics, Full Professor, Department of English Language Teacher Training, Faculty of Education, Head of School of Foreign Languages, Muğla Sıtkı Koçman University, Turkey.
ORCID ID: 0000-0003-2137-1671
Web of Science ResearcherID: DZL-8244-2022.
Scopus Author ID: 55996915300;

- Wojciech J. CYNARSKI** Prof. Dr. Hab., Ph.D. in Physical Culture Sciences, Full Professor, Head of the Chair of Social-Humanistic Foundations of Physical Culture, Institute of Physical Culture Studies, University of Rzeszow, Poland.
ORCID ID: 0000-0003-1252-5456;
Web of Science ResearcherID: GBL-7209-2022;
Scopus Author ID: 35329262900.
- Sandro Nuno Ferreira de SERPA** Assistant Professor, Faculty of Social and Human Sciences, Department of Sociology, University of the Azores; Interdisciplinary Centre of Social Sciences – CICS.UAc/CICS.NOVA. UAc; Interdisciplinary Centre for Childhood and Adolescence – NICA – UAc, the Azores, Portugal.
ORCID ID: 0000-0003-4286-4440;
Web of Science ResearcherID: T-5007-2017;
Scopus Author ID: 56609059500.
- Dave E. MARCIAL** Ph.D. in Education, Associate Professor, Director of the Office of Silliman Online University Learning, Silliman University, Philippines.
ORCID ID: 0000-0003-0006-8841;
Web of Science ResearcherID: FJM-9929-2022;
Scopus Author ID: 36613313500.
- Manoj DEVARE** Ph.D. in Computer Science, Full Professor, Head of Institute Amity Institute of Information Technology, Amity University Mumbai, India.
ORCID ID: 0000-0002-9530-3914;
Web of Science ResearcherID: H-2442-2016;
Scopus Author ID: 49963326200.
- Despina SIVEVSKA** Ph.D. in Education, Associate Professor, Department of Pedagogy, Faculty of Educational Sciences, Goce Delcev University Stip, North Macedonia.
ORCID ID: 0000-0003-3557-8059;
Web of Science ResearcherID: DSQ-3182-2022;
Scopus Author ID: 36544307300.
- Fahriye ALTINAY** Professor in Educational Technology, Head of Department of Computer Education and Instructional Technology, Near East University, Nicosia, Cyprus.
ORCID ID: 0000-0002-8452-5992;
Web of Science ResearcherID: J-7411-2016;
Scopus Author ID: 8350821700.
- André Luís SPECHT** Ph.D. in Language Studies, Professor, Universidade Estadual do Centro-Oeste (UNICENTRO), Irati, Paraná, Brazil.
ORCID ID: 0000-0001-9659-7793;
Web of Science ResearcherID: AFF-8392-2022;
Scopus Author ID: 57194551069.
- Danilo ROGAYAN** College Research Coordinator, College of Teacher Education, President Ramon Magsaysay State University, San Marcelino, Philippines.
ORCID ID: 0000-0002-8597-7202;
Web of Science ResearcherID: ABE-9312-2020;
Scopus Author ID: 57210125320.

- Fatjona KAMBERI** Ph.D., Associate Professor, Faculty of Public Health Research Centre, University of Vlora, Vlora, Albania.
ORCID ID: 0000-0003-4793-9384;
Web of Science ResearcherID: A-3224-2019;
Scopus Author ID: 57113659600.
- Fernando DÍEZ ESTELLA** Doctor of Science, Full Professor, Centro Universitario Villanueva, Director of the University Master's Degree for Access to the Legal Profession, Spain.
ORCID ID: 0000-0002-5011-0051;
Web of Science ResearcherID: AAA-8671-2019;
Scopus Author ID: 56111295800.
- Mohamad Ahmad Saleem KHASAWNEH** Assistant Professor, Special Education Department, King Khalid University, Saudi Arabia.
ORCID ID: 0000-0002-1390-3765;
Web of Science ResearcherID: AAU-7001-2020;
Scopus Author ID: 57219400813.
- Cibele KRAUSE-LEMKE** Ph.D. in Education, Associate Professor, Post-Doc in Modern Languages, Midwestern Parana State University, Irati, Brazil.
ORCID ID: 0000-0001-9776-4135;
Web of Science ResearcherID: FEC-8926-2022.
- Liudmyla HOLUBNYCHA** Doctor of Science (Education), Ph.D. in Education, Full Professor, Department of Foreign Languages #3, Yaroslav Mudryi National Law University, Ukraine.
ORCID ID: 0000-0002-8252-9893;
Web of Science Researcher ID: M-9616-2018;
Scopus Author ID: 57207980246.
- Alla OLKHOVSKA** Doctor of Science (Education), Ph.D. in Education, Associate Professor, Mykola Lukash Translation Studies Department, V.N. Karazin Kharkiv National University, Ukraine.
ORCID ID: 0000-0001-9034-4170;
Web of Science ResearcherID: AAN-7774-2020.
- Ivan BAKHOV** Doctor of Science (Education), Ph.D. in Education, Full Professor, Head of the Department of Foreign Philology and Translation, Interregional Academy of Personnel Management, Kyiv, Ukraine.
ORCID ID: 0000-0002-8379-199X;
Web of Science ResearcherID: O-3325-2017;
Scopus Author ID: 55858989400.
- Tetiana FOMENKO** Ph.D. in Education, Associate Professor, Department of Foreign Languages, Sumy National Agrarian University, Ukraine.
ORCID ID: 0000-0002-3048-7097;
Web of Science ResearcherID: V-4642-2018.
- Oleh KOMAR** Doctor of Science (Education), Ph.D. in Education, Ph.D. in Philology, Associate Professor, Department of English and Methods of its Teaching, Pavlo Tychyna Uman State Pedagogical University, Ukraine.
ORCID ID: 0000-0001-8071-3905;
Web of Science ResearcherID: AAR-8288-2020;
Scopus Author ID: 57212880351.

TABLE OF CONTENTS

EDUCATIONAL CHALLENGES
Scientific International Journal

Volume 28 • Issue 1 • 2023

EDITORIAL BOARD:

Emerson Abraham JACKSON, & Hudson Freddie JACKSON

Reminiscence of Education in Post-War Years: Sierra Leone as a Case Study..... 8-17

THE EDITOR'S GUEST:

Ewa FILIPIAK

*Discovering Teachers' Personal Beliefs in Poland: Research Intervention
Using Activity Theory* 18-34

Sally POWER, & Chris TAYLOR

*Developing an Education Evidence Eco-System in a Small Country:
Lessons from Wales*..... 35-43

ARTICLES:

Ekaterina BABAK

Ecology of E-Learning 44-57

Liudmyla HOLUBNYCHA, Tetiana SHCHOKINA, & Natalia SOROKA

*The Anthropological Approach to Education and Modern Training
and Learning Methodology* 58-71

Nataliia HRONA, Olena VYSHNYK, & Iryna PINCHUK

*Using Means of Electronic Educational Resources for Learning
Lexicology and Phraseology*..... 72-85

Anhelina KOLISNICHENKO

*The Methodology of Delayed Interaction Techniques Application in
L2 Asynchronous Learning and Teaching* 86-97

Oksana KOVALENKO, & Iryna HONTARENKO

Modern Electronic Educational Technologies in the Process of E-Learning..... 98-112

Olha LUCHENKO, & Valeriia YURCHENKO

Entering the Teaching Profession in Slovakia..... 113-127

Olena MOMOT, Serhii NOVIK, Yevheniia SHOSTAK, & Olena ZHDANOVA-NEDILKO

Education of the Health Culture for Future Teacher's Personality 128-138

Alisa POPOVYCH, & Olena ALIEVA

*Providing Education of 1st Year Students of the Medical University
in the Conditions of Marital State in Ukraine* 139-148

Serhii TKACHOV, Nataliia TKACHOVA, & Tamila SHCHEBLYKINA*Developing Digital Competence of Future Teachers in the Modern**Digital Learning Space*..... 149-160**Iryna TRUBAVINA, Oleksandr CHEREDNYCHENKO, Nadiia OLIINYK, Kirill NEDRIA***Ukrainian Identity Development in the Education System**in the Conditions of Martial Law in Ukraine*..... 161-174**Nataliia TVERDOKHLIEBOVA, & Nataliia YEVTUSHENKO***Pedagogical Culture of Teachers at Technical Universities for Safe**Educational Process During the War in Ukraine*..... 175-187**Yuliia ZAHREBNIUK***The System of Career Guidance for High School Students**in the United States of America* 188-198

<https://doi.org/10.34142/2709-7986.2023.28.1.01>

REMINISCENCE OF EDUCATION IN POST-WAR YEARS: SIERRA LEONE AS A CASE STUDY

Received: 21/11/2022

Accepted: 23/12/2022

Emerson Abraham JACKSON¹, & Hudson Freddie JACKSON²



¹ *Research Student at the University of Birmingham, the United Kingdom; Research Economist at the Bank of Sierra Leone, Sierra Leone.*

✉ E-Mail: emersonjackson69@gmail.com
EAJ392@bham.ac.uk

 <https://orcid.org/0000-0002-2802-6152>



² *Teacher of Business Studies, with over 30 years' experience in both Sierra Leone and the United Kingdom.*

✉ E-Mail: HUDSONJACKSON@yahoo.co.uk

 <https://orcid.org/0009-0002-8896-0083>

ABSTRACT

The main **purposes** of this paper are as follows: (I) to provide a historical narrative of Sierra Leone's educational system, (II) to assess the impact of war on the country's educational system and pace of development in the current digital age, and finally, (III) to offer some discourses for policy dialogue in embracing the developmental landscape of the country.

Methodology. The study is based on a "narrative" approach to exploring the outcomes of the civil war that resulted in the complete disruption of the education system in Sierra Leone.

Results. The outcome of the study, which utilizes a narrative methodological approach, has captured pertinent areas of concern regarding the destructive legacy that the civil war brought to the country. Notable among these is the complete collapse of standards in the education system and, even more notably, the emergence of fake educational institutions. The results also draw attention to the positives of free education in creating equality in access to education for all.

© Emerson Abraham JACKSON, & Hudson Freddie JACKSON, 2023

Reminiscence of Education in Post-War Years: Sierra Leone as a Case Study © 2023 by Emerson Abraham JACKSON, & Hudson Freddie JACKSON is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

Conclusions. *The study outcome shows that Sierra Leone is making some steady progress in providing an inclusive education for that despite the bad memory that the civil war brought to the entire nation. Moving on, the study outcome noted that progress needs to be made in terms of embracing modern technology to address emerging developments in areas pertaining to Artificial Intelligence (AI) and many more. Also, to resurrect the country to its earlier glory of high educational standards, efforts must be made to raise the profile of those responsible for delivering the curriculum (teachers in particular), while at the same time ensuring high quality of graduates are made to enter through competitive salaries.*

KEYWORDS: *Post-war, Educational Challenges, Education and Development, Structural Change, Sierra Leone.*

INTRODUCTION

Historically, Sierra Leone has been praised for being one of the first countries in Sub-Saharan Africa (SSA) to experience a westernized type of education modeled on the curriculum of classical education, which typically includes subjects such as History, Geography, Latin, Greek, and more, in addition to the core curriculum of the English Language, Mathematics, and Sciences (incorporating Biology, Chemistry, and Physics). Due to this, the country was widely known over the years as the "Athens of West Africa," which signifies its specialization in classical education (Warburton, 2021).

The continued influence of bad governance over the years destroyed the fabric of high-quality education that people used to enjoy, even after independence in the early 1960s. Most importantly, during the latter part of the 1980s and into the early 1990s, the economy was in such a state that the World Bank implemented the Structural Adjustment Program (SAP) to address some of the problems of poor macroeconomic management (Jackson, & Jabbie, 2020).

Despite the good intent of the program as outlined by the World Bank, it was not well equipped to address the challenges of poverty and the tight fiscal space in which

the country was already placed. The severity of the economic crisis was also revealed during this period, particularly in the late 1980s, with the intervention of the rebel incursion by the Revolutionary United Front (RUF) led by Foday Sankoh.

This period was considered highly traumatizing for the entire nation, especially with its impact on the collapse of the country's entire educational system. The long-lasting nature of the civil crisis damaged every aspect of economic life, leading to the complete closure of the educational system and the recruitment of many young boys as armed fighters, as a way of prolonging the battle and the intentions of the rebel fighters (Gberie, 2005).

In view of the above simplified introduction, the main objectives of this paper are as follows: (i) to provide a historical overview of Sierra Leone's educational system, (ii) to assess the impact of war on the country's educational system and pace of development in the current digital age; and finally, (iii) to offer some suggestions for policy discussions in embracing the developmental landscape of the country.

Moving forward, the rest of the paper will be structured as follows: Section Two addresses the pre-war narrative of education in Sierra Leone, while Section

Three provides a narrative of the methodology. Section Four deals with the Results. This section is divided into sub-sections that cover the impact of the war on the education system, the post-war restructuring of the education system, inclusivity and expansion, and a critical discourse on the contested terrain of present-day developments. Section Five concludes by offering some policy suggestions for developing the country's education system to meet international education demands.

Pre-War Narrative of Education in Sierra Leone

The education system in Sierra Leone prior to the civil crisis in the late 1980s was characterized by a well-established standard modeled on the colonial system. It began with kindergarten or preschool and progressed through primary, secondary, and higher education, which was divided into vocational (technical institutions) and college or university level.

As previously mentioned, Sierra Leone was once known as the "Athens of West Africa" due to its strong emphasis on classical education and its curriculum that included subjects such as Greek and Latin, as well as traditional academic subjects such as History, Geography, and the core subjects of English Language, Mathematics, and Sciences (incorporating Biology, Chemistry, and Physics). This was aimed at preparing students for professional careers, such as law and civil service administration.

As already stressed, before 1993, the educational curriculum in Sierra Leone was modeled strictly on the United Kingdom system. Students spent seven years in primary school (Classes 1-7), and successful performance on the selective entrance exam would automatically mean progression into secondary school.

Success on the end of the primary education exam was a sufficient criterion for acceptance into a secondary school, while higher grades were necessary to be accepted into the top standard schools such as the Sierra Leone Grammar School, Prince of Wales, Annie Walsh, and St. Joseph's Convent. The basic secondary education was a five-year stage (Forms 1-5) during which students prepared to take the General Certificate of Education Ordinary Level examination, typically in Form 5 with some exceptions for Form 4 students. To progress to Sixth Form, a student needed to have at least five GCE O Level credits, with a minimum of a credit in English and Mathematics and three other credits, including a science subject such as Biology or Health Science.

The Sixth Form education was a two-year stage, with Lower and Upper Six, where students focused on three specialist subjects. University entry was based on a student obtaining at least two Ds on the Advanced Level examination. Both the O and A Level exams were administered by the West African Examination Council (WAEC) and were equivalent to any UK school exam, as verified by the National Academic Recognition Information Centre (NARIC) board for all overseas qualifications.

With the need to reform the education system to meet the challenges of a globalized education system and to address market needs that require a combination of middle-skilled labor and academics, there was a call for revision of the education system. This led to the emergence of the 6-3-3-4 curriculum in 1993.

METHODOLOGY

The study adopts a narrative approach in addressing the topic, which is based on a descriptive approach that involves detailed and critical concepts related to

the emergence of the civil war that resulted in a complete collapse of the educational system in Sierra Leone (Sauro, 2013). The methodology captures a sequence of events since the colonial period, epitomized by the time when the country was under British control.

RESULTS

Impact of the war on educational fabrics

Due to the state of the educational system in Sierra Leone, it is evident that the impact of the civil war has been extremely detrimental to the nation's developmental progress. The war destroyed the education infrastructure across the country and shattered Sierra Leone's status as the 'Athens of West Africa.'

The Sierra Leone civil war was one of the most brutal conflicts Africa has witnessed, resulting in the deaths of over 50,000 people and the displacement of half a million in a nation with a population of under 3 million at the time of the war (Bonvin, & Galster, 2010). The war devastated the education system, which continues to affect every aspect of development in the nation's economy. During the conflict, girls were subjected to torture and rape, while children of all genders were kidnapped and forced into slavery. Educational institutions were destroyed and many teachers fled, never to return. Schools and higher education facilities were burned, resulting in a near halt to education in some areas throughout the war (Matsumoto, 2018).

A serious issue that continues to affect education in Sierra Leone, which is a result of the war, is the challenge to girls' education. Although girls' access to education is improving, class completion remains low with high dropout rates and consistently low enrollment in secondary school. Early pregnancy, gender-based violence, child marriage, and cultural

biases perpetuate the cycle of gender inequality. (UNESCO-UNEVOC, 2012).

Post-war Structuring of the Education System: Inclusivity and Expansion

The aftermath of the civil war saw tremendous efforts by successive governments to push forward with the transformation of educational provision across the country. This was particularly evident in the early 2000s when legal enactments were instituted to effect changes in educational provision. Schools across the country were ranked based on their outputs and specializations to cater to the needs of a growing workforce. Notable among these efforts was the need to ensure that school qualifications were well-suited to meet international standards, as outlined in the revised 6-3-3-4 school curriculum.

The establishment of the Tertiary Education Commission (TEC) was a result of an enactment aimed at improving higher education provision. With the support of then-president Ahmed Tejan Kabba, the goal was to expand higher education access. This eventually led to the separation of Njala University College from the University of Sierra Leone in 2005 and its rebranding as Njala University. The university was granted the authority to establish its own university court system to oversee education standards and delivery. In an effort to align education with sustainable development, new and privately managed institutions were established to address the shortage of higher education options in regional towns across the country.

Recalling, a range of projects were championed soon after the end of the civil war to restore the country's education standard to its acclaimed status as the "Athens of West Africa." Notable highlights include cross-border education and local

community school projects (Kawar, 2011). The cross-border project, which trains teachers and school managers, was developed to target the high number of out-of-school children in border regions.

Beneficiaries, whose families were killed by rebels during the war, expressed appreciation for the project, particularly in terms of managing children's behavior. This includes keeping them safe in school and developing productive teaching activities to enhance students' concentration levels. A specific citation of the pleasurable benefits gained is mentioned here: "I want the children to become good people, better people for tomorrow. That is why I am teaching them," said Mr. Josiah. "When I see children that I have taught and they are moving on to higher levels of education, I feel proud of that" (Galanek, 2011).

Contested Terrain of Present-day Developments

Despite the progress that has been made in transforming the education system since the end of the civil war, there are still concerns about what needs to be done to bring it to an international standard. Credit should be given to recent governments for addressing these issues and making changes, as evidenced by the establishment of new educational institutions (both schools and higher education) to ensure access to education does not limit citizens' opportunities for advancement. The goal of improving education for prosperity has been emphasized by nearly all ruling political parties as a means of restoring the high-quality educational standards that existed before the rebel insurgency of the late 1980s broke out.

Credit is due to the efforts made to transform the education system in Sierra Leone after the end of the civil war. The

implementation of the free education system by the SLPP government in 2018 is a notable achievement. Although there have been some challenges in the system, such as funding constraints and the need for improved resources, the introduction of free education has sparked hope for addressing gaps in the educational system. With this system in place, children from disadvantaged backgrounds are now able to access free education during their compulsory years (5-18), which helps to close the gap on the high illiteracy rates that have long been a concern in Sierra Leone according to the human development index indicator (World Bank, 2020). Now, children in all state schools are able to take free public exams, helping them move on to the next stage of their lives.

Contrary to the aforementioned positive progress made in the educational system after the civil crisis, there are still numerous concerns that continue to negatively impact the sector. Such problems include, but are not limited to, poor standards of management in the school administration system and low morale among state-managed schools, largely due to low salaries that do not keep up with inflationary pressures across the country.

As one might expect, there seems to be a lack of relevance in the skills and understanding of graduates when it comes to addressing the needs of the market, in part due to poor monitoring of quality assurance (QA) in the higher education system in many state-owned universities. The Tertiary Education Commission (TEC), which is responsible for overseeing QA and accreditation, has also been lagging in its efforts. This lack of effective monitoring has even led to the widespread use of fake degrees by some citizens to gain employment (Barrie, 2022),

a result of the economic turmoil brought on by the civil crisis and the resulting scarcity of job opportunities in the country.

While the emergence of private and newly upgraded higher education institutions has improved standards and increased competition in the educational sector, there are still challenges that prevent the country from competing in the international ranking of institutions. In the present age of technological advancement, the goal of making education the pathway to growth in the country is to ensure that high investment is made in critical areas such as Science, Technology, Engineering, and Mathematics (STEM) and that these are at the core of the policy agenda for successive governments. To keep up with the pace of technological advancement in the 21st century, leaders in the country, especially political leaders and institutional leaders in higher education institutions, need to address the Sustainable Development Goals (Jackson, Jackson, & Jackson, 2020).

Also noteworthy in the area of contested terrain or setbacks of the civil crisis, but which needs to be addressed in contemporary discussions pertaining to the development of an educational standard in Sierra Leone, is progress towards producing high-calibre teacher training graduates. Teacher training is a cross-cutting issue, and education standards still face a plethora of challenges, as already highlighted since the post-war period, albeit to a lesser extent. Over two decades after the official end of the war, the country is still grappling with the following realities:

- Training of more women teachers;
- Push towards the training of high calibre and qualified teachers;

- Even out the geographical distribution of qualified teachers – due to the advantage of better facilities in the capital city (Freetown), qualified graduates are seeking voluntarily moving out of rural communities to seek greener pastures in the city;
- Setting measures to address high teacher attrition;
- Address equitable salaries to attract teachers into the classroom;
- The normalisation of the ghost worker system for un-identified teachers on the payroll.

Many of the above-mentioned problems in the education system—such as low-quality education, high teacher-pupil ratios (especially in rural and remote areas), widespread corruption (even on a small scale), and unequal geographical access, quality, and retention in education—appear to be linked to the poor standard of living faced by the people in the country. This also results in low motivation and the attraction of people with low caliber and fake qualifications earned from unaccredited institutions to the teaching profession.

DISCUSSION

In the current information age, driven by the high demand for virtual services, efforts must be made to restructure the education system to ensure that school and university curricula are focused on addressing essential areas of Information Technology skills to bridge the skills gap in the market. Investment in education is crucial to ensure learners have access to a range of educational services, including virtual methods of teaching and learning like WhatsApp to accommodate flexible modes of assessment (Jackson, 2020).

Conscious efforts must be made by successive governments to capacitate

high-quality educational provision in the country. The SLPP regime has made some positive steps in improving education standards by providing free education to primary and secondary schools nationwide. However, there remains a critical aspect to how the delivery of free education can improve standards, which in turn will help to restore the country's reputation as the "Athens of West Africa". Providing free, quality education is a commendable goal for a country like Sierra Leone, which is still grappling with high poverty rates as a result of the aftermath of a decade of civil war and, to some extent, a poorly managed civil service that undermines the delivery of high-quality education (Jackson, 2020a).

CONCLUSIONS

Going forward, there is much to be considered in order to erase the negative memories of the civil crisis from the minds of people. The world operates as a global economy, and Sierra Leone is making steady progress towards improving its profile through education, as championed in the manifesto of the SLPP regime. Most notably, the provision of free education to all school-aged children is making a positive impact, particularly in terms of removing a significant financial burden from parents who cannot afford to pay for their children's education. However, it is also crucial to verify qualifications, whether earned in Sierra Leone or overseas, in order to minimize the risk of employing individuals who are not suitably qualified.

Despite efforts by the government to minimize corruption, there are still remnants of unscrupulous teachers and lecturers in the education profession who persist in engaging in corrupt acts, such as accepting bribes from students to meet their personal needs. This is particularly

evident during examination periods, where teachers and perpetrators throughout the country are known to engage in corrupt practices, such as distributing exam questions to students. On some occasions, students are made to enter private rooms where specialists will answer questions for them as a way to help them meet the admission requirements for universities or other institutions of higher education.

The way forward on this issue is to set standards and, more importantly, as previously stated, to adjust salaries to meet the current standard or cost of living across the country. With the current state of shock that the global economy is facing, the situation is only going to worsen, as teachers' salaries are insufficient to cover the cost of a week's worth of meals for a family of three to four people. Thus, adjustments need to be made to ensure that salary structures are in line with the current cost of living, which will eventually help to attract only highly qualified and capable graduate teachers to the profession.

It is also important to emphasize the need for monitoring teacher delivery and depth of knowledge to be made a critical component of their ongoing professional development. Education, in general, is evolving, and attention must be focused on ensuring that the quality of delivery across the curriculum at all levels, from schools to universities, is aligned with international best practices. Despite the legacy of the disastrous effects of the civil war on the country, it is still possible to revive positive hope for the future by doing things the right way. Professionals, particularly heads of institutions, should strive to monitor the quality of delivery and standards of those responsible for shaping the future generations of learners.

ACKNOWLEDGEMENTS

The authors wish to thank colleagues who have helped in providing relevant information to complete the paper.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Barrie, I. B. (2022, May 6). *Bad Education: The Politics of Fake Degrees in Sierra Leone: Democracy in Africa*. Democracy in Africa | A Resource for the Study of Democracy in Africa. <https://democracyin africa.org/bad-education-the-politics-of-fake-degrees-in-sierra-leone/>
- Braima, S. J, Amara, P. S., Kargo, B. B., & Moeray, B. (2006). *Republic of Sierra Leone: 2004 Population and Housing Census: Analytical Report on Employment and Labour Force*. UMFPA, Statistics Sierra Leone, EU. https://www.statistics.sl/images/StatisticsSL/Documents/Census/2004/2004_population_and_housing_census_report_on_employment_and_labour.pdf
- Gberie, L. (2005). *A Dirty War in West Africa: The RUF and the Destruction of Sierra Leone*. Indiana University Press.
- International Centre for Technical and Vocational Education and Training of the United Nations Educational, Scientific and Cultural Organisation (UNESCO-UNEVOC). (2012). *TVET in Post-Conflict and Post-Disaster Situations: Report of the UNESCO-UNEVOC Online Conference*. UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training.
- Jackson, E.A. (2018). MOODLE Platform: A Case of Flexible Corporate Learning in the Financial Sector in Sierra Leone. In M. Sinecen (Ed.), *Trends in E-learning*. IntechOpen. <https://dx.doi.org/10.5772/intechopen.75617>
- Jackson, E.A. (2020). Use of Whatsapp for Flexible Learning: Its Effectiveness in Supporting Teaching and Learning in Sierra Leone's Higher Education Institutions. *International Journal of Advanced Corporate Learning*, 13(1), 35-45. <https://doi.org/10.3991/ijac.v13i1.11381>
- Jackson, E.A. (2020a). Importance of the Public Service in Achieving the UN SDGs. In W. Leal Filho, A. Azul, L. Brandli, A. Lange Salvia, T. Wall, (Eds.), *Decent Work and Economic Growth. Encyclopedia of the UN Sustainable Development Goals*. Springer, Cham. https://doi.org/10.1007/978-3-319-71058-7_20-2
- Jackson, E.A. & Jabbie, M. (2020). Twin Deficits Hypothesis as an Indication of Government Failure in Sierra Leone: An empirical investigation (1980-2018). *Journal of Economic Policy Researches*, 7(1), 43-68. <https://doi.org/10.26650/JEPR658440>
- Jackson, E.A., Jackson, E., & Jackson, H. (2020). Nurturing Career Development for Human Resource Sustainable Development. In W. Leal Filho, A. Azul, L. Brandli, P. Özuyar,

- T. Wall (Eds.), *Decent Work and Economic Growth: Encyclopedia of Sustainable Development Goal* (pp. 1-11). Springer. https://doi.org/10.1007/978-3-319-71058-7_2-1
- Kawar, M. (2011). Skills Development for Job Creation, Economic Growth and Poverty Reduction. In *A Background Paper for Doha Forum on Decent Work and Poverty Reduction, 25–26 October*. International Labour Organisation.
- Matsumoto, M. (2018). Technical and Vocational Education and Training and Marginalised Youths in Post-Conflict Sierra Leone: Trainees' Experiences and Capacity to Aspire. *Research in Comparative and International Education*, 13(4), 534–550. <https://doi.org/10.1177/1745499918807024>
- Sauro, J. (2013, October 13). *5 Types of Qualitative Methods*. MeasuringU. <https://measuringu.com/qual-methods/>
- S.L.P.P. (2018). *New Direction: One Country, One People. People's Manifesto*. <http://www.sierra-leone.org/Docs/SLPP-Manifesto2018.pdf>
- Galaneck, G. (2011, April 8). *Reviving education in the aftermath of Sierra Leone's Civil War – Sierra Leone*. ReliefWeb. <https://reliefweb.int/report/sierra-leone/reviving-education-aftermath-sierra-leones-civil-war>
- Warburton, C.E.S. (2021). *The WAM Collegiate School, 1911-2021: A by-product of Missionary Work in West Africa*. WIPF & STOCK Publishing.
- Warburton, C. E., & Jackson, E. A. (2020). Monetary Policy Responses to Exogenous Perturbations: The Case of a Small Open Economy (2007-2018). *PSL Quarterly Review*, 73(293), 181–201. https://doi.org/10.13133/2037-3643_73.293_5
- World Bank. (2020). *Sierra Leone: Human Capital Index 2020*. https://databankfiles.worldbank.org/public/ddpext_download/hci/HCI_1pager_SL_E.pdf?cid=GGH_e_hcpexternal_en_ext

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

РЕМІНІСЦЕНЦІЯ ОСВІТИ В ПІСЛЯВОЄННІ РОКИ: СЬЄРРА-ЛЕОНЕ ЯК ПРИКЛАД

Основні **цілі** статті: (1) надати історичний виклад про освітню систему Сьєрра-Леоне, (2) оцінити вплив війни на освітню систему країни та темпи її розвитку в сучасну епоху цифрових технологій, і, нарешті, (3) запропонувати деякі дискурси для політичного діалогу щодо сприйняття ландшафту розвитку країни.

Методологія. Дослідження базується на «нарративному» підході до вивчення наслідків громадянської війни, яка призвела до повного руйнування системи освіти в Сьєрра-Леоне.

Результати. Результати дослідження, у якому використовується нарративний методологічний підхід, охопили відповідні галузі, які викликають занепокоєння щодо руйнівної спадщини, яку принесла країні громадянська війна. Серед них варто відзначити повний крах стандартів у системі освіти і, що ще більш помітно, появу фальшивих навчальних закладів. Результати також привертають увагу до переваг безкоштовної освіти у створенні рівності в доступі всіх до освіти.

Висновки. Результати дослідження показують, що Сьєрра-Леоне досягає стабільного прогресу в забезпеченні інклюзивної освіти, для цього, незважаючи на погані наслідки громадянської війни, які залишилися для всієї нації. Далі, у висновках дослідження зазначено, що необхідно досягти прогресу в застосуванні сучасних технологій для вирішення нових розробок у сфері штучного інтелекту (ШІ) та багатьох інших. Крім того, щоб відродити країну до колишньої слави високих освітніх стандартів, необхідно докласти зусиль для підвищення авторитету всіх, хто відповідає за виконання навчальної програми (зокрема вчителів), водночас забезпечуючи високу якість випускників для вступу за рахунок конкурентоспроможної заробітної плати.

КЛЮЧОВІ СЛОВА: післявоєнний період, освітні виклики, освіта та розвиток, структурні зміни, Сьєрра-Леоне.

CITE THIS ARTICLE AS (APA style):

Jackson, E. A., & Jackson, H. F. (2023). Reminiscence of Education in Post- War Years: Sierra Leone as a Case Study. *Educational Challenges*, 28(1), 8-17. <https://doi.org/10.34142/2709-7986.2023.28.1.01>



<https://doi.org/10.34142/2709-7986.2023.28.1.02>

DISCOVERING TEACHERS' PERSONAL BELIEFS IN POLAND: RESEARCH INTERVENTION USING ACTIVITY THEORY

This article is published in the framework of the SUES4Journals program, a French-Ukrainian initiative to support Ukrainian public scientific publishing. It was first published in French by the Revue internationale d'éducation de Sèvres: Filipiak, E. (2020). Connaître les Croyances des enseignants pour changer leur compréhension de ce qui se passe en classe. *Revue Internationale D'éducation De Sèvres*, 84, 145–152. <https://doi.org/10.4000/ries.9656>

Received: 14/02/2023

Accepted: 20/03/2023

Ewa FILIPIAK



Prof. Dr hab., Head of the Department of Didactics and Studies on the Culture of Education, Faculty of Pedagogy and Psychology, Kazimierz Wielki University, 85-064 Bydgoszcz, St. K. Chodkiewicza 30, Poland.

✉ **E-Mail:** ewafil@ukw.edu.pl

 <http://orcid.org/0000-0001-7883-6244>

ABSTRACT

Teachers' beliefs and personal theories have held a significant place in pedagogical discourse for a long time, and they are among the "pulsating" categories within the sphere of the so-called new professionalism. Insight into teachers' beliefs and personal theories is not only an element of constructing teacher professionalism; these theories constitute resources which may open a new direction of developmental change in the school's culture, or, by contrast, they may be a source of resistance, or limitation, and form barriers to development. In the education of teachers, we may observe disintegration of cognition, a dissonance between theoretical and practical knowledge.

*The **aim** of the present paper is to show teachers' personal theories and beliefs as important, yet frequently unused, resources in teacher education.*

Methodology. *The theoretical and methodological framework of the considerations in this article is formed by the cultural-historical activity theory (CHAT). The intervention-research methodology of Y. Engeström was used to analyze the processes of changing the teachers' thinking which occurred during the sessions in the Laboratory of Educational Change.*

*The **results** are as follows: Discovering the teachers' convictions and the basis for the success of bottom-up changes in the school's culture, leading*

© Ewa FILIPIAK, 2023

Discovering Teachers' Personal Beliefs in Poland: Research Intervention Using Activity Theory © 2023 by Ewa FILIPIAK is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <https://creativecommons.org/licenses/by-nc/4.0/>

to an improvement in the quality of education. As confirmation of this thesis, examples (case studies), the article provides examples of bottom-up changes in education, achieved with active participation of teachers and the activity of the Laboratory of Educational Change, where teachers experience potentially new ways of working and experiment with them.

Conclusions. In order for teachers to “re-think” the school anew, undertake the challenge of opening the school’s culture to a new quality, and engage in the process of change, it is necessary to prepare the “grounds” for them to work with their personal beliefs and theories. This article presents the experience gained from the cooperation of teachers, aimed at creating a critical space for dialogue on the issue of learning processes, in order to foster understanding of complex situations faced by teachers in their day-to-day reality. What proved essential was providing the teachers with conceptual tools enabling them to participate in dialogue contributing to their re-interpretation and modification of their own practice.

The examples of projects described here showed that teachers, by creating a community of learning individuals, and by analyzing and participating in similar practices, worked out habitual agreement, team-based styles of thinking and acting, and developed a sense of agency. These days, examination of one’s daily educational reality, joint involvement and construction of knowledge, and confrontation of one’s own methods of work with those of others constitute a teacher’s “professional necessity”, a key to improving the quality of the school’s work, “a professional’s way of being”, “a mind’s habit”.

KEYWORDS: *Teachers’ Beliefs and Personal Theories, The Change Laboratory, Intervention-Research Methodology, CHAT (Cultural-Historical Activity Theory)*

INTRODUCTION

Teachers’ beliefs and personal theories have held a significant place in pedagogical discourse for a long time, and they are among the “pulsating” categories in the sphere of the so-called new professionalism. Insight into teachers’ beliefs and personal theories is not only an element of constructing teacher professionalism; these theories also constitute resources which may open a new direction of developmental change in the school’s culture, or, by contrast, they may be a source of resistance, or limitation, and form barriers to development.

In the education of teachers, we may observe a disintegration of cognition, a

dissonance between theoretical and practical knowledge. Teachers tend to downplay the pedagogical competence they obtained, and they see little sense in making use of the theories they learn.

Their opinions indicate that they view their own qualifications as powerless and unusable in the face of new events and complicated experiences they go through in their practice, and thus they need a new principle of acting in order to deal with them effectively. (Kwiatkowska, 2012).

In the present article, I would like to show teachers’ personal theories and beliefs as important, yet frequently unused, resources in teacher education. I also accept the assumption that discovering

teachers' beliefs, working with their convictions, and equipping them with "a cognitive toolbox", form the basis of the success of bottom-up changes introduced into the school's culture, and lead to an improvement in the quality of education.

To corroborate this assumption, I will present examples (case studies) of bottom-up changes in education introduced with active participation of teachers and the activity of the Laboratory of Educational Change, in which teachers may experience and experiment with potentially new ways of working.

This paper **aims** to show teachers' personal theories and beliefs as important, yet frequently unused, resources in teacher education.

METHODOLOGY

The research project of the Laboratory of Educational Change uses the intervention-research methodology of Y. Engeström. This approach allowed investigating both the interactions of teachers during the "Learning Studio" session, as well as studying the senses and meanings teachers attributed to significant events and their own activity.

The methodological cycle of expansive developmental research (Engeström, 2015, p. 252-262) was applied. The first step consisted of "(a) gaining a preliminary *phenomenological insight* into the nature of [the] discourse and problems as experienced by those involved in the activity and (b) *delineating* the activity system under investigation" (Engeström, 2015, p. 253). The second step consisted of rigorous analyses of the system of activity.

The third step involved the formation of new instruments ("finding a springboard, formulating a general instrumental model, constructing a microcosm for

taking over the responsibility of elaborating further the instrumental models and turning them into new forms of practice"). The next step was a practical application of the new instruments to change the activity through strategic tasks. The last of these steps was not easy, as it consisted in reporting and evaluation (Engeström, 2015). The cycles of expansive learning were observed, documented, reconstructed and analyzed.

RESULTS

Relationship between theory and practice: "to think with theory about practice"

The relationship between theory and practice constitutes a fundamental connection determining the effectiveness of educational processes. Academic theories underlying the pedagogical knowledge of the teacher, expressed in the language of generalizations and abstractions, by definition are not "complete" or certain, i.e., they do not "proclaim" arbitrarily how a teacher is to act in a particular situation. Neither do they provide grounds for explaining a given situation or resolve complicated educational issues.

Theory is necessary for teachers, but its impact on practice is not direct, and it is not always recognized by teachers – after all, theory is not a collection of regulations, even though it has its power. The strength of a theory is the possibility of introducing guidelines for acting, creating interpretative frameworks and filters which form the basis for understanding, interpreting and defining reality. In the academic education of teachers, grounds must be prepared and teachers need to be equipped with tools enabling them to undertake the strategy of "thinking with theory about practice".

The link between theory and the teacher's practice is personal knowledge. The category of "a teacher's personal knowledge" is explained by constructivism, deriving its inspiration in particular from the works of L.S. Vygotsky, J. S. Bruner, and the continuators of their thinking on the mediated nature of human cognition, construction of knowledge in social action, and assigning sense and meaning to experience.

Personal theories are a specific type of a teacher's knowledge acquired through acting and knowledge of acting. They are a part of a teacher's professional biography as well as its product. The substance of a teacher's personal theory is individual experience, gained in the course of real practice, and an internalized system of values.

These theories draw attention to the personal, individualized dimension of a teacher's work, and they show the reflexive approach to understanding the teaching-learning process, understanding one's own job. This teacher's knowledge about educational reality and the ability to use it has a stronger impact on what is happening in the classroom than does academic theory (Kwiatkowska, 2012).

Personal knowledge makes teachers realize that the basis of their professional practice is not only academic theory but also the theory created by the teachers themselves through studying their own praxis (Kwiatkowska, 2012; Kemmis, 2010; Elliot, 2010).

The colloquial, commonsensical theories of teachers require reconstruction. Their influence on educational practices is essential. J.S. Bruner observed many years ago that [...] "the way of viewing the student by the teacher determines the teaching method s/he chooses [...]" (Bruner, 2006, p. 77). Bruner's claim that

[...] "educational practices in classrooms are underlain by commonsensical beliefs on learners' brains, part of which acts in an intended way in the child's favor, whilst the other part inadvertently against the child. They must be openly expressed and rectified" (Bruner, 2006, p. 78) provided inspiration for teachers to look into their own commonsensical theories as they determine the character of educational practices employed in the classroom in multiple cultural contexts.

Personal theories vs. reforms and changes of school culture

Characterizing and analyzing the processes which determine and promote changes open and closed (Zamorska, & Krzychała, 2012), and considering the educational reforms that are being implemented, it is difficult to overlook the category of teachers' personal educational theories. In publications accompanying the school under reform, teachers and school culture are frequently presented as victims of the process of change. It is not only a picture of the Polish school under reform. There are numerous reports critical of schooling and teachers, mistakes are pointed out, as is ineffectiveness of the introduced changes. (Departament nauki ..., 2019; Śliwerski, 2015; Bogusław, 2013; Dudzikowa, & Knasiecka-Falbińska, 2013; Klus-Stańska, (2008).

Recommendations and instructions of change proliferate. At the same time, new initiatives are undertaken, changing the previous courses of action and recommending implementation of new tasks. Debates on education are becoming public media events.

These debates focus predominantly on the results and norms of education. In the actions undertaken in the process of the reforms, attention is paid to increasing

licensed competencies of schoolteachers and principals, which results in a growing number of mandatory training sessions for them. What is still left out, however, is something crucial, namely the salience of understanding the character of educational change by the very teachers who ought to implement it, but also their understanding of the nature of the teaching-learning process and its social context (Filipiak, 2019). It is difficult to disagree with the frequently cited opinion "So many reforms, yet so few changes". As early as the 1980s, J.S. Bruner noted that no reform of education can start without active participation of teachers, who need to be invited to debates about the design and shape of the changes. After all, it is they that will implement the reforms (Bruner, 2006, p. 123). Teachers are skeptical about reforms and top-down instructions when they do not feel that they are the "owners" of the changes, and when they are not convinced as to their purported benefits. Over the past years, many such events concerned Polish teachers and reforms implemented in Poland.

It is possible to open the school culture to a new quality, transcend previously established pragmatic patterns of acting, and change the style of teachers' thinking and acting. However, a critical space must first be created for changing the learning community of the teachers. Foundations must be laid for their openness to accept "unforeseeable novelty", for their agreement to discovering new contexts, and sufficient time must be provided for them to come to terms with the changes (Zamorska, & Krzychała, 2012). The remaining part of the article presents case studies in which teachers were enabled to "rethink the school anew" and develop new ways of perceiving and acting in the school space.

Case study 1

Change in the approach of early education teachers to teaching mathematics

An example of a thematic (problematic) network with active participation of experts which contributed to changing the teachers' reasoning is the local micro-net *Bydgoski Bąbel Matematyczny* [*The Bydgoszcz Mathematics Bubble*]. The genesis of the network is to be found in the local government activity of the Department of Education of the Town Hall of Bydgoszcz and in the concerns caused by the results of the Polish national study of third-graders' abilities (OBUT). The initiating group consisted of 19 early education teachers from eight primary schools, who started their work under the supervision of a scientific leader and a group of experts (early education teachers, mathematics teachers, sociologists, and psychologists) in cooperation with the Institute of Educational Research (IBE). The aim of the cooperation was to effect a change in the approach to teaching mathematics to children at the first stage of education, by changing the teachers' beliefs and developing a new work inventory.

By means of peer tutoring, an analysis was conducted of the teachers' problems, identified on the basis of ethnographic analysis of the classrooms. The aim was to develop the children's mathematical abilities, thus an attempt was made to develop a strategy of stimulating intellectual activity and organizing activities in the *zone of proximal development*, as understood by Lev Vygotsky. Between November 2012 and July 2013, a self-educating group of teachers was formed, who met on a regular basis (once a fortnight on average). This group (network) analyzed,

discussed, and interpreted problems in cooperation with the experts.

The teachers working in the network developed new strategies of working with children, rethought the goals of mathematical education as well as their own working styles, and organized a new space and new conditions for learning. The teachers' narrations demonstrated self-reflection regarding their participation in the network of *Bqbel Matematyczny*, and a change in their own philosophy of thinking about and perceiving the child (Nowakowska et al., 2014). Each of the narrations was a peculiar biographical story revealing a change in the teachers' reasoning. *Bydgoski Bqbel Matematyczny* is an example of *negotiated knotworking*, enabling the teachers to experience teaching by expansion, as understood by Engeström (Engeström, & Sannino, 2012) as transcending boundaries and, as a consequence, developing a new inventory for teaching mathematics during the first stage of education. The project entitled *Bydgoski Bqbel Matematyczny* began in 2012, it is continued to this day, and it has expanded beyond the local boundaries. It is now being implemented in many regions of Poland.

Case Study 2

Top-down change of a school into a culture of reciprocal learning and building a system of teacher support

(Gorzeńska, 2017, and <http://eduentuzjasci.pl/nauczanie-wczesnoszkolne.html>, the construction of the process of becoming a school with the power of the changing world is presented in the book "*W szkole wcale nie chodzi o szkołę*" by E. Radanowicz (2020)).

The School in Radowo is a public village school in an area of formerly state-owned farmlands, troubled by numerous socioeconomic problems, situated in the peripheral part of the province of Zachodniopomorskie. The region has very high unemployment and a decreasing number of residents. The school has nearly 400 students and over 40 teachers, and is housed in a large building built at the turn of the 1980s.

Over the past decade it has changed from an unknown school to a symbol of "a school with a difference" in which many dimensions of distinctiveness have occurred (a different space, teachers, principal, methods and strategies of work, educational offerings, relationships between people, as well as the school's vision and mission). The school's unique character results from a long-lasting bottom-up process of change initiated by principal Ewa Radanowicz.

The school's community has undergone a developmental process of change; it has overcome crises, while all members of its community achieved autonomy and independence in their thinking and acting. In 2016, the school obtained the status of a school with the power of changing the world and was incorporated into the elite network of Ashoka Changemaker Schools. In what way was the change introduced, what contributed to opening the school culture to a new quality and transcending the former fixed patterns of acting and orientation of the school's community?

The initiator, leader and moderator of these changes was the school's principal, who, being aware of the main idea, vision, and mission (but also the barriers and limitations within the environment), prepared the grounds for the team's work. She adopted two strategies of action. The first was related to

overcoming resistance (to the educational system, educational law, formal and informal requirements set for the school, the bottom-up resistance of the school's culture itself), while the second was aimed at building a support system for the teachers, encouraging motivation and involvement, and strengthening their faith in themselves and in the team. She built a team of "Educational Changemakers" who converted *ItCannotBeDone* into *ItCanBeDone*.

The key to changing the school's culture was habitual agreement, developing new social and cultural patterns, and new generative forms which set out the new logic and framework for the school's culture. The grounds for the change were the cognitive and motivational processes of the school community. The teachers' passions and interests were put to use in order to create new tools and forms of activity, thematic (project) laboratories and workshops. Such aspects as involvement, relationships between participants, and readiness vs. resistance to participation were monitored.

Above all, the changes that were introduced or planned were put under discussion. The teachers had the feeling of being the "owners of the changes", while the changes themselves were not imposed top-down, enforced externally by decree, pedagogical supervision or ministerial ordinance. The teachers jointly defined the problems, sought solutions to them, created new tools of action, pragmatic and habitual knowledge (as understood by Karl Karla Mannheim, pragmatic and habitual knowledge is produced in practice, and constitutes itself under the practical mode and becomes updated as practice; it is part of the smoothness of action, fluency of practice, everyday mastery), new

conceptual, pragmatic, and material artifacts in cooperation with one another. The school in Radowo Małe continues to evolve. Seeking new solutions is an everyday element of its culture.

The principal set up a social enterprise functioning smoothly in an unfavorable environment. She is also an initiator of the national project Spring of Education, whose main aim is to effect bottom-up educational changes with active involvement of teachers.

Case Study 3

Academic Center of Creativity – discovering Vygotsky's approach to development and education
(www.ack.ukw.edu.pl)

The Academic Center of Creativity project was carried out from 15.09.2014 to 15.11.2015. Its main aim was to develop (test and popularize) an innovative model of work of a teacher or student with a child at the first stage of education, based on the assumptions derived from L. S. Vygotsky's sociocultural theory. The innovative method of work with a learner consisted in building a scaffolding for theoretical thinking, reasoning, reflectiveness, and developing a sense of effectiveness and agency.

The experiment included monitoring of the process of solving developmental tasks given to children in five experimental classes in their natural environment, at the first stage of school education. The studies were conducted in three primary schools, in five classes (grades 1 to 3), including a total of 96 children.

Nine researchers participated in the project (including three external experts), five early education teacher-interventionists, and 22 students of early education. The triad project group consisted of three diversified teams: (1) a

team for science and research of the Division of Didactics and Studies on the Culture of Education of Kazimierz Wielki University [UKW] in Bydgoszcz, (2) a team of teacher-interventionists, (3) a team of Early Education students. Each team included one teacher-interventionist, one UKW expert-researcher and four to five students. Ten sessions of developmental teaching were carried out.

Vygotsky's theory and method is taught to students of education in the course of their studies. Yet, there is no room then for converting this fairly complicated theory into the language of educational tasks designed for children. Introduction of experimental activities required expanding the necessary professional cultural competences, knowledge, and abilities of the early education students and teachers (internship supervisors), in order to prepare them to construct knowledge with the child, provide assistance in cooperative solving of problems, and create a social situation conducive for development.

To begin the teaching experiment, it was necessary to work with the teachers' and students' beliefs and their personal understanding of how children think and learn. Constructing their understanding of these problems provided a basis for creating the appropriate conditions for conversations, which facilitated their understanding of practice, analysis, and reflection on the sessions of developmental teaching conducted within the cultural space of the classrooms.

Most importantly, the meetings preceding the experimental activities were meant to sensitize the participants to the ways in which children structure their own learning, memorizing, guessing, and reasoning. The research teams created a space for constructing a social

learning network thanks to which the participants experienced authentic co-creation of knowledge in educational action, deepened the transfer of knowledge between the Novices (students), the Experts (teachers), and the Researchers (representatives of academia). Active participation of students in the project contributed to changing their personal theories of learning, and understanding educational change, as they took on the roles of promoters of change.

The students' experiences were documented in a blog and in electronic portfolios kept by the students. The teachers and the students had the possibility of developing cultural competence by participating in workshops preceding the sessions of developmental teaching.

An important element of the project was a feedback-type session, which aided monitoring the process of crystallizing each teacher's educational philosophy; this session provided an opportunity to confront one's personal ways of thinking about problems identified in everyday educational reality. During the session, the participants of *negotiated knotworking* (Engeström, & Sannino, 2012) discussed the process of completing developmental tasks and in such a way created a space for discursive crossing of various boundaries.

These sessions led to mutual exchange and redefinition of meanings in the participants' minds. Both the "ad-hoc" as well as "deferred" feedback showed how significant it was for being and becoming a teacher to engage with others in joint reflection on specific events from one's daily educational reality, on learners' and teachers' reactions, and on possible solutions to problems. Research on these issues is continued in the Laboratory of

Educational Change – Centre for Research on Learning and Development, a research unit created at the Division of Didactics and Studies on the Culture of Education.

Laboratory of Educational Change – a critical space of assigning meanings and constructing understanding of what is happening in the classroom

The Laboratory of Educational Change came into being in the wake of many years of studies and implementation of projects of E. Filipiak related to the reconstruction and application of the assumptions of Lev Vygotsky's cultural-historical theory and to applying developmental learning in educational practice (Filipiak, 2018; Filipiak, & Lemańska-Lewandowska, 2015).

The aim of the Laboratory's activity is creating a space for a community of learning professionals, exchange of experience by researchers and educators, co-creation of knowledge in social action, reflection on everyday educational reality based on real situations and pedagogical actions "cut out" from everyday practices, questioned and subjected to analysis.

A challenge for this type of activity and space of learning was to bring about a change not only at the level of declarations, but to effect real change in the teachers' daily practices by creating and introducing new objects, models, and tools into the school's culture.

The main goal of the actions undertaken in the Laboratory was identifying the teachers' beliefs and personal educational theories related to the "theory of the child" and changing their educational philosophy.

The first stage of the Laboratory's work was related to the project "Developmental teaching in early education according to Lev S. Vygotsky"

and to preparing teachers for adopting the role of an interventionist, ready to build a scaffolding for a child's thinking and reasoning, and organizing educational situations aimed at the zone of proximal development, the ability to assign developmental tasks to children, in line with Davidov's theory (developmental teaching sessions, Filipiak, & Lemańska-Lewandowska, 2015).

This stage revealed obstacles and resistance to the new model of working with children. In the second stage of the Laboratory's activity, the Learning Studio sessions were expanded with meetings during which "burning educational problems" were dealt with, and where work on ethnographic data brought from different school cultures, "excerpted" from teachers' educational practices, was undertaken.

These problems provided a stimulus for work in the Laboratory – to use J.S. Bruner's language – "the problem drove the narration", stimulated the participants' involvement in teaching conversations, and contributed to creating new conceptions of the teachers' actions. The paradigmatic framework of the Laboratory's activity and the organization of meetings (sessions) of teachers who created a sort of community of learning specialists were based on the assumptions of Lev Vygotsky's cultural-historical theory (learning in the zone of proximal development).

The Zone of Proximal Development (ZPD) is one of the best-known terms associated with Vygotsky's cultural and historical theory of development. It is not only an expression of the original dynamic approach to studies (diagnosis) of the child's development (the method of double stimulation), but its recognition

becomes the basis for constructing developmental teaching.

A child's zone of proximal development creates a space of teaching possibilities, specifies the difference between the level of solving tasks available under the guidance and with the assistance of an adult (i.e. competence supported from the outside) and the child's real developmental level on which the child demonstrates independent unaided performance of tasks (i.e. reveals true competence with no support from an adult) (Vygotsky, 1989, p. 254; Filipiak, 2011, p. 16-17).

We may also add here Jerome S. Bruner's social and cultural theory (creation of the culture of learning communities and narrative construction of reality), theory of expansive learning, Yrjö Engeström's learning through expansion (2012), Jack Mezirow's transformative learning (1997; 2000), the concept of situated learning and Etienne Wenger and Jean Lave's communities of practice (1991).

To create the concept of organization of the learning space immersed in everyday practice, some theoretical elements from the Reggio Emilia approach (Dahlberg et al., 2013) were also employed. These theories made it possible not only to understand and explain what happens when a team of professionals (teachers) is learning, but they also contributed to the recognition of key "pulsating" categories and engage in a discussion with them.

The perspective of social constructivism was adopted, based on such categories as: zone of proximal development, social situation of development, construction and co-construction of knowledge, building a scaffolding for the child's thinking and learning, formative instruction.

Construction of the methodology of work in the Laboratory was inspired by Y. Engeström's project related to studies on expansive learning (Engeström, & Sannino, 2012). This theory provided conceptual tools enabling discussions on vocational practice in a new way, but also methodological instruments for studies on interpreting and changing practice. In Engeström's opinion, "people have potential possibilities of learning by exceeding conditions which created earlier learning situations if they manage to make an insight into them and to detach from them" (Illeris, 2006, p. 65).

The process of expansive learning is oriented toward bringing about change in the area of collective activity, which, as a result, leads to a qualitative transformation of all the components of the system of activity. Knowledge is not only a property of an individual. It lies in social relationships between people, with the process of learning being a part of the actions and social interactions of people partaking in practice.

This process is understood as "creating and dissolving gradually evolving communities" (Engeström, & Sannino, 2012). Communities are a necessary but not sufficient driving force of expansive learning. In the process of expansive learning, both parties create a new, shared entity and a new conception of shared activity (Engeström, & Sannino, 2012). The experience and joint participation in creating an expanded goal and a new model of activity leads to the creation of collective and individual agency.

Essential in the newly created space and conditions of expansive learning are skillful transitions between the ideas included in the systems and individual ideas of the participant. The leader adopts the status of an interventionist

researcher, whose task is to situate oneself within the systems of activity of the participants of dialogue – a peculiar space of participating conversation.

The session's participants sometimes assume the role of leaders in the course of an intervention, dismissing or modifying the originally accepted tasks and actions, which results in a change of the interventionist's actions and processes of innovation and learning. During the sessions organized in the Learning Studio, participants developed new conceptual tools, moving through cycles of practical action, in which they questioned their previous ways of coping with problems.

The model proposed by Engeström is a heuristic conceptual tool derived from Davidov's logic of moving from the abstract to the concrete. Such organized learning of teachers in the Laboratory, based on working with teachers' personal theories and beliefs allowed a construction of a mental bridge between Theory and Practice. This contributed to the teachers' self-awareness, awareness of what they were doing, how and why, development of critical reflection and the ability to conduct negotiations.

However, it was necessary to conduct "teaching conversations", and jointly arrive at understanding and explaining the "targeted" concepts and assigning meanings to them. The point was not only to develop new conceptual tools, but to discuss, negotiate, and question them in practice (Dahlberg et al., 2013). In our Laboratory, we work on the basis of Vygotsky's theory, refined and not easily translatable into the language of practice.

Authentic work with the categories of Cultural-historical activity theory (CHAT), negotiating their understanding and not only adopting the "names of new

categories" is a very important stage of the activity. CHAT is a theoretical framework which helps us understand and analyze the relationship between the human mind (what people think and feel) and the activity of an individual. Its beginning dates back to the founders of the cultural-historical school of psychology of L. S. Vygotsky and Aleksei N. Leontiev. Since the 1990s, CHAT has been increasingly popular among scientists all over the world, who created the International Network of Researchers ISCAR (International Society of Cultural-Historical Activity Research).

Only at this stage can one engage in designing developmental tasks, creating formative instructions, or attempting to create a social situation of development.

Following the experience of developmental teaching, the "theory of the child" held by the teachers changed. Without the stage of working on beliefs, and without numerous discussions and negotiations, any attempts at transferring the projects of developmental teaching into the classrooms would merely amount to implementing conceptions rather than creating or jointly participating in a social situation of development.

DISCUSSION

The process of learning and examining educational reality requires application of specific strategies and abilities. These include abilities which constitute expanded professionalism of the teacher, in particular the ability to communicate and discuss educational issues "in" and "with regard to" a wider audience, the ability to conduct studies relating to school practice and perfecting this practice, the ability to learn "in" and "from" day-to-day educational reality (taking ethnographic samples, creating

critical events (research in action, critical participating research in action, transformative research in action, participating and collective research (Kemmis, 2010), the ability to make one's own contribution to collaborative learning in professional communities (sharing of knowledge), the ability to translate the results of educational studies into innovations undertaken at school/in the classroom (Gołębniak, 2014), the ability to create and act in collaborative knots, the ability to co-act within Episodes of Joint Involvement (*"Joint Involvement Episodes as Context for Cognitive Development"* by H. Rudolph Schaffer), reaching beyond the school's framework (*"Childhood Social Development: Contemporary Perspectives"* by H. McGurk (Ed.)), and readiness to meet others, confronting one's own experience with that of others – in the micro- and macro-network.

Teachers learning in a professional collective network should demonstrate the ability to make a special type of reflection which Donald Schön wrote about: *reflection-in-action* and *reflection-on-action*. The ability to reflect, inquire, self-reflect (show personal insight), wonder "about", think "over" a problem, restructure one's thinking strategies, understand action, and reframe problems is necessary in the process of learning understood in this way.

A reflexive approach to one's own actions activates thought processes accompanying cognition in action – "*knowing in action*". An important ability of a teacher is the ability to problematize, and to study a problem by discovering its depth; the ability of transformative learning, in particular critical evaluation of the sources one's own knowledge, reflexive assignment of meanings, transformation of the frame of reference

in a situation of interpreting new experiences (re-framing as understood by Mezirow) (Mezirow, 1997). As well readiness to engage in extensive learning (Engeström, & Sannino, 2012); the ability to participate actively in the discourse of assigning meanings; recognizing, analyzing, and interpreting critical events, working with data, the ability to pose questions and "marvel" at them.

Another ability developed with the teachers was the ability to keep pedagogical documentation as understood under the Reggio Emilia approach and to document critical events. In the Laboratory, the AnAlySE sheet for observation of critical events was developed (Szymczak, 2018).

In order to become members of a learning community, the teachers needed to learn to listen, be open to new experiences, participate in the "teaching conversation", develop the ability to hold and participate in dialogue.

The critical dialogue in the Laboratory enabled them to go beyond the boundaries of individual thinking; it consisted in creative examination of complex and subtle problems, deep listening to the arguments and positions of other participants, exercise restraint in formulating judgments and presenting one's point of view.

By building the culture of critical dialogue, we enabled the participants to reach a level of understanding of the problem that could not be reached individually.

The activities of the Laboratory are continued to this day. The teachers are invited to take part in sessions during which their cases, problems, and situations are discussed. We jointly develop a new type of reasoning which begins with shared understanding of

meanings so as to reach a pool of common meaning. The participants engaged in dialogue become observers of their own thinking.

Analysis of recorded sessions enables us to reconstruct the evidence of creating negotiated meanings, observing the collective nature of thinking and reasoning, and fostering the narrative sensitivity of the participants engaged in the dialogue.

The Laboratory of Change offers significant potential for changing teacher education (Filipiak, 2019). The triological approach in professional teacher education (the triad of culture-dialogue-activity) is based on the assumption that the interaction between people and cultural artifacts plays an important role in their learning and development (Gołębniak, 2021).

CONCLUSION

In order for teachers to “rethink” the school anew, undertake the challenge of opening the school’s culture to a new quality, and engage in the process of change, it is necessary to prepare the “grounds” for working with their personal

theories and beliefs. This article presents experience gained from the cooperation of teachers aimed at creating a critical space for dialogue on the issue of learning processes, and understanding of complex situations faced by teachers in their everyday reality.

It proved important to provide the teachers with conceptual tools which enabled them to participate in a dialogue that aided them in re-interpreting and changing their own practice.

The examples of completed projects provided here showed that teachers created a community of learning individuals who analyze and participate in similar practices, and developed habitual agreement, team-based styles of thinking and acting, as well as a sense of agency.

These days, examination of everyday educational reality, shared involvement and construction of knowledge, confronting one’s own methods of working with those of others are a teacher’s “professional necessity”; they are essential for improving the quality of the school’s work, and constitute “a professional’s way of being”, and “a mind’s habit”. (Filipiak, 2019).

CONFLICT OF INTERESTS

There is no conflict of interest for this study.

FUNDING

There is no funding for this study.

REFERENCES

- Bruner, J.S. (2006). *Kultura edukacji*. Universitas [in Polish].
- Dahlberg, G., Moss, P., & Pence, A. (2013). *Poza dyskursem jakości w instytucjach wczesnej edukacji i opieki. Języki oceny*. Wydawnictwo Naukowe DSW [in Polish].
- Departament nauki, oświaty i dziedzictwa narodowego. (2019). *Informacja o wynikach kontroli: Zmiany w systemie oświaty* (KNO.430.002.2019; Nr ewid. 42/2019/P/18/027/KNO). Departament nauki, oświaty i dziedzictwa narodowego. <https://www.nik.gov.pl/plik/id,20607,vp,23235.pdf> [in Polish].

- Dudzikowa, M, & Knasiecka-Falbierska, K. (2013). *Sprawcy i/lub ofiary działań pozornych w edukacji szkolnej*. Impuls [in Polish].
- Elliot, J. (2010). Używając badań do ulepszania praktyki: koncepcja praktyki opartej na danych empirycznych. In H. Cervinkova, B.D. Gołębniak (Eds.), *Badania w działaniu. Pedagogika i antropologia zaangażowane* (pp. 155-183). Wydawnictwo Naukowe DSW [in Polish].
- Engeström, Y. (2015). *Learning by Expanding. An Activity-Theoretical Approach to Developmental Research*. Cambridge University Press.
- Engeström, Y., & Sannino, A. (2012). Badania nad ekspansywnym uczeniem się: założenia, wnioski i przyszłe wyzwania. *Forum Oświatowe*, 1(46), 209-267. <https://forumoswiatowe.pl/index.php/czasopismo/article/view/121/56> [in Polish].
- Filipiak, E. (2011). *Z Wygotskim i Brunerem w tle: słownik pojęć kluczowych*. Wydawnictwo Uniwersytetu Kazimierza Wielkiego [in Polish].
- Filipiak, E. (2018). Cultural-historical theory by Lev S. Vygotsky: strategies of studies on children's learning and development. From theory to change in practice. *Forum Oświatowe*, 30(2), 169-182. <http://forumoswiatowe.pl/index.php/czasopismo/article/view/673>
- Filipiak, E. (2019). Sieci współpracy i samokształcenia nauczycieli – pozory zmiany czy przestrzeń możliwości rozwoju kultury szkoły i jej uczestników. *Kwartalnik Pedagogiczny*, 1(251), 33-46. <http://dx.doi.org/10.5604/01.3001.0013.1836>
- Filipiak, E. (Ed.). (2015). *Nauczanie rozwijające we wczesnej edukacji według Lwa S. Wygotskiego*. ArtStudio. https://www.ukw.edu.pl/download/44436/MONOGRAFIA_ACK.pdf [in Polish].
- Filipiak, E., & Lemańska-Lewandowska, E. (Eds.). (2015). *Model nauczania rozwijającego według Lwa S. Wygotskiego we wczesnej edukacji. Gotowość studentów i nauczycieli. Możliwości aplikacji*. ArtStudio [in Polish].
- Gołębniak, B. D. (2014). Po/myśleć "na nowo" rozwój profesjonalny nauczycieli. In B.D. Gołębniak, & B. Zamorska (Eds.), *Nowy profesjonalizm nauczycieli. Podejścia – praktyka – przestrzeń rozwoju* (pp. 18-56). Wydawnictwo Naukowe DSW [in Polish].
- Gołębniak, B. D. (2021). *Ekspansja uczenia się? Co z nauczaniem? W stronę społeczno-kulturowych podstaw edukacji nauczycieli*. Wydawnictwo Naukowe Dolnośląskiej Szkoły Wyższej [in Polish].
- Gorzeńska, O. (2017, August 20). *Szkoła z mocą Zmieniają świat w Radowie Małym – inspiracje*. gorzenska.com. <https://gorzenska.com/2017/08/20/szkola-z-mocazmieniajaciawswiata-w-radowie-malym-inspiracje/> [in Polish].
- Illeris, K. (2006). *Trzy wymiary uczenia się. Poznawcze, emocjonalne i społeczne ramy współczesnej teorii uczenia się*. Wydawnictwo Naukowe DSW [in Polish].
- Kemmis, S. (2010). Teoria krytyczna i uczestniczące badania w działaniu. In H. Cervinkova, & B.D. Gołębniak (Eds.), *Badania w działaniu. Pedagogika i antropologia zaangażowane* (pp. 45-89). Wydawnictwo Naukowe DSW [in Polish].

- Klus-Stańska, D. (Ed.). (2008) *Dokąd zmierza polska szkoła*. Wyd. Akademickie „Żak”.
- Kwiatkowska, H. (2012). Teoriopoznawcze implikacje związku teorii z praktyką w kształceniu akademickim nauczycieli. In B.D. Gołębiak, & H.Kwiatkowska (Eds.), *Nauczyciele. Programowe (nie)przygotowanie* (pp. 177-193). Wydawnictwo Naukowe DSW. [in Polish].
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate Peripheral Participation*. Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511815355>
- Mezirow, J. (1997). Transformative learning: Theory to Practice. *New Directions for Adult and Continuing Education*, 1997(74), 5–12. <https://doi.org/10.1002/ace.7401>
- Mezirow, J. (2000). *Learning as Transformation: Critical Perspectives on a Theory in Progress*. Jossey Bass.
- Nowakowska, A., Orzechowska, M., Sosulska, D., & Zambrowska, M. (Eds.). (2014). *Bydgoski bąbel matematyczny. O wprowadzaniu zmian w nauczaniu matematyki w klasach I–III*. Instytut Badań Edukacyjnych. https://www.ibe.edu.pl/images/download/IBE_Bydgoski_Babel_Matematyczny_NET.pdf [in Polish].
- Radanowicz, E. (2020). *W szkole wcale nie chodzi o szkołę*. Wydawnictwo SENSOR Justyna Radanowicz. [in Polish].
- Schon, D.A. (1987). *Educating the Reflective Practitioner*. Jossey-Bass.
- Szymczak, J. (2018). AnALySE jako narzędzie stymulujące rozwój refleksyjności i refleksji nauczyciela dotyczącej codzienności szkolnej. *Problemy Wczesnej Edukacji*, 42(3), 103–112. <https://doi.org/10.26881/pwe.2018.42.11> [in Polish].
- Śliwerski, B. (2013). *Diagnoza uspołecznienia publicznego szkolnictwa III RP w gorsecie centralizmu*. Impuls [in Polish].
- Śliwerski, B. (2015). *Edukacja (w) polityce: polityka (w) edukacji: inspiracje do badań polityki oświatowej*. Impuls [in Polish].
- Wygotski, L.S. (1989). *Myślenie i mowa*. PWN [in Polish].
- Zamorska, B. (2018). Interwencje formatywne w i dla inkluzji. Podejście kulturowo-historycznej teorii działalności. In B. D. Gołębiak, & M. Pachowicz (Eds.), *Ku inkluzji społeczno-kulturowej w szkole. Od pedagogiki klasy do pedagogiki włączającej* (pp.132-148). Wydawnictwo Naukowe Dolnośląskiej Szkoły Wyższej [in Polish].
- Zamorska, B., & Krzychała, S. (2012). Zamknięte i otwarte zmiany kultury szkoły. In B. D. Gołębiak, & H. Kwiatkowska (Eds.), *Nauczyciele. Programowe (nie)przygotowanie* (pp. 57–76). Wydawnictwo Naukowe DSW [in Polish].

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:**ВИЯВЛЕННЯ ОСОБИСТИХ ПЕРЕКОНАНЬ ВЧИТЕЛІВ ПОЛЬЩІ: ПРОВЕДЕННЯ ДОСЛІДЖЕННЯ З ВИКОРИСТАННЯМ ТЕОРІЇ ДІЯЛЬНОСТІ**

Переконавання та особистісні теорії вчителів протягом тривалого часу займали значне місце в педевтологічному дискурсі, і вони належать до

«пульсуючих» категорій у сфері так званого нового професіоналізму. Розуміння переконань і особистих теорій учителів є не лише елементом побудови професіоналізму вчителя; ці теорії являють собою ресурси, які можуть відкрити новий напрямок змін розвитку в шкільній культурі, або, навпаки, вони можуть бути джерелом опору чи обмеження та створювати перешкоди для розвитку. У навчанні вчителів можемо спостерігати дезінтеграцію пізнання, дисонанс між теоретичними і практичними знаннями.

Мета цієї роботи – показати особисті теорії та переконання вчителів як важливі, але часто невикористані, ресурси в навчанні вчителів.

Методологія. Теоретико-методологічну базу поглядів у цій статті складає культурно-історична теорія діяльності. Для аналізу процесів зміни мислення вчителів, які відбувалися під час занять у Лабораторії освітніх змін, було використано інтервенційно-дослідну методологію Ю. Енгестрем.

Результати. Виявлено переконання учителів і основи успіху змін знизу вгору у культурі школи, що сприяє покращенню якості освіти. Для підтвердження цієї тези у статті наводяться приклади (кейси) змін в освіті знизу, які досягнуто за активної участі вчителів та діяльності Лабораторії освітніх змін, де вчителі набувають досвід потенційно нових способів роботи та експериментують з ними.

Висновки. Для того, щоб вчителі «переосмислили» школу заново, взялися за виклик відкриття шкільної культури для нової якості та залучилися до процесу змін, необхідно підготувати «підґрунтя» для їхньої роботи зі своїми особистими переконаннями та теоріями.

У цій статті представлено досвід, отриманий у результаті співпраці вчителів, спрямованої на створення критичного простору для діалогу з питань процесів навчання, щоб сприяти розумінню складних ситуацій, з якими стикаються вчителі у повсякденній реальності. Важливим виявилось надання вчителям концептуальних інструментів, які дозволяли їм брати участь у діалозі, сприяючи переосмисленню та модифікації власної практики.

Описані тут приклади проектів показали, що вчителі, створюючи спільноту окремих людей, які навчаються, аналізуючи й беручи участь у подібних практиках, здійснили звичайну згоду, сформувавши командні стилі мислення та дій, розвинули почуття прояву волі. У наші дні перевірка власної повсякденної освітньої реальності, спільне залучення та конструювання знань, зіткнення власних методів роботи з методами роботи інших є «професійною необхідністю» вчителя, ключем до підвищення якості роботи школи, це «спосіб життя професіонала», «звичка розуму».

КЛЮЧОВІ СЛОВА: переконання вчителів та особисті теорії, лабораторія змін, методологія досліджень втручання, ТКІД (теорія культурно-історичної діяльності).

ABSTRAKCYJNY / ABSTRACT [in Polish]:**ODKRYWANIE OSOBISTYCH PRZEKONAŃ NAUCZYCIELI W POLSCE:
INTERWENCJA BADAWCZA Z WYKORZYSTANIEM TEORII AKTYWNOŚCI**

Przekonania i osobiste teorie edukacyjne nauczycieli warunkują realizowane przez nich działania praktyczne podejmowane w klasie szkolnej. Niepowodzenia odgórnie zarządzanych reform oświatowych powinny uświadomić decydującym konieczność oparcia reform na badaniach w działaniu prowadzonych wspólnie z nauczycielami i zaangażowanie nauczycieli w rozumienie procesu zmiany. W artykule przedstawiono kilka case study z zrealizowanych projektów w Polsce będących przykładami dokonanej z sukcesem zmiany myślenia nauczycieli o edukacji, zbudowania sieci uczących się nauczycieli, budujących oddolnie kulturę uczenia się opartą na współkonstruowaniu poprzez wzmacnianie refleksyjności, poczucia sprawstwa, rozumienia tego co dzieje się w klasie szkolnej. Szczególną rolę w tym oddolnym ruchu pełni autorskie Laboratorium Zmiany Edukacyjnej.

CITE THIS ARTICLE AS (APA style):

Filipiak, E. (2023). Discovering Teachers' Personal Beliefs in Poland: Research Intervention Using Activity Theory. *Educational Challenges*, 28(1), 18-34. <https://doi.org/10.34142/2709-7986.2023.28.1.02>



<https://doi.org/10.34142/2709-7986.2023.28.1.03>

DEVELOPING AN EDUCATION EVIDENCE ECO-SYSTEM IN A SMALL COUNTRY: LESSONS FROM WALES

This article is published in the Framework of the SUES4Journals Program, a French-Ukrainian initiative to support Ukrainian public scientific publishing. It was first published in French by the Revue internationale d'éducation de Sèvres:

Power, S., & Taylor, C. (2020). Développer un écosystème de preuves dans un petit pays: Leçons Galloises. *Revue Internationale D'éducation De Sèvres*, 85, 135–142. <https://doi.org/10.4000/ries.10111>

Received: 27/01/2023


Accepted: 28/02/2023

Sally POWER¹, & Chris TAYLOR²



¹ *Wales Institute of Social and Economic Research and Data (WISERD), Cardiff University, Professor in the School of Social Sciences at Cardiff University, and a Co-Director of WISERD.*


✉ E-Mail: PowerS3@cardiff.ac.uk

 <https://orcid.org/0000-0003-3287-0003>



² *Wales Institute of Social and Economic Research and Data (WISERD), Cardiff University, Academic Director, Cardiff University Social Science Research Park (SPARK), Professor of Social Sciences at Cardiff University and is the Academic Director for the Cardiff University Social Science Research Park.*

✉ E-Mail: TaylorCM@cardiff.ac.uk

 <https://orcid.org/0000-0002-9146-9167>

ABSTRACT

*This paper's **aim** is to explore the challenges of developing an education 'evidence ecosystem' for Wales.*

Methodology. *The analysis is derived from ongoing research and debates with key stakeholders in higher education and the Welsh Government and draws on policy research from other small countries.*

Results. *It might be argued that Wales provides the perfect environment for developing such an ecosystem because of its size, commitment to evidence-based policy, political consensus, collaborations between policy-makers, researchers and the education profession. That it has not yet been able to do so illustrates the constraints of wider political and historical circumstances which structure provision, particularly in small countries.*

© Sally POWER, & Chris TAYLOR, 2023

Developing an Education Evidence Eco-System in a Small Country: Lessons from Wales © 2023 by Sally POWER, & Chris TAYLOR is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <https://creativecommons.org/licenses/by-nc/4.0/>

The paper **concludes** by considering how some of these challenges might be addressed so that the potential can be realised.

KEYWORDS: Evidence Ecosystem, Education Research, Wales.

INTRODUCTION

It is widely acknowledged that there is something of a crisis in the legitimacy of educational research – and particularly the extent to which it informs policy and practice (e.g. Whitty, 2006; Gewirtz, & Cribb, 2020). Policy-makers argue that researchers are often more interested in critique and theory rather than providing ‘answers’. Teachers argue that research is neither accessible nor sufficiently attuned to addressing the challenges they face in the classroom.

And when teachers do encounter research, they often find it impenetrable. Researchers, themselves, on the other hand, express frustration that the research that they make available to policy-makers and teachers is often ignored. Policy-makers, it is claimed, just pick and choose the evidence that suits them, while teachers are too wrapped up in the immediacy of their day-to-day practice to take the time to consider the evidence properly and locate their practices within the wider picture. In short, it is clear that there is a serious research-policy-practice disconnect with educational research.

In the UK, there have been calls to address this disconnect through reframing the relationship between research, policy and practice as an ‘evidence ecosystem’. Drawing on parallels with industry, it is believed that such an approach might clarify the links between the generation, synthesis, distribution and application of appropriate research evidence (see, for instance, Shepherd, 2014). In this paper we look at some of the challenges of developing such an evidence ecosystem for education in Wales.

In so doing, we draw on many years’ experience of research capacity-building amongst the ‘generators’ of research, as well as ongoing interactions with the ‘users’ of research, especially policy-makers and practitioners, to try to resolve some of the challenges of ensuring this research is not only useful but used. While this paper is based on Wales, our experiences are likely to have wider relevance, particularly for small countries that are faced with internal constraints and external pressures.

This paper’s **aim** is to explore the challenges of developing an education ‘evidence ecosystem’ for Wales

METHODOLOGY

The analysis is derived from ongoing research and debates with key stakeholders in higher education and the Welsh Government and draws on policy research from other small countries.

RESULTS

Wales – the ideal context for the development of an education evidence ecosystem?

It might be argued that Wales provides the perfect environment for developing an evidence ecosystem for education because of the Government’s commitment to the use of evidence in informing policy, a general consensus among political parties about the direction of education policy, a collaborative approach to working with researchers and the education profession, and its small size (there are only 1,480 schools in Wales, 183 of which are secondary schools for children aged 11-15).

Since democratic devolution in 1999, the Welsh Government has pledged to develop its own distinctive reform agenda on the basis of research evidence. Sometimes this evidence base has entailed the exploration, adaption and adoption of policies that have worked elsewhere. For example, the design of Wales' Foundation Phase programme for 3 to 8 year-olds is based upon programmes of Reggio Emilia in Italy, and equivalent early years curricula in New Zealand (Te Whāriki) and Scandinavia (see Maynard et al., 2013).

The Welsh Government has also sought to ensure that all its interventions are subject to sustained and robust evaluations, that are then placed in the public domain. This was explicitly outlined in a recent 'action plan' for the education sector in Wales, which included the enabling objective for "robust assessment, evaluation and accountability arrangements supporting a self-improving system." (Welsh Government, 2017, p. 23).

Although the political landscape of Wales is marked by similar kinds of debates and disagreements as can be found everywhere, there seems to be a remarkable degree of political consensus about the overall direction of education policy. Over the last few years, Wales has been developing a radical new curriculum which will replace traditional subject demarcations with integrated 'areas of learning and experience' (Welsh Government, 2020).

This proposed curriculum has received support from across the political spectrum – even from the more conservative factions. This general consensus is very different from the situation in England, where the nature of education policy is highly politicised with significant polarisation of opinion between progressive and conservative politicians.

This general consensus provides a more stable environment for the development, implementation and evaluation of policies. In Wales, education is not the 'political football' that is often claimed to be the case in England. Policies are evaluated not so much on their ideological underpinnings, but on their efficacy. Again, this would appear to be conducive to establishing a strong evidence ecosystem.

Additionally, and again unlike England, relationships between researchers, policy-makers and practitioners are underpinned by principles of collaboration rather than conflict and mistrust. The Welsh Government has traditionally sought to work with teachers. This is in stark contrast with England where relations are often characterised by mutual hostility. Michael Gove, for example, characterised teachers and researchers who criticised his reforms as 'the blob' during his time as Secretary of State for Education in England. Collaborative relationships are also a product of the size of Wales.

Wales is a small country with a population of just over three million. This means that key stakeholders know each other personally. In addition, it might be argued that effective oversight of the implementation and evaluation of policies is more manageable in smaller countries.

Despite these propitious circumstances, the evidence ecosystem in Wales remains seriously underdeveloped. Over the last two decades, and despite the explicit commitment to evidence-based policy on the part of the Welsh Government, the number of education researchers working in Wales has declined. Although national research assessment exercises are not the only way of measuring research capacity, they do provide an important indicator of the volume and quality of higher education research. In 2001, over 85

researchers working in the area of education in Welsh universities were 'returned' to the UK-wide research assessment exercise.

In 2014, only 21 researchers were returned, all from only one higher education institution. Despite ongoing efforts to increase research generation in the universities, a similar picture is likely to emerge from the 2020 exercise which is currently underway. In the next section, we explore some of the reasons why in terms of exogenous and endogenous factors.

Internal constraints and external pressures

Many explanations of why there is such a disconnect between research, policy and practice in education have focused on the incompatibility of the different agendas, definitions of rigour and different timescales for the production of adequate evidence. While all of these explanations are valid, we also want to highlight some of the more contextual challenges of developing a robust evidence ecosystem.

For Wales, some of these challenges are endogenous and arise from its small size and cultural attributes. Having a small population, particularly when this is distributed over a relatively large geographic area, creates resource difficulties. Wales already receives less income than the other nations within the United Kingdom so that the per capita funding for pupils is lower, which leaves less money to invest in research and evaluation.

Additionally, as Bacchus (2008, p. 127) points out, small states in general find it difficult to achieve significant economies of scale and develop 'culturally relevant' curriculum materials. For Wales, this challenge is magnified by its bilingual status. Over one quarter of the schools in

Wales teach entirely through the medium of Welsh, with many others being largely bilingual. This means not only that all school curriculum resources need to be produced bilingually, but that provision needs to be made throughout the higher education sector for the training of teachers to work in Welsh medium schools, as well as providing opportunities for Welsh-speaking students to study at under- and post-graduate levels in the medium of Welsh.

Issues of scale create challenges in terms of human as well as financial resources. As Crossley and Holmes (2001, p. 403) point out, individuals matter much more in small states than in larger ones. Relations between individuals are 'particularistic' rather than 'universalistic' (Randma-Liiv, 2002) – based more on who you know rather than what you can do. Moreover, the impact of just a few individuals – whether for good or for bad – can have a much bigger system-wide effect than they would in larger countries.

Retaining effective personnel in key positions is therefore strategically very important but is often difficult if there are fewer opportunities for career-building. Paradoxically, as we have found in our own work, supporting the career development of education researchers may simply build capacity elsewhere. To cite Crossley and Holmes (2001, p. 403) again:

Research training as a strategy for capacity building can, for example, increase the international mobility of such individuals and inadvertently contribute to the phenomenon of outward migration.

In general, smaller countries are often unable to provide sufficient career opportunities, particularly for graduates. As Bacchus (2008, p. 132) argues:

These 'blocked mobility' opportunities often prove frustrating and tend to encourage educated individuals to migrate to larger and economically more developed countries in search of better job prospects.

When the larger and more prosperous country is right next door, as is the case with Wales and England, this migration is particularly problematic. Data from our own research, a representative longitudinal multi-cohort study, show that over one third of 14-15 year-olds believe they will need to leave Wales to get the job that they want. Similarly, just under half of all Wales-domiciled undergraduates study in universities outside Wales (Rees et al., 2015).

These patterns help explain why the qualification system in Wales is inextricably linked to the qualification system in England. Whilst there are now important differences in the qualifications school-leavers receive in these two countries both continue to award GCSEs and A Levels – recognisable qualifications that help young people enter the labour market and higher education in Wales and England.

As noted earlier, similar issues relate to the educational research capacity in Wales – the outward migration of researchers means that Wales not only loses important research capacity but in turn it then often has to look outside Wales for the expertise it requires. The retention of expertise and talent is, therefore, particularly salient for small nations such as Wales. This has important consequences on the ability of any administrative system (including education systems) to be innovative (Randma-Liiv, 2002).

The issue of external migration leads on to consideration of international pressures –

pressures that are felt particularly strongly by small nations. As Crossley and Holmes (2001, p. 402) argue in relation to small nations:

Education systems in such contexts are particularly vulnerable to the influence of international agendas and to the transfer of external research paradigms, methodologies and priorities.

Wales, like other small nations, suffers from the consequences of the growing 'governance by data' (Ozga, 2009) facing education systems around the world. Wales does not perform very well on some of the PISA performance criteria, and lags behind in international league tables. This can lead to considerable discourses of derision, particularly from Wales' closest and more dominant neighbour, England (Power, 2016).

While it is the case that Wales' does perform less well than England in some of these tests, differences in scale, resources and testing practices make straightforward comparisons between England and Wales misleading. In addition to the problem of comparing like with like, it is important to remember that, as Rees (2012) points out 'the bench-marks against which Welsh educational performance have been judged are external ones'.

There are considerable political tensions between Wales and England which arise from the historical dominance of Wales and, more recently, contrasting political leanings (see Power, 2016). While Wales' political climate might be characterised in terms of democratic socialism, that of England tends towards a neo-conservative and neoliberal agenda. It is not surprising therefore that right-wing politicians in England should seek to gain political mileage out of maligning the more left-wing Welsh Government.

England's Michael Gove, whom we have already mentioned because of his hostility towards the education 'establishment', is known to be a keen supporter of private education, traditional teaching methods and a narrowly academic curriculum. He could hardly be expected to warm to the Welsh preference for progressivism and a commitment to comprehensive schooling and a broad-based curriculum.

It has become clear that attainment data have been used by to influence not only what goes on in England but what goes on elsewhere. And this has consequences for Wales. As Rees and Taylor (2014, p. 3) argue, the narrative of Welsh underperformance that is fuelled by England has had major impacts not only on how Welsh schools are perceived inside and outside the country but also on the actual form of policy-making in Wales. Napoleon's remark that 'a country's foreign policy is dictated by its geography' may be increasingly applicable to a country's education policy.

DISCUSSION

It is clear that developing an evidence ecosystem, especially in a small country, requires more than good intentions. In this next section, we outline some of the ways in which Wales is trying to realise its ambition and address some of the internal constraints and external pressures.

Great importance is placed by the Welsh Government on the need for universities, government agencies and the teaching profession to work together rather than use internal markets to address Wales' educational challenges. However, it is often unclear what 'working together' means in terms of the nature and location of research evidence generation. For example, in recent years, the Welsh Government has prioritised the development of a 'self-improving' educational system, with increasing

emphasis on the capacity of schools and teachers in particular.

Whilst such an approach may be designed to enhance the capabilities of school staff in engaging with evidence-informed practice, it could be argued that this arises simply because of the lack of strong expertise and capacity elsewhere in the education system. This also means that much of the research activity in such a system will be led by and undertaken by practitioners, with little or no training in robust research methodologies.

For the academic research community, it increasingly entails supporting school practitioners to undertake more locally-based and small-scale studies at the expense of broader longitudinal and comparative research. Such collaborations may jeopardise rather than strengthen what already is a weak research base (see Rees, & Power 2007; Power, 2023).

There have been attempts within Wales to shore up a high quality research infrastructure alongside the emphasis on practitioner-led research. For example, our multi-cohort study mentioned earlier has been designed to provide a data resource that can be utilised by any researcher interested in the educational and social experiences of young people in Wales. More recently the Welsh Government funded a research initiative that brought together a team of university academics to be mentored through the research process of studying the impact of curriculum reforms of the most disadvantaged young people in Wales.

Lastly, the WISERD Education Data Lab has just been established to generate high quality research-based evidence to help inform and challenge our understanding of educational processes and outcomes to support Wales' education system. However, initiatives such as these can only be as strong as the commitment to

resource them. Large-scale evaluations, such as the evaluation of the Foundation Phase cited above, never receive follow-up research funding.

Not only does that mean the expertise generated through such evaluations disappears (and in some cases leaves Wales) but it means that enactment of the findings from such important research is limited, with different people and agencies taking responsibility for delivering the findings of others. And despite the ability of researchers in small nations to attract and mobilise Government support for new and innovative research ideas, they are still constrained by the relatively short political and budgetary timescales that impede the development of strong evidence ecosystems in any country.

It is too early to say whether these various attempts to enhance the evidence ecosystem for the Welsh education system will bear fruit. But even if they do, the situation is likely to be vulnerable for many years to come for two main reasons. First, the education system in Wales is increasingly marginalised by the UK Government, which is at best indifferent and at worst hostile to Wales. The impact of the current COVID-19 pandemic on the education system in Wales provides a good illustration of this.

For example, the resource available to policy-makers in Wales to respond to this global crisis is still largely determined by the UK Government and how devolved governments are funded. So, the immediate availability of funding for initiatives in Wales that were designed to provide speedy remedy to COVID-19 were only be available if policy-makers in England decided to also undertake said initiative. Similarly, the wider context of education (e.g. its overarching aims, curriculum content, assessment and

qualification) that heavily frames the ability and opportunity for educational autonomy in Wales was very evident in the way that grades in Wales were awarded were largely determined by the way grades in England were awarded (irrespective of how sound or not those decisions were in England).

The second main reason that may stall any attempts to enhance the evidence ecosystem in Wales in the coming years is the great uncertainty that Brexit brings to politics, the economy and society. The wider structures of society, and the likely transformation of those structures due to Brexit, will dominate the ability to transform education systems, placing new pressures that the education system will be expected to address. Crucially, all without an underpinning evidence ecosystem to make robust and effective decisions.

CONCLUSION

In this paper we have highlighted some of the contextual factors that exacerbate the research-policy-practice disconnect in education. Many explanations of why there is such a disconnect have focused on the incompatibility of the different agendas, definitions of rigour and different timescales for the production of adequate evidence. Without wishing to downplay these factors, it is also important to locate attempts to increase research capacity within the wider historical and geographical context.

The experience of Wales' attempts to build an evidence ecosystem for education reveal the importance of not only comparative explorations but relational analysis. In short, narratives of the successes and failures of policy and research in Wales need to be understood in relation to what is going on elsewhere – and particularly in England. While Wales, as a small country with limited resources,

does experience internal constraints in its attempt to build an evidence ecosystem for education, it is external pressures that are just as significant.

This poses a particular challenge, particularly for small nations or recently devolved administrations. Whilst there is a considerable desire for such countries, like Wales, to utilise its education system to support nation-building – e.g., bilingual education, a curriculum shaped by local needs – this is in direct tension with the wider educational context. A great deal of effort and resource can be spent on

developing bespoke educational policies, including a national evidence ecosystem – effort that is often stalled in the light of international political and economic imperatives.

Wales has yet to find a way forward in developing a strategy that will effectively target resources and capabilities in a way that better complements the wider context, that recognises the limits of its capacity, and that focusses more on what is effective and what will improve the quality of education.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Bacchus, M. K. (2008). The Education Challenges Facing Small Nation States in the Increasingly Competitive Global Economy of the Twenty-First Century. *Comparative Education*, 44(2), 127-145. <https://doi.org/10.1080/03050060802040953>
- Crossley, M., & Holmes, K. (2001). Challenges for Educational Research: International Development, Partnerships and Capacity Building in Small States. *Oxford Review of Education*, 27(3), 395-409. <http://dx.doi.org/10.1080/03054980125250>
- Gewirtz, S., & Cribb, A. (2020). What works? Academic integrity and the research-policy relationship. *British Journal of Sociology of Education*, 41(6), 794-806.
- Maynard, T., Taylor, C. M., Waldron, S., Rhys, M., Smith, R., Power, S., & Clement, J. (2013). *Evaluating the Foundation Phase: Policy Logic Model and Programme Theory* (No. 37). Welsh Government Social Research. <https://orca.cardiff.ac.uk/id/eprint/88812/1/130318-evaluating-foundation-phase-policy-logic-model-programme-theory-en.pdf>
- Ozga, J. (2009). Governing Education Through Data in England: From Regulation to Self-Evaluation. *Journal of Education Policy*, 24(2), 149-162. <https://doi.org/10.1080/02680930902733121>
- Power, S. (2016). The Politics of Education and the Misrecognition of Wales. *Oxford Review of Education*, 42(3), 285-298. <https://doi.org/10.1080/03054985.2016.1184871>
- Power, S. (2023) *The Precarious Future of Education Research in Wales*. *Research Intelligence*. Spring.
- Randma-Liiv, T. (2002). Small States and Bureaucracy: Challenges for Public Administration. *Trames*, 6(4), 374-389.

- Rees, G. & Taylor, C. (2014). *Is There a 'Crisis' in Welsh Education? A Review of the Evidence*. London: Honourable Society of Cymmrodorion.
- Rees, G. (2012). PISA and the Politics of Welsh Education (WISERD Policy Briefing PBS/007). <https://wiserd.ac.uk/wp-content/uploads/Policy-Review-PISA-and-the-Politics-of-Welsh-Education.pdf>
- Rees, G., & Power, S. (2007). Educational Research and the Restructuring of the State: The Impacts of Parliamentary Devolution in Wales. *European Educational Research Journal*, 6(1), 87-100. <https://doi.org/10.2304/eerj.2007.6.1.87>
- Rees, G., Taylor, C., Davies, O., Drinkwater, S., Evans, C., & Wright, C. (2015). *Access to Higher Education in Wales: A Report to the Higher Education Funding Council for Wales*. Cardiff: WISERD.
- Shepherd, J. (2014). *How to Achieve More Effective Services: The Evidence Ecosystem*. Cardiff: What Works Network, Cardiff University.
- Welsh Government (2020, January 28) *The Curriculum for Wales*. <https://hwb.gov.wales/curriculum-for-wales/introduction>
- Whitty, G. (2006). Education(al) Research and Education Policy Making: is Conflict Inevitable?. *British Educational Research Journal*, 32(2), 159-176. <https://doi.org/10.1080/01411920600568919>

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:**РОЗВИТОК ЕКОСИСТЕМИ ОСВІТНІХ ДОКАЗІВ У МАЛІЙ КРАЇНІ:
УРОКИ З УЕЛЬСУ**

Метою статті є дослідження проблеми розвитку освітньої «екосистеми доказів» для Уельсу.

Методологія. Аналіз ґрунтується на поточних дослідженнях і дебатах із ключовими зацікавленими сторонами (стейкхолдерами) у галузі вищої освіти та урядом Уельсу, а також спирається на політичні дослідження інших малих країн.

Результати. Стверджується, що Уельс забезпечує ідеальне середовище для розвитку такої екосистеми через свій розмір, прихильності до принципів доказовості, політичний консенсус, співпрацю між політиками, дослідниками та освітянами. Те, що подібна екосистема ще не була реалізована, ілюструє обмеження ширших політичних та історичних обставин, які їх структурують, особливо в малих країнах.

Висновки. Розвідка завершується оглядом того, як можна вирішити деякі із зазначених проблем, щоб можна було реалізувати потенціал.

КЛЮЧОВІ СЛОВА: екосистема доказів, освітні дослідження, Уельс.

CITE THIS ARTICLE AS (APA style):

Power, S., & Taylor, C. (2023). Developing an Education Evidence Ecosystem in a Small Country: Lessons from Wales. *Educational Challenges*, 28(1), 35-43. <https://doi.org/10.34142/2709-7986.2023.28.1.03>



<https://doi.org/10.34142/2709-7986.2023.28.1.04>

ECOLOGY OF E-LEARNING

Received: 15/01/2023

Accepted: 11/03/2023

Ekaterina BABAK

Senior Teacher of English, Foreign Languages Department, Kharkiv University of Humanities "People's Ukrainian Academy", Kharkiv, Ukraine.



✉ E-Mail: babakekaterina777@gmail.com

 <https://orcid.org/0000-0003-3768-7558>

ABSTRACT

Purpose. The paper deals with the role of new digital technologies in learning. The **tasks** for the research are the following: to bring readers with an up-to-date range of new learning and teaching technologies, explore the notion of "ecology of e-learning" by analyzing the dynamics of student and teacher interactions in e-learning environments, investigate critically the ways in which technologies can create openings for new pedagogical practices, and also at times fossilize old pedagogical practices that perhaps should have been already abandoned, explore the "affordances" framework as a checklist used to analyze educational technologies and their associated pedagogical practices.

Methodology. The methods of the educational research context, data collection, data analysis and reporting of the students' responses have been applied. Some interviews have been conducted in this study to receive the answers of different students and lecturers at Kharkiv University of Humanities 'People's Ukrainian Academy'. The basis for our research has been scientific and pedagogical studies relevant to future foreign languages teachers' professional training in distance education conditions.

Results. Didactic and reflexive pedagogy have been analyzed and compared. The following aspects have been analyzed: ubiquitous learning, active knowledge making, multimodal meaning, recursive feedback, collaborative intelligence, metacognition, differentiated learning. It is emphasized that digital ecologies and the new learning spaces afforded by technologies provide us with the availability to have a group of learners in a space where not all of them have to be tracking the same page, the same task at the same time. It is possible to create learning experiences for

© Ekaterina BABAK, 2023

Ecology of E-Learning © 2023 by Ekaterina BABAK is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

individuals and for groups with specific needs and to be able then to pace either the whole group or to pace the individual, to track an individual or to track the whole class depends on the learning process, either for the whole class or the individual, in order to adjust the instruction, the data, the information that the learner or the class has, so that they are able to meet their goals. It is highlighted that every child in the classroom even if they are the same age, or if they are the same background are unique in some way. The orientation to learning or their behavior, or their understanding of their purpose is molded by each one's life experience. Educators have a responsibility to show that every learner is transformed, progresses, is able to understand and engage with and represent knowledge in a way that meets their needs of being an educated person that can move through the formal school system.

Conclusions. *Working within digital spaces allows us to harness the attention of every learner, to tailor educational process for their needs, to track whether they are performing or not and to adjust what we are doing. It provides us with the ability to make sure that all learners can be engaged. It means a different kind of plan. It certainly means collaborating. Collaborative intelligence for teachers in preparing, work and instruction in this space is also a key to the kinds of solutions that possible.*

It means designing lessons with the learners in mind, not only with just pacing ones way through the standards or with any kind of curriculum, it is aligning the standards to individual's needs and deconstructing them and reconstructing them in order to pace individuals and groups so that they can progress towards higher or to goals. It means for the teacher expanding their instructional repertoires to be able to address all the learners in the classroom and as well as expanding the capacity to work with others to bring in experts through the digital ecologies that might be able to support individual learners.

KEYWORDS: *Active Knowledge Making, Collaborative Intelligence, Differentiated Learning, Digital Ecologies, Distance Learning, Metacognition, Multimodal Meaning, Recursive Feedback, Ubiquitous Learning.*

INTRODUCTION

One of the most oft-used terms after the pandemic is the term "new normal." The new normal in education is the increased use of online learning tools. The COVID-19 pandemic has triggered new ways of learning. All around the world, educational institutions are looking toward online learning platforms to continue with the process of educating students. The new normal now is a transformed concept of education with

online learning at the core of this transformation. Today, digital learning has emerged as a necessary resource for students and schools all over the world. For many educational institutes, this is an entirely new way of education that they have had to adopt. Online learning is now applicable not just to learn academics but it also extends to learning extracurricular activities for students as well. In recent months, the demand for online learning has risen significantly, and it will continue doing so in the future.

Analysis of the researches show the stated problem topicality in the scientific world. So, most of the scientists' attention is paid to applied aspects of distance learning: (Mamun, Lawrie, & Wright, 2020; Baran, & Correia, 2014; Friedman, 2017; Kennedy-Manzo, 2002; Mean, Toyama, Murphy, Bakia, & Jones, 2009; Picciano, & Seaman, 2009; Wildavsky, 2001; Willis, 1995).

A considerable number of scientific investigations is devoted to theoretical aspects of the approach under study (Moore, Dickson-Deane, & Galyen, 2011; Smith, 2014; Schwartzman, 2007; Bolliger, & Wasilik, 2009; Uvalić-Trumbić, & Daniel, 2013). Some researchers address to historical issue of the phenomenon (Haraism, 2006). There is a paper aimed at students' perceptions of the value and efficacy of an online learning community (Lapointe, & Reissette, 2008).

However, a comprehensive analysis of didactic and reflexive pedagogy based on online learning, needs to be conducted.

Thus, our **purposes** include:

- Bring readers with an up-to-date range of new technologies for learning and teaching.
- Explore the notion of “e-learning ecologies” by analyzing the dynamics of student and teacher interactions in e-learning environments.
- Investigate critically the ways in which technologies can create openings for new pedagogical practices, and also at times fossilize old pedagogical practices that perhaps should have been already abandoned.
- Explore the “affordances” framework as a checklist used to analyze educational technologies and their associated pedagogical practices.

METHODOLOGY

The methods of the educational research context, data collection, data analysis and

reporting of the students' responses have been applied. Some interviews have been conducted in this study to receive the answers of different students and lecturers at Kharkiv University of Humanities 'People's Ukrainian Academy'. The basis for our research has been scientific and pedagogical studies relevant to future foreign languages teachers' professional training in online education conditions.

RESULTS

We have analyzed and compared didactic pedagogy and reflexive pedagogy and came to some dimension statements, reflected in the current article, Table 1.

The first of these seven things is *ubiquitous learning*. By ubiquitous we mean: anywhere, anytime. We want to start off by contrasting that with traditional classroom setups or what we would call didactic pedagogy. The first thing about traditional classroom is that it has two forms of confinement going on, two forms of boundedness: in space and time. The space is created as a kind of communication space, communications architecture. One of the peculiar things about that space is that practically only one person can speak at a time if everybody is to hear that. It is called the classroom, it has four walls.

The second thing with time is called the timetable where we all have to be in the same space at the same time to hear the teacher, to have classroom discussions. There is a necessary simultaneity in that communication's architecture.

Now, definitely, even with traditional pedagogy, we tried to blur those boundaries a bit. It was called take home the textbook and do some homework. It was called distance education.

Table 1*Dimension in Didactic Pedagogy and Reflexive Pedagogy*

Dimension	Didactic Pedagogy	Reflexive Pedagogy (New Learning)
Spatio-Temporal Dimension	Confined by the four walls of the classroom and cells of the timetable	<i>Ubiquitous Learning</i> : anywhere, anytime, anyhow
Epistemic Dimension	The learner as knowledge consumer, passive knowledge acquisition, memorization	<i>Active Knowledge Making</i> : the learner as knowledge producer and discerning knowledge discoverer/navigator
Discursive Dimension	Academic literacies: traditional textbooks, student assignments, and tests	<i>Multimodal Meaning</i> : new media texts, multimodal knowledge representations
Evaluative Dimension	Emphasis on summative assessments and retrospective judgments that serve managerial purposes but are not immediately actionable	<i>Recursive Feedback</i> : formative assessment, prospective and constructive feedback, learning analytics
Social Dimension	The isolated learner, with a focus on individual cognition and memory	<i>Collaborative Intelligence</i> : peer-to-peer learning, sourcing social memory, and using available knowledge tools
Cognitive Dimension	Focus on facts to be remembered, theories to be correctly applied	<i>Metacognition</i> : thinking about thinking, critical self-reflection on knowledge processes and disciplinary practices
Comparative Dimension	Homogenizing, one-size-fits-all curriculum, standardized teaching, and assessment	<i>Differentiated Learning</i> : flexible, self-expressive and adaptive learning, addressing each student according to their interests, self-identity, and needs

So, it is not as if the classroom completely confined us, but it was a kind of a focal point. The interesting thing about new technologies is a phenomenon that we call ubiquitous learning. It is actually a kind of a riff on the idea of ubiquitous computing. Some years ago the idea of ubiquitous computing was created, which means that we have devices with us everywhere and all around us which are computing devices. Today we have

funds, laptops, and a lot of intelligent household devices like televisions or fridges, or, whatever. Computing is all around us. The ubiquitous learning idea means that learning can be all around us.

We can have profound learning relationships which once really could only happen in a classroom, or could only be centered around the classroom. Those same learning relationships can happen with the same intensity without the

confinements of time and space that are in the traditional classroom.

Ubiquitous learning is certainly an idea that is now becoming itself ubiquitous, the idea that learning can happen anywhere at any time. The reason for it is that humans are learning creatures. When we use the notion of ubiquitous learning, we are really referring to what the new technology has made possible for us.

The degree to which it might be able to contribute continuously to the sorts of goals we have always had in education, which is the habit of mind of a learner. First of all, it is persistence, discerning. The search function of the Internet is really indicative of a kind of habit of mind that is required when you go into it, because you need to be continuously asking questions, searching for information, being flexible about how you move around in that space, open to the many things that are available and the many actors who are contributing to the space that we call the internet. It also requires a certain kind of independence as you weave your way through it. Certainly, it has made possible access to more people, experts, points, data points. That will enable information that you need to know or learn, whether it is formal learning, informal learning, or just out of interest.

Certainly, something very different is happening that we as educators need to figure out how we harness for the spaces that we work in, and for the goals that we have. One of the other features of this type of ubiquitous learning through the Internet and the digital spaces that are now available is the collapsing of time and space. That makes a huge difference for what we think about, and how we plan learning and teaching.

It also provides what we call life-long and life-wide learning. It is constant and explicit learning which is more interesting and important for us as educators, whatever you do in that space is discoverable. Every search engine you look at, every information you look up, every artifact that you create in this space can be tagged, can be searched, and can be used for multiple purposes. This is an extraordinary new environment which has enormous potentials for us.

If a student is doing their assignment at the moment and it is in a cloud environment, it is

on a server, they can be working on that assignment any time, any place, and other people can be interacting around it. They can be writing peer reviews, they can be writing comments, and any time the teacher can see what they're doing. That's a very big shift.

One of the interesting aspects of this shift to ubiquitous learning is something that we will call transparency. In cloud-based environments, it is possible to access everything the student is doing at any moment. It is possible to just click on an icon, and see the last keystroke that they typed, see the work that they are doing. It is also possible to build data analytics on top of this.

Active knowledge making is certainly a goal for all educators. We know and understand that producing knowledge is much more powerful than only consuming it. When you are in the cloud space, or working online, the tools and the framework itself require a much more active engagement with the areas that you are interested in. You are required not just to take something in, but there is the affordance of connecting and it is something that we all take up. It also allows in the space when we are working in, within the digital ecology space, that

anyone who is in that space can bring something to the learning experience. No one is left out, without interrupting or annoying anybody else.

This makes a powerful difference to learners in terms of their sense of agency. They can choose the engagement extent in much more significant ways than in an ordered classroom that requires very particular turn taking ways and participating when you put your hand up or when you are asked a question. It creates the possibility of contributing and building different kinds of answers and engaging with others around the strength and validity of those answers, and to produce what is genuinely useful for you in terms of the kind of interaction that you want to contribute.

Digital spaces will continue to offer opportunities for everybody acting and contributing at the same time. They will offer us opportunities for capturing all that activity whether it is speaking or writing, it allows us to track the artifacts of that production and to share that knowledge with more than the teacher. These are the possibilities that come from working within the space that has been afforded by the tools offered in the digital ecologies.

What we have got is a general move from hierarchical, top-down knowledge flows to more horizontal and more lateral knowledge flows. For instance, we have Wikipedia which is just endless. It is produced by people all over the world and we do not even know who the authors are. We do not know whether they are scientists or experts or whether they are just amateurs who have taken this thing very seriously. In a way, this is a big shift in the general framework of knowledge production in the world that we live. For us, this means that instead of the students becoming people who

absorb and memorize knowledge they become knowledge designers, knowledge co-creators.

The next point we want to make is a fundamental shift in what the focus of education is.

Traditional education is long term memory, but we are moving towards a world where memory is actually less important. The empirical details actually do not need to be remembered, because they can always be looked up again. It is your capacity to produce an artifact which is a good scientific report which is evidence of your learning, not what you can remember, which is a very big shift in focus and in what we are assessing.

One change is in workplaces, where traditionally the workplace was a place where there were bosses, and orders, and memos, instructions. But now, the idea is that we work in teams, we participate, contribute, and so on. That is a big shift in a concept that can be called the balance

of agency, which means that from a world of comp, command and compliance, we have a world where you are supposed to be more actively participating within the work team, contributing ideas, making suggestions, being creative, being innovative, taking risks. That is actually a different kind of person.

The old societies were ones of command and compliance. The society we are in now is of much more horizontal participation, active participation in these cultural spaces. For schools that means we should be really doing something which matches our time. If we do not, the kids will get behavioral problems. They will go crazy because their position is purely passive players. If we do not accept this change, we will end up in incredibly anachronistic institutions which our students hate.

The third of the advantages that we are looking at in this analysis is *a multimodal meaning*. One of the most powerful outcomes of digital ecologies is the actual capacity to manufacture different modes of meaning, with the same manufactory units. In fact, it is the digit themselves that is the most amazing accessible tool that learners can use, and it is the most revolutionary. Digital manufacturing allows us to produce alphabetical literacy. It allows us to produce any kind of sound, movement and images, just with clicking the same kinds of items, the same manufacturing units. Never before have learners had access to this potential. It is just an extraordinary capacity and we need to know the power of that capacity.

What does it mean to add a video to a piece of text as part of an assignment? What does it mean to bring audio in? We usually talk about speaking, and listening, and writing, and reading as separate domains, but the digital ecologies have now brought them together, in the way that they are manufactured and represented within the Internet and through the devices that all of us have. For us, it means a tremendous shift in how we understand these modes and how we help learners understand the power and the effect of each mode.

We are producing certain types of people, and the learners of the future, as the learners of today, **we** need to be able to engage with knowledge in a multimodal way. There is not now a worker in any field whether it is a mechanic, or a doctor, or a teacher, that does not need to engage with multiple modes of representation or meaning. So, for us to see these things as core to teaching and learning is really vital.

Now these knowledge representations are things that might involve various media. They might involve short typing

video, audio, but also data sets. So, what you might do is an Excel spreadsheet, and rather than just see the table that comes out of it, the teacher or the other students might like to see the underlying data, or re-manipulate it. We want an environment where dynamic modern information sources are really fully explodes for students and learners.

The word that we use theoretically to talk about this environment is multiliteracy. Multiliteracy is a broader sense of multimodal meaning, multimodal knowledge production. Firstly, we are getting the students to work in contemporary learning spaces. We are also deploying a cognitive mode which technically can be called synesthesia. The narrower, technical, psychological meaning of synesthesia is: I hear, I see a number, and I think of a color. This is a sort of a psychological condition where people with synesthetic have these associations that they make across concepts across modes.

For us this is a kind of a pedagogical rationales set for multimodality which involves fundamental cognitive processes. You learn through the process of switching from one mode to another. And the more our educational processes support that switching, the better. In the 21st century, we have marvelous media, which can support us in these very powerful forms of multimodal meaning, and cognitive shifts backwards and forwards between modes that we call synesthesia.

Anyone who has been a teacher or a learner understands the power of *feedback*. It matters in all that we do that we have some understanding of how we are progressing and how powerfully we are making meaning in the way that we intend to make it. The digital environment, the digital ecologies, digital

documentation, and the social access that the network gives for us now, makes feedback, which is so core to learning, so much more accessible to us. It is important that as we are producing knowledge, as we are working in any particular subject area, that feedback comes as we are producing that knowledge.

If we are allowed to simply produce it, at the end we get a test or somebody tells us whether we were right or wrong, we have missed an extraordinary opportunity in the process of the making of that knowledge. The internet and the digital ecologies that are available to us are capable of capturing our journey in reproducing or representing knowledge. And it is capable to provide feedback to learners step by step as they are producing that knowledge. And importantly, multiple sources of feedback are even better than one source of feedback.

So, when the teacher gives you feedback is good, but to get feedback from your peers, to get feedback from others, experts who can also join you in your journey of representing and producing knowledge in the class space provides a learner with much more confidence about their direction and a much richer learning experience that can feed into the kind of text and assignments that they are producing. Feedback enables us to document the way in which a learner has changed and grown and progressed. So, it is very important not only for that individual, but for the way that we might be able to generalize that understanding and help other students.

Timely feedback we know really matters. The digital ecologies however allow you to be able to set up systems which provide feedback as required, and it definitely leads to improved outcomes.

The other component to feedback is not only what you get, but what you give. We also know very clearly and it is very well documented that when you teach somebody else, your own learning gets elevated. So, providing learners with an opportunity to give peer to peer feedback helps everybody lift the level of performance and understanding. It is a very powerful tool that can be expanded in the digital environment.

Finally, in terms of why it matters, self-assessment is very important. It is important to get feedback, it is important to be tested, but in the end, every learner needs to be able to assess themselves to understand what they understand, and what they do not know.

The opportunities that the digital ecologies allow us, leads to very powerful learning outcomes and progress. The digital technology creates infinite amounts of capacity for interaction and immediate feedback, and that is something that we need to consider how to harness for the purposes of reaching our learners' goals.

Another area where I think technology environments could make a huge difference is an area that we want to call *recursive feedback*. What we mean by recursive feedback is loops. So, you get a bit of feedback and incrementally you do something with your work, and then you get a bit more feedback and incrementally you do something your work. And your work is continuously improving as a result of these feedback loops.

The form of assessment you are doing in this recursive feedback environment is actually quite different. You are thinking reflectively in a process of self-assessment. The teacher can still assess against the same rubric but what we

have built is this very dynamic environment where there are multiple forms of assessment going on which is a peer assessment, self-assessment, teacher assessment.

All these forms of assessment are going on in this space, and they are multiple perspectives. And what is interesting is that historically we only got the teacher's perspective and the teacher's perspective was only retrospective. Feedback relationships were hierarchical. What we are doing is, we are distributing that process, and building much more horizontal and reflective forms of evaluation or assessment, so it is a real shift in the kind of access of energy around this.

In recursive feedback environments we are accessing students actual work, artifacts. We have our students and they are producing their reports, and in essence remembering the facts or remembering the definitions, you can always look those things up, is less important than the business of building an artifact which is a scientific report or a physical geography report. So, that is a big shift in what we are actually assessing, in where we are actually assessing memory work less than we are assessing a whole pile of cognitive actions, which is being a scientist or being a geographer and producing a document like the kind of document that scientists and geographers characteristically produce. So, we are assessing an artifact which is the result of practice. There is a lot of cognition involved in that practice. But it is higher level cognition than just remembering stuff. It involves critical thinking, problem solving, applying concepts.

Another area where we believe there are enormous potentials in new technologies of learning is what we call *collaborative*

intelligence. In new media environments we can build highly collaborative processes of learning, where in fact it is not just your own work. It is actually deliberately producing work that others review, give you feedback on. The result of that is, by the time you have got feedback, perhaps from multiple perspective amongst your peers, and then you have done a revision. The quality of the revision is partly due to the quality of the feedback you have received, and the quality of other people's work is partly the result of the feedback you have given them. So, you are in a collaborative process of give and take around knowledge.

Without any doubt, we have mountains of evidence that testifies to the fact that learners working together, are able to solve problems, and are much more creative with any particular set of tasks than someone simply working on their own. It is not to say that people on their own are not creative and high performers. We know however that if you bring people with their very different orientations to the very same kind of problem, you are going to have a much richer learning experience, in a more condensed period of time. And this is a resource that matters to us in any learning environment.

And certainly, the digital ecologies that are available to us now one of the things that do so well, is the capacity for collaboration, the capacity for what we call social networking that people coming together and engaging with each other in powerful ways around their interests, or around particular tasks. The digital spaces provide us with the capacity for production and co-production, and they do allow us to have many versions which are captured and documented, which we can return to, which we can revise, we

can share amongst ourselves. In order to come up with some common knowledge in the end about any particular area, that is very powerful and as far and, and broad as it can possibly be given any particular task.

Collaborative work produces collaborative intelligence. Collaborative intelligence, very often as a consequence of the different inputs, produces higher standards and depth of knowledge from the process of the different perspectives and the different experiences coming together.

In the digital ecology environment, the audience is not one. In the classroom, in the traditional classroom with the individual working on, on their own tasks, the goal is that the teacher will be the recipient of the task, and the teacher will assess it. You are not producing knowledge for yourself, or for anybody else, you are producing it for very narrow purposes of the traditional, old-fashioned classroom, which required a discipline and order, for the particular kind of people.

The motivation there was limited to that test pleasing the teacher. Whereas in the digital ecology spaces, an intrinsic motivation, to make a contribution, to add to the knowledge, to create something that can be showcased, which is of a higher order, so the managing of behavior which is so vital in a traditional classroom that restricts the kinds of things that we can do is not a barrier in the digital space.

Cognition and action are, of course, core features of learning, whether you are involved in experiential learning, or conceptual learning, or analytical learning or, applying knowledge in any particular kind of way. But of equal importance is what we call *metacognition* in any learning environments. That is reflecting

about what you are doing, reflecting on the concepts that you are developing, on the way that you are applying any kind of particular knowledge. It is not just about knowing and understanding, but thinking about thinking.

Thinking about how you have gone about doing something, and thinking about the process that you were involved in, deliver a particular kind of outcome. So, metacognition is really important, and the digital spaces do allow, for creating spaces that allow learners to move in and out of producing whatever is required of them, as well as accessing rubrics and other kinds of tools as they go, to reflect, if they have met their goal.

Why does it matter that we do encourage learners to be reflective about their thinking, and reflective about their practices? We are preparing them for the real world. Knowledge in a classroom, learning in a classroom, should not be in a separate space that does not connect with what life is like, when you leave the classroom, or even as you live it in the classroom. Because in a classroom, you do not just work on subject areas, you actually live there, you have relationships, you engage.

So, we need to produce the kind of learner who understands how to operate with other people, how to be reflective about their practice. Whether it is in the work that they do in, in their future lives as workers the kind of work they are, they are going to need to do when they go to college, where research really matters. You have to validate and argue for what you are doing, not just simply represent it. Schools need to start preparing learners right from the very beginning, for that kind of behavior as a thinking, learning person and ensuring metacognition as part of the process of learning is really vital. Certainly, it matters because the 21st

century is fast moving, it is a complex world with much diversity. All people operating effectively within the 21st century need to be able to express their own mind.

Differentiated learning has become another one of those norms, that is vital in any kind of learning environment. The digital ecologies and the new learning spaces afforded by technologies provide us with the affordance, the opportunity to have a group of learners in a space where not all of them have to be tracking the same page, the same task at the same time. It is possible to create learning experiences for individuals and for groups with specific needs and to be able then to pace either the whole group or to pace the individual, to track an individual or to track the whole class to intervene within that learning process, either for the whole class or the individual, in order to adjust the instruction, to adjust the data, the information that the learner or the class has, in order that they're able to meet their goals.

Every child in the classroom even if they are the same age, or if they are the same background are unique in some way. The orientation to learning or their behavior, or their understanding of their purpose is molded by each one's life experience. Educators have a responsibility to show that every learner is transformed, every learner progresses, every learner is able to understand and engage with and represent knowledge in a way that meets the needs of them being an educated person that can move through the formal school system and go right through to college. It matters for us because the digital space allows if we interrogate it, for us to tailor learning experiences and instructions.

Learners do not any longer have to sit in the class room waiting while the teacher

attends to the needs of one child or waiting until the hand that they have in the air is answered. It is not necessary to waste the amount of time we do waste for learners. The data suggests to us at the moment that in any particular kind of learning environment, a student might have between 15 and 20 minutes of, exchanges with an educator. Working within digital spaces allows us to harness the attention of every learner, to tailor the learning to their needs, to track whether they are performing or not performing and to adjust what we are doing.

DISCUSSION

Scientific investigation of manuscripts devoted to ecologies of online education has shown that most researchers agree with the fact that in spite of several disadvantages such as losing concentration, health issues, lack of socializing skills, isolation, being limited (not suitable medical science, engineering, other STEM subjects), lack of good internet connection, difficult prevention of cheating, advantages are still crucial: increased convenience and flexibility, building confidence in a student (Holubnycha et al, 2021), improved employee knowledge, ease of content update, interactive sessions, reduced costs, a huge variety of options, less intensity, the comfort of your home, easier attendance. It is proposed that online classes can be more developed in the future by making classes more interactive, making students more vigilant towards rules, asking students / teachers for feedback, making technology more accessible.

CONCLUSION

For educators online learning means a different kind of plan. It certainly means collaborating. Collaborative intelligence for teachers in preparing, work and instruction in this space is also a key to

the kinds of solutions that possible. It means designing lessons with the learners in mind, not only with just pacing one's way through the standards or, or with any kind of curriculum, it is aligning the standards to individual's needs and deconstructing them and reconstructing them in order to pace individuals and groups so that they can progress towards

higher or to goals. It means for the teacher expanding their instructional repertoires to be able to address all the learners in the classroom and as well as expanding the capacity to work with others to bring in experts through the digital ecologies that might be able to support individual learners.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Baran, E., & Correia, A.-P. (2014). A Professional Development Framework for Online Teaching. *TechTrends*, 58(5), 95–101. <https://doi.org/10.1007/s11528-014-0791-0>
- Bolliger, D. U., Wasilik, O. (2009). Factors Influencing Faculty Satisfaction with Online Teaching and Learning in Higher Education. *Distance Education*, 30(1), 103-116. <https://doi.org/10.1080/01587910902845949>
- Friedman, J. (2017, January 5). *Five Online Education Trends to Watch in 2017*. U.S. News & World Report L.P. <https://www.usnews.com/higher-education/online-education/articles/2017-01-05/5-online-education-trends-to-expect-in-2017>
- Harasim, L. (2006). A History of E-learning: Shift Happened. In Weiss, J., Nolan, J., Hunsinger, J., Trifonas, P. (Eds.), *The International Handbook of Virtual Learning Environments*. Springer, Dordrecht. https://doi.org/10.1007/978-1-4020-3803-7_2
- Holubnycha, L., Kostikova, I., Soroka, N., Shchokina, T., & Golopych, I. (2021). Intercultural Competence Development at Universities. *Postmodern Openings*, 12(1Sup1), 200-214. <https://doi.org/10.18662/po/12.1Sup1/279>
- Kennedy-Manzo, K. (2002, May 9). *Sizing Up Online Content*. Education Week. <http://www.edweek.org/sreports/tc02>
- LaPointe, L. & Reissetter, M. (2008). Belonging Online: Students' Perceptions of the Value and Efficacy of an Online Learning Community. *International Journal on E-Learning*, 7(4), 641-665. <https://www.learntechlib.org/primary/p/24419/>
- Mamun, M. A., Lawrie, G., & Wright, T. (2020). Instructional Design of Scaffolded Online Learning Modules for Self-Directed and Inquiry-Based Learning Environments. *Computers & Education*, 144, 103695. <https://doi.org/10.1016/j.compedu.2019.103695>
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies*. U.S. Department of Education. <http://www.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>

- Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). E-learning, online learning, and Distance Learning Environments: Are They the same? *The Internet and Higher Education*, 14(2), 129–135. <https://doi.org/10.1016/j.iheduc.2010.10.001>
- Picciano, A. G., & Seaman, J. (2009). *K–12 Online Learning: A 2008 Follow-up of the Survey of U.S. School District Administrators*. OLC. https://onlinelearningconsortium.org/survey_report/k-12-online-learning-2008-follow-survey-u-s-school-district-administrators/
- Schwartzman, R. (2007). Refining the Question: How Can Online Instruction Maximize Opportunities for All Students? *Communication Education*, 56, 113–117. <https://doi.org/10.1080/03634520601009728>
- Smith, F. D. (2022, June 27). *10 online Learning Trends to Watch in 2015 [#infographic]*. Technology Solutions That Drive Education. <https://edtechmagazine.com/higher/article/2014/12/10-online-learning-trends-watch-2015-infographic-0>
- Uvalić-Trumbić, S., & Daniel, J. (2013). *A Guide to Quality in Online Learning*. Academic Partnerships.
- Wildavsky, B. (2001, October 15). *Want More from High School?* U.S. News & World Report L.P. <http://www.usnews.com/usnews/edu/elearning/articles/k12.htm>
- Willis, B. (1995, October). *Distance Education at a Glance*. University of Idaho Engineering Outreach. <http://uidaho.edu/eo/dist1.html>

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

ЕКОЛОГІЯ ЕЛЕКТРОННОГО НАВЧАННЯ

Мета. У статті розглядається роль нових цифрових технологій у навчанні. Завдання дослідження полягають у наступному: ознайомити читачів із низкою нових технологій для навчання та викладання, вивчити поняття «екологія електронного навчання» шляхом аналізу динаміки взаємодії студента та викладача в електронному середовищі, критично дослідити шляхи, за допомогою яких технології можуть створювати можливості для нових педагогічних практик, а також ідентифікувати старі педагогічні практики, від яких, можливо, слід було б уже відмовитися, дослідити структуру можливостей як контрольний список, за допомогою якого можна аналізувати освітні технології та пов'язані з ними педагогічні практики.

Методологія. Застосовувалися методи освітнього дослідницького контексту, збору даних, аналізу даних та звітування відповідей студентів. У цьому дослідженні було проведено кілька інтерв'ю, щоб отримати відповіді різних студентів і викладачів Харківського гуманітарного університету «Народна Українська Академія». Основою нашого дослідження стали науково-педагогічні дослідження щодо професійної підготовки майбутніх учителів іноземних мов в умовах онлайн освіти.

Результати. Проаналізовано та порівняно дидактичну та рефлексивну педагогіку. Було проаналізовано наступні аспекти: повсюдне навчання,

активне створення знань, мультимодальне значення, рекурсивний зворотний зв'язок, спільний інтелект, метапізнання, диференційоване навчання. Підкреслюється, що цифрова екологія та нові навчальні простори, створені технологіями, дають нам можливість мати групу учнів у просторі, де не всі з них повинні стежити за однією сторінкою, тим самим завданням одночасно. Можна створити навчальний досвід для окремих осіб і для груп із особливими потребами, а потім мати можливість контролювати темп усієї групи або окремої людини, відстежувати окрему людину або відстежувати весь клас, щоб втрутитися в процес навчання, або для всього класу або окремої людини, щоб скорегувати інструкції, дані, інформацію, якою володіє учень або клас, щоб вони могли досягти своїх цілей. Підкреслюється, що кожна дитина в класі, навіть якщо вони одного віку або мають однакове походження, певним чином унікальні. Спрямованість на навчання або поведінка, або розуміння своєї мети формуються життєвим досвідом кожного. Педагоги несуть відповідальність показати, що кожен учень трансформується, прогресує, здатний розуміти, залучатися до та представляти знання у спосіб, який відповідає потребам його як освіченої людини, яка може рухатися через формальну шкільну систему.

Висновки. Робота в цифровому просторі дозволяє нам залучати увагу кожного учня, пристосовувати навчання до його потреб, відстежувати, чи успішний він чи ні, і коригувати те, що ми робимо. Це надає нам можливості для забезпечення залучення всіх учнів. Це означає інший тип плану. Це, звичайно, означає співпрацю. Спільний інтелект для вчителів у підготовці, роботі та навчанні в цьому просторі також є ключовим для можливих рішень. Це означає розробляти уроки з думкою про учнів, а не просто пробиратися за стандартами чи за будь-якою навчальною програмою, це узгоджувати стандарти з потребами окремої людини, деконструювати їх і реконструювати, щоб адаптувати темп для окремих осіб і груп таким чином, щоб вони можуть просуватися до вищих цілей. Це означає, що вчитель має розширити свій навчальний репертуар, щоб мати можливість звертатися до всіх учнів у класі, а також розширити можливості працювати з іншими, щоб залучити експертів через цифрову екологію, які могли б підтримати окремих учнів.

КЛЮЧОВІ СЛОВА: активне отримання знань, спільний інтелект, диференційоване навчання, цифрові екології, дистанційне навчання, метапізнання, мультимодальне значення, рекурсивний зворотний зв'язок, повсюдне навчання.

CITE THIS ARTICLE AS (APA style):

Babak, E. (2023). Ecology of E-Learning. *Educational Challenges*, 28(1), 44-57. <https://doi.org/10.34142/2709-7986.2023.28.1.04>



<https://doi.org/10.34142/2709-7986.2023.28.1.05>

THE ANTHROPOLOGICAL APPROACH TO EDUCATION AND MODERN TRAINING AND LEARNING METHODOLOGY

Received: 10/01/2023

Accepted: 11/02/2023

**Liudmyla HOLUBNYCHA¹, Tetiana SHCHOKINA²,
& Natalia SOROKA³**



¹ Doctor of Science (Pedagogy), Ph.D., Full Professor, Department of Foreign Languages, Yaroslav Mudryi National Law University, Kharkiv, Ukraine.

✉ E-Mail: golubnichaya11@gmail.com

🆔 <http://orcid.org/0000-0002-8252-9893>



² Ph.D., Associate Professor, Department of Foreign Languages and Professional Communications, Yaroslav Mudryi National Law University, Kharkiv, Ukraine.

✉ E-Mail: t.m.shchokina@nlu.edu.ua

🆔 <https://orcid.org/0000-0002-8894-2216>



³ Ph.D., Associate Professor, Department of Foreign Languages and Professional Communications, Yaroslav Mudryi National Law University, Kharkiv, Ukraine.

✉ E-Mail: n.a.soroka@nlu.edu.ua

🆔 <https://orcid.org/0000-0002-8652-917X>

ABSTRACT

The paper deals with the anthropological approach to education in particular to teaching theory through the prism of the correlation between the mentioned approach and modern teaching and learning methodology.

© Liudmyla HOLUBNYCHA, Tetiana SHCHOKINA, & Natalia SOROKA, 2023

The Anthropological Approach to Education and Modern Training and Learning Methodology © 2023 by Liudmyla HOLUBNYCHA, Tetiana SHCHOKINA, & Natalia SOROKA is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

The **purpose** is to establish and trace the correlation between anthropological approach to education and modern teaching and learning methodology

The **tasks** are: to find out the essence of the anthropology in relation to pedagogy; to reveal and describe teaching and learning models based on anthropological approach to teaching theory; to figure out effective instruction methods, which can be applied within the designated teaching and learning models. The methods of the investigation are analysis and syntheses of the related scientific materials aimed at collecting and presenting the results as well as drawing the conclusion.

The **results** revealed three different understandings of the essence of the studied phenomenon, one of which (as a methodological core and a modern paradigm of the complex of pedagogical sciences with practical orientation of education to the person as its main goal and value) is associated with our investigation. Among the correspondent teaching and learning models we revealed and described personality-oriented learning model, student-centered learning model and a model based on individual approach to teaching. A number of effective instruction methods (as: problem-based learning, case study, inquiry-based learning, discovery-based learning, role playing game, game learning, different forms of dialogic learning, team learning and others) was figured out.

The **conclusion** is that in modern educational system anthropological approach is one of the central as knowledge about human, his nature and the laws of his development allows designing the educational process.

KEYWORDS: Anthropological Approach, Teaching and Learning Models, Instruction Methods, Education, Methodical Approach.

INTRODUCTION

Throughout the history of education various approaches to teaching and learning appeared. Their appearance was caused by different socio-economic, cultural and other preconditions. All of them played their role in the development of civilization. Some of them stayed in the past, others became the foundation of educational science and continue to serve the modern educational system.

The most topical of them are the continuous subjects of research, for instance, the competence approach (Holubnycha et al., 2022; Kostikova et al., 2019; Nestulya, 2018; Spencer, 1993; Sturgis et al., 2011), the system and activity-based approach (Dotsenko, 2016; Holubnycha et

al., 2022; Mehmood et al., 2021; Sharma, & Kumar, 2018) and others.

One of the approaches, which in its development has gone from the ancient world to the modern pedagogical paradigm, is the anthropological one. It involves the correlation of any knowledge about educational phenomena and processes with knowledge about human nature and allows designing the educational process based on an orientation towards the laws of human development as such.

At present, the anthropological principle is one of the leading principles in educational science; moreover, anthropological knowledge is extremely significant for pedagogy because it is the

core of a teacher's professional training and in addition, it became the basis for a number of more or less new educational approaches and models of teaching and learning.

The subject of pedagogical anthropology is a holistic person in his formation in the process of socialization and education, mechanisms and stages of this formation, sources of self-promotion and development, viewed through the prism of pedagogical goal-setting, i.e., the scientific substantiation of the goals of pedagogical activity.

Pedagogical anthropology performs a number of functions, being, firstly, the theory of modern pedagogical knowledge; secondly, the scientific basis of the humanitarian pedagogical worldview; and thirdly, theoretical substantiation of pedagogical innovations in the field of education.

Despite the fact that the question of man, his origin, abilities, structure of consciousness, meaning of existence, etc. was raised in antiquity, it continues to be topical for modern scholars as well because person is a central problem of education.

Analysis of research shows that the anthropological approach to education was mostly investigated from theoretical and historical point of view (Anosov, 2004; Antypin, 2022; Borisova, 2009; Bondar, 2020; Erickson, & Murphy, 2017; Trotsko, & Shtefan, 2012).

It is connected with the fact that this approach has very long and rich history. Contribution of educational specialists to the development of anthropological ideas was examined by Ionova and Kot (2013), Lozova (2006). There are also works comparative in nature (Lopez et al., 2011; Sutton and Levinson, 2001). More practical aspects of the anthropological approach

are the study of modern scholars as well because attention to a person in all his manifestations is topical nowadays.

So, the evolution of human interaction with nature and society in different contexts was analysed by Batalina (2001), Henze (2020), Kenneth (2018). A considerable number of research is devoted to positive influence of application of anthropological approach on different social problems (Lawson et al., 2017; Lynn et al., 2016). Great attention was paid to anthropological approach to educational policy (Levinson et al., 2020; Lashaw, 2018; Sandler, 2018).

However, the issue of the connection of the anthropological approach in education and teaching and learning methodology needs to be analysed comprehensively.

Thus, the **purpose** of the manuscript is to establish and trace the correlation between anthropological approach in education and modern teaching and learning methodology.

The tasks are: 1) to find out the essence of the anthropology in relation to pedagogy; 2) to reveal and describe teaching and learning models based on anthropological approach to teaching theory; 3) to figure out effective instruction methods, which can be applied within the designated teaching and learning models.

METHODOLOGY

Since the work is of theoretical-argumentative nature the methods used for its preparation were of general theoretical level. So, in order to solve the mentioned tasks and achieve the stated purpose analysis and synthesis were applied to the related scientific materials with the aim to collect and present the results of our investigation as well as to draw the conclusion.

RESULTS

In order to evaluate the connection of the anthropological approach in education and modern training methodology it is significant to find out the essence of the anthropology in relation to pedagogy, a component of which is the theory of education and in particular teaching methodology.

So, based on the analysis of research (Aristova, 2020; Anosov, 2015; Liedtke, 2002; Batalina, 2001; Sujay, 2018) we can distinguish three different understandings of anthropology associated with pedagogy that are used today.

- *Firstly*, as the broad term it is a relatively independent, interdisciplinary field of knowledge that was formed at the intersection of philosophical and pedagogical sciences. It is aimed at the investigation of a person as a complex integrity of bio-psycho-socio-cultural nature, a subject of the educational process, an active link of interaction between the teacher and the student.

Although anthropological knowledge originates in ancient times, vital ideas of pedagogical anthropology are based on the legacy of Ya. Komensky, Zh.-Zh. Rousseau, I. Kant, L. Feuerbach and some other famous educators as well as in search of former pedagogy, which sought to integrate the approaches of various sciences (medicine, biology, psychology, pedagogy) to child development (Anosov, 2015).

As an integral discipline anthropology studies how a person at all stages of his life in interaction with nature, society and culture builds his own life activity; what determines the quality of his/her life; what conditions a person needs to implement

the value guidelines of an individual; what difficulties she or he faces.

Today, the anthropological approach influences all human sciences and combines both natural science research methods (human biology, human anatomy and physiology, medicine, etc.) and social and humanitarian ones, including, in particular, history and pedagogy (Batalina, 2001).

- *Secondly*, scholars consider the anthropological approach to the theory and practice of educational activity as theoretical, heuristic and practical orientation of education to the person as its main goal and value. In this sense the phenomenon is understood in our investigation and is realized as a methodological core and a modern paradigm of the complex of pedagogical sciences.

This model requires the correlation of any knowledge about educational phenomena and processes with knowledge about human nature, patterns of personality formation and development.

However, it is important to note that representatives of various fields of humanitarian sciences interpret pedagogical anthropology differently: some of them understand it as a pedagogically oriented philosophical theory; others interpret the phenomenon as an anthropological justification of education; while the third group of scholars considers it as a meta-pedagogical theory aimed at philosophical and methodological generalizations (Sujay, 2018).

- *Thirdly*, speaking about anthropology in connection with pedagogy, we understand it as a direction of humanitarian studies, humanities. It should be added that this direction was

formed in the middle of the 20th century in Western Europe and the basis for its origination as well as its development was the synthesis of philosophical anthropology, sociology, ethics and theoretical and pedagogical knowledge. It developed mainly in Germany (which is explained by the need to overcome the crisis of the system of educational values after the Second World War), as well as in Italy, Austria, and Switzerland.

Among the famous representatives of anthropological direction are M. Montessori (Montessori, 1917), H. Knoll, H. Depp-Forwald and others (Liedtke, 2002).

It is important that a number of currents were formed within its boundaries. They are: existential, hermeneutic, integrative, empirical, biological-evolutionary, and others. What is more, pedagogical anthropology as a field of humanities influenced the development of the theory of education since the basis of pedagogy, as well as didactics, should be the complex of human sciences.

In addition, nowadays, standing on the position of turning society and science to man, recognizing him as a higher value and a measure of the effectiveness of social life, the anthropological approach to scientific reflection becomes more relevant. It involves the integration of anthropological knowledge and all the mentioned human sciences, constitutes the scientific methodological basis of the humanistic worldview and humanization of science in general, and provides a theoretical basis for pedagogical research and practice (Anosov, 2004).

Thus, anthropological approach in education is a humanistic oriented process. Functionally, pedagogical anthropology is considered as the

scientific basis of humanizing the pedagogical process, theoretical justification of pedagogical innovations and modernization of educational processes. The results of research in the field of pedagogical anthropology are the basis for the development of relevant educational disciplines taught in pedagogical educational institutions (Aristova, 2020).

According to the anthropological approach, a person is considered as a biosocial being who cannot interact with nature and society outside of certain norms, values, rules, and traditions. The specified direction of research allows analysing the evolution of human interaction with nature and society in different contexts.

It is the anthropological approach that requires identifying various motives of human behaviour related to human nature, and not limiting itself to studying only the influence of the social environment and manifestations of the rational.

So, in the context of anthropological approach to teaching theory, it is important to find out and use the pedagogical approaches and teaching methods that most corresponded to the nature of the person, his aspirations, motives and needs. Firstly, the most evident appears *personality-oriented learning* that is a technology designed to provide an opportunity for a student to full self-realization and comfortable personal development.

It is important that the source of such self-realization and personality development is not society in general, but the intentional need of this person for development inherent in each personality, which is realized in the process of interaction with other individuals, and consequently

interacting with society (Podmazin, 2000, p. 10).

Main principles of personality-oriented learning are recognizing the individual as a goal, but not a means of educational activity; taking into account his/her own experience inherent in each unique personality, which is the result of the formation of personal knowledge.

Another paradigm of learning, corresponding to the anthropological approach, that is very close to personality-oriented learning is a *student-centred learning*, which is a process focused on a learning model, where the key knowledge, abilities and skills that a student has to master are aimed at development of his individual competences satisfying his own needs, demands and interests.

This model of learning inspires the students to think what exactly they are learning and how they are doing it; encourages them to self-worth educational activity (Olugbenga, 2021).

Researchers revealed the following advantages of the student-centred learning:

- 1) it allows getting better learning outcomes because students are engaged to active learning and without the opportunity to practice any learning activity the student does not develop or at least has less chance to develop his learning skills and competences;
- 2) students are taught through forming and developing skills and competences, which are necessary for their future life and competitiveness as well as mastering material in the subject. For example, they learn to solve problems, to make decisions, to cooperate in a team, to analyse and evaluate facts, to generate ideas etc.;

- 3) it allows adapting the educational content to the student's interests;
- 4) students may get skills and abilities at their own pace before moving on to other topics;
- 5) students are taught how to develop their learning strategies as they are reflecting on what they are learning and how they are learning it;
- 6) students are taught how to observe their progress when mastering new material;
- 7) students are more motivated as they have some opportunity to control their learning process through choosing educational content, possibility to learn at their own pace, to develop their learning strategies and monitor their progress;
- 8) students' communication and cooperation competences are improved;
- 9) strengthening relationships between students and teachers caused by collaboration (Olugbenga, 2021, p. 67; Blumberg, 2012, p. 1241-1242).

One more teaching and learning model that meets anthropological foundations of pedagogy and didactics as its part is an *individual approach to teaching* that involves reliance on individual qualities of a person.

According to this approach, educational process is organized basing on student achievements, i.e., students acquire real knowledge while increasing and processing facts, enriching experience, as perceived images become material for the work of the mind and further development.

While implementing the principle of an individual approach to teaching it is

important to take into consideration the above conditions:

- when choosing instruction methods, ensure the cooperation of all participants in the educational process aimed at the development of the personality of each student;
- group methods of educational activity can be used as well but they are effective only if the student's individuality is taken into account. Periodic cooperation in temporary groups stimulates each individual to achieve higher results, promotes individual development, initiative and responsibility.

Based on the analysis of research (Antipin, 2022; Yakymanska, 1995) devoted to the above teaching and learning models the following requirements for their implementation were formulated:

- the program material should ensure the discovery of the content of the student's personal experience, including the experience of his previous education;
- the teacher's presentation of program material should be aimed not only at expanding its scope, but also at structuring, integrating, and generalizing the subject content with active engaging students;
- in the learning process, it is necessary to constantly reconcile the personal experience of students with the scientific content of the acquired knowledge;
- active stimulation of the student to self-valuable educational activities, the content and forms of quality should provide the student with the opportunity for self-education, self-development, self-expression in the course of mastering knowledge;

- organizing the program material so that the student can choose its content, type and form when completing tasks and solving problems;
- identifying and evaluating methods of learning activity that the student uses independently, sustainably, and productively;
- ensuring not only outcome control and assessment, but also mainly of the learning process;
- the teaching and learning process should ensure the construction, realization, and assessment of skills as a personal activity.

In order to implement all of the mentioned teaching and learning models associated with anthropological approach in education effectively human nature must be taken into consideration.

Consequently, any teaching methods that involve students to active or engaged learning may be used (Fredy Rodríguez-Mejía, 2021) since a person is a subject (proactive participant) of such basic social activities as: work, communication, acquiring knowledge. So, it is natural to use active learning methods. The efficient learning methods may be:

- problem-based learning, when a student faces a problem and learns through solving it using his personal previous experience, knowledge, creativity etc. (Karpushyna, & Bloshchynsky, 2022);
- case study (case-based learning) is a kind of problem-based learning, when to overcome the challenge student bases on his personal experience, creativity, increasing his cognitive activity, and makes his own choice (Holubnycha, 2016);
- inquiry-based learning, and discovery-based learning are similar to the above

- inductive methods that engage a student to learning through active search for a solution to the problem;
- role playing game that motivates students to active participating in learning activity, allows them to show their personality, has positive impact on their emotional sphere, allows to realize their natural potentials (Kostikova et al., 2019);
 - game learning that is not only a great mean to add positive emotions to the learning environment but also is a good way to develop hard and soft skills (Karpushyna et al., 2019);
 - dialogic learning like think-pair-share exercises, brainstorm, formulating questions of their own and answering them, discussing, explaining own point of view, debating or other dialogic forms of pedagogical interaction and creative cooperation between the teacher and students, which are based on a communicative student-oriented environment, namely, they expand the space of cooperation at the different levels of “teacher - student”, “student - student”, in the process of solving educational cognitive tasks (Antipin, 2022, p. 71-72);
 - team learning, when a student learns through positive collaboration in a team developing projects and solving problems. The vital element of collaborative learning is the correlation of interdependence and individual responsibility. The instructor’s function is to facilitate the guidance and provide the feedback on the results of student’s work (Bas, & Beyhan, 2019);
 - project-based learning is, on one hand, a kind of inductive method, on the other hand, it is usually a kind of team learning;
 - discussion and debates predominantly led by a student also allows to individualize learning, develop his intellectual and emotional sphere of creativity and reflection, facilitating the harmonious development of a person;
 - trip or expedition learning, when a student learns through the real-world experience. The prominent idea of such learning is that taking students out of the classroom into the real environment has significant educational value. Examples of this method of learning may include excursions to different museums, art galleries, trips to places that are new for the students, etc. (Bas, & Beyhan, 2019);
 - numerous methods of work with an interactive whiteboard, which ensure individual approach, paying attention to individual characteristics of a student (his level of training, own pace of learning, inclinations etc.), promote students’ interest and motivation (Holubnycha, & Shatrava, 2017).
- Bowen (2005) singled out certain principles that, in our opinion, are able to increase the efficiency of implementing teaching and learning models associated with anthropological approach in education because they are directly connected with human nature. These principles are the following:
- 1) students should be engaged in their own learning activity (to be active participants of the particular independent cognitive activity but not learning process in general);
 - 2) students should be provided with opportunities to learn through direct experience (knowledge based on personal experience is acquired more easily, it is more solid and students are usually more motivated to get this knowledge);

- 3) students should be enabled to gain in-depth familiarity with the context in which the study of a particular subject takes place (students must understand what exactly they learn, how they do it, what this knowledge is necessary for, how it is connected with students' ambition);
- 4) students should be encouraged to reflect on how their learning is connected to cultural and social dimensions of "the human condition" (Bowen, 2005, p. 4-5).

DISCUSSION

Analysis of scientific investigations which deal with the problem under study has shown that the issue of educational anthropology and engaged approaches to teaching and learning attracted attention of researchers as well as many of them addressed to student engaged teaching and learning models.

So, Fredy Rodríguez-Mejía (2021) examining educational anthropology, focused more on engaged teaching and learning, which the author limited to active learning, engaged learning and community service learning in general and not analysed particular teaching and learning methods as we proposed in the manuscript. Olugbenga (2021) more described the student-centred method compared to traditional learning.

Following the researcher, we characterized its advantages but also described certain learning methods that correspond to human nature as the basis of anthropological approach in education. Bas and Beyhan (2019) studied the particular student-centred teaching of learning strategies from the position of their effect on academic achievement without emphasizing their correlation with educational anthropology.

Our investigation does not contain research of certain effect but reveals some correlation between anthropological approach in education and modern teaching and learning methodology. A wide range of authors (Holubnycha, & Shatrava, 2017; Karpushyna et al., 2019; Karpushyna, & Bloshchynsky, 2022; Kostikova et al., 2019) pay considerable attention to different teaching and learning methods that correspond to anthropological approach in education without indicating this connection. We totally agree with the high evaluation of the effectiveness of the given methods and explain it by their compliance with the basics of anthropology.

CONCLUSIONS

Thus, in the course of investigation the correlation between anthropological approach to education and modern teaching and learning methodology was established and traced. The anthropological approach to education is one of the central as knowledge about human, his nature and the laws of his development allows designing the educational process.

Firstly, we have found out three different understandings of the essence of the anthropology in relation to pedagogy:

- 1) as a relatively independent, interdisciplinary field of knowledge formed at the intersection of philosophical and pedagogical sciences;
- 2) as theoretical, heuristic and practical orientation of education to the person as its main goal and value, so, as a methodological core and a modern paradigm of the complex of pedagogical sciences (was used for our investigation);
- 3) as a direction of humanitarian studies, humanities.

Secondly, we have revealed and described the following teaching and learning models based on anthropological approach to teaching theory. They are: personality-oriented learning model, student-centred learning model and a model based on individual approach to teaching. As well we have formulated their advantages and requirements to their implementation, some conditions and principles.

Thirdly, we have figured out effective instruction methods based on anthropological approach to education, which can be applied within the designated teaching and learning models.

They are the following: problem-based learning, case study, inquiry-based learning, discovery-based learning, role playing game, game learning, different forms of dialogic learning, team learning, project-based learning, discussion and debates led by a student, trip or expedition learning, as well as numerous methods of work with an interactive whiteboard.

Although we have examined a great deal of instruction methods based on anthropological approach to education, our manuscript is not exhaustive in relation to the topic under study.

CONFLICT OF INTERESTS

There is no conflict of interest for this study.

FUNDING

There is no funding for this study.

REFERENCES

- Anosov, I. P. (2004). *Anthropologism as the Factor of Education Humanism (Theoretical-Conceptual Basis)*. [Doctoral dissertation, Drahomanov National Pedagogical University]. Scientific Library of Drahomanov National Pedagogical University.
- Anosov, I. P. (2015). The place of Pedagogical Anthropology in the Unity and Diversity of Anthropological Knowledge. *Pedagogy of Creative Personality Formation in Higher and Secondary Schools*, 43, 52-57. http://nbuv.gov.ua/UJRN/Pfto_2015_43_9
- Antipin, E. (2022). *Pedagogical Anthropology*. Kyiv.
- Aristova, A. V. (2022, December 11). *Pedagogical Anthropology* [Antropolohiia pedahohichna]. VUE. <https://vue.gov.ua/>
- Bas, G., & Beyhan, Ö. (2019). Revisiting the Effect of Teaching of Learning Strategies on Academic Achievement: A Meta-Analysis of the Findings. *International Journal of Research in Education and Science (IJRES)*, 5(1), 70-87. <https://eric.ed.gov/?id=EJ1198049>
- Batalina, A. Ya. (2001). Civilization-Anthropological Approach as a Methodological Tool in Solving Pedagogical Problems. *Pedagogy and Psychology of Creative Personality Formation: Problems and Searches*, 18, 7-11.
- Blumberg, T. (2012). Consistencies and Inconsistencies between Science Teacher's Beliefs and Practices. *International Journal of Science Education*, 35(7), 1230-1275. <https://doi.org/10.1080/09500693.2012.743196>

- Bondar, T. (2020). Pedagogical Education in the Context of Non-Formal Education: Historical Aspect. *Educational Challenges*, 25(1), 21–30. <https://doi.org/10.34142/2709-7986.2020.25.1.02>
- Borysova, O. V. (2009). *Socio-historical anthropology: electronic. education manual*. Luhansk: Alma Mater.
- Bowen, S. (2005). Engaged Learning: Are We All on the Same Page? (Analysis of Teaching and Learning). *Peer Review*, 7(2), 4–7.
- Dotsenko, S. O. (2016). Implementation of the System-Activity Approach in Mathematics Lessons. *Pedagogy and Psychology*, 55, 52-63. <http://doi.org/10.5281/zenodo.194575>
- Erickson, P.A., & Murphy, L.D. (2017). *A History of Anthropological Theory*. University of Toronto Press.
- Funkhouser, J.L., Friel, J., Carr, M., Likos K., & Lynn, C.D. (2016). Anthropology is Elemental: Anthropological Perspective Through Multilevel Teaching. *Annals of Anthropological Practice*, 40(2), 246–257. <http://dx.doi.org/10.1111/napa.12105>
- Guest, K. J. (2018). *Essentials of Cultural Anthropology: A Toolkit for a Global Age* (2nd ed.). WW Norton & Company.
- Henze, R. (2020). Anthropology of Education. In *Oxford Research Encyclopedia of Anthropology* (pp. nd). Oxford University Press. <https://doi.org/10.1093/acrefore/9780190854584.013.10>
- Holubnycha, L. (2016). Case Studies as One of the Communication Methods of Foreign Language Teaching Law Students. *Problems of Legality*, 135, 245–253. <https://doi.org/10.21564/2414-990x.135.78232>
- Holubnycha, L., & Besarab, T. (2021). General Scientific Basics of Pedagogical History Researches. *Educational Challenges*, 26(1), 41-50. <https://doi.org/10.34142/2709-7986.2021.26.1.04>
- Holubnycha, L., & Shatrava, O. (2017). Using Interactive Whiteboard at English Lessons for Law Students. *Science and Education*, 12, 24-30. <https://doi.org/10.24195/2414-4665-2017-12-3>; https://scienceandeducation.pdpu.edu.ua/doc/2017/12_2017/3.pdf
- Holubnycha, L., & Zelenska, L. (2022). History of Development of the System and Activity-Based Approach to Education. *Theory and Practice of Social Systems Management*, 3, 60-70. <https://doi.org/10.20998/2078-7782.2022.3.05>
- Holubnycha, L., Shchokina, T., Soroka, N., & Besarab, T. (2022). Development of Competency-Based Approach to Education. *Educational Challenges*, 27(2), 54-65. <https://doi.org/10.34142/2709-7986.2022.27.2.04>
- Ionova, O. M., & Kot, O. P. (2013). The Contribution of Teachers of the Second Half of the 19th and early 20th Centuries to the Development of Anthropological Ideas. *Pedagogy, Psychology and Methodological and Biological Problems of Physical Education and Sports*, 11, 17–21. <http://dx.doi.org/10.6084/m9.figshare.821217>

- Karpushyna, M., & Bloshchynsky, I. (2022). English for Border Guards by Means of Problem-Based Technology. *The International Journal of Law, Language & Discourse*, 10(1), 86-109.
- Karpushyna, M., Bloshchynskyi, I., Zheliaskov, V., Chymshyr, V., Kolmykova, O., & Tymofieieva, O. (2019). Warm-Up as a Means of Fostering Target-Language Performance in a Particular English Class. *Revista Romaneasca Pentru Educatie Multidimensionala*, 11(2), 141-159. <https://doi.org/10.18662/rrem/122>
- Kostikova, I., Holubnycha, L., Shchokina, T., Soroka, N., Budianska, V., & Marykivska, H. (2019). A Role-Playing Game as a Means of Effective Professional English Teaching. *Amazonia Investiga*, 8(24), 414-425. <https://www.amazoniainvestiga.info/index.php/amazonia/article/view/1001>
- Kostikova, I., Viediernikova, T., Holubnycha, L., & Miasoiedova, S. (2019). The Competency-Based Approach to Passing First Certificate in English. *Revista Romaneasca Educatie Multidimensionala*, 11(1), 117-130. <https://doi.org/10.18662/rrem/100>
- Lashaw, A. (2018). The Ambiguous Political Power of School Reform. In A. E. Castagno, & T. L. McCarty (Eds.), *The Anthropology of Education Policy* (pp. 103–121). Routledge. <https://doi.org/10.4324/9781315652238>
- Lawson, J. E., Cruz, R. A., & Knollman, G. A. (2017). Increasing Positive Attitudes toward Individuals with Disabilities through Community Service Learning. *Research in Developmental Disabilities*, 69, 1–7. <https://doi.org/10.1016/j.ridd.2017.07.013>
- Levinson, B. A., Winstead, T., & Sutton, M. (2020). An Anthropological Approach to Education Policy as a Practice of Power: Concepts and Methods. In G. Fan, & T.S. Popkewitz (Eds.), *Handbook of Education Policy Studies* (pp. 363–379). Springer. https://doi.org/10.1007/978-981-13-8347-2_17
- Liedtke, M. (2002). *Evolution und Erziehung Ein Beitrag zur Integrativen Padagogischen Anthropologie*. Vandenhoeck & Ruprecht.
- Lopez, P. D., Valenzuela, A., & García, E. (2011). The critical Ethnography of Public Policy for Social Justice. In B. A. Levinson, & M. Pollock (Eds.), *A Companion to the Anthropology of Education* (pp. 547–562). Wiley-Blackwell.
- Lozova, V. I. (2006). Formation and Development of Didactics as a Science. *Pedagogy and Psychology*, 30, 4–17.
- Mehmood, K., Kanwal, W., & Shaheen, M. N. U. K. (2021). Implementation of Activity based Teaching at Primary Level: A Theoretical Perspective. *Pakistan Journal of Educational Research*, 4(1), 15-33. <https://doi.org/10.52337/pjer.v4i1.53>; <https://pjer.org/index.php/pjer/article/view/53>
- Montessori, M. (1917). *The Advanced Montessori Method, 1*. Fredrick A Stokes Company.
- Nestulya, S. I. (2018). Competency-Based Approach to the Development of Leadership Competence of Future Bachelors in Management at the University. *Collection of Scientific Works of Pavlo Tychna Uman State Pedagogical University*, 2, 166-176.
- Olugbenga, M. (2021). The Learner Centered Method and Their Needs in Teaching. *International Journal of Multidisciplinary Research and Explorer (IJMRE)*, 1(9), 64-69. <https://doie.org/10.1016/IJMRE.2021831851>

- Podmazin, S. I. (2000). *Personality Oriented Education: A Socio-Philosophical Study*. Zaporizhzhia.
- Rodríguez-Mejía, F. (2021). Educational Anthropology and Engaged Approaches to Teaching and Learning. In *Oxford Research Encyclopedia of Anthropology*. Oxford University Press. <http://dx.doi.org/10.1093/acrefore/9780190854584.013.203>
- Sandler, J. (2018). Studying Educational Policy through its Dissenters: The Anthropology of U.S. education policy contestation. In A. E. Castagno & T. L. McCarty (Eds.), *The Anthropology of Education Policy* (pp. 82–102). Routledge.
- Sharma, S., & Kumar, R. (2018). Activity Based Learning System in Higher Education: a Student Centred Approach. *International Journal of Social Science*, 7(4), 469-474. <http://dx.doi.org/10.30954/2249-6637.10.2018.5>
- Spencer, L.M., & Spencer, S.M. (1993). *Competence at Work: Models for Superior Performance*. John Wiley & Sons.
- Sturgis, C., Patrick, S., & Pittenger, P. (2011). *It's not a Matter of Time: Highlights from the 2011 Competency-Based Learning Summit*. International Association For K-12 Online Learning; Council of Chief State School Officers. https://www.inacol.org/wp-content/uploads/2015/02/iNACOL_Its_Not_A_Matter_of_Time_full_report.pdf
- Sujay, R. M. (2018). Introducing Anthropological Pedagogy as a Core Component of Twenty-first Century Anthropology. *Anthropological and Sociological Objectives. International Journal of Innovative Science and Research Technology (IJISRT)*, 3(7), 1-66. <http://dx.doi.org/10.2139/ssrn.3680453>
- Sutton, M., & Levinson, B. A. U. (Eds.). (2001). *Policy as Practice: toward a Comparative Sociocultural Analysis of Educational Policy*. Westport, CT: Ablex.
- Trotsko, A. V., & Shtefan, L. A. (2012). *Anthropological Approach*. In V. I. Lozova (Ed.), *Scientific Approaches to Pedagogical Research* (pp. 146–166). Kharkiv.
- Yakymanska, I.S. (1995). Development of Technology of Personality-Oriented Training. *Questions of Psychology*, 2, 31-34.

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

АНТРОПОЛОГІЧНИЙ ПІДХІД В ОСВІТІ ТА СУЧАСНІ МЕТОДИ НАВЧАННЯ

У статті розглядається антропологічний підхід до освіти, зокрема до теорії навчання через призму співвідношення зазначеного підходу та сучасної методики викладання та навчання.

Мета – встановити та простежити співвідношення антропологічного підходу в освіті та сучасної методики навчання.

Завдання: з'ясувати сутність антропології у відношенні до педагогіки; розкрити та описати моделі викладання та навчання на основі антропологічного підходу до теорії навчання; з'ясувати ефективні методи навчання, які можна застосувати в рамках визначених моделей викладання та навчання.

Методами дослідження є аналіз та узагальнення відповідних наукових матеріалів з метою збору та представлення результатів, а також формування висновків.

Результати виявили три різні розуміння сутності досліджуваного феномену, одне з яких (як методологічний стрижень і сучасна парадигма комплексу педагогічних наук із практичною спрямованістю виховання на людину як головну мету і цінність) пов'язане з нашим розслідуванням. Серед відповідних моделей викладання та навчання нами виявлено та описано особистісно орієнтовану модель навчання, студентоцентричну модель навчання та модель, що базується на індивідуальному підході до навчання. Було визначено низку ефективних методів навчання (таких як: проблемне навчання, кейс-стаді, навчання на основі запитів, навчання на основі відкриттів, рольова гра, ігрове навчання, різні форми діалогового навчання, командне навчання та інші).

Зроблено **висновок**, що в сучасній освітній системі антропологічний підхід є одним із центральних, оскільки знання про людину, її природу та закономірності її розвитку дозволяють проектувати освітній процес.

КЛЮЧОВІ СЛОВА: антропологічний підхід, моделі викладання та навчання, методи навчання, освіта, методологічний підхід.

CITE THIS ARTICLE AS (APA style):

Holubnycha, L., & Shchokina, T., & Soroka, N. (2023). The Anthropological Approach to Education and Modern Training and Learning Methodology. *Educational Challenges*, 28(1), 58-71. <https://doi.org/10.34142/2709-7986.2023.28.1.05>



<https://doi.org/10.34142/2709-7986.2023.28.1.06>

USING MEANS OF ELECTRONIC EDUCATIONAL RESOURCES FOR LEARNING LEXICOLOGY AND PHRASEOLOGY

Received: 15/02/2023

Accepted: 15/03/2023

Nataliia HRONA¹, Olena VYSHNYK², & Iryna PINCHUK³



¹ Doctor of Sciences (Pedagogy), Ph.D. in Pedagogy, Associate Professor, Teacher of Higher Category, Methodist-Teacher, Communal Establishment "Ivan Franko Pryluky Humanitarian and Pedagogical Applied College" of Chernihiv Regional Council.

✉ E-Mail: natashagrana@ukr.net

ORCID <https://orcid.org/0000-0003-2578-2865>



² Ph.D. in Pedagogy, Associate Professor, Primary Education Theory and Methods Chair, Oleksandr Dovzhenko Hlukhiv National Pedagogical University, Hlukhiv, Sumy Region, Ukraine.

✉ E-Mail: olenvyshnyk84@gmail.com

ORCID <https://orcid.org/0000-0002-0854-0330>



³ Doctor of Sciences (Pedagogy), Ph.D. in Pedagogy, Associate Professor, Primary Education Theory and Methods Chair, Oleksandr Dovzhenko Hlukhiv National Pedagogical University, Hlukhiv, Sumy Region, Ukraine.

✉ E-Mail: pinchukiryana78@gmail.com

ORCID <https://orcid.org/0000-0002-1376-3977>

ABSTRACT

The article revealed that electronic educational resources (EER) during the study of lexicology and phraseology provide forming communicative skills, enriching and expressing the vocabulary of education seekers.

© Nataliia HRONA, Olena VYSHNYK, & Iryna PINCHUK, 2023

Using Means of Electronic Educational Resources for Learning Lexicology and Phraseology © 2023 by Nataliia HRONA, Olena VYSHNYK, & Iryna PINCHUK is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

The **purpose** of the paper is to analyze the features of using the electronic educational resources during the study of lexicology and phraseology by education seekers.

In the course of the study, a set of research **methods** was used, which included theoretical (literature analysis, synthesis, generalization, comparison) and empirical (observation, conversations, etc.) methods.

The **results**. The development of lexicology and phraseology as sections of linguistic science is determined by analyzing and synthesizing scientific and methodological ideas.

It has been proven that the purpose of creating electronic educational resources is to ensure the modernization of the educational process. Thanks to the usage of EER, the content of lexical and phraseological material is updated, intensive exchange of information between students takes place. It is substantiated that in connection with the spread of COVID-19 and the introduction of martial law, education process in most educational institutions has moved to a distance learning based on information and communication technologies. Therefore, education seekers are actively involved in information resources, have the opportunity to select the necessary material, participate in virtual discussions, and communicate.

It has been found that EER give an opportunity to provide education seekers with the necessary information, increase the level and quality of educational services. The increase in the amount of information, the global processes of humanization, globalization, and integration objectively determine the modernization of the content of educational programs, the renewal of forms, methods and means of learning during the study of vocabulary and phraseology.

Conclusions. It has been proven that there is a need to update the content of curricula and the content of courses in order to further develop communicative competence, since the future personal success of students in adult life depends on the formation of skills to express themselves correctly, and clearly.

KEYWORDS: *Electronic Educational Resources, Lexicology, Phraseology, Education Seekers, Electronic Lexicography, Lexicological Analysis of Words.*

INTRODUCTION

Notable signs of the modern stage of the developing Ukrainian education are its reformation, modernization of content, active search for effective didactic strategies, forms, methods and means of learning, new approaches to forming the image of a modern education seeker capable of productive communication, the

involvement of innovative technologies in the educational process.

Vocabulary and phraseology make up the communicative fund of the language. A word is a functional environment of sounds and morphemes, an expression of grammatical categories. An appropriate combination of words contributes to the realization of the communicative aim of the speaker (Stepko et al., 2004). Therefore,

purposeful, systematic acquisition of knowledge about words, formation of the theoretical and applied aspect of vocabulary enrichment is extremely important. In view of this, the task for teachers is not just to give education seekers full-fledged knowledge, but also to educate a national language personality capable of communicatively justified use of all language means in various speech situations according to competence approach.

Vocabulary and phraseology occupy an important place in the entire process of education seekers' speech developing. Students should not only familiarize themselves with the meaning of words and idioms, sources of their origin, scope of use, stylistic differentiation, but also understand the regularities of the combination of words and idioms, the conditions and peculiarities of their use in speaking.

This expands and deepens education seekers' vocabulary, forms their ability to appropriately use lexemes in speech. The teacher should ground education seekers to master flawlessly all the riches of the language, primarily lexical and phraseological.

The **purpose** of the paper is to reveal the features of using the electronic educational resources during the study of lexicology and phraseology by education seekers.

To achieve the purpose, the following tasks were set:

- to represent the concept of “electronic educational resources”, its components;
- to prove the expediency of using electronic dictionaries in the study of lexicology and phraseology by education seekers;
- argue the effectiveness of the algorithm for creating a presentation for lexicological analysis of words;
- to substantiate the effectiveness of the use of EER for the study of lexicology and phraseology by education seekers.

METHODOLOGY

To achieve the defined aim and solve the set of tasks, a complex of research methods was applied: theoretical analysis and synthesis of linguistic, educational, psychological, and methodical sources on the problems, electronic publications, computer and network resources for educational purposes, questionnaires, interviews in the process of identifying priority areas of application of EER in the course of studying lexicology and phraseology by education seekers.

RESULTS

Knowledge of phraseological units greatly facilitates communication, because phraseological units contain a large stock of information, which can be a means of instant response to the interlocutor's statements or actions. Proverbs and sayings constitute a set of rules for comfortable coexistence in the family, with neighbors, with friends, other people, in society in general. It is important to understand that a person who knows a lot of idioms will never experience difficulties in communication. In the article there are some examples of translations of Ukrainian phraseological units are given.

The means of phraseology can be used to remind people about the rules of etiquette: (*don't laugh at people, and people won't laugh at you*), point out a bad habit, character trait or behavior of a person (a lot of thunder means little rain), describe a person (*a small bird has got a sharp beak*), to express one's attitude

towards something or someone (*nobody has come out clean of dirty water yet*), etc.

Correct use of words and phrases will help avoid conflicts. When studying vocabulary, it is necessary to draw attention to conflict-generating words, so called conflictogens. These are words, actions (or lack of actions) that can lead to a conflict: *get off my back, I didn't take this book! Are you saying that I have multiple sclerosis?*

Conflictogens are components of negative communication. They are most often realized in quarrels (situational aggressiveness). They don't embellish the speaking, increase the aggressive flow of information, generate alienation, hostility, therefore they should be avoided (Hreb, & Hrona, 2021).

In order to identify priority directions for the implementation of electronic educational resources (EER) (Kostikova et al., 2019) in the study of lexicology and phraseology by education seekers, a set of research methods was applied: theoretical analysis and synthesis of literary sources, electronic publications, computer and network resources for educational purposes, surveys of pupils, teachers (190 people).

The study was conducted in Chernihiv, Sumy, and Zaporizhzhia regions during 2020-2022. Observations in lessons of Ukrainian, foreign (English) languages, literary reading, literature, conversations with pupils, questionnaires, systematic familiarization with the quality of oral and written pupils' speaking, in addition to, of course, positive qualities, make it possible to identify typical speaking mistakes, as well as talk about insufficient amount of active vocabulary, difficulties in learning terminological vocabulary.

This shows that the pupils do not know how to increase their vocabulary. Work on this problem in lessons is mostly

fragmentary in nature. As it turned out, schoolchildren learn the ability to communicate in various life situations (in transport, in a store, on the street, on excursions, etc.) in Ukrainian language lessons (38,2%), in other lessons (11,4%), with the help of television (22%) and radio (18,4%), at home from parents (20,5%), from friends (9%). At the same time, 67% of the surveyed pupils strive to improve their speaking, 10% of them are far from such efforts, and 27% do not know how to do it. Prevention and correction of these types of mistakes requires systematic work with pupils.

What should the teacher's work be aimed at during the study of vocabulary and phraseology, based on new approaches to the learning of educational material, in particular, by means of EER.

Thanks to the use of electronic educational resources, the content of lexical and phraseological material is updated, intensive exchange of information between pupils takes place. The intercultural process of assimilating idioms, replenishing the vocabulary acquires a dynamic character.

The teacher has the opportunity to simulate a foreign language environment, create conditions for authentic communication when explaining the sources of the origin of words, intensify the learning of phraseological units, substantiate the meaning and origin, because often their meaning is not motivated by the semantics of the vocabulary because it is necessary to explain how the meaning was historically established (Belmaz, & Serheieva, 2019).

Today, in connection with the active implementation of distance learning, electronic educational resources overcome spatial and temporal limitations, expands the boundaries of information presentation, it can be

obtained from various sources and in various formats. Education seekers are actively involved in information resources, have the opportunity to select the necessary material, participate in virtual discussions (Hreb, 2017).

The study of Ukrainian lexicology and phraseology using EER is determined by the productivity of phraseological units, the high frequency of their functioning in different kinds of speaking, semantic and structural-grammatical diversity, significant connotative potential, which makes it possible to emphasize and optimize the enrichment of pupils' speaking.

Phraseology, and lexicology are especially interesting in the field of ethnic culture, language and conceptual pictures of the world, in particular, of Ukraine (Semenoh, 2008). The use of EER contributes to pupils' awareness of the philosophical position about language as a constantly changing social phenomenon, about the interrelationships of language and thinking, to better understand the cultural peculiarities of vocabulary and phraseology.

EER give an opportunity to provide education seekers with the necessary information, increase the level and quality of educational services. Therefore, the increase in the amount of information, the global processes of humanization, globalization, and integration objectively determine the modernization of the content of educational programs, the renewal of forms, methods and means of education.

This is possible only if the innovative educational space of EER is introduced, providing educational institutions with access to global information resources using high-speed channels. The changes that we observe today in the modern educational space are subordinated to the

main aim – to improve the quality of education, to train highly professional specialists, to form a person as an individual who ensures the development of the state as a whole, and the cultural and spiritual development of society (Rakhmanina et al., 2022).

EER is understood as teaching aids on digital media of any type or placed in information and telecommunication systems, which are reproduced with the help of electronic technical means and used in the educational process. The purpose of the creation of EER is to ensure the modernization of the educational process, meaningful filling of the educational space, providing equal access to the participants of the educational process regardless of their place of residence and form of education in accordance with high-quality educational and methodical materials created on the basis of information and communication technologies (Pro zatverdzhennia Polozhennia ..., 2012).

According to the functional feature of EER in the educational process, they are divided into: electronic educational publications (electronic version, copy, analog) of a printed textbook, electronic textbook, electronic workshop, electronic textbook, electronic course of lectures, electronic study guide, electronic educational game resources, etc.); electronic reference publications (electronic reference book, electronic encyclopaedia, electronic dictionary, etc.); electronic practical publications (collection of virtual laboratory works, electronic methodical recommendations, electronic workbook, etc.).

In accordance with the availability of a printed version, EER is divided into: electronic versions (copies, analogues) of printed publications; independent electronic editions or materials that do not

have printed counterparts. Among the organizational and auxiliary EER, the following are distinguished: an audiovisual work, an electronic reference book, an electronic dictionary, electronic methodical recommendations, electronic tests, electronic didactic demonstration materials (Drushlyak et al., 2022).

A number of requirements ensures the effectiveness of EER implementation: functionality, safety, easy usage, cross-platform compatibility, compliance with the principles of implementation the principles of the state policy of digital development, Ukrainian legislation on copyright protection, international standards (Experience API, etc.).

Increasing the amount of pupils' independent work, ensuring the quality of various forms of the educational process require the use of modern educational literature, which contains the latest scientific achievements and innovative technical characteristics of the world level. That is why it is urgent to introduce EER into the educational process and to form a fund of electronic educational and scientific literature.

The use of EER during educational process provides an opportunity to penetrate deeper into the structure of complex processes and objects being studied. This approach increases interest and motivation for learning, activates cognitive activity, ensures the process of active assimilation of language material, lexical and phraseological in particular. Figurative, vivid and dynamic presentation of information increases the speed and quality of mental processes (Hreb, & Hrona, 2021).

Education seekers find additional information (musical and photo design, historical and biographical commentary), create projects, participate in web quests, linguistic and literary flash mobs, book

trailers, create websites, blogs, etc. Google services are available and effective, which make it possible not only to perform a search in the middle of the service, but also to easily switch from one service to another. For example, LearningApps.org is an online service where you can create interactive exercises and tasks in language and literature.

They can be used in work with an interactive board, or as individual exercises for education seekers. For example: to distribute proper Ukrainian and borrowed words; connect paronyms with the required words; determine the reasons for borrowing words into the Ukrainian language: commercial, cultural, political and others (Sapozhnykov, 2020). LearningApps.org has an accessible and simple algorithm for creating tasks, which makes it possible to effectively combine a formal and creative approach while controlling the acquisition of lexical and phraseological material.

Next step of the research is considering the features of using electronic dictionaries during the study of lexicology and phraseology. The system of lexical units of the language is constantly changing, so there was a need to codify the lexical norm as a model of social communication by systematizing words in dictionaries. Currently, there are rapid revolutionary changes in lexicography due to the use of computer technologies for the description of language units, which contributes to the organization of hypertext space in lexicographic practice and the creation of electronic dictionaries (Mysak, 2008).

The electronic dictionary as a phenomenon is quite new and at the same time very dynamic. The attention of linguists is drawn to problems of compilation, peculiarities of functioning and use of dictionaries.

Computer lexicography is a promising science. The fast pace of modern life is constantly changing the language, and therefore dictionaries should be updated according to the requirements of the time. The task of computer lexicography is to develop computer algorithms, programs, systems and technologies for compiling and using dictionaries. Lexicographic systems make it possible to create dictionary articles, store textual, visual and audio information, process dictionary information (analysis, search, filtering, reproduction, etc.).

For electronic lexicography, the principle of hypertext is of particular importance as the main way of organizing the virtual text space. Today, there are different interpretations of the concept of "electronic dictionary". In our research, we adhere to the definition fixed in the Regulation on electronic educational resources, where it is interpreted as "an electronic reference publication of an ordered list of language units (words, phrases, terms, names, signs), supplemented with relevant reference data" (Pro zatverdzhennia Polozhennia ..., 2012).

The computer implementation of the dictionary makes it possible to overcome part of the mentioned problems, thanks to more advanced possibilities of displaying the content of the dictionary article (for example, with partial display according to different criteria - different "projections" of the dictionary), various graphic tools, the use of various linguistic technologies, such as morphological and syntactic analysis, full-text search, sound recognition and synthesis, etc.

The most popular electronic dictionaries in Ukraine are MultiLex, Lingvo, Kontekst, Polyglossum. Among the actual Ukrainian developments, we can single out the "Large explanatory dictionary of the

modern Ukrainian language" on the *slovnyk.net* portal and the "Dictionaries of Ukraine" system, compiled on the basis of modern academic dictionaries of the Ukrainian language with the help of word-change classification and computer programs developed by specialists of the Ukrainian Language and Information Fund.

To study lexical and phraseological material in the lessons of the Ukrainian language, we use the following electronic dictionaries: "Phraseological dictionary of the Ukrainian language" by Uzhchenko V., Uzhchenko D. (1998); "Phraseological dictionary of the Ukrainian language: in 2 books" by Bilonozhko V., Vynnyk V., Hnatyuk I. (1993); "Idiomatic expressions" on the SlovoPedia website; "Antonyms Dictionary" by Kiyanets P., Polyuga M. (1987); "Practical dictionary of the Ukrainian language synonyms" by Karavanskyi S. (1993).

The Ukrainian language is one of the richest languages in the world, but sometimes we forget about actually Ukrainian words and misuse words of foreign origin (Hrona, 2009). Therefore, the task of selecting Ukrainian counterparts is quite interesting, and electronic dictionaries provide an opportunity to quickly find the necessary substitute. For example: actual – urgent; analysis – examination; digest – brief summary; debate – discussion, dispute.

Effectiveness of learning the material, the process of independent search for information and its processing, for self-control, etc. can contribute to the use of monolingual electronic dictionaries in lessons, in which language material is presented simultaneously in visual and audio forms. The synthesis of audio and visual sources of receiving information activates the synthesis of various types of memory and thinking, which in turn

intensifies the educational process and increases the efficiency of assimilation of the studied material (Sholomiy, 2009).

In order to popularize lexicographic electronic resources, we hold presentations of new linguistic dictionaries in the form of short student messages of lexicographic content. Linguistic analysis of lexical material with the involvement of lexicographic sources, which acts as a component of the method of exercises, in particular lexical and lexicographic ones. For example, solve a linguistic task (clarify / explain the meaning of words or phraseological units, determine the category / stylistic coloring of the vocabulary, establish / characterize the systemic relations of lexical units, etc.), using the appropriate dictionary.

We involve pupils in working with electronic dictionaries to perform creative and research tasks. For example: *choose a synonym series for the word; find out the lexical meaning of each word; are there borrowed words in the synonymous series? Trace the path of their borrowing.*

Therefore, work with a dictionary should have an accompanying nature, so that education seekers have the opportunity to get acquainted in detail with various types of dictionaries, their functional purpose, structure, successively were able to navigate the structure of the dictionary of each type and obtain the necessary and operative information for them.

The use of electronic dictionaries makes it possible to overcome the contradictions of lexicography: between the volume of the dictionary and the convenience of using it; between the completeness of the description of the lexical meaning and the correspondence of the illustrative material of the dictionary to the modern linguistic and cultural situation; between the breadth of the dictionary's lexicographic

concept and the limitation of its lexical base.

The need for such dictionaries is growing, as this type of publication is cheaper than printed products, speeds up the search for necessary information, and diversifies and optimizes the educational process. The development of electronic dictionaries is progressing, competing with traditional publications.

And now let's focus on the algorithm for creating a presentation for lexicological analysis of words. In order to quickly and accurately find the right word in the appropriate speaking situation, one should first of all understand the systemic connections of lexicology, which greatly facilitate its search, because the defined nominative unit is within a small part of the vocabulary – a lexical-semantic group or a synonym series. We form such pupils' skills during lexicological analysis. Lexicological analysis makes it possible to comprehensively and fully characterize a word as a unit of the lexical-semantic level, that is, to show all its features through the clarification of systemic semantic and stylistic connections.

This type of work provides an opportunity to consolidate theoretical knowledge about the word as a lexical unit of the language, to develop skills in working with the word in context and working with dictionaries of various types. During the lexicological analysis, we find out the lexical meaning of a word, its ambiguity, we determine synonymous and antonymic connections, origin, stylistic affiliation. Pupils demonstrate the ability to find out the meaning of a lexeme, semantic type, and select stable inflections. Determining lexical meanings and their nuances, identifying various connections of a word, its etymology is often associated with certain difficulties, therefore, in the process of analysis, it is

necessary to use various linguistic dictionaries and electronic ones in particular. Working with them activates, deepens and organizes education seekers' knowledge of lexicography.

We offer a presentation algorithm for lexicological analysis: to the sources of word origin; combination of words with other words; cognate words; lexical meaning of the word; synonyms, antonyms, homonyms; sentences, phraseological units, proverbs, sayings, colloquialisms, texts; creative work (compose a poem, senkan, essay).

Traditionally, in classes, we teach intending primary school teachers to create presentations in compliance with the relevant requirements, using the MS Office PowerPoint program and specialized editors: Macromedia Flash, Picasa, Photodex ProShow, etc. In particular, the Picasa program (Google, Inc.) makes it possible to easily separate static and dynamic images from the Internet; it is convenient and quick to project both slide shows and educational films; add text and sound comments to the project; create collages from static images; easily upload images to web albums and more. We place the created web albums on the university server, evaluate and use them according to educational needs.

When preparing a presentation, students take into account the requirements for the content and design of the slides: each slide should reflect one idea; the text should consist of short words and simple sentences (6–8 lines, the total number of words should not exceed 50); verbs must be in the same tense; headings should attract the attention of the audience and summarize the main ideas of the slide; in the headings, we write capital and small letters (and not only capital letters); the number of blocks of statistical data on one

slide is no more than four; the signature to the illustration is mixed under it, not above it; all presentation slides should be maintained in the same style; we place the most important information in the center of the slide; the presence of no more than one logical emphasis: brightness, outline, flickering, movement; we present information in an attractive, original way; the optimal number of slides is 20-25.

The use of presentations in the process of studying lexicology and phraseology facilitates the process of memorization, since a significant amount of information is perceived by visual and auditory receptors at the same time, it optimizes the time for studying educational material.

Thus, during lexicological analysis, it is necessary to apply such types of work that integrate effective methods of traditional teaching with elements of pedagogical innovations. An indispensable condition for this type of work is constant, flexible work on the word in the system that we plan for each lesson. The combination of various forms and methods of work in Ukrainian language lessons during the study of lexical and phraseological material is an important means of stimulating the active cognitive activity of schoolchildren, forming and consolidating their intellectual skills, and forming communicative competence.

DISCUSSION

In the scientific and methodological paradigm, certain aspects of the specified problem are highlighted. Recently, special attention has been paid to the practical orientation of learning vocabulary and phraseology, improving the communicative abilities and skills of pupils on the basis of mastering certain lexicological and phraseological concepts. The process of active independent speaking activity is highlighted - analytical

(perception, text analysis) and synthetic, creative during the creation of one's own statements with appropriate, stylistically justified use of lexemes and idioms.

However, intelligence related to the study of vocabulary and phraseology is neglected. We believe that more attention needs to be paid to the coverage of the material, which involves getting acquainted with the ways of interpreting words in the process of communication, especially business, solving the problem of specifying the meaning of a particular word, a word combination that brings the nominative function closer to the communicative one.

In connection with the spread of COVID-19 and Russia's armed aggression against Ukraine, the training has moved to a distance form based on information and communication technologies. The interaction of the participants of the assessment process in distance learning takes place within the limits of an artificially created communicative space. Communicative space implies a formed situation of interaction, in which there is a place, time and mutual desire for communication aimed at the realization of the educational purpose. In the conditions of distance learning, this process is more complicated, generated by the need for joint activity, perception and understanding of others in the virtual space.

The theoretical and applied aspect of the problem of implementing EER during the study of lexicology and phraseology by education seekers has not been sufficiently developed, and therefore teachers do not use such resources to their full extent. Therefore, the topic of our research is relevant.

The scientific investigation of the state of development of the problem proves that for many years in Ukraine, lexicology as a

branch of linguistic science was not an object of independent research. The term "lexicology" was first introduced into scientific circulation in 1765 by the French researchers: D. Diderot and J. L. D'Alembert in the encyclopedia, which gives grounds for asserting the existence of ancient traditions in lexicological research. Separate investigations were considered within the framework of poetics, rhetoric and lexicography.

Subsequently, a scientific research paradigm for the study of Ukrainian lexicology and phraseology was formed, the content of training aimed at the development of the subject's personality was outlined. Only in 1970, the sections "Lexicology" and "Phraseology" were introduced into the school course of the Ukrainian language, which for a long time were studied in a decentralized manner.

Today, there are many works dedicated to learning vocabulary and phraseology. For example, D. Wilkins (1972) suggested studying the vocabulary of the English language on a communicative basis, S. Thornberry (2002) focuses on the informativeness of the word, grammatical compatibility, connotation and frequency of use (p. 148), Nor-Bert Schmitt (1995, p. 86–94.) and Shigenori Tanaka (2016) also support this opinion.

The connection between word-forming and lexical processes is highlighted in the works of the German linguist M. Dokulil (2011), the English researcher Debor Shaffer (2001, p. 24]. Semantic changes, which reproduce the strategies of the content development of a language unit in diachronic and synchronic aspects, were analyzed by B. Lewandovska-Tomaschuk (1985). But the linguodidactic aspect of studying vocabulary and phraseology, in particular, by primary

school pupils, remains out of the attention of scientists.

At the same time the issue of using electronic educational resources in the process of study lexicology and phraseology is very important nowadays. Some researchers believe that EER is mainly developed without regard to their capabilities, in the course of application, the personal communication of the participants of the educational process decreases (language learning takes place on a communicative basis), sometimes it is difficult to predict in advance how pedagogically justified the response of the computer curriculum to the pupil's actions will be.

The standardized use of EER in the educational process deprives pupils of the opportunity to develop their own active strategy and reveal a creative approach, the didactic inefficiency of a significant number of pedagogical software tools, the low information culture of the subjects of education, the unsatisfactory cooperation of programmers with teachers and methodologists (Shmaley, 2007). We take a different view.

CONCLUSIONS

Educational resources of the new generation have significant advantages: the educational process using them is

multimedia-filled and interactive. In addition, education seekers support the ability to penetrate deeper into the structure of complex processes and objects being studied, to reach almost any degree of detail, including the internal structure of the process being studied. This will make it possible to raise the level of educational achievements in general and in the study of lexicology and phraseology in particular.

After all, the study of vocabulary and phraseology develops the attention of education seekers to the meaning and words use in their own speaking, cultivates the need to choose the necessary word for accurate expression of thought, develops a sense of language. Interest in the language as a whole is fostered through interest in vocabulary. EER provide an opportunity to optimize, diversify, facilitate, pupil's interest in the linguistic material of lexicology and phraseology. They quickly and efficiently model the necessary lexical units. Completing tasks with the use of EER ensures the formation of lexical abilities and skills, education seekers are getting closer to independent search: from the analysis of lexical phenomena in the proposed linguistic material (individual words, phrases, sentences, texts) to their use in their own utterances.

CONFLICT OF INTERESTS

There is no conflict of interest for this study.

FUNDING

There is no funding for this study.

REFERENCES

Belmaz, Ya. M., & Serheieva, I. S. (2019). Instrumenty efektyvnoyi komunikatsiyi dlya vykladachiv inozemnykh mov pedahohichnoho ZVO [Tools of Effective Communication for Teachers of Foreign Languages of Higher Pedagogical Educational Establishments]. *Zbirnyk naukovykh prats «Pedahohika ta psykhohihiya»*, 62, 3 – 14. <http://doi.org/10.34142/2312-2471.2019.62.01> [in Ukrainian].

- Diakiv, A. A. (2011). *Yakist osvity u VNZ* [Quality of Education in Universities]. Naukova dumka. [in Ukrainian].
- Dokulil, M. (1962). *Tvořeni slov v češtině*. Nakl. Československé akademie věd. [in Czech].
- Drushlyak, M., Semenoh, O., Hrona, N., Ponomarenko, N., & Semenikhina, O. (2022). Typolohiya internet-resursiv dlya rozvytku infomediynoyi hramotnosti molodi [Typology of Internet Resources for the Development of Youth's Infomedia Literacy]. *Information Technologies and Learning Tools*, 88(2), 1–22. <https://doi.org/10.33407/itlt.v88i2.4786> [in Ukrainian].
- Hreb, M. M. (2017). Natsionalno-kulturny komponent zmistu navchannya leksykolohiyi i frazeolohiyi ukrayinskoyi movy [The National-Cultural Component of the Content of Teaching Lexicology and Phraseology of the Ukrainian Language]. *Ukrayinska mova i literatura v shkolakh Ukrayiny*, 6(144), 3–8 [in Ukrainian].
- Hreb, M. M., & Hrona, N. V. (2021). Informatsiyno-komunikatsiyni tekhnolohiyi yak zasib formuvannya linhvodydaktychnoyi kompetentnosti maybutnikh uchyteliv pochatkovykh klasiv. [Information and Communication Technologies as a Means of Forming Linguodidactic Competence of Future Primary School Teachers]. *Information Technologies and Learning Tools*, 82(2), 109–126. <https://doi.org/10.33407/itlt.v82i2.3288> [in Ukrainian].
- Hreb, M., Hrona, N., Chumak, V., Vyshnyk, O., & Hreb, V. (2020). Speech Competence of Primary School Students: Cognitive Approach. *Journal of History Culture and Art Research*, 9(2), 165–174. <https://doi.org/10.7596/taksad.v9i2.2437>
- Hrona, N. V. (2009). Systema roboty nad slovnykovymy slovamy z uchnyamy 1–4 klasiv. [The System of Working on Vocabulary Words with Students of Grades 1–4]. *Pochatkova shkola*, 5, 8–12 [in Ukrainian].
- Kostikova, I., Shevchenko, A., Holubnycha, L., Popova, N., & Budianska, V. (2019). Use of Machine Translation Technology for Understanding Scientific and Technical Texts. *Journal of Theoretical and Applied Information Technology (JATIT)*, 97(4), 1355–1366. <http://www.jatit.org/volumes/Vol97No4/24Vol97No4.pdf>
- Lewandowka-Tomaszczyk, B. (1985). On Semantic Change in a Dynamic Model of Language. In J. Fisiak (Ed.), *Historical Semantics: Historical Word-Formation* (pp. 297–323). Berlin: Mouton de Gruyter.
- Mysak, R. (2008). Kompiuterni slovnyky: klasyfikatsiya ta ukladannya. [Computer Dictionaries: Classification and Compilation]. *Problemy ukrayinskoyi terminolohiyi: zb. nauk. prats*, 52–55 [in Ukrainian].
- Pashko, A., & Pinchuk, I. (2020). Methods of Classifying Foreign Language Communicative Competence Using on the Example of Intending Primary School Teachers. In S. Babichev, V. Lytvynenko, W. Wójcik, S. Vyshemyrskaya (Eds.), *Lecture Notes in Computational Intelligence and Decision Making. ISDMCI. Advances in Intelligent Systems and Computing*, 1246 (pp. 98–113). Springer, Cham.
- Polyanskyi, P. (2011, April 6). *Pro perevahy i vrazlyvi mistysya elektronnykh pidruchnykiv* [About the Advantages and Vulnerabilities of Electronic Textbooks]. Osvita.ua.

- Pleiades Publishing House. http://osvita.ua/school/school_today/16840/ [in Ukrainian].
- Pro zatverdzhennia Polozhennia pro elektronni osvichni resursy. Nakaz № 1060 [On the Approval of the Regulation on Electronic Educational Resources] (2012) (amended 29.05.2019) <https://zakon.rada.gov.ua/laws/show/z1695-12#Text> [in Ukrainian].
- Rakhmanina, A., Pinchuk, I., Vyshnyk, O., Tryfonova, O., Koycheva, T., Sydorko, V., & Iliencko, O. (2022). The Usage of Robotics as an Element of STEM Education in the Educational Process. *IJCSNS International Journal of Computer Science and Network Security*, 22(5), 645-651. <https://doi.org/10.22937/IJCSNS.2022.22.5.90>
- Sapozhnykov, S. V. (2020). Teoretychni ta prykladni aspekty formuvannya kultury profesynoyi komunikatsiyi maybutnikh fakhivtsiv [Theoretical and Applied Aspects of Forming the Culture of Professional Communication of Intending Specialists]. *Zbirnyk naukovykh prats «Pedagogika ta psykholohiya»*, 63, 142-150. <http://doi.org/10.34142/2312-2471.2020.63.15> [in Ukrainian].
- Schaffer, D. (2001). The story of e-. *English Today*, 17(4), 22-26. <https://doi.org/10.1017/S0266078401004035>
- Schmitt, N. A. (1995). Fresh Approach to Vocabulary: Using a Word Knowledge Framework. *RELC Journal*, 26(1), 86-94. <https://doi.org/10.1177/003368829502600105>
- Semenoh, O. (2008). Leksykohrafichna kompetentsiya yak pokaznyk movnoyi kultury osobystosti. [Lexicographic Competence as an Indicator of the Language Culture of the Individual]. *Ukrayinska literatura v zahalnoosvitniy shkoli*, 2, 41-44. [in Ukrainian].
- Shmaley, S. (2007). Tekhnolohiyi navchannya ta psykhhichne zdoroviya. [Learning Technologies and Mental Health]. *Naukovyy svit*, 3, 20-21 [in Ukrainian].
- Sholomiy, K. M. (2009). Psykholohiya i kompyuter. [Psychology and Computer]. *Informatyka ta osvita*, 6, 320 [in Ukrainian].
- Stepko, M., Boliubash, Ya., Shynkaruk, V., Hrubinko, V., & Babyn, I. (2004). *Vyshcha osvita Ukrayiny i Bolonsky protses* [Higher Education of Ukraine and the Bologna Process]. Navchalna knyha – Bohdan. [in Ukrainian].
- Tanaka, S. (2016). Lexical Competence in English. *CIFLE Report*, 8, 1-32.
- Thornbury, S. (2002). *How to Teach Vocabulary*. Pearson ESL.
- Wilkins, D. A. (1972). *Linguistics in Language Teaching*. Cambridge: The MIT Press.
- Yaremenko, P. C. (2011). *Yakist osvity v Ukrayini* [The Quality of Education in Ukraine]. Libpa. [in Ukrainian].

АНОТАЦІЯ / АБСТРАКТ [in Ukrainian]:

ВИКОРИСТАННЯ ЗАСОБІВ ЕЛЕКТРОННИХ ОСВІТНІХ РЕСУРСІВ ДЛЯ ВИВЧЕННЯ ЛЕКСИКОЛОГІЇ І ФРАЗЕОЛОГІЇ

У статті з'ясовано, що електронні освітні ресурси (ЕОР) під час вивчення лексики та фразеології формують комунікативні вміння, збагачують й увиразнюють словниковий запас здобувачів освіти.

Мета статті полягає в розкритті особливостей застосування електронних освітніх ресурсів під час вивчення лексикології і фразеології здобувачами освіти.

У ході дослідження було використано комплекс **методів дослідження**, що містив теоретичні (аналіз літератури, синтез, узагальнення, порівняння) й емпіричні (спостереження, бесіди тощо) методи.

Результати. Шляхом аналізу і синтезу науково-методичних ідей визначено становлення лексикології і фразеології як розділів мовознавчої науки.

Доведено, що метою створення ЕОР є забезпечення модернізації освітнього процесу. Завдяки використанню ЕОР відбувається актуалізація змісту лексичного і фразеологічного матеріалу, інтенсивний обмін інформацією між учнями. Обґрунтовано, що у зв'язку з розповсюдженням COVID-19 та запровадженням воєнного стану навчання у більшості закладів освіти перейшло в дистанційну форму на базі інформаційно-комунікаційних технологій. Тому учні активно залучаються до інформаційних ресурсів, мають можливість оперативно відбирати потрібний матеріал, брати участь у віртуальних дискусіях, комунікувати.

З'ясовано, що ЕОР дають можливість забезпечити учнів необхідною інформацією, підвищують рівень та якість освітніх послуг. Збільшення обсягу інформації, світові процеси гуманізації, глобалізації, інтеграції об'єктивно зумовлюють модернізацію змісту освітніх програм, оновлення форм, методів і засобів навчання під час вивчення лексики і фразеології.

Висновки. Доведено, що є потреба в оновленні змісту навчальних планів та контенту дисциплін з метою подальшого розвитку комунікативної компетентності, оскільки від сформованості навичок висловлюватися правильно, зрозуміло й чітко залежить майбутній особистісний успіх учнів у дорослому житті.

КЛЮЧОВІ СЛОВА: електронні освітні ресурси, лексикологія, фразеологія, здобувачі освіти, електронна лексикографія, лексикологічний аналіз слів.

CITE THIS ARTICLE AS (APA style):

Hrona, N., Vyshnyk, O., & Pinchuk, I. (2023). Using Means of Electronic Educational Resources for Learning Lexicology and Phraseology. *Educational Challenges*, 28(1), 72-85. <https://doi.org/10.34142/2709-7986.2023.28.1.06>



<https://doi.org/10.34142/2709-7986.2023.28.1.07>

THE METHODOLOGY OF DELAYED INTERACTION TECHNIQUES APPLICATION IN L2 ASYNCHRONOUS LEARNING AND TEACHING

Received: 13/02/2023


Accepted: 13/03/2023

Anhelina KOLISNICHENKO

Ph.D. in Pedagogy, Associate Professor, English and Its Methodology Teaching Department, Pavlo Tychyna Uman State Pedagogical University, Uman, Ukraine.



✉ **E-Mail:** a.kolisnichenko@udpu.edu.ua

 <https://orcid.org/0000-0002-2727-5042>

ABSTRACT

In the new global education, online learning and teaching have become central issues for different methodology development. This paper examines the ways for asynchronous foreign language teaching mode.

*The **purpose** of this study is to define specific techniques that are applicable to asynchronous interaction in the process of foreign language learning and teaching. The aim of this paper is also to work out the methodology for their use.*

Methodology. *For this study, a number of research methods were used. The previous studies' analysis was used for the examination of the recent findings. A qualitative case-study experiment was used to investigate personal teachers and students' experience with delayed interaction techniques (DIT) use in the process of Foreign Language (FL) Methodology teaching and learning that is a component of FL teachers training course in the department of foreign languages of Pavlo Tychyna Uman State Pedagogical University in Ukraine. The methodological approach offered an effective way of compiling delayed interaction technique stages. Data were gathered from the students' feedback survey that was used as a qualitative method. The online software of the Voyant tool, one of the more practical ways for survey results visualization was applied.*

Results. *One of the main findings of the current study is a clarification of the delayed interaction technique notion, which is suggested as a definition in the context of the current study issue. The second finding is developing the*

© Anhelina KOLISNICHENKO, 2023

The Methodology of Delayed Interaction Techniques Application in L2 Asynchronous Learning and Teaching © 2023 by Anhelina KOLISNICHENKO is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

methodology of using DIT in a second language (L2) asynchronous learning and teaching mode of studying. The methodology includes seven steps for DIT application.

Conclusions. *This study has found that generally, interaction is possible to use even asynchronously in conditions that prevent immediate interaction. The results of this study have no limitations for application according to educational institutions, and learners' age of L2 level. However, for effective DIT applications, it is necessary for teachers and students to have enough digital skills, internet and gadgets access. Further work needs to be done to examine more online resources such as software, apps, and tools for using them in asynchronous L2 learning and teaching.*

KEYWORDS: *Delayed Interaction Technique, Asynchronous Mode, Methodology, Digital Tools, Online Software, Interactive Activities.*

INTRODUCTION

In recent years mankind has changed social life globally. The COVID-2019 pandemic gradually influenced different fields of people's activities such as communication, routine, work and education. Pandemic limitations and other preventive measures became the main causes that have rapidly changed the way of teaching and learning. Students and teachers developed their digital skills and adapted to the new conditions with benefits and drawbacks. Online education has replaced the face-to-face mode of studying for more than two years and in some countries, students are still studying distantly.

In Ukraine, the problem of remote education is increasingly recognised as a serious, especially after Russian armed aggression against Ukraine. Before the Russia's large-scale invasion, during the COVID-2019 pandemic, Ukrainian teachers have already learned how to work distantly in general, using apps for video meetings with students and other online resources. The majority of them have changed their ways and approaches and taught students effectively. All the participants had the possibility to work online according to the timetable using

the Internet, gadgets and in a place that was suitable to study.

In the new Ukrainian reality, since February 24, 2022, many teachers and students cannot work synchronically online as they used to do because of different reasons. They are as follows: absence of Internet connection and access, lack of electricity, moving the other place of living, destroyed houses and schools, frequent air alerts, and threat to life in the whole country and especially in the part of Ukraine under Russian occupation. The main challenge for teachers and students during the Russian-Ukrainian war is to continue the educational process but stay safe. A primary concern of education in Ukraine now is the safety of all the participants in the educational process.

The issue of specific methodology application for asynchronous distance learning and teaching has received considerable critical attention in general and for L2 (second language) learning in particular. Asynchronous L2 learning and teaching is a major area of interest within the methodology approach for distance mode of studying. Our previous studies of L2 distance teaching and learning peculiarities Bezliudnyi, O., Komar, O.,

Kolisnichenko, A., & Kapeliushna, T. (2022), Kolisnichenko A. (2022) showed the importance of further investigation concerned with interaction techniques application (Kostikova I., Gulich, O.) in the asynchronous mode of studying.

Recent developments in the field of L2 methodology have led to a renewed interest in synchronic and asynchronous L2 learning and teaching. Interaction in and beyond the L2 classroom is defined as a key factor in mastering the language, raising motivation and involving learners in process of foreign language acquisition. A number of Ukrainian researchers Komar, O. & Komar, O. (2018), Komar, O. (2020), Horbanova, O., Holiak, V., Shcherbitska, V., & Kulko, V. (2022) have shown an increased interest in SLL (second language learning) interaction technologies investigating.

The issue of online interaction in L2 learning was widely investigated by many foreign researchers Abe, M. (2021), Tao, J., & Gao, X. (2022), Owens, W. (2022) and others. These studies have indicated a great number of methods that are applicable to online L2 learning and some of them have found more appropriate ways of their use. These methods are considered to become efficient for synchronic online L2 learning and many of them contain interactive technologies. It can be possible because of the possibility to use of a communicative approach during online lessons. There is a difficulty with working in small groups but with the help of breakout rooms, it became possible to manage the interaction between students.

A number of authors have reported analyses of trends in synchronic and asynchronous online interaction in L2 learning. For example, Canals et al. (2020) carried out an exploratory study and implemented a new type of delayed immediate corrective feedback (DICF) and

analyzed second language learners' and teachers' perceptions regarding its effectiveness and usefulness. The results of this investigation showed that teachers and learners responded positively to DICF. The feedback is a kind of interaction between teacher and student that can be delayed or immediate, oral or written, verbal or non-verbal. But this paper will focus on delayed interaction in a broader meaning.

In another study, Dziubata Z. (2020) analysed the forms of online teaching and the requirements for their implementation. The author reported that the methods and materials for synchronous and asynchronous distance learning classes should be different from each other and traditional face-to-face mode. Dziubata concludes that the approach must be significantly redefined. This view is important for our study as shows the need to develop a specific methodology for the asynchronous mode of learning.

One more study by Fakhre Ajabshir, Z. (2019) caused our interest as it investigates the effect of computer-mediated communication in comparison with traditional face-to-face instruction. This research also examined the differential impacts of synchronous and asynchronous CMC modes on pragmalinguistic and sociopragmatic competencies. In the same vein, Pratiwi et al. (2021) in their paper note the importance of synchronous and asynchronous methods for distance English learning. Detailed examination of the reasons for the current teaching and learning process problems indicated the methods used in synchronous and asynchronous modes. Together, these studies outline that the methods for interaction can vary according to the L2 learning modes.

Almost every paper that has been written on education during the COVID-2019 pandemic includes a section relating to online learning. Similarly, Bergdahl Nina (2020) identified 12 elements in second-language online learning designs (LDs) that were aimed to engage learners and support online learning. Bergdahl's study states that identifying local elements may be helpful to support professional development, as well as to reframe teachers' digital practices post-pandemic time. The case study that investigates the growth of reflective thinking skills in pre-service English language teachers made by Mumford, S., & Dikilitaş, K. (2020) also caused our scientific interest.

The most important result of their research highlighted the importance of online learning implications and the difficulties in social online interaction management. The studies presented thus far provide evidence that the problem of online distance technologies is widely studied. Many of them indicated the importance of choosing specific methods for different modes of learning (Kostikova, I., Holubnycha, L.). Despite this, very few studies have investigated interaction during synchronic online lessons and are even less concerned about asynchronous interaction in L2 learning.

This paper attempts to show that interaction can be delayed and work effectively for L2 practising in asynchronous mode learning. The aims of this study are to define the notion of delayed interaction in the context of L2 learning and to develop the methodology for using it as a technology for the asynchronous mode of studying. The purpose of this research is to share experiences of using this technology in different educational institutions.

So far, very little is known about the notion of delayed interaction. To Summarize this

part of the paper, I attempt to give a definition of this term in the context of using it in L2 learning methodology discourse. Interaction in methodology is deeply connected with the name of Long who first proposed the second language acquisition interaction hypothesis. Long M. (1981) also gave a clear definition of interaction: "By interaction is meant the functions served by those forms, such as expansion, repetition, and clarification" (p. 259).

These forms are deeply connected with face-to-face or partially with synchronic online communication. In asynchronous mode, the forms should be changed that is the reason for modifying interaction and making it delayed. This indicates a need to define the notion of a delayed interaction technique that is possible to use asynchronously. It is necessary here to clarify exactly what is meant by DIT. *So, in the context of this research, the delayed interaction technique is the asynchronous communicative practice or activity designed for students by means of online resources that is postponed in time.*

METHODOLOGY

The use of a qualitative case study is a well-established approach in personal experience investigation. This work takes the form of a case study that is based on the subject of Foreign Language Methodology as a component of the FL teacher training course in the department of foreign languages of Pavlo Tychyna Uman State Pedagogical University in Ukraine.

The methodological approach taken in this study is a mixed methodology based on compiling delayed interaction technique stages. A qualitative method was used in this investigation to collect and describe the data of survey results. The Voyant Tool was used for survey results visualization. We also took analysis

methods to define the notions of new terms and ways for developing the methodology of the delayed interaction technique.

Participants: The delayed interaction techniques were suggested for 30 students-sophomores who studied the subject of Foreign Language Methodology in the Department of Foreign Languages as a technology for learning. They also took part in a survey containing questions about this issue.

Procedure. The research was designed according to the investigation structure and consists of adherent stages.

Stage 1. Planning the lessons with delayed interaction techniques application;

Stage 2. Delayed interaction techniques design according to the curricular requirements;

Stage 3. Selecting digital tools for delayed interaction techniques application;

Stage 4. Data collecting and analysis using a survey for giving feedback on a course;

Stage 5. Developing the methodology for using asynchronous delayed interaction techniques.

In the first stage, the distance online lessons plan with delayed interaction techniques application was worked out. During the experiment, my students and I had synchronic and asynchronous modes the choice of which depended on the conditions we had at the time of the lesson. For effective work, I compiled two plans that were not very different. The main difference between them was using interactive activities.

The FL Methodology course that is the result of the British Council Project “New generation school teacher” is mostly based on practical interactive lessons. The traditional, face-to-face lesson had the following plan: Introduction, Reflection

Activity or Lead-in, Mini lecture or Definition activity, 2-4 Discussion activities including reading texts with following discussion or watching educational videos about the topic, Reflection, Summarizing, Assigning follow-up task. The structure was not different for online distance lessons and most activities were suitable for synchronic online lessons as there were enough possibilities for interaction.

Speaking about the asynchronous distance lessons, the plan of it used without changes but some methods and techniques were different as were not possible to do, for example, immediate discussion or work in groups for definition compiling etc. The activities that required immediate discussion were replaced by activities with delayed discussion involving students to share their thoughts and opinions in writing them later using online resources available for it. A number of online resources were used for creating posters, definitions, projects, etc. So, the structure of the asynchronous lesson was without changes but some activities were planned with delayed interaction techniques using as was required.

During the second stage, the delayed interaction techniques were designed according to the curricular requirements. The topics included in units of the FL Methodology curriculum have different objectives and relevantly the activities have been chosen according to defined objectives. In this study, we pay attention to the interactive activities that we classified into some groups: Reflection, Discussion, and Creation. Reflection activities were designed as question-answers and discussion was in the form of taking position activities or solving problems of case studies.

Students were given clear instructions in which I suggested a question or more with following sharing a personal experience or

their thoughts about the issue of a curricular topic using appropriate digital resources. Creating activities were designed including clear video instruction, case-study analysis, creating a project/poster/definition, sharing the links on the digital tools that were used for the activity, and evaluating them by other students using the chosen tool.

The most challenging stage was selecting digital tools for delayed interaction

techniques application. The online resources required for delayed interaction activities should be in constant access, giving the possibility to create posts with students' personal ideas. Online software Mentimeter and Google App Jamboard worked efficiently for reflection activities. The most suitable slide types for reflection activities in Mentimeter are Word cloud (Figure 1) and Open-Ended ones (Figure 2)

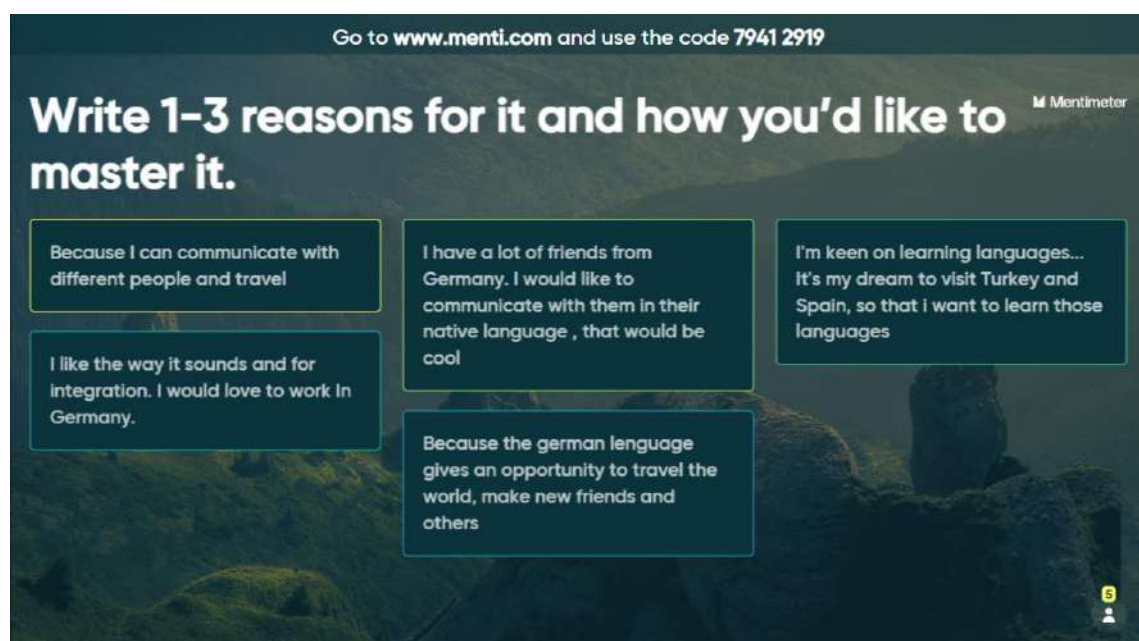
Figure 1

Delayed interactive activity. Reflection. Word cloud



Figure 2

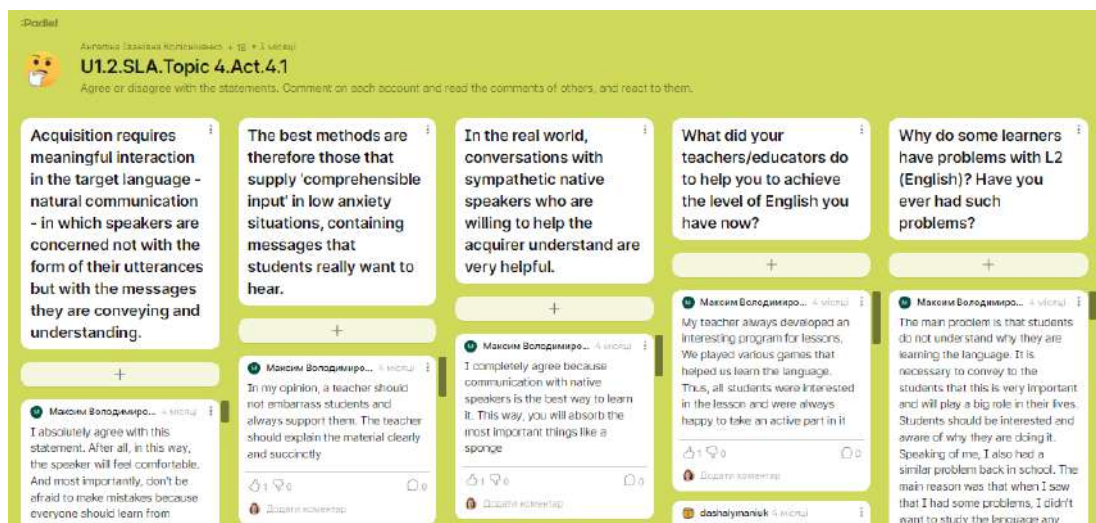
Delayed interactive activity. Reflection. Open Ended slide type



Discussion delayed interactive activities required not only posts searing but possibilities for other students' posts' reactions and comments. The most suitable software for these purposes is Padlet and Google Chat App. The platform of Padlet allows to create a board that can be easily used by teacher and students and interact with each other by writing

posts or giving feedback on other posts. According to the possibilities of Padlet students can do it any time: during synchronic online or traditional offline lessons but it the extremely important to mention that students can do the task later, after the lesson so, can be used for delayed interactive activities. The example is given below in figure 3.

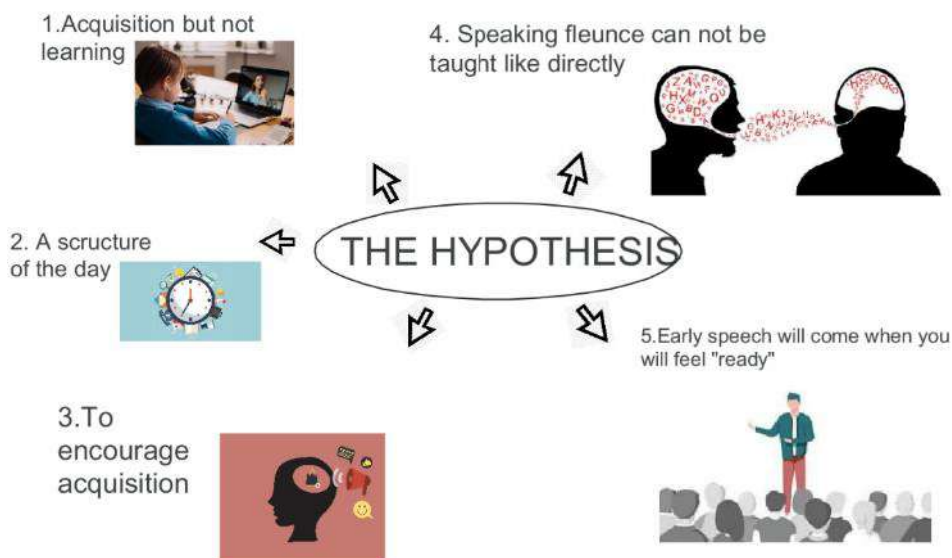
Figure 3
Delayed interactive activity. Discussion. Padlet wall



For creation activities, students were suggested Jam board Google App. This is an online board that gives the possibility to create a poster, work out the definition or drag objects to match or find relevance etc. This board can be created by teachers

or by students and all the learners who work in small groups or all together can take part in creating the process by having shared access. One of the posters is presented in figure 4.

Figure 4.
Delayed interactive activity. Creation. Jam board poster.



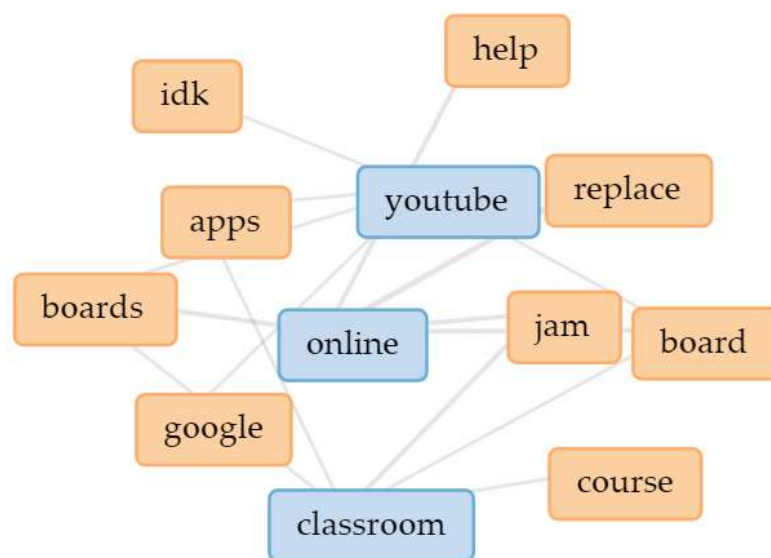
RESULTS

Stages 5 and 6 of the research will be described in this part of the paper. Stage 5 aimed to analyze the effectiveness of using the delayed interaction technique and collect data using the results of the Methodology course feedback survey. The survey was given to students for the Methodology course evaluation during the first semester. One of the questions in this survey was about the digital

technologies they used during the online asynchronous mode. The aim of this question was to discover students' opinions about online software for distance learning and its effectiveness for them. The result of the respondents' answers was received with the help of the Voyant Tool and showed the links between the main terms expressed in the answers. See figure 5.

Figure 5

Scheme of links between the notions expressed by respondents (Voyant Tool, 2023)



After the entire analysis of the respondents' answers, we can conclude that the most effective resources for asynchronous learning are online software Google Classroom and YouTube and for delayed interaction students consider the Jam board and online apps more efficient for their distance studying.

The work on the experiment and students' feedback gave the possibility to develop the methodology for using asynchronous delayed interaction techniques for distance foreign language learning. The methodology contains the following steps.

1. The first step is asynchronous FL lesson planning. While making this plan teacher should take into consideration curriculum requirements, topic objectives and outcomes. It is also necessary to concern the asynchronous distance mode peculiarities.
2. Material adaptation. Materials adaptation means that activity types and tasks should be chosen in order learners can do them individually and distantly. Electronic tools such as PowerPoint presentations or Prezi etc. should be also changed according to the FL lesson plan.
3. DIT designing. After asynchronous FL planning and material adaptation, the next step is delayed interaction technique designing. Using the

curricular and asynchronous FL lesson requirements it is clear what type of delayed interaction activities should be included in the asynchronous FL lesson plan. According to the DIA type and their place in the plan, the tasks and instructions are compiled.

4. Digital technologies selection. Designed delayed interaction activity requires digital software that has accessibility and all the necessary tools for its efficient use.
5. Video instruction creation. This step is extremely important for asynchronous FL lessons the plan of which is close to the synchronic online lesson but requires DIT use. The main requirements for video creation were described in my previous research "Teacher's Facilitating of the Students' Learning Autonomy during the War via Video Aids: A Case Study of the English Methodology Teaching" (Kolishnichenko, 2022).
6. Setting deadline. The delayed interaction technique is postponed in time but it is important to limit the time period for doing the DI activity. Neglecting this requirement can cause students' procrastination and the activity will hardly reach its outcome.
7. The last step is the teacher's feedback which can summarize or support students' delayed interaction.

This methodology can be modified according to the DIT purposes, lessons objectives and outcomes.

DISCUSSION

Very little was found in the literature on the question of delayed interaction activity. The current study found that the interaction in the asynchronous mode of studying needs deep investigation. The

practical value of the current paper is defining the DIT notion and developing its methodology for application in asynchronous FL lessons. The results of the literature overview indicate that online software is considered as the only possible and effective for FL distance learning. The majority of studies proved the necessity of digital technologies used for asynchronous FL lessons. The present findings seem to be consistent with other research which found interaction possible as a technique for asynchronous mode. There are similarities between the current study and the feedback investigation described by Mumford, S., & Dikilitaş, K. (2020). They also proved the effectiveness of interaction during the hybrid course.

This finding has important implications for developing the methodology for FL asynchronous learning. The delayed interaction techniques described in this study can be widely used for FL teaching despite learners' age, level and limitations. This is an important issue for future research. In further studies, it might be possible to use more online resources and investigate their applicability to different learning modes

CONCLUSIONS

The present study was designed to determine the effect of delayed interaction technique use in the asynchronous mode of FL teaching and learning. The main goals of the current paper were to clarify the definition of the delayed interaction technique and describe the possibility of its application. This study has shown that it is possible to use interactive activities even in the asynchronous mode by using the appropriate and applicable for this specific mode online resources.

The investigation of online software has shown that their choice depends on

curricular requirements, FL lesson plans, interactive activities types and purposes. The next major finding was methodology development for using DIT as a technology for the asynchronous mode of FL studying. The DIT methodology developed as a

result of case study research used for this paper may be applied widely by FL teachers. More research is needed to better understand if DIT implementation is possible in the blended or face-to-face learning modes.

CONFLICT OF INTERESTS

There is no conflict of interest for this study.

FUNDING

There is no funding for this study.

REFERENCES

- Abe, M. (2019). L2 interactional competence in asynchronous multiparty text-based Communication: Study of online collaborative writing. *Computer Assisted Language Learning*, 34(4), 409–433. <https://doi.org/10.1080/09588221.2019.1614070>
- Ajabshir, Z. F. (2019). The effect of synchronous and asynchronous computer-mediated communication (CMC) on EFL Learners' pragmatic competence. *Computers in Human Behavior*, 92, 169–177. <https://doi.org/10.1016/j.chb.2018.11.015>
- Bergdahl, N. (2022). Second language learning designs in online adult education. *Computer Assisted Language Learning*, 35(9), 2–29. <https://doi.org/10.1080/09588221.2022.2158202>
- Bezliudnyi, O., Komar, O., Kolisnichenko, A., & Kapeliushna, T. (2022). Academic Staff Adaptation to the Challenges of The Covid-19 Pandemic: A Case of Pavlo Tychna Uman State Pedagogical University. *Advanced Education*, 9(20), 53–69. <https://doi.org/10.20535/2410-8286.252683>
- Canals, L., Granena, G., Yilmaz, Y., & Malicka, A. (2020). Second Language Learners' and Teachers' Perceptions of Delayed Immediate Corrective Feedback in an Asynchronous Online Setting an Exploratory Study. *TESL Canada Journal*, 37(2), 181–209. <https://doi.org/10.18806/tesl.v37i2.1336>
- Dziubata, Z. (2020). Distance English as a Second Language Teaching in Synchronous-Asynchronous Learning Environment. *Pedagogical Discourse*, (28), 7–12. <https://doi.org/10.31475/ped.dys.2020.28.01>
- Hontarenko, I. (2021). Peculiarities in Distance Learning of Foreign Language Using Moodle Platform. *Educational Challenges*, 26(2), 52–62. <https://doi.org/10.34142/2709-7986.2021.26.2.05>
- Horbanova, O., Holiak, V., Shcherbitska, V., & Kulko, V. (2022). Interaktyvni tekhnolohii u vykladanni inozemnoi movy u ZVO [Interactive Technologies in Foreign Languages Teaching in HEE]. *Zhurnal naukovyi ohliad*, 2(82), n.d. [https://doi.org/10.26886/2311-4517.2\(82\)2022.4](https://doi.org/10.26886/2311-4517.2(82)2022.4); <https://naukajournal.org/index.php/naukajournal/article/view/2466/2443> [in Ukrainian].
- Kolisnichenko, A. (2022). Teacher's Facilitating of the Students' Learning Autonomy During the War via Video Aids: A Case Study of the English Methodology Teaching.

Věda a perspektivy, 9(16). 100–109. [https://doi.org/10.52058/2695-1592-2022-9\(16\)-100-109](https://doi.org/10.52058/2695-1592-2022-9(16)-100-109)

- Komar, O. (2020). European Experience of the Use of Information and Communication Technologies in Initial Education of the English Language Teachers. *Educational Challenges*, 25(1), 55–67. <https://doi.org/10.34142/2709-7986.2020.25.1.05>
- Komar, O., & Komar, O. (2018). Teoriia i praktyka zastosuvannia innovatsiinykh interaktyvnykh tekhnolohii navchannia v rusli kontseptsii rozvytku pedahohichnoi osvity [Theory and Practice of Innovative Interactive Technologies Application in Direction of Pedagogical Education Development Concept]. *Collection of Scientific Papers of Uman State Pedagogical University*, (1), 130–139. <https://doi.org/10.31499/2307-4906.1.2018.134900> [in Ukrainian].
- Kostikova I., Gulich, O., Holubnycha, L., & Besarab, T. (2019). Interactive Whiteboard Use at English Lessons: from University Students to Young Learners. *Revista Espacios*, 40(12) <http://www.revistaespacios.com/a19v40n12/a19v40n12p10.pdf>
- Kostikova, I., Holubnycha, L., Shchokina, T., Soroka, N., Budianska, V., & Marykivska, H. (2019). A role-playing game as a means of effective professional English teaching. *Amazonia Investiga*, 8 (24), 414-425. <https://amazoniainvestiga.info/index.php/amazonia/article/view/1001/927>
- Long, M. H. (1981). Input, Interaction, and Second Language Acquisition. *Annals of the New York Academy of Sciences*, 379(1), 259-278. <https://doi.org/10.1111/j.1749-6632.1981.tb42014.x>
- Mumford, S., & Dikilitaş, K. (2020). Pre-service Language Teachers Reflection Development through Online Interaction in a Hybrid Learning Course. *Computers & Education*, 144, 103706. <https://doi.org/10.1016/j.compedu.2019.103706>
- Owens, W. (2022). Precluding and abandoning linguistic repair in dyadic online interactions for L2 learning. *English Teaching*, 77(1), 93-122. <https://doi.org/10.15858/engtea.77.1.202203.93>
- Pratiwi, J. A., Rosalina, N., Rodiah, N., & Ervina, W. (2021). The Performances of Synchronous and Asynchronous Method in Teaching and Learning English. *ETDC: Indonesian Journal of Research and Educational Review*, 1(1), 46–57. <https://doi.org/10.51574/ijrer.v1i1.53>
- Tao, J., & Gao, X. (2022). Teaching and Learning Languages Online: Challenges and Responses. *System*, 107, 102819. <https://doi.org/10.1016/j.system.2022.102819>
- Voyant Tool. (2023, January 12). <https://voyant-tools.org/?corpus=583ccee7230e59f90e3a2f81915a0ac8&query=online&query=classroom&query=youtube&mode=corpus&view=CollocatesGraph>

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

МЕТОДИКА ЗАСТОСУВАННЯ ТЕХНІК ВІДКЛАДЕНОЇ ВЗАЄМОДІЇ В АСИНХРОННОМУ НАВЧАННІ ТА ВИКЛАДАННІ ДРУГОЇ ІНОЗЕМНОЇ МОВИ

Онлайн-навчання та викладання у контексті розробки різних методик стало центральним питанням у новій глобальній освіті. У цій статті

розглядаються шляхи та можливості для навчання іноземної мови у асинхронного режимі.

Метою даного дослідження є визначення спеціальних прийомів, які вдало застосовуються для асинхронної взаємодії в процесі вивчення та викладання іноземної мови. Метою даної роботи також є розробка методології їх використання.

Методологія. Для цього дослідження було використано низку методів дослідження. Аналіз попередніх досліджень використовувався для дослідження останніх результатів. Якісний експеримент кейсів використовувався для дослідження особистого досвіду викладача та студентів щодо використання методів відкладеної взаємодії у процесі викладання та вивчення методики іноземної мови, яка є складовою курсу базової підготовки вчителів іноземних мов на факультеті іноземних мов Уманського державного педагогічного університету імені Павла Тичини в Україні. Методичний підхід запропонований як ефективний спосіб компіляції етапів технології відкладеної взаємодії. Дані були зібрані з опитування студентів, яке було використано як якісний метод. Було застосовано онлайн програмне забезпечення *Voyant Tool* з метою відображення та візуалізації результатів опитування.

Одним із головних **результатів** поточного дослідження є уточнення поняття техніки відкладеної взаємодії, яке пропонується як визначення в контексті поточної проблеми дослідження. Другий результат полягає в розробці методології використання техніки відкладеної взаємодії в асинхронному режимі навчання та викладання другої (іноземної) мови. Методологія включає сім кроків для ефективного застосування техніки відкладеної взаємодії.

Висновки. Це дослідження виявило, що загалом взаємодію можна використовувати навіть асинхронно в умовах, які перешкоджають миттєвій взаємодії. Результати цього дослідження не мають обмежень для застосування відповідно до навчальних закладів, віку учнів рівня володіння іноземною мовою. Однак для ефективного застосування техніки відкладеної взаємодії необхідно, щоб викладачі та студенти мали достатньо цифрових навичок, доступ до Інтернету та гаджетів. Необхідно провести подальшу роботу, щоб вивчити більше онлайн-ресурсів, таких як програмне забезпечення, додатки та інші інструменти для їх використання в асинхронному навчанні та викладанні другої мови.

КЛЮЧОВІ СЛОВА: техніка відкладеної взаємодії, асинхронний режим, методологія, цифрові інструменти, онлайн програмне забезпечення, інтерактивна діяльність.

CITE THIS ARTICLE AS (APA style):

Kolisnichenko, A. (2023). The Methodology of Delayed Interaction Techniques Application in L2 Asynchronous Learning and Teaching. *Educational Challenges*, 28(1), 86-97. <https://doi.org/10.34142/2709-7986.2023.28.1.07>



<https://doi.org/10.34142/2709-7986.2023.28.1.08>

MODERN ELECTRONIC EDUCATIONAL TECHNOLOGIES IN THE PROCESS OF E-LEARNING

Received: 19/02/2023

Accepted: 17/03/2023

Oksana KOVALENKO¹, & Iryna HONTARENKO²



¹Ph.D. in Philology, Associate Professor, Department of Pedagogy, Foreign Philology and Translation, Simon Kuznets Kharkiv National University of Economics, Kharkiv, Ukraine.

✉ E-Mail: oksana.kovalenko@hneu.net

 <https://orcid.org/0000-0002-3432-2601>



² Ph.D. in Pedagogy, Associate Professor, Department of Pedagogy, Foreign Philology and Translation, Simon Kuznets Kharkiv National University of Economics, Kharkiv, Ukraine.

✉ E-Mail: irynagavrikova@gmail.com

 <https://orcid.org/0000-0003-0411-2520>

ABSTRACT

The **purpose** of the study is to focus attention on the positive aspects of using E-learning in contrast to the traditional format in a modern university, as well as on the need for effective management of E-learning in order to improve the quality of education.

Methodology. The following research methods were used to solve the assigned tasks: theoretical – analysis of scientific sources, pedagogical and teaching-methodical materials, comparison; empirical – generalization of pedagogical experience; a pedagogical experiment to check the effectiveness of organizing students' work using LMS Moodle platform.

Results. This study focuses on the positive aspects of using E-learning. Introducing E-learning into the educational process provides new opportunities, provides everyone with the necessary knowledge and develops digital literacy skills. The study analyses the current state of e-learning in

© Oksana KOVALENKO, & Iryna HONTARENKO, 2023

Modern Electronic Educational Technologies in the Process of E-Learning © 2023 by Oksana KOVALENKO, & Iryna HONTARENKO is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

higher education and summarizes some theoretical issues of using LMS Moodle, both positive and negative. It offers practical suggestions for the qualitative integration of E-learning into the teaching and learning process based on practical and good management of the E-learning process. The case of Simon Kuznets Kharkiv National University of Economics is used, which implemented the distance learning platform, a platform called "Personal Learning Systems" (PLS). A management system for electronic learning at the university was developed based on the modelling method, the primary purpose of which is to use modern electronic educational technologies in the educational process, to prepare a methodological base for electronic educational resources, and to improve electronic educational technologies in the format of electronic learning.

Conclusions. The E-learning management system "personal learning systems" (PLS) in the university is considered an information-management system whose primary purpose is the application of modern electronic educational technologies in the educational process, in the preparation of a methodological base of electronic educational resources, improvement of electronic educational technologies in a distance learning format.

KEYWORDS: E-learning, E-learning Process Management, E-learning Management System, LMS Moodle, Electronic Educational Technologies, Modelling Method.

INTRODUCTION

Educators had to face a whole range of new challenges. At first, they had to master the new tools of distance learning and teaching quickly. They also needed to provide single access to crucial learning tools. In addition, they are required to provide remote access for everyone in the educational community. They have tried to use technology to minimize the disruption caused by the impact of this crisis on our education system. In the pedagogical community today, the issue of the education system in the "post-virus era" is being actively discussed, and particularly with the start of hostilities in Ukraine, university education was transformed into an online format.

(Letter of 10.10.2022 № 1/11870-22, "On Introduction of Online Education"). Taking into account the broader possibilities of transferring materials in electronic form, it is difficult to disagree with the changes in the future that await the classical model,

which gives knowledge directly in the classroom. At the same time, attention is focused on shifting the vector towards positive opportunities that were previously insufficiently mastered.

Thus, we are witnessing a new reality based on a technological revolution. If earlier E-learning (short for Electronic Learning) was one of the possible forms of the educational process, now it is becoming one of the leading functional technologies. Thus, E-UKRAINE, the digital transformation portal of Ukraine, has gathered leading educational platforms with free online courses where one can improve skills or learn new professions (<https://eukraine.org.ua/>).

The Ministry of Education and Science of Ukraine has supplemented the list of Ukrainian and foreign platforms for online learning, such as [coursera.org](https://www.coursera.org/), [khanacademy.org](https://www.khanacademy.org/), [prometheus.org.ua](https://www.prometheus.org.ua/) and others. (Ministerstvo osvity i nauky Ukrainy, 2022). According to SimilarWeb (a

website providing web analytics services for business), Ukrainian online educational platforms are growing and rising in the rankings of sites in the category "Education" (Industry rank / Education) (SimilarWeb, 2023).

According to the video conferencing service Zoom, the number of daily paid and free users in March 2022 exceeded 250 million, while in December 2019, the maximum number of users per day was 10 million. According to "The State of Technology" in Education report presented by Promethean analysts, in the next 1-3 years, cloud-based tools for organizing and conducting classes will take the leading position (35.8%). Next is followed by online student assessment resources (31.4%), the third place is occupied by virtual and augmented reality (25.3%), then comes programming and robotics technologies (21.8%), and the closing link is distance learning (21.6 %) (Promethean, 2021).

Analysis of Recent Research and Publications.

Many scholars have studied the theoretical and methodological foundations of distance learning in higher education. The use of information technologies in teaching and learning a foreign language is highlighted in the works of national researchers T. Kolbina (Kolbina, Oleksenko, 2020), T. Borova (Borova, Chekhratova, Marchuk, Pohorielova, Zakharova, 2021).

At the same time, the analysis of scientific and pedagogical literature and practical experience show that the problem of the formation and development of the E-learning management system in the university with Moodle needs to be sufficiently studied (Jackson, 2021). The researchers are convinced that the absence of boundaries will be a

characteristic feature of future education. Therefore, the development of E-learning education will largely depend on the quality of information technology.

The **purpose** of the study is to focus attention on the positive aspects of using E-learning in contrast to the traditional format in a modern university, as well as on the need for effective management of E-learning in order to improve the quality of education.

METHODOLOGY

The study employs scientific knowledge, comparative analysis, and system analysis methods. The following research methods were used to solve the assigned tasks: theoretical – analysis of scientific sources, pedagogical and teaching-methodical materials, comparison; empirical – generalization of pedagogical experience; a pedagogical experiment to check the effectiveness of organizing students' work using the LMS Moodle platform. A theoretical framework is based on the literature about an E-learning and distance learning. An empirical framework reflects responses from international universities and focuses on the Ukrainian example of Simon Kuznets Kharkiv National Economic University.

RESULTS

The primary purpose of E-learning management system development at the university is to establish E-learning, use E-learning in modern education according to international standards, disseminate scientific knowledge through the use of modern educational technologies in the educational process, promote the university in the market of educational services, and improve the competitiveness of its graduates.

The system should be focused on the development of the educational

organization and E-learning management, the development of a model of information competence of educators, the definition of goals and objectives for the development and implementation of E-learning, and the establishment of principles and strategic directions. It is built on a highly professional staff. It has advantages such as flexibility, online services, modern electronic educational technologies application, and additional involvement of experts from different countries and higher education institutions.

For the successful development of E-learning in higher educational institutions of Ukraine, it is necessary to fulfil a triune task: to ensure E-learning's availability, competence and motivation. Accessibility is determined by the availability of free access to the Internet for students, competence is determined by the ability to use information resources on numerous sites, and motivation is determined by the desire and aspiration of both educators and students to use these resources.

Based on a recent survey by Houghton Mifflin Harcourt, over 85% of educators view the potential of technology to help them make learning more accessible and empowering very positively. Students in the learning process expect the availability and convenience of the educational resources of the educational institution for mobile use (Houghton Mifflin Harcourt, 2022).

E-learning has firmly entered modern life as a legitimate educational strategy. Nowadays, the higher education system is in a continuous process of change, and universities must keep pace with students' needs, desires, and requirements.

Due to its complexity, multiple definitions are proposed for the concept of E-learning. In the professional environment, several

terms are still used: T-learning, distance learning, network learning, virtual learning, and learning using information technology (European Education Area, 2022).

The analysis of publications describing electronic technologies makes it possible to form a list of terms that the authors interpret as "E-learning": Internet education, distance education, network education, computer-mediated communications, computer learning, e-learning, virtual classrooms, information and communication technologies, open learning, tele-learning, distributed learning, web learning, virtual learning (Pronczuk-Omiotek et al., 2018).

According to the definition of UNESCO: "E-learning - learning with the help of the Internet and multimedia." For the first time (in a professional environment), the term E-learning was used in October 1999 in Los Angeles at a CBT Systems seminar. UNESCO does not recommend using translation into national languages instead of the term and concept of E-learning since this term has a certain content, which is not always adequately transmitted by translation and is currently preferred by the professional community (UNESCO, 2022).

Among online platforms for E-learning, online platforms with open-source software for creating online courses have gained relevance in recent years. With the help of Google course builder, Coursera, Udacity, and EdX, educators can create Massive open online courses (MOOCs) and Books as Open Online Content (BOOCs) (Polianovskyi et al., 2019).

These platforms are open electronic courses that allow learners to receive education remotely using the global Internet based on leading universities in Europe, the USA, and Ukraine. MOOCs can

be integrated as part of E-learning into LMS (Kaplan et al., 2016).

Most of these courses are free, which allows anyone around the world to enroll in these courses, attend them online and receive certificates of education. The largest number of today's consumers of E-learning solutions is concentrated in the US and Canada, and among European countries – the UK, followed by Germany, Italy and France. In the US, more than 200 universities and thousands of colleges offer distance learning, and the number of online courses is increasing by about 30-40% annually. In the UK, a variety of remote programs are offered by over 50 universities (NISS, 2017).

One of the most powerful online platforms for E-learning in the world, created at the state level and universities, is Coursera, which already provides more than 4,000 free online learning programs, 65 million students, more than 4,000 courses from the world's leading universities and industry educators, therefore, Coursera has one of the enormous datasets for identifying current competency trends.

According to the latest indicators (2022) of the Global Skills Index (GSI) from Coursera, Ukraine occupies a leading position (8) in terms of competencies in the field of technology. Skills proficiency in Ukraine held steady between this year's Global Skills Report (2022) and the last; Ukraine rose three spots (this year, 21st) (Coursera, 2022).

Moreover, according to the 8th Annual Educator Confidence Report 2022, educators feel that technology is benefiting the educational experience. Pandemic-Era Tools educators say are vital: tools used to communicate between educators and parents (63%); tools that deliver interactive learning opportunities to students (57%); video conference tools

(52%) (Houghton Mifflin Harcourt, 2022). Overall, educators feel technology benefits the educational experience for themselves and students.

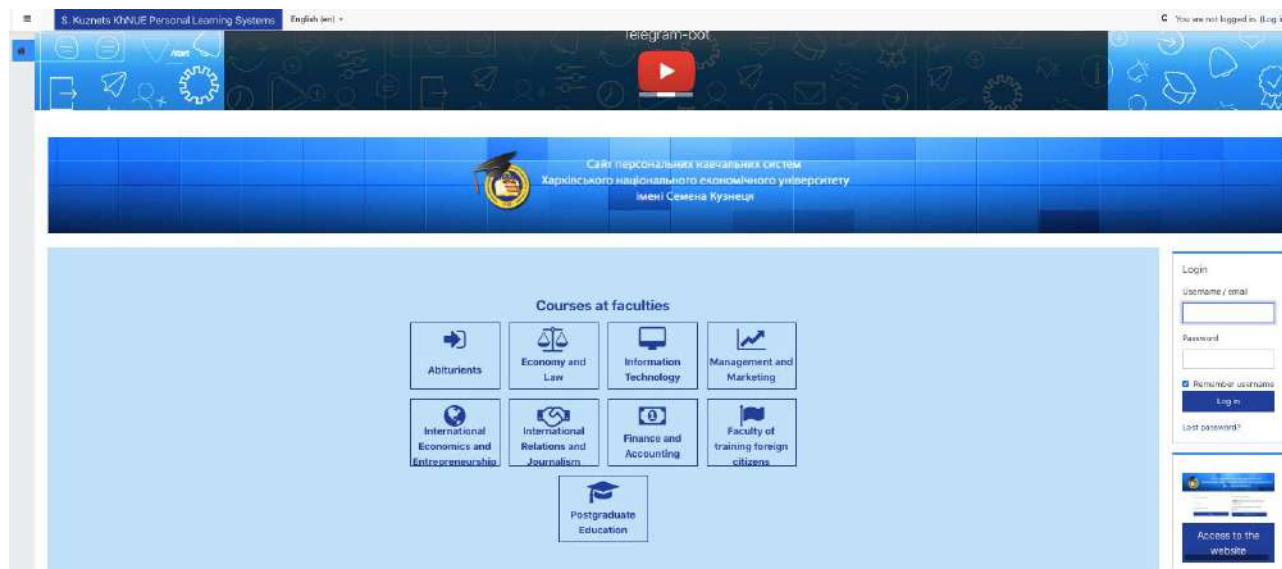
However, one of the biggest challenges of E-learning or online courses is keeping students motivated. For example, 30% of students on the Coursera platform complete the learning process successfully. Another critical issue is the practical assessment of students' knowledge and the creation and management of a productive collaborative environment. (Chehtatova et al., 2022).

A study of global trends in the development of modern distance learning technologies shows that according to the results of published data from Phil Hill's report on the analysis of the learning management market in higher education institutions in the United States and Canada, four distance learning platforms (Canvas, Blackboard, Brightspace and Moodle) dominate, which account for 80-95% of the total market share in recent years. Despite many commercial platforms, many remain available to all users (Moodle, Sakai, Canvas) (Polianovskiy et al., 2021).

Simon Kuznets Kharkiv National Economic University has developed and implemented its distance learning system, Personal Learning System (PLS). This is an electronic information educational environment that is used during classroom and extracurricular independent work, provided with developed methodological materials and recommendations, individual and thematic consultations, the use of various forms of control, accessibility and the ability to work with a computer, both students and educators, and use Moodle, Figure 1.

Figure 1

The Home Page of Simon Kuznets KhNUE Personal Learning System (PLS)



As part of E-learning, Simon Kuznets Kharkiv National University of Economics has implemented the Learning Management System (LMS) Moodle, which is part of the university's electronic information and educational environment.

Moodle (Modular Object-Oriented Dynamic Learning Environment) is a modular object-oriented dynamic learning environment, which is also called a learning management system (LMS), a course management system (CMS), a virtual learning environment (VLE) or simply a learning platform (Personal Learning System) (PLS), which provides educators, students and administrators with a very advanced set of tools for computerized learning, including distance learning (Osadcha et al., 2021).

With the help of electronic information educational environment, students can get access to lecture material (audio and video lectures), practical tasks with semi-automatic assessment, online testing, useful Internet links on the discipline under study, and so forth. This educational content management system has many positive features, the main of which are

the ability to issue access rights (administrator, course creator, educator with and without editing rights, student, guest), keep track of students, show analytical reporting, the results of assignments and testing, analyze the results of testing in large groups of students, provide statistical processing of responses (Borova et al., 2021).

Thus, having these results and statistical processing data, the educator draws attention to those sections of the course that require more detailed and high-quality processing or repetition, use external information systems and, apply the mechanisms of both synchronous and asynchronous communication, organize personalization (Kolbina et al., 2020). This online platform has excellent opportunities for organizing theoretical and practical classes and provides individual and group learning activities for students (Rebukha et al., 2020).

Moreover, in organizing the work of the online platform, considerable attention is paid to the student's independent work, which occupies a special place in the modern educational process. Essential functions of independent work as a form

of organizing learning are to form students with the necessary skills for independent work, using various creative types of work and various forms of cognitive activity that contribute to the development of both analytical abilities and skills for the rational organization of educational work (Hontarenko, 2021).

LMS Moodle is characterized by a convenient, intuitive interface that allows educators to fill the electronic course with the necessary content, resorting only to the help system, and manage this course. Various elements of the course: task, lecture, test tasks, glossary, forum, chat, blogs. The educator can structure the course calendar and thematically, and Zoom conferences are added to the electronic course at the beginning of the 2022/2023 academic year.

In order to support the educational and scientific activities of higher education institutions during the war, the Ministry of Education and Science of Ukraine has agreed with Zoom to provide free and expanded access to the Zoom Meetings for Education software during the 2022/2023 academic year. (Letter No. 1/6677-22 dated June 21, 22 “About the date of free access to Zoom”).

Into LMS Moodle, educators can upload content with the material presented in

various formats. It supports text extensions to PDF and Excel spreadsheets, images, presentations, and audio and video lectures.

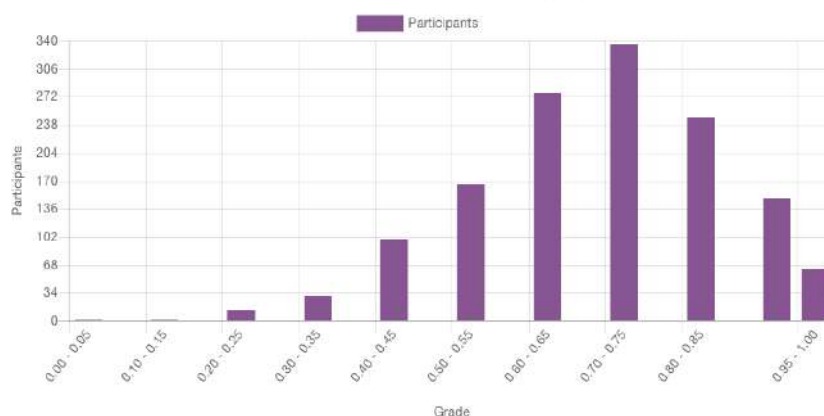
Moodle collects statistics on learning and working with the system, and the very ability to use statistics to correct learning is an essential plus in the learning process. In addition, LMS Moodle provides an extensive toolkit for creating tests and conducting training and control testing, which is especially important for E-learning, in which testing is an essential form of knowledge control (Osadcha et al., 2021).

Thus, LMS Moodle solves many of the necessary tasks that a good distance learning system should solve. It automates routine and simplifies complex processes. It helps the student receive educational material conveniently for him and the educator's feedback in a short time. The educator can simultaneously teach many students, while the control of knowledge occurs with the help of tests, the results of which are checked by the machine. The educator (lecturer, teacher, administrator) can monitor student statistics in real-time, and automate access to different courses depending on the student’s study group, Figure 2.

Figure 2

An Example of the Student Statistics in Real-Time

Overall number of students achieving grade ranges



Despite many positive aspects, some negative aspects of LMS Moodle do not allow high-quality teaching of university students and, consequently, the full implementation of educational programs. One of the negative points regarding the introduction of E-learning at Simon Kuznets Kharkiv National University of Economics is considered an imperfect system for providing technical resources and an imperfect or partial lack of professional technical support. Educators are also required to have specific technical competencies in the field of web development. It cannot be said that these resources are actively involved in the educational process.

Another significant negative side is the inertia of the educational system at the university, which needs to be prepared to effectively respond to the challenges of our time, as well as the inability of educators to organize the work of electronic educational content from a methodological point of view (Borova et al., 2021). A small part of the university's teaching staff are people who do not doubt that the educational process is possible without modern technologies. However, due to the rapidly changing situation in the modern world, the education system requires specialists who are competent in using digital technologies and able to use new educational technologies to create various electronic resources.

Educators' lack of time and resources aggravates the creation of full-fledged electronic content at the university due to their high workload. Moreover, the creation of high-quality content is required, and its timely updating to maintain it in proper condition due to constant changes (Figlio et al., 2013). However, it is tough to make changes in

time, which, in turn, requires the creation of a network of universities, which today is quite challenging to predict when it will be implemented.

In addition, student grades can only be operated within the course. It is impossible to draw up a summary sheet, for example, for all disciplines of the semester, and the very concept of a semester needs to be present in the basic version of the system.

The Moodle system operates with the objects "course", "user", and the user's role in the course ("student", "teacher", "lecturer"), which is not enough to automate the educational process of the university. To preserve the integrity of the Moodle structure and the possibility of using new versions, it was necessary to create a "dean's office" system in the form of a separate block, concentrating all the functions of managing the educational process.

Moreover, the department of technical and electronic learning tools, designed to help educators provide technical support and effectively organize and administer online learning on the LMS Moodle platform, needs more specialists and time. As a result, most of the courses developed by educators are repositories of material in pdf format. Replacing a live lecture with an electronic textbook violates the requirements of state educational standards. In addition, studying textbooks instead of "live" lectures and electronic textbooks causes great difficulty in mastering the material for students since an independent study of the discipline requires effort (Callister, et al., 2016).

Low student motivation also significantly reduces the quality of learning in an online environment, where fewer external factors contribute to good academic performance. Students are often left to

their own devices during learning activities, and no one systematically motivates them to achieve learning goals. As a result, meeting deadlines during online learning can become difficult for students who need strong self-motivation and time management skills (Bettinger et al., 2017).

Taking into account the fact that the intermediate and final assessment of students can take place in the format of tests, another tricky moment of E-learning is the incompetence of many educators in compiling correct tests that can effectively assess the result of mastering the disciplines by students (Krutiy, 2019).

Therefore, the active use of low-quality online technologies is of great concern due to the deterioration in the level of training of students at a given time because even distance-learning students have a significantly higher level of training than distance-learning students. Consequently, there is a concern about the lack of demand for graduates of higher education institutions in the labour market due to poor quality training. This situation will only satisfy the state and the students.

Thus, the provision of quality education and, consequently, the implementation of the priority goal of the higher education system is accompanied by some difficulties. Highly effective management of the E-learning process and good management can contribute to the quality implementation of E-learning.

Based on the modelling method, the E-learning management system at Simon Kuznets Kharkiv National University of Economics was developed and proposed. In the scientific literature, modelling is considered "the process during which the study of the aspects of the object of

interest to the researcher (including its hidden properties) and the construction of a model that reflects the features, properties, connections of the object of study in the form of a simple and visual form convenient for analysis takes place" (José Luís Ramos et al., 2022).

The essence of pedagogical modelling is to identify and analyze pedagogical problems and their causes, build value bases and design strategies, determine goals and objectives, and search for methods and means of implementing a pedagogical project (Heafner, 2021). The basis of the developed E-learning management system at Simon Kuznets Kharkiv National University of Economics is a systematic approach.

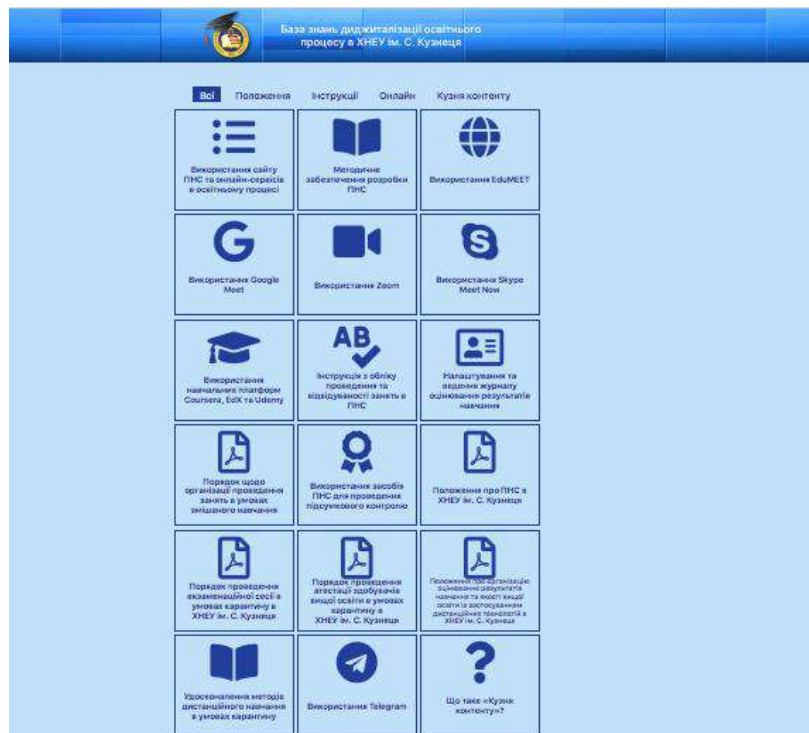
The E-learning management process is seen as a system that includes a set of elements. The projected E-learning management system at Simon Kuznets Kharkiv National University of Economics has the following management functions: planning, organization, motivation, coordination, and control, and consists of three interrelated elements: organizational and managerial; technological; documentation, Figure 3.

The planning function implies the creation of a conceptual framework for E-learning management, the developing of strategic and tactical plans for preventive measures, and the developing of resources for implementing e-learning management technology.

The organization's function involves the creation of a department for the management of E-learning and the delegation of authority for the management of E-learning, as well as for such resources as personnel, material, and equipment.

Figure 3

The Page of the Set of the E-learning MS Elements



The function of motivation is seen as improving the information skills of educators, heads of departments, and deans and creating a favourable learning and motivational environment; initiation of intra-university competitions for the design of E-learning courses; developing an influential organizational culture among the staff of the educational institution, the creation of technologies for economic and moral stimulation of work on the management of E-learning (Polianovskyi et al., 2021). Of course, it will always be necessary to overcome obstacles: this is the lack of time, the state of health, and the educator's inertia, but if a motivational environment is cultivated and maintained at the university, then these factors become easily overcome.

The coordination function considers the analysis of analyses on E-learning management; the discourse of problems regarding the E-learning management system at events such as seminars, pieces of training, refresher courses, and

meetings; and assistance to users and responsible structural units when registering for E-learning resources; working on the approval of local regulations confirming the expertise of online resources, development and implementation of open online courses (MOOCs) to be posted both on the university platform or various online platforms (Kaplan et al., 2016); discussion with the teaching and learning department to assess the quality of E-learning resources; writing methodological guidelines for organizing practical E-learning courses; developing methods and technologies for training sessions using E-learning.

The control function considers the recording and analysis of the organization of all E-learning management programmes and activities at a track university; clarifying the circumstances of non-implementation of the E-learning management plan; controlling the content plan; marketing of online

educational programmes; diagnosing the frequency and duration of access to the course and its modules by learners and educators; administration of databases, software, backups; establishing expertise, developed online courses; writing reports on the implementation of E-learning in the university; making corrections to the E-learning management system.

DISCUSSION

Discussing this issue covered in this study, the E-learning management system may be developed using the processes of pedagogical modelling in a systematic approach.

The foundation of the E-learning management system consists of diagnosing the state of E-learning development in the university, assessing the elements, forms, and components of the E-learning management system that are available, and assessing the level of E-learning program development skills.

The E-learning management system is focused on designing and managing E-learning, building a model of teachers' professional information competence, establishing principles and strategic directions for E-learning, analysing results, and modifying the E-learning management system. It moreover sets goals and objectives for the development and implementation of E-learning.

Thus, the E-learning "personal learning system" (PLS) is considered as an information management system, the primary purpose of which is the application of modern electronic educational technologies in the educational process (Polianovskyi et al., 2021), the preparation of a methodological base of electronic educational resources (Hontarenko, 2021), the improvement of electronic educational technologies in distance education format (Osadcha et al.,

2021). However, all the above aspects are subject to discussion.

Discussing the obtained results are very similar to the results of colleagues (José Luís Ramos et al., 2022) and other researchers (Borova et al., 2021; Chekhratova et al., 2022; Bettinger et al., 2017).

CONCLUSIONS

The primary purpose of E-learning management system development at Simon Kuznets Kharkiv National University of Economics sees the development of E-learning, active use of E-learning in modern education according to international standards, dissemination of scientific knowledge through the use of modern educational technologies in the educational process, popularization of the university in the market of educational services, the competitiveness of its graduates.

The basis of the E-learning management system in Simon Kuznets Kharkiv National University of Economics should be a diagnosis of the level of E-learning development in the university, an assessment of available methods, forms and elements of E-learning management system in the organization, an assessment of the level of skills in developing programs for the development of E-learning.

The E-learning management system in the university should be focused on the development of the educational organisation and E-learning management, the development of a model of information competence of educators, the definition of goals and objectives for the development and implementation of E-learning, establishment of principles and strategic directions of E-learning; analysis of results and adjustment of the E-learning

management system and is built on a highly professional staff.

Thus, the E-learning management system "personal learning systems" (PLS) at Simon Kuznets Kharkiv National University of Economics is considered an information management system whose primary purpose is the application of modern electronic educational technologies in the educational process of preparing a methodological base of electronic educational resources, the improvement of electronic educational technologies in distance education format.

Prospects for further research. The study of the formation and development of the E-learning management system in the university in the context of the use of modern technologies allows us to identify

a list of its advantages in current conditions:

- the flexibility of the educational process through the use of online services;
- application of modern electronic educational technologies in the educational process;
- additional involvement of experts from different countries and higher education institutions in the educational process to improve E-learning topics and technologies.

Further research into the effectiveness of modern distance education technologies is an important area for future research, which will contribute to the digitalization of society to ensure the innovative development of education.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Bettinger, E. P., Fox, L., Loeb, S., & Taylor, E. S. (2017). Virtual Classrooms: How Online College Courses Affect Student Success. *American Economic Review*, 107(9), 2855–2875. <https://doi.org/10.1257/aer.20151193>
- Borova, T., Chekhratova, O., Marchuk, A., Pohorielova, T., & Zakharova, A. (2021). Fostering Students' Responsibility and Learner Autonomy by Using Google Educational Tools. *Revista Romaneasca pentru Educatie Multidimensionala*, 13(3), 73–94. <https://doi.org/10.18662/rrem/13.3/441>
- Callister, R. R., & Love, M. S. (2016). A Comparison of Learning Outcomes in Skills-Based Courses: Online Versus Face-to-Face Formats. *Decision Sciences Journal of Innovative Education*, 14(2), 243–256. <https://doi.org/10.1111/dsji.12093>
- Chekhratova, O., Kovalenko, O., Petrenko, V., Pohorielova, T., & Ved, T. (2022). Developing Students' Autonomy and Responsibility via Promoting Digital and Media Literacy in an English-Language classroom. *Revista Amazonia Investiga*, 11(52), 15–23. <https://doi.org/10.34069/ai/2022.52.04.2>
- Coursera. (2022, September 30). *Global Skills Report: Get data-driven insights into the world's top skills trends*. https://www.coursera.org/skills-reports/global?utm_cta_location_source=main-nav&utm_cta_text=global-skills

- European Education Area. (2022, November 18). *Building the European Education Area: Progress Report Published*. European Commission website. <https://education.ec.europa.eu/news/building-the-european-education-area-progress-report-published>
- Figlio, D., Rush, M., & Yin, L. (2013). Is It Live or Is It Internet? Experimental Estimates of the Effects of Online Instruction on Student Learning. *Journal of Labor Economics*, 31(4), 763-784. <https://doi.org/10.1086/669930>
- Heafner, T. L. (2021). The Effects of Formative Supports in Online and Face-to-Face Teacher Preparation Programs. In I. Management Association (Ed.), *Research Anthology on Developing Effective Online Learning Courses* (pp. 1803-1822). IGI Global. <https://doi.org/10.4018/978-1-7998-8047-9.ch090>
- Hontarenko, I. (2021). Peculiarities in Distance Learning of Foreign Language Using Moodle Platform. *Educational Challenges*, 26(2), 52-62. <https://doi.org/10.34142/2709-7986.2021.26.2.05>
- Hontarenko, I. (2022). Students' Independent Work in Studying Foreign Language based on LMS MOODLE. *Educational Challenges*, 27(2), 66-78. <https://doi.org/10.34142/2709-7986.2022.27.2.05>
- Houghton Mifflin Harcourt. (2022). *8th Annual Educator Confidence Report 2022*. Education and Learning Technology Company. Houghton Mifflin Harcourt. <https://www.hmhco.com/documents/2022-educator-confidence-report-ecr>
- Jackson, E. A. (2021). Efficacy of Virtual Technology as the Way Forward for Teaching and Learning with the Experience of a Global Pandemic. *Educational Challenges*, 26(2), 6-12. <https://doi.org/10.34142/2709-7986.2021.26.2.01>
- Kaplan, A. M., & Haenlein, M. (2016). Higher Education and the Digital Revolution: about MOOCs, SPOCs, Social Media, and the Cookie Monster. *Business Horizons*, 59(4), 441-450. <https://doi.org/10.1016/j.bushor.2016.03.008>
- Kolbina, T., & Oleksenko, O. (2020). Implementation of Distance Learning in Ukraine. *Educational Challenges*, 25(1). <https://doi.org/10.34142/2709-7986.2020.25.1.04>
- Kruty, K., Zdanevych, L., Demianenko, O., Pakhalchuk, N., Perminova, L., & Garachkovska, O. (2019). E-learning methods in students' education. *International Journal of Innovative Technology and Exploring Engineering*, 8(12), 251-256. <https://doi.org/10.35940/ijitee.I3621.1081219>
- Ministerstvo osvity i nauky Ukrainy. (2022, April 1). *Platformy dlia vdoskonalennia navychok i samorozvytku* [Platforms for Improving Skills and Self-Development]. <https://mon.gov.ua/ua/news/platformi-dlya-vdoskonalennya-navichok-i-samorozvitku> [in Ukrainian].
- National Institute for Strategic Studies. (2017, December 17). *Svitovy dosvid rozvytku dystantsiinykh form osvity u vitchyznianomu konteksti. Analitychna zapyska* [World Experience in the Development of Distance Forms of Education in the National Context" Analytical Note]. National Institute for Strategic Studies (NISS). <https://niss.gov.ua/en/node/1585> [in Ukrainian].
- Osadcha, K., Osadchyi, V., Spirin, O., & Kruhlyk, V. (2021). Realizatsiia indyvidualizatsii ta personalizatsii navchannia zasobamy MOODLE [Implementation of Individualization and Personalization of Learning by Means of MOODLE]. *Molod i rynok*, 1(187), 38-43 <https://doi.org/10.24919/2308-4634.2021.228274> [in Ukrainian].

- Polianovskyi, H., Zatonatska, T., Dluhopolskyi, O., & Liutyi, I. (2021). Digital and Technological Support of Distance Learning at Universities under COVID-19 (Case of Ukraine). *Revista Romaneasca Pentru Educatie Multidimensionala*, 13(4), 595-613. <https://doi.org/10.18662/rrem/13.4/500>
- Polianovskyi, H., Zatonatska, T., & Liutyi, I. (2019). Utilization of Information Technologies in Higher Education. In *2019 IEEE International Conference on Advanced Trends in Information Theory (ATIT)* (pp. 349-354). <https://doi.org/10.1109/atit49449.2019.9030449>
- Promethean. (2021). *The 2021/22 State of Technology in Education Report*. <https://resourced.prometheanworld.com/us/technology-education-industry-report/>
- Pronczuk-Omiotek, A., & Skulimowski, S. (2018). Lifelong Education in Information Technology – A Case of Poland. In *EDULEARN Proceedings* (pp. 8230-8235). <https://doi.org/10.21125/edulearn.2018.1916>
- Ramos, J. L., Cattaneo, A. A. P., de Jong, F. P. C. M., & Espadeiro, R. G. (2021). Pedagogical Models for the Facilitation of Teacher Professional Development via Video-Supported Collaborative Learning. A Review of the State of the Art. *Journal of Research on Technology in Education*, 54(5), 695–718. <https://doi.org/10.1080/15391523.2021.1911720>
- Rebukha, L., & Polishchuk, V. (2020). Ukrainian Society and Covid-19: The Influence of the Pandemic on Educational Processes in Higher School. *Postmodern Openings*, 11(2), 120-127. <https://doi.org/10.18662/po/11.2/165>
- Transinata, T. (2022). A New Challenge: The Reconstruction of Online Language Laboratory on Distance Learning. *Educational Challenges*, 27(1), 34-46. <https://doi.org/10.34142/2709-7986.2022.27.1.03>
- UNESCO. (2022). *UNESCO's education response to COVID-19*. <https://www.unesco.org/en/covid-19/education-response/initiatives>
- Verkhovna Rada Ukrainy. (2020, October 16). *Pro zatverdzhennia Polozhennia pro dystantsiine navchannia* [On the Approval of the Regulation on Distance Learning]. <https://zakon.rada.gov.ua/laws/show/z0703-13#Text> [in Ukrainian].
- Web Market Analysis / Education / Market Leaders. (2022). *SimilarWeb identity*. https://pro.similarweb.com/#/digitalsuite/markets/webmarketanalysis/mapping/Science_and_Education~Education/999/3m?webSource=Total

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

СУЧАСНІ ЕЛЕКТРОННІ ОСВІТНІ ТЕХНОЛОГІЇ В ПРОЦЕСІ Е-НАВЧАННЯ

Метою дослідження є виявлення позитивних сторін використання електронного навчання на відміну від традиційного формату у вищих закладах освіти, а також необхідності ефективного управління електронним навчанням для покращення якості освіти.

Для вирішення поставлених завдань використовувалися такі **методи** дослідження: теоретичний – аналіз наукових джерел, педагогічних та навчально-методичних матеріалів, порівняння; емпіричний – узагальнення педагогічного досвіду; педагогічний експеримент з

перевірки ефективності організації роботи студентів з використанням платформи LMS Moodle.

Результати. Це дослідження фокусується на позитивних аспектах використання електронного навчання. Впровадження електронного навчання в освітній процес відкриває нові можливості, забезпечує кожного необхідними знаннями та розвиває навички цифрової грамотності. У дослідженні проаналізовано сучасний стан е-навчання у вищій освіті та узагальнено деякі теоретичні питання використання LMS Moodle, як позитивні, так і негативні. Пропонуються практичні пропозиції щодо якісної інтеграції е-навчання в навчальний процес, що ґрунтуються на практичному та ефективному управлінні процесом е-навчання. Використовується приклад Харківського національного економічного університету імені Семена Кузнеця, який впровадив платформу дистанційного навчання під назвою "Персональні навчальні системи" (ПНС). На основі методу моделювання розроблено систему управління електронним навчанням в університеті, основною метою якої є використання сучасних електронних освітніх технологій в навчальному процесі, підготовка методичної бази для електронних освітніх ресурсів, а також удосконалення електронних освітніх технологій у форматі електронного навчання.

Висновки. система управління електронним навчанням "персональні навчальні системи" в університеті розглядається як інформаційно-управлінська система, основним призначенням якої є застосування сучасних електронних освітніх технологій у навчальному процесі, у підготовці методичної бази електронних освітніх ресурсів, удосконалення електронних освітніх технологій у форматі дистанційного навчання.

КЛЮЧОВІ СЛОВА: електронне навчання, керування процесом електронного навчання, система керування електронним навчанням, Moodle, електронні освітні технології, метод моделювання.

CITE THIS ARTICLE AS (APA style):

Kovalenko, O., & Hontarenko, I. (2023). Modern Electronic Educational Technologies in the Process of E-Learning. *Educational Challenges*, 28(1), 98-112. <https://doi.org/10.34142/2709-7986.2023.28.1.08>



<https://doi.org/10.34142/2709-7986.2023.28.1.09>

ENTERING THE TEACHING PROFESSION IN SLOVAKIA

Received: 25/02/2023


Accepted: 25/03/2023

Olha LUCHENKO¹, & Valeriia YURCHENKO²



¹ Ph.D. in Education, Research Fellow, Department of East Asian Studies, Faculty of Arts, Comenius University in Bratislava, Gondova 2, 81102, Bratislava, Slovakia.

✉ E-Mail: luchenko1@uniba.sk

 <https://orcid.org/0000-0002-2844-0441>



² Ph.D., Lecturer, Department of Foreign Languages for Professional Purposes, School of Foreign Languages, Karazin Kharkiv National University, 4 Svobody Sq., Kharkiv, Ukraine.

✉ E-Mail: v.v.yurchenko@karazin.ua

 <https://orcid.org/0000-0003-0263-1941>

ABSTRACT

The article studies the current state of the teacher induction process in Slovakia, namely the prerequisites for entering the teaching profession. The focus of the current research is the following: the attractiveness of the teaching profession and its influence on the decision-making of future students of pedagogical major, teacher job satisfaction level, the proportion of education requirements for subject knowledge and teaching practice, availability of the profession, the assistance in the search for open positions and vacancies, probation period as a filter to the teaching occupation.

*The research **aims** to determine the problematic aspects of the transition period from student to teacher that need to be addressed to prevent early maladjustment and drop-out in the teaching profession.*

Methodology. *The research was carried out by applying theoretical and empirical methods. The data were obtained from novice school teachers having conducted an online survey using Google Forms with open and closed questions.*

© Olha LUCHENKO, & Valeriia YURCHENKO, 2023

Entering the Teaching Profession in Slovakia © 2023 by Olha LUCHENKO, & Valeriia YURCHENKO is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

The study's preliminary **results** revealed the social image of the teaching profession and components of its attractiveness for future students, problems with the ratio of academic and practical parts in teacher education, possible ways to enter the profession, and the obstacles of the process.

The conducted research allowed us to come to the following **conclusions**. As a result of the low social image of a teacher, Slovakia is facing a shortage in the profession. The substantial misbalance in initial teacher education in favor of academic knowledge and the absence of specific official requirements for practical experience has subsequences in the quality of school education and early teacher maladjustment. Implementing an open system in the teaching profession is a temporary solution that causes many concerns, especially with the introduction of short-term teachers with low standard requirements in teaching abilities.

Lack of career help for new graduates-teachers throughout their job hunt may cause them to leave the education field. In this situation, adequate support of novice teachers becomes necessary, and the teacher induction program is a subject for future research.

KEYWORDS: Education Requirements, Initial Teacher Education, Job Satisfaction, Profession Attractiveness, Pre-Service Professional Orientation, Slovakia, Teaching Practice.

INTRODUCTION

The teaching profession undeniably and significantly impacts each person's life, family, and society. PISA ratings for Slovak pupils have decreased since 2009. Over time, their performance in science, and to a lesser extent in reading and mathematics, has shown a steadily declining trend and lag behind those of their peers in other OECD countries. Building a solid teaching workforce has been identified as one of the opportunities to strengthen the skills of the youth in Slovakia (OECD, 2020).

Scientists have studied various issues of becoming a teacher in Slovakia: the attractiveness of the profession (Perignéthová, 2019), teacher training (Bačová, & Popovičová, 2015), theory and practice integration (Rovňanová, 2016), the position of the beginning teacher, induction programs, teaching occupation (Krajčová, Cimermanová, 2013; Cabanová et al., 2022), existing and upcoming problems in the teaching profession

(Pupala, Kaščák, & Rehúš, 2020). The results of their work were used in this study to formulate some theoretical assumptions. Some international comparisons suggest possible improvements in initial teacher training and during the induction stage (OECD, 2020; TALIS, 2018, Davydovskaia et al., 2021).

The present study investigates the process of entering the teaching profession in Slovakia, particularly the requirements for initial teacher education, professional orientation, employment, and the beginning of a career. The empirical part of the study (conducted in the form of a questionnaire) investigated the level of early career support provided to teachers in Slovakia, especially at the employment stage. It presents the partial research results focused on the first step of becoming a teacher in Slovakia.

The research **aims** to identify the challenging components of the student-to-teacher transition period that must be

addressed to stop early maladjustment and drop-outs from the teaching profession. The main aim of the online survey was to verify the validity of the assumptions made during the theoretical analysis phase and provide some updated data to better understand the current processes at the stage of becoming a teacher in Slovakia.

METHODOLOGY

The article provides some preliminary results of the survey carried out as a component of a more extensive research project on the adaptation of beginning teachers in Slovakia. As a part of our four-month research conducted from April through July of 2022, the Google Forms questionnaire was sent to 2155 compulsory

schools (primary and lower secondary schools – ISCED 1, 2), and teachers with up to 5 years of experience were asked to participate.

Our current study examines 136 teachers' responses about some aspects of initial education (teaching practice), professional orientation, how they found their present workplace, and their current job satisfaction level. The whole questionnaire contained 32 questions (open and closed ones), 9 of which were used for the analysis in the present study.

Our research methodology included reviewing relevant studies and the empirical part in the form of an online survey. The geographical distribution of the respondents is shown in Table 1.

Table 1

Profiles of the Respondents in Terms of Geographical Distribution (n=number of teachers)

Region (n)	Districts of Slovakia (n)	
Bratislavský (16)	Bratislava I-V (9)	Pezinok (2)
	Malacky (4)	Senec (1)
Trnavský (14)	Dunajská Streda (3)	Piešťany (3)
	Galanta (3)	Senica (1)
	Hlohovec (1)	Trnava (3)
Trenčiansky (10)	Bánovce nad Bebravou (1)	Prievidza (4)
	Ilava (1)	Trenčín (2)
	Partizánske (2)	
Nitriansky (19)	Komárno (1)	Nové Zámky (1)
	Levice (3)	Topoľčany (8)
	Nitra (4)	Zlaté Moravce (2)
Žilinský (11)	Dolný Kubín (1)	Námestovo (2)
	Kysucké Nové Mesto (1)	Tvrdošín (1)
	Liptovský Mikuláš (1)	Žilina (3)
	Martin (2)	
Banskobystrický (17)	Banská Bystrica (1)	Krupina (1)
	Brezno (6)	Lučenec (1)
	Banská Štiavnica (3)	Rimavská Sobota (2)
	Detva (2)	Žiar nad Hronom (1)
Prešovský (20)	Humenné (2)	Sabinov (2)
	Kežmarok (3)	Svidník (1)
	Poprad (4)	Vranov nad Topľou (7)
	Prešov (1)	
Košický (29)	Gelnica (3)	Rožňava (3)
	Košice I-IV (7)	Sobrance (1)
	Košice-okolie (5)	Spišská Nová Ves (7)
	Michalovce (3)	

The survey results covered all eight regions and 58 out of 79 districts in Slovakia (Map of districts of the SR, n.d.).

For better visualizing the research results, circle graphs are provided as screenshots from the summary of our Google Forms responses. Some respondents left comments in the free writing space of the questionnaire. They will also be provided to support the ideas of the research.

RESULTS

The path to teaching typically starts from a conscious choice of a higher education applicant. We believe that the attractiveness of the teaching profession plays an essential part in the decision-making stage and is directly connected to career choice motivation. European Commission defines the attractiveness of the teaching profession as “a set of characteristics of this profession that makes it relatively attractive to skilled candidates with respect to other professions requiring the same level of qualification and that encourage competent teachers to stay in the profession” (European Commission, 2014, p.13).

Main factors defining the attractiveness of the teaching profession are as follows: the quality of information about the teaching profession (career guidance), salaries and other financial stimuli, material working conditions, recruiting methods (conditions and criteria), the quality of initial teacher education, early-career support (induction), continuous professional development, recruiting, image-building campaigns, help for teachers in difficulty, qualitative human resource management (assignment and assessment), and responsibilities of teachers. The following factors mentioned that are more difficult to influence through policy are: social status and

prestige of teachers and pupil/teacher ratio (European Commission, 2014, p. 14-19).

According to a Focus poll, the main reasons why most students decide not to become teachers in Slovakia are low salaries (58%), low social status, the bad image of the teaching profession (31%), and too much stress (26%). The least frequent reasons were the great diversity of students in the class (6%) and insufficient recognition of the efforts by the school – 6% (Perignéthová, 2019, p. 8).

The state of the teaching profession in Slovakia causes concern: “The attractiveness of the teaching profession remains limited, and teacher training lacks quality. Following salary increases in 2018-2020, the Ministry of Education estimates that teachers in public institutions will earn 73% of the average salary of other full-time employees with tertiary education. This is still far below the 2019 EU-23 average for teachers” (European Commission, 2020).

As a result, due to the low social status of the teaching profession and the low pay, fewer students choose to enroll in teaching study programs. As we observe, there are some problems at the stage of entering the Initial Teacher Education (ITE): “The lack of students’ interest and the pressure of competing faculties without entrance examinations is gradually changing the selection of quality candidates by prerequisites for the study into recruitment, and teacher education is getting into serious problems in Slovakia” (Kosová, & Porubský, 2019, p. 249).

As our survey was conducted among professionals who have already chosen teaching as their profession, we wanted to determine their level of well-being. Question 29 of our survey was devoted to the level of job satisfaction by teachers.

The question asked, “Are you satisfied with your job now?”. We received the following responses: completely satisfied – 31.6%, rather yes than not – 51.5%, not satisfied, but I do not plan to quit – 9.6%; not satisfied, I am thinking about moving to

another job (in the education field) – 5.1%; not satisfied, I am thinking of changing my profession – 2.2% (see Fig. 1). In total, there are 83.1% of positive responses, and 16.9% of negative ones.

Figure 1

Job Satisfaction Level

29. Ste teraz spokojný/ná so svojou prácou?

136 odpovedí



According to Mariana Cabanová, “the most common positive attributes related to job satisfaction include good relationships among the teaching staff, the creative nature of their work, the possibility of working with children and young people and the feeling of a job well done. Negative attributes leading to job dissatisfaction include low salaries, low social status, students’ unruliness and misbehavior, parents’ reluctance to cooperate in education, a feeling of mental strain, and lack of free time” (Cabanová et al., 2022, p.2527). All the above factors influence teachers’ well-being and, as a result, their retention rate in the profession.

In Slovakia, a university education is required to become a teacher. The universities offer three levels of higher education: Bachelor’s (generally three years), Master’s or Technical Engineer (two years), and Doctorate – PhD (three years).

There are also colleges specialized in pedagogy that train their graduates to teach at the preschool or primary level.

ITE’s minimum qualification level to become a teacher in a lower secondary school in Slovakia is ISCED 7 (Master’s degree). Examining the current state of teacher development, it has become apparent that it has the highest number of teachers with a Master’s degree as the highest level of formal education completed among European Union countries – 96.2% (European Commission, 2021, p. 65).

According to the Act on Teaching Staff and Professional Staff (2009), candidates for the teaching profession at the elementary and secondary school levels must complete a Master’s degree in a teacher preparation program.

As Slovak researchers explain: “Under the influence by political discussions on

whether a bachelor study program is sufficient enough for teachers; in defense of the master's education requirement to the profession, the professional profile development – disciplinary didactics and teaching practice were included only in the two-year master's study program" (Kosová, & Porubský, 2019, p. 249). Thus, graduates with a Bachelor's degree are knowledgeable about their field but are not eligible to work as full-time teachers. To enter the teaching profession, they must continue to the Master's level.

Currently, 34 faculties in Slovakia provide teaching programs, including faculties of education, arts, humanities, natural sciences, mathematics, physics, physical education, theology, technology, and economics. Kosová and Porubský describe the current situation with teacher education programs: "The satisfactory developments of educational-psychological knowledge, didactic competencies, and/or professional practical training have had no proper criteria for evaluating a teaching program. Due to the orientation, it is understandable that the underestimation of the profiling didactic and practical training results in programs that are neither the same character nor level" (Kosová, & Porubský, 2019, p. 250).

The higher education reform has not changed ITE in Slovakia so far. The descriptions of teaching courses serve as the sole "standard" for creating teacher study programs because no standard for the teaching profession has been adopted yet. However, in 2018, the proportion of lower secondary education teachers who have completed a formal education or training program that includes teaching content, pedagogy, and classroom practice was estimated at 76.5%, higher than the EU average – 68.8% (European Commission, 2021, p. 71).

Currently, the entire model of postgraduate teacher education is changing. In line with standard teacher training at universities, graduates from other majors (non-pedagogical Master's degrees) can obtain teaching qualifications. In the latter case, a supplementary pedagogical study (Doplňujúce pedagogické štúdium – DPŠ) is required. DPŠ has 200 hours (usually two years) of study with in-school placements – a minimum of 40 hours.

In 2019, the law on qualifications was changed to allow entities directly under the control of the Ministry of education to offer teacher training programs (Act No. 138/2019 Coll.). Even though this option is less widespread, it causes concerns because this inclusiveness in the profession has pros and cons. As some researchers state, "the issue here is, of course, the de-professionalization of teaching" (Pupala, Kaščák, & Rehúš, 2020, p. 105).

One of the comments received during our survey supports the opinion: "I would appreciate having the opportunity to find out [during pre-service studies] what the 'pitfalls' of the teaching profession are and what you need to think about in advance. Since I only did a supplementary pedagogical study, I would have expected better education in pedagogy and didactics. I had the opportunity to learn the didactics at the department only briefly, and I wish they required continuous practice as in a full-time study. I would also appreciate psychological support for beginning teachers".

In contrast with its high academic level of education requirements, practical training is still considered insufficient at high educational establishments in Slovakia. In order to find out the state of pre-graduate training, we asked the teachers if they had

a teaching practice at school before graduation from an educational institution (Question 7) and how long it continued in total (Question 8 – for those who answered positively to the previous question). According to the results, 88.2% (n=120) of the respondents stated having the teaching practice, and 11.8% (n=16) replied negatively (see Fig. 2). As to the duration of it, 55% (n=66) of teachers stated it lasted up to one month, and 45% (n=54) replied that it continued longer. As

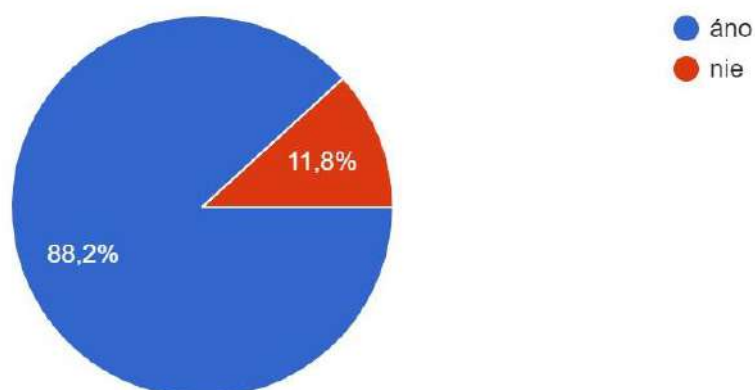
mentioned, the Master level focuses mainly on the methodology of a particular subject and practice. For instance, at the University of Prešov, the teaching practice is carried out in two phases: two weeks (16 lessons of teaching) during the summer term in the 1st year of a Master's degree and five weeks (16 and 32 lessons) of teaching practice divided into winter and summer term in the 2nd year (Bačová, & Popovičová, 2015, p. 14).

Figure 2

The State of Pre-Graduate Practical Training

7. Mali ste na univerzite pedagogickú prax pred dokončením vysokoškolského vzdelania?

136 odpovedí



Among the comments to our survey, one emphasized the insufficiency of practical training provided in the universities: “The university does not prepare teachers enough. Unless the situation changes, the problems of beginning teachers will never end. Focusing only on theoretical knowledge is not enough. I currently participate in a two-year course abroad where we are given the theory and prepare practice materials”.

In her study Lenka Rovňanová supports the abovementioned opinion that practical training in Slovakia is insufficient:

“all the criticism of professional didactic-practical training in various discourses can be considered eligible. Current practical training is too academic, insufficiently focused on key professional competencies, which a teacher can acquire only through practical experience” (Rovňanová, 2016, p. 121).

There is no mention of the requirement to participate in teaching practice or its role in teacher training on the legislative level, even though descriptions of teacher training courses list the practical abilities a graduate must possess. A practical

curriculum component enables students to get real-world experience before becoming instructors. They are trained in didactics and participate in practical activities: observations, demonstrations, mentoring, and teaching practice.

When the middle portion in EU countries is about 30%, Slovakia has 5-8% of the total teacher training time devoted to practice. Depending on the teaching program, it varies from 15% to 5% of the study time (Kosová, & Porubský, 2019, p. 252). Thus, Slovakia is among the countries with less practical training in teacher education.

Almost all EU education systems require professional training to be included in ITE programs. Most education systems also regulate a minimum duration of professional training, while in IT education systems (including Slovakia), the share of professional training is decided by ITE institutions themselves.

One of the recommendations for enhancing the practical aspects of curricula in initial teacher training in Slovakia is to legislate a minimum portion of practical training for student teachers at higher educational establishments. There should be a minimum requirement for the number of credits or hours of practical experience that pedagogical faculties offering basic teacher education must include in their curricula. It would help future teachers connect theory and practice to improve their readiness concerning necessary teaching competencies (OECD, 2020).

Some researchers are concerned about the open system in obtaining teacher qualifications. Branislav Pupala points out that "in Slovakia, the route to alternative

teacher training qualifications is now more varied than ever. We will be seeing even greater variation in the qualification pathways taken by teaching staff" (Pupala, Kaščák, & Rehúš, 2020, p. 106).

This method's number of qualified teachers is still small among the EU countries. According to the TALIS 2018, only 4.4 % are qualified through fast-track or specialized teacher education programs (European Commission, 2021, p. 74).

Because of upcoming teacher shortages faced by Slovakia, it can be one of the possible solutions that will temporarily help fill vacant workplaces. Nevertheless, it will not change the state of the teaching profession for the better in the long term. Without creating the necessary level of healthy competitiveness, supported by a decent salary and high social status, the quality of teaching will become an issue.

Selection of the job we want to occupy during our professional life is complicated. In the era of a global information society, when the internet has simplified the search for a future job position, many universities put down their role in the process. Professional orientation and career guidance are often neglected by higher educational establishments nowadays. In our survey, we concentrated mainly on the issue of providing information about a possible working place.

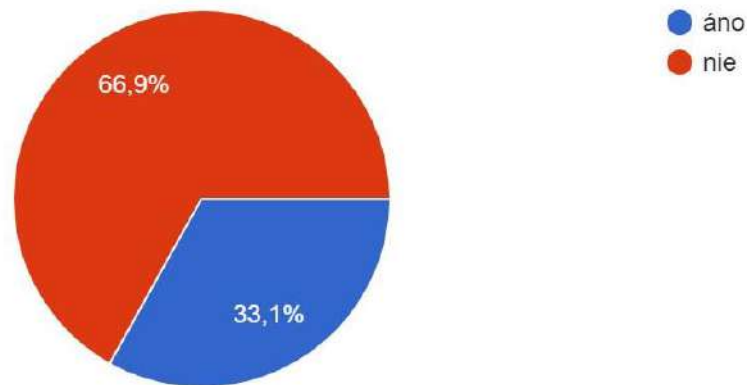
To Question 9, "Have you received professional information about future employment opportunities at the place of study?" we received 66.9% (n=91) of negative responses and only 33.1% (n=45) of positive ones (see Fig. 3).

Figure 3

Receiving the Labor Market Information at the Teacher Training Establishments

9. Mali ste k dispozícii informácie o budúcich pracovných príležitostiach v mieste štúdia? (pre tých, ktorí odpovedali nie - na otázku 11)

136 odpovedí



Responses to Question 10 gave us some understanding of the forms of providing information on future job places. Most respondents got the information during lectures 36.2% (n=17), the second in number are various advertisements – 25.5% (n=12), and 19.1% (n=9) got the information through the leaflets. Other variants were mentioned in a free writing space: in the Facebook group of the study department – 6.7% (n=3), from lecturers at the university – 4.4% (n=2), e-mail letters – 2.2% (n=1) and on the bulletin board of the university – 2.2% (n=1).

One-third of the teachers answered that they did not receive the job market information at the place of study and therefore had to look for it independently. Receiving good professional information leads to a conscious decision and benefits not only the beginning teacher but the employer and the quality of education. Moreover, insufficient career support can

create the tension of possible maladjustment in the pre-service stage.

In order to understand the current situation for the job search process, we asked the teachers how they found their present job. The results are shown in Table 2.

Some of the variants given in a free writing space of the questionnaire were further categorized and added to the provided closed-ended ones because they generally described the same mediator. For example, the responses “I addressed the school principal directly” and “I sent my resume to each school” were counted as “Personal application for the desired school”. The response “Via the Internet” was counted as “Responding to the job announcement”, and “The school principal invited me for the interview on my friend’s recommendation” was counted as “On friend’s recommendation”.

Table 2*The Mediators for a Job Search in the Teaching Profession*

Type of mediators (closed-ended variants)	%	n
Personal application for the desired school	43.4%	59
Responding to the job announcement	27.2%	37
On a friend's recommendation	24.3%	33
Teachers' variants of responses (provided in a free writing space)	%	n
Labor Office	0.7%	1
The program "Teach for Slovakia".	0.7%	1
I was invited because of the lack of teachers at the secondary school	0.7%	1
I did an internship at school, where I later got a position	0.7%	1
I received an invitation from the principal of the school	0.7%	1
The representative of the kindergarten where I completed my graduate internship approached me about a job opportunity	0.7%	1
After the termination of my work contract in the kindergarten, one mother invited me to work as an assistant in an elementary school	0.7%	1

Some of the variants given in a free writing space of the questionnaire were further categorized and added to the provided closed-ended ones because they generally described the same mediator. For example, the responses "I addressed the school principal directly" and "I sent my resume to each school" were counted as "Personal application for the desired school". The response "Via the Internet" was counted as "Responding to the job announcement", and "The school principal invited me for the interview on my friend's recommendation" was counted as "On friend's recommendation".

As it became clear from the questionnaire results, future teachers mostly search for the job themselves and find the information online. Many Internet resources are available, which can help them research different job options. Among those mentioned by the respondents were online portals [edujobs.sk](https://www.edujobs.sk) (<https://www.edujobs.sk/>), [profesia.sk](https://www.profesia.sk) and Teach for Slovakia project.

An online portal, [edujobs.sk](https://www.edujobs.sk) (<https://www.edujobs.sk/>), collects information on education vacancies in

Slovakia. The schools are not obliged to advertise on this website, so it does not provide the total number of job openings.

Another online platform, "Teach for Slovakia", is somewhat debatable because it caused the legitimization of temporary teachers. Teach for Slovakia has been a part of the Teach for All worldwide network since 2014. It is a different way to fill teaching positions and address the scarcity of competent instructors in areas where finding teachers with the necessary credentials is challenging. A skeptical attitude to the platform can be seen in the article "Teach for Slovakia, or how to further degrade Slovak education" (Burkert, 2019).

The program provided by this platform is an alternative to the standard teacher education pathway in Slovakia. It differs from a traditional university teacher education and a pathway for graduates of other majors (the supplementary pedagogical study). The law stipulates that unqualified teaching personnel who want to become qualified have four years from accepting a position to finish their study (Act No. 138/2019 Coll.). Program

participants are expected to stop teaching after two years, so they are not required to do that.

Having the probationary period is considered one of the filters into a teaching profession that helps to support

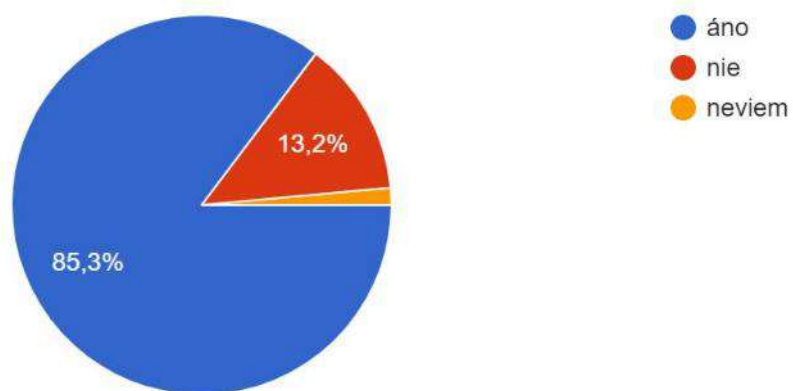
the quality of education and does not allow incompetent candidates to remain in schools. According to the responses to Question 12 of the survey, 85.3% of teachers stated having a probationary period, 13.2% replied negatively, and 1.5% stated they were unaware of that (see Fig. 4).

Figure 4

Having the Probation Period

12. Mali ste skúšobnú dobu po prijatí do zamestnania?

136 odpovedí



The European Commission emphasizes the importance of providing specific support to teachers during the early stage of their careers. In 2020, the Council's conclusions on European teachers and trainers for the future reaffirmed that novice teachers should be provided with additional guidance and mentoring. Induction has important formative and supportive components; it usually includes additional training and personalized help and advice (European Commission, 2021, p. 74).

In Slovakia, a teacher induction program is compulsory, and besides other functions, it acts as a probation period before confirming the recruitment. The second part of our research project will be devoted to the induction period into the teaching profession.

DISCUSSION

Teacher education in Slovakia generally follows a traditional university pathway. The directive division of teacher training into the bachelor and the master level had a long-lasting negative influence. Because of its predominately academic nature, inadequate teacher preparation has become increasingly criticized in recent years. One of the reasons is its inability to respond to the demands of school system reform, requiring flexibility from teachers to adapt to students' needs.

Low social status and inadequate salary, the decreasing attractiveness of the teaching profession, and as a result, the upcoming teacher shortage that inevitably results in poor education quality will require policymakers to find possible ways to solve the current situation.

When political parties announce education reforms, including changes to teacher training, criticism of traditional university teacher training programs is on the rise. Universities try to incorporate some of the components of new initiatives. As a result, less attention is paid to academics, and more is placed on the practical side of teaching. A part of the scientific community defending the prevailing academic orientation of teacher education prevents the Ministry of Education from adopting the minimum requirements for teacher practice in the first place.

The introduction of alternative routes supplements a traditional university pathway into the teaching qualification: DPŠ and Teach for Slovakia. However, they cannot entirely solve the problems of school education quality and teacher shortage as the former lacks teaching practice while the latter considers teaching a temporary step in their career.

In order to employ and retain qualified teaching staff, early career support comes to the fore. The survey results showed that future teachers mostly look for vacancies on their own and do not receive necessary and relevant information during university career guidance.

Studying the strengths and weaknesses of the existing teacher training system and development is a prerequisite for strengthening and improving the quality of teaching. Reaching for international comparisons of existing positive

experiences can help find appropriate recommendations for education policymakers.

CONCLUSIONS

Our study's results revealed several problematic aspects of the student-to-teacher transition period in Slovakia. The teaching profession has a limited appeal, and there is a declining interest in teaching due to poor remuneration, the quality of initial teacher education, recruiting methods, unfavorable image, and low social status. Some problems can be found at the stage of entering ITE because the lack of students causes low competitiveness and, therefore, low criteria for selecting candidates.

There are no legislative standards or criteria for evaluating teaching programs regarding the minimum share of practical training. High qualification requirements in academic knowledge are stated for becoming a teacher but having practical teaching experience is not stipulated precisely. Alternative pathways or an open system for entering the teaching profession (especially the introduction of temporary staff who do not consider teaching as their life career) can lead to de-professionalization. Insufficiency of career support for graduates during the job search can lead to early drop-out of the profession. Because of upcoming teacher shortages, all the factors mentioned can be crucial for the quality of school education.

ACKNOWLEDGEMENTS

The research was conducted within the UMB Support Scheme for International Researchers program at Matej Bel University in Banská Bystrica. We also acknowledge the kind support of the Slovak government and the EU within the programme "Slovakia's recovery and resilience plan – Scholarships for researchers threatened by the war in Ukraine" (no. 09I03-03-V01-00071).

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Bačová, D., & Popovičová, B. (2015). Initial Teacher Training Programmes in Slovakia and England: University of Prešov and University of Bolton. In Z. Strakovaá (Ed.), *English matters VI (a collection of papers)* (pp. 7–22). Prešovská univerzita v Prešove. <https://www.pulib.sk/web/pdf/web/viewer.html?file=/web/kniznica/elpub/dokument/Strakova1/subor/9788055514727.pdf>
- Burkert, M. (2019, February 17). Teach for Slovakia, alebo ako ešte viac ponížiť slovenské školstvo [Teach for Slovakia, or How to Further Degrade Slovak Education]. *SME Blog*. <https://burkert.blog.sme.sk/c/502475/teach-for-slovakia-alebo-ako-este-viac-ponizit-slovenske-skolstvo.html> [in Slovak].
- Cabanová, M., Kasáčová, B., Babiaková, S., & Lynch, Z. (2022, March 7-8). Research Focused on the Teaching Profession in Slovakia and Their Thematic Classification. In INTED2022 Proceedings (pp. 2525-2529). Matej Bel University, Slovakia. <https://doi.org/10.21125/inted.2022.0734>
- Davydovskaia, O., De Coster, I., Birch, P., Vasiliou, N., & Motiejunaite-Schulmeister, A. (2021). *Teachers in Europe: Careers, Development and Well-Being*. *Eurydice Report*. Education, Audiovisual and Culture Executive Agency, European Commission. <https://doi.org/10.2797/997402>
- European Commission, Directorate-General for Education, Youth, Sport and Culture. (2014). *Study on Policy Measures to Improve the Attractiveness of the Teaching Profession in Europe: Final Report. Volume 2*. Publications Office. <https://data.europa.eu/doi/10.2766/41166>
- European Commission. (2020). *Education and training monitor. Slovakia*. <https://op.europa.eu/webpub/eac/education-and-training-monitor-2020/countries/slovakia.html>
- Gavora, P., & Kasáčová, B. (2010). Teacher Training in the Slovak Republic. K. G. Karras, & C. C. Wolhuter (Eds.), *International Handbook of Teacher Education Worldwide* (pp. 495–510). Athens-Atrapos Editions.
- Kasáčová, B. (2011). Primary Education Teachers and their Professional Activities Within a Research Examination. *Orbis Scholae*, 5(2), 139–164. <https://doi.org/10.14712/23363177.2018.105>
- Kosová, B., & Porubský, Š. (2019). Teacher Training in the Slovak Republic. In K. G. Karras, & C. C. Wolhuter (Eds.), *International Handbook of Teacher Education Worldwide* (pp. 241–255). Nicosia.

- Krajčová, N., & Cimermanová, I. (2013). Teaching profession in Slovakia in the EU context. *Studia Edukacyjne*, 24, 225–256. <http://hdl.handle.net/10593/6857>
- Luchenko, O., & Doronina, O. (2023). The Current State of the Teaching Profession in Slovakia and Japan. *Scientific Collection «InterConf»*, 142, 122–124. <https://archive.interconf.center/index.php/conference-proceeding/article/view/2347>
- Map of Districts of the Slovak Republic. (n.d.). *Mapa okresov SR (počet obcí v jednotlivých okresoch)* [Number of Municipalities in Individual Districts]. http://www.sodbtn.sk/obce/okresy_pocet_obci.php [in Slovak].
- Nebytova, I. (2022). Scientific and Pedagogical Support for Future Primary School Teachers during Teaching Practice. *Educational Challenges*, 27(1), 80–91. <https://doi.org/10.34142/2709-7986.2022.27.1.07>
- OECD. (2020). *Skills Strategy Slovak Republic: Assessment and Recommendations*. OECD Skills Studies. <https://doi.org/10.1787/bb688e68-en>
- Perignáthová, M. (2019). *Atraktivita učiteľského povolania [Attractiveness of the Teacher Profession]*. Inštitút vzdelávacej politiky. Ministerstvo školstva, vedy, výskumu a športu SR <https://www.minedu.sk/data/att/15376.pdf> [in Slovak].
- Pupala, B., Kaščák, O., & Rehúš, M. (2020). Teachers for Slovakia: Tensions in the profession. *Studia Paedagogica*, 25(2), 97–116. <https://doi.org/10.5817/SP2020-2-5>
- Rovňanová, L. (2016). Theoretical and Professional Practical Training of Slovak Teachers through the Eyes of Student Teachers. In B. Kosová, & M. Musioł, *School, Curriculum and Teacher in the Second Decade of the 21st Century: Polish–Slovak Confrontations* (pp. 109–138). Wydawnictwo Adam Marszałek.
- Teach for Slovakia. (n.d.). *Vízia a hodnoty [Vision and values]*. <https://teachforslovakia.sk/o-nas/vizia-a-hodnoty-teach-for-slovakia/> [in Slovak].
- Úrad vlády Slovenskej republiky; Redakcia Slov-Lex. (n.d.). *Act No. 138/2019 Coll. Zákon o pedagogických zamestnancoch a odborných zamestnancoch a o zmene a doplnení niektorých zákonov [The law on Teaching Staff and Professional Staff with Amendments to Certain Laws]*. Slov-Lex, právny a informačný portál. <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2019/138/20190901> [in Slovak].

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:**ВХОДЖЕННЯ У ПРОФЕСІЮ ВЧИТЕЛЯ В СЛОВАЧЧИНІ**

У статті досліджується сучасний стан процесу входження вчителів у професію в Словаччині, а саме передумови вступу до вчительської професії. У центрі уваги даного дослідження: привабливість професії вчителя та її вплив на прийняття рішення майбутніми студентами педагогічної спеціальності, рівень задоволеності вчителя роботою, співвідношення освітніх вимог до предметних знань і педагогічної практики, доступність професії, допомога в пошуку відкритих вакансій, випробувальний термін як фільтр до вчительської діяльності.

Мета дослідження – визначити проблемні аспекти перехідного періоду від студента до вчителя, на які необхідно звернути увагу, щоб запобігти ранній дезадаптації та втратам кваліфікованих кадрів у професії.

Методологія. Дослідження проводилось із застосуванням теоретичних та емпіричних методів. Дані були отримані від вчителів-початківців, завдяки онлайн-опитуванню за допомогою Google Forms з відкритими та закритими питаннями.

Попередні **результати** дослідження виявили соціальний імідж професії вчителя та складові її привабливості для майбутніх студентів, проблеми зі співвідношенням навчальної та практичної частин у педагогічній освіті, можливі шляхи входження в професію та перешкоди даного процесу.

Проведене дослідження дозволило дійти наступних **висновків**. Через низький соціальний імідж вчителя у Словаччині очікується нестача кадрів у професії. Суттєвий дисбаланс у початковій педагогічній освіті на користь академічних знань і відсутність конкретних вимог до практичного досвіду має свої наслідки у якості шкільної освіти та ранньої дезадаптації вчителя. Запровадження відкритої системи в професії вчителя є тимчасовим рішенням, яке викликає багато занепокоєнь, особливо із запровадженням діяльності вчителів на короткий термін із низькими стандартами вимог до педагогічних вмінь. Відсутність кар'єрної підтримки випускників – майбутніх вчителів – під час пошуку роботи може призвести до того, що вони покинуть освітню галузь. У цій ситуації адекватна допомога у працевлаштуванні вчителів-початківців стає необхідною, а програма введення вчителів у професію в Словаччині є предметом наступного дослідження.

КЛЮЧОВІ СЛОВА: вимоги до освіти, початкова педагогічна освіта, задоволеність роботою, привабливість професії, професійна орієнтація, Словаччина, педагогічна практика.

CITE THIS ARTICLE AS (APA style):

Luchenko, O., & Yurchenko, V. (2023). Entering the Teaching Profession in Slovakia. *Educational Challenges*, 28(1), 113-127. <https://doi.org/10.34142/2709-7986.2023.28.1.09>



<https://doi.org/10.34142/2709-7986.2023.28.1.10>

EDUCATION OF THE HEALTH CULTURE FOR FUTURE TEACHER'S PERSONALITY

Received: 22/01/2023

Accepted: 19/02/2023

**Olena MOMOT¹, Serhii NOVIK², Yevheniia SHOSTAK³,
& Olena ZHDANOVA-NEDILKO⁴**



¹ Doctor of Science (Pedagogy), Professor, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

✉ E-Mail: tmovsd@ukr.net

 <https://orcid.org/0000-0001-9187-1036>



² Ph.D. in Pedagogy, Associate Professor, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.


✉ E-Mail: novik.s1983@gmail.com

 <https://orcid.org/0000-0001-8718-6271>



³ Ph.D. in Pedagogy, Associate Professor, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

✉ E-Mail: yevheniia@gsuite.pnpu.edu.ua

 <https://orcid.org/0000-0002-3668-0875>



⁴ Doctor of Science (Pedagogy), Associate Professor, Poltava V. G. Korolenko National Pedagogical University, Poltava, Ukraine.

✉ E-Mail: neonylla2015@ukr.net

 <https://orcid.org/0000-0002-1414-2355>

© Olena MOMOT, Serhii NOVIK, Yevheniia SHOSTAK, & Olena ZHDANOVA-NEDILKO, 2023

Education of the Health Culture for Future Teacher's Personality © 2023 by Olena MOMOT, Serhii NOVIK, Yevheniia SHOSTAK, & Olena ZHDANOVA-NEDILKO is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

ABSTRACT

The **purpose** of the article is to substantiate the process of educating the health culture of a future teacher.

Methodology. Among the theoretical research methods, the main ones were: conceptual and comparative analysis (study of pedagogical, philosophical and psychological literature, textbooks on the research topic); structural-system analysis (theoretical analysis of problems, modeling of the studied systems, comparative, comparative and retrospective analyzes, diagnostics and forecasting of initial approaches and research consequences).

Results. The research model helps to improve the process of educating a future teacher's personality in terms of creating a health-preserving environment of higher education, is able apply to creatively acquired health-preserving knowledge, skills and abilities in practice as well as to find, process, analyze, use information independently, think nonlinearly, use modern content in future teacher's activities, methods of education, technologies, pedagogical techniques, acquire the necessary personal qualities, self-change and strive for continuous self-improvement.

Conclusions. The education of a health culture for a future teacher's personality is a purposeful, structures and managed system of ideas and principles, indicators, levels, criteria, guidelines and recommendations, as well as certain organizational and pedagogical conditions and tools, united by a single concept; it is aimed at individual creative development of a future specialist's personality in the structure of multilevel pedagogical education.

KEYWORDS: Scientific and Methodological Support, Education, Personality, Health-Preserving Environment, Institution of Higher Education.

INTRODUCTION

Educating the culture of personal health is an urgent problem of modern psychological and pedagogical science and practice, because health is the basis of prosperity and flourishing of the nation, the source of a happy full life. Only a healthy person is able to think creatively, self-realize, succeed, move forward, contribute to the development of our society.

The analysis of recent research and publications shows the versatility of the problem of health care. The problem of implementing health technologies is widely represented in the works of modern Ukrainian scientists: Garkusha S., Drahnev Yu., Momot O. and foreign scientists (Clausson E. K., Clark N. M.,

Zimmerman B. J., Patterson P. B., McIntyre L., Anderson L. C., Mah C. L.).

The study state of the problem confirms the appropriateness in the justification of the question education of the culture of personal health of a future teacher.

The **purpose** of the article is to substantiate the process of educating the health culture for a future teacher.

METHODOLOGY

Among the theoretical research methods, the main ones were: conceptual and comparative analysis (study of pedagogical, philosophical and psychological literature, textbooks on the research topic); structural-system analysis (theoretical analysis of problems, modeling of the studied systems,

comparative, comparative and retrospective analyzes, diagnostics and forecasting of initial approaches and research consequences).

Methods of educational research context, data collection, data analysis, and reporting of student responses were used. In this study, some questionnaires and interviews were used to obtain answers from future teachers of the Poltava V. G. Korolenko National Pedagogical University.

It has been established that the process of fostering the health culture of future teachers' personality becomes more effective under the implementation of certain pedagogical conditions for the creation of a healthy environment at universities. The basis of our study was scientific and pedagogical research on the formation of the personality's health culture of future teachers in the conditions of creating a healthy environment at universities.

RESULTS

In structural terms, the education of the culture of health of the future teacher, in our view, covers three main components: criteria, indicators and levels of education of the future teacher's personality; characteristics of organizational and pedagogical conditions of education of the future specialist; a model of educating the future teacher's personality in terms of creating a health-preserving environment of a higher education institution. Let us consider each of them:

1. *Criteria, indicators and levels of education of the future teacher.*

On the basis of essential characteristics of education of the future teacher's personality and position of the criterion approach the basic criteria of education are defined as motivational-value, cognitive, procedural-activity, practical.

Based on defined criteria and indicators, the levels of education are characterized as low, medium, sufficient, high.

The low level of education of the future teacher's personality is marked by weak motivation and value orientations to health preservation; lack of initiative, inadequate assessment of their capabilities; poor quality of knowledge, skills and abilities to maintain good health; non-responsibility for health-preserving behavior in all spheres of life, impatience, inability to manage their behavior; unsatisfactory level of development of motor skills, self-esteem and correction of one's own behavior, inactivity.

The medium level of education of the future teacher's personality is characterized by partial motivation and value orientations to health preservation; limited or partial knowledge, skills and abilities to maintain health, mediocre analysis, synthesis and generalization of theoretical knowledge; formed, but meanly expressed level of responsibility for health-preserving behavior in all spheres of life, endurance, patience; insufficient level of development of motor skills, self-esteem and correction of one's own behavior, mediocre confidence and activity.

The medium level of education of the future teacher's personality is marked by stable motivation and value orientations to health preservation, showing interest in improving health; the available level of knowledge, skills and abilities to maintain health, possession of theoretical material; the formed level of responsibility for health-preserving behavior in all spheres of life, endurance, patience; sufficient level of development of motor skills, self-esteem and correction of one's own behavior, self-confidence, demanding and persistence.

The high level of education of the future teacher's personality is characterized by a pronounced motivation and value orientations to health preserving, initiative, responsibility, persistence; high level of knowledge, skills and abilities to maintain health, rational analysis of the phenomena of the surrounding reality; responsibility for health-preserving behavior in all spheres of life; high level of development of motor skills, self-esteem and correction of one's own behavior, ingenuity and activity.

Motivational and value criterion is the formation of motivation and value orientations in the personality of the future teacher to health-preserving actions; desire to strengthen and maintain health; work to maintain and strengthen health. It determines the assessment of all components of health by the future specialist; satisfaction with activity that forms physical health; a sense of self-importance and effectiveness of their actions.

Cognitive criterion – the acquisition of knowledge, abilities and skills about human health, health preservation. Assessment of existing and acquired knowledge in the personality of the future teacher of higher education will determine their general level of awareness of the importance of health, the desire for self-knowledge.

The procedural and activity criterion helps to assess how future teachers master technologies, methods and tools of health activities, which are to follow health-preserving advice and recommendations aimed at improving physical fitness, prevention of bad habits, proper training organization, daily routine and diet.

Practical criterion – the level of development of motor skills, activity and self-assessment of the importance of their

participation in joint work, the ability to correct their own behavior.

We are convinced that depending on the manifestation of the criteria indicators in the future teachers' personalities, we can say about the level of education (high, sufficient, medium, low) in general.

2. Characteristics of organizational and pedagogical conditions for the education of the future teacher's personality.

We have specified the set of organizational and pedagogical conditions for the education of the future teacher's personality as a result of empirical research methods.

The first organizational and pedagogical condition, which is the creation of a health-preserving environment in higher education institution, involves the selection of scientific and pedagogical staff of the appropriate level which is able to promote productive activities of the future teacher's personality, to determine their health-preserving skills (Hrynchenko et al., 2021); the interaction of high school and the future teacher's personality in a health-preserving environment; providing conditions for independent, health-preserving activities in order to increase the professional level of the future specialist; stimulating intellectual and creative search, the ability to see the problems and ways to solve health-preserving problems; synergy of cooperation and co-creation relations; modernization of health-preserving means, forms, methods of education; creating a stimulating, positive, health-preserving, spiritual, moral and psychological atmosphere (Yevtushenko, N., Tverdokhliebova, N., & Mezentseva, I., 2022); responsible attitude to one's own health and environment; desire, discipline and dedication.

The implementation of this condition leads to coordinated and meaningful cooperation of higher education institutions, scientific and teaching staff, family and personality of the future teacher in the field of maintaining and strengthening health, and as a result - the success of health-preserving activities.

The second organizational and pedagogical condition, which is the formation of health-preserving competencies of the future teacher of higher education, is based on the ability to apply knowledge and skills of pedagogical and psychological methods of influencing a teaching staff, students, a future teacher's personality; to use health-preserving knowledge, skills and abilities in all spheres of life (observance of a daily routine and diet, physical activity, alternation of mental and physical activity); ability to self-regulation (according to M. Hryniova); ability to characterize the properties aimed at the harmonious development of the individual, his self-realization in professional, creative potentials, the preservation of physical, social, mental and spiritual health of his and the environment.

The implementation of this condition improves the quality of knowledge, skills (Kostikova et al, 2021) and abilities, experience, values and attitudes mastery that can be fully implemented in practice, ensures the growth of the general level of personal development.

The third organizational and pedagogical condition, which is innovation and health climate in the team of research and teaching staff and future teachers of higher education, provides a positive relationship in the team; rational organization of the health-preserving process taking into account the capabilities of the body of each individual;

ensuring normal working, learning and leisure conditions for all participants in the process; healthy interpersonal relationships based on mutual understanding and mutual respect. Fulfilling this condition increases the motivation of the future teacher to improve health, the desire to preserve the environment, the ability to work in a team, and forms the skills of interpersonal interaction.

The fourth organizational and pedagogical condition, which is the introduction of educational and methodological support and methods of its implementation during the education of the future teacher's personality into the educational process of higher education, is implemented through the introduction into the educational process of higher educational institutions of educational and methodological support, which includes educational and methodical complexes of disciplines. The implementation of this condition leads to the formation of an integral system of theoretical knowledge, practical skills and abilities of future teachers and their use in practice.

In our opinion, the process of educating the future teacher's personality will be more effective if it meets the above organizational and pedagogical conditions.

3. Model of education of the future teacher's personality in terms of creating the health-preserving environment of the institution of higher education.

In the context of the studied general principles, we took into account that the developed model of education of the future teacher's personality allows a deeper understanding of the essential characteristics of the educational process and to identify scientifically

justified approaches to its practical implementation.

This structure indicates the two-sided nature of education and necessitates close interaction of the educator and the pupil at all stages of educational work, from defining its aim and objectives, to verifying and evaluating its results. "Comprehensive education", says A. Kuzminskyi and V. Omelianenko, "involves the formation of certain qualities in a person in accordance with the requirements of moral, mental, physical, labor and aesthetic education. Furthermore, harmony is understood as the coordination, combination of these qualities, their complementarity and mutual enrichment in the spiritual and physical nature of man" (Kuzminsky, & Omelianenko, 2003, p. 50).

Equivalent components within the developed model are aim, content, procedural, control and product blocks, each of which has structural components. We describe each block of the model:

The aim block of the model includes a social order to check the health-preserving environment in higher education institutions, aim, objectives, theoretical and methodological approaches, principles of educating the future teacher's personality in the health-preserving environment of higher education institutions.

The aim represents the end result of education of the future specialist's personality to the specified type of activity. Tasks are aimed at forming a positive motivation to acquire knowledge, skills and abilities in a health-preserving environment of higher education institution; ensuring the quality of theoretical knowledge, consolidation of skills and abilities, mastery of technologies, methods and tools of health-preserving activity, development of motor skills,

activity, self-esteem; orientation of future teachers to understand the need for health-preserving behavior in all spheres of life.

Theoretical and methodological approaches reflect the specifics of the organization of the educational process in terms of creating a health-preserving environment in higher education institution; these include: systemic, axiological, individual, activity, competence, information, synergetic, environmental, technological.

The principles ensure the effectiveness of the education of the future teacher's personality in the conditions of creating a health-preserving environment for higher education institution, taking into account the legitimacy of the educational process. Among them we distinguish the next principles: love for yourself and your environment; health-preserving education; self-regulation; consciousness and activity; diligence and initiative; the interaction of higher education and the future teacher's personality in a healthy environment; individual health-preserving approach to the future teacher's personality; the effectiveness of the implementation of health-preserving technologies.

The content block of the model reflects the content of educating the future teacher's personality in terms of creating a health-preserving environment for higher education institution: the formation of motivation in research and teaching staff and future teachers to create a health-preserving environment for higher education institution; creating conditions for the functioning of physical culture; formation of a culture of health in the future teacher's personality; self-education, self-assessment, self-analysis, which unite all areas of higher education in the formation, preservation and

strengthening of the student youth health.

The content block of the model also includes educational and methodological support, which is a part of the technology of educating the future teacher's personality in terms of creating a health-preserving environment in higher education institution and consists of the following disciplines: "Technology of creating a health-preserving environment in higher education institution", "Sports and pedagogical improvement".

As an example for future physical training teacher we offer the procedural block of the model that covers the stages of implementing the technology of educating future professionals: (motivational, learning health-preserving material, developing health-preserving skills and abilities in the behavior of future professionals), methods (persuasion, encouragement, punishment, criticism, discussion, Olympic example, competition), forms (lectures, consultations, round tables, trainings, conversations, discussions, methodical seminars, meetings with outstanding people, practical classes, independent and individual work, Olympic quizzes, Olympic weeks, Olympic readings, physical culture and sports activities, master classes), means (Olympic literature, biography of Olympians, Olympic movement, teaching aids, training and work programs, test tasks, rational and balanced diet, rational daily routine, exercise) education, which fulfills the main purpose of the study and specific tasks in relation to the individual, reveal a set of ideas, concepts, assertions and values that enrich students.

The control and product block of the model provides monitoring of the quality of the future specialist's education, highlighting criteria, indicators of education, determines the end result – the

level of influence of the educational process on the development and formation of the future teacher's personality, which is system of abilities, knowledge and skills; deeds and actions of the future specialist's personality; comprehensive and harmonious development of the student; active life guidance and focus on success.

Organizational and pedagogical conditions for educating the future teacher's personality in the health-preserving environment of the higher education institution are included in the model to show their importance in ensuring the effectiveness of the process of educating future professionals. The figure 1 of the offered model is done.

DISCUSSION

In the context of our study is important a large number of modern scientific and methodological works, the authors of which consider health and health environment in some aspects (substantiated the principles, content, forms and methods of health pedagogy as a field of pedagogical knowledge (Voronin, D. Ye.; Domashenko, A. V.; Kyrylenko, S. V., Lekholetova, M. M.), an integrated approach to the formation of human health is argued (Novik, S.M., Marunencko, I., Lekholetova, M.).

Thus, our research model helped to improve the process of educating the future teacher's personality in terms of creating a health-preserving environment of higher education, able to creatively apply acquired health-preserving knowledge, skills and abilities in practice, independently find, process, analyze and use information, think nonlinearly, use in their activities modern content, methods of education, technologies, pedagogical techniques, acquire the necessary

personal qualities, self-change and strive for continuous self-improvement.

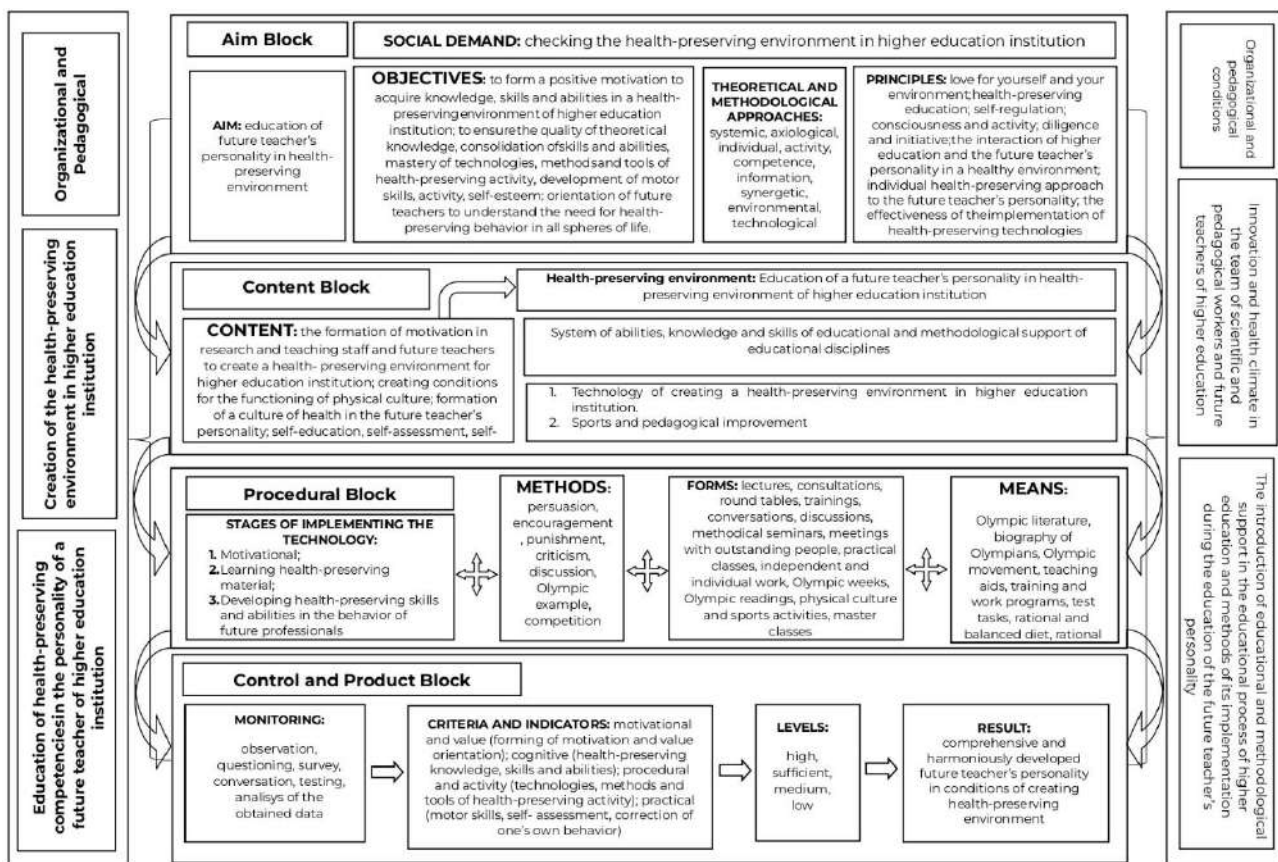
CONCLUSIONS

Therefore, the education of the culture of health of the future teacher’s personality is a purposeful, structures and managed system of ideas and principles, indicators, levels, criteria, guidelines and recommendations, as well as certain

organizational and pedagogical conditions and tools, united by a single concept and aimed at individual creative formation of the future specialist's personality in the structure of multilevel pedagogical education. Prospects for further research in this direction are to further study the theory and practice of educating the future teacher’s personality.

Figure 1

Model of Educating Future Teacher's Personality in Conditions of Creating Health-Preserving Environment of Higher Education Institution



CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

Clark, N. M., & Zimmerman, B. J. (2014). A social cognitive view of self-regulated learning about health. *Health Education & Behavior*, 41(5), 485–491. <https://doi.org/10.1177/1090198114547512>

- Clausson, E. K. (2014). School Health Nursing: Perceiving, Recording and Improving Schoolchildren's Health [Doctoral Thesis, Doctoral dissertation, Nordic School of Public Health (NHV)]. Nordic School of Public Health (NHV). <https://researchportal.hkr.se/en/publications/school-health-nursing-perceiving-recording-and-improving-schoolch-2>
- Domashenko, A. V. (2003). *Orhanizatsiino-pedahohichni zasady systemy fizychnoho vykhovannia studentskoi molodi Ukrainy* [Organizational and Pedagogical Principles of the System of Physical Education of Student Youth of Ukraine] [PhD Dissertation, Odessa Polytechnic National University, Kyiv National University of Construction and Architecture]. Odessa Polytechnic National University, Kyiv National University of Construction and Architecture.
- Drahnev, Yu. V. (2007). Komponenty formuvannia kultury zdorovia studentiv v umovakh kompiuteryzatsii navchannia. *Pedahohika, psykhohiia ta medyko-biolohichni problemy fizychnoho vykhovannia i sportu*, 1, 161-165 [in Ukrainian].
- Garkusha, S. V. (2014). State Policy on the Health and Healthy Lifestyles for Children and Youth in Ukraine. *Studia Universitatis Moldaviae. Seria: Științe ale Educației. Pedagogie. Chișinău: Universitatea de Stat din Moldova*, 5(75), 95–96. https://ibn.idsi.md/vizualizare_articol/38626
- Hrynchenko, I., Tykhonova, A., Karpunets, T., & Chupryna, O. (2021). Use of Active Games in Physical and Tactical Training of Young Handball Players at the Initial Stage. *Educational Challenges*, 26(2), 63-74. <https://doi.org/10.34142/2709-7986.2021.26.2.06>
- Kostikova, I., Holubnycha, L., Girich, Z., & Movmyga, N. (2021). Soft Skills Development with University Students. *Revista Romaneasca pentru Educatie Multidimensionala*, 13(1), 398-416. <https://doi.org/10.18662/rrem/13.1/378>
- Kuzminskyi, A. I., & Omelianenko, V. L. (2003). *Pedahohika* [Pedagogy]. Znaniia-Pres. <http://surl.li/ewizi> [in Ukrainian].
- Kyrylenko, S. V. (2004). *Sotsialno-pedahohichni umovy formuvannia kultury zdorovia starshoklasnykiv* [Social-Pedagogical Conditions of Formation of Culture of Teenagers' Health] [PhD Dissertation, Institute of Problems of Education of Academy of Pedagogical Sciences of Ukraine]. Institute of Problems of Education of Academy of Pedagogical Sciences of Ukraine [in Ukrainian].
- Lekholetova, M. M. (2018). *Formuvannia zdoroviazberezhualnoi kompetentnosti maibutnikh sotsialnykh pedahohiv u protsesi profesiinoi pidhotovky* [Formation of Healthcare Competence of Future Social Educators in the Process of Professional Training] [PhD dissertation, Boris Grinchenko Kyiv University]. Borys Grinchenko Kyiv University Institutional Repository. <https://elibrary.kubg.edu.ua/id/eprint/24972> [in Ukrainian].
- Marunenko, I., & Lekholetova M. (2017). Zdoroviazberezhualni metodyky yak umova zmitsnennia zdorovia studentiv [Health-preserving methodologies as a condition of health promotion students]. In T. Nestorenko, & S. Sławomir (Eds.), *Transformations in Contemporary Society: Social Aspect* (pp. 337-343). The

Academy of Management and Administration in Opole. <https://bit.ly/3YeXx5Z> [in Ukrainian].

- Momot, O., Zhamardiy, V., Hrynova, V., Gorlova, L. & Sharlay, N. (2020). *Experimental Verification of the Effectiveness of Organizational and Pedagogical Conditions for the Education of the Future Teacher in the Health-Preserving Environment of the Institution of Higher Education*. *International Journal of Applied Exercise Physiology (IJAEP)*, 9(10), 253-261. <http://repository.pdmu.edu.ua/handle/123456789/14662>
- Momot, O.O. (2017). *Teoriia i praktyka vykhovannia maibutnoho vchytelia v umovakh stvorennia zdoroviazberezhuvального середовища вишчого навчального закладу* [Theory and Practice of Education of the Future Teacher in the Conditions of Creating a Health-Preserving Environment of a Higher Educational Institution] [Doctoral dissertation, National University of Life and Environmental Sciences of Ukraine]. National University of Life and Environmental Sciences of Ukraine [in Ukrainian].
- Novik, S.M., Shostak, Ye.Yu., Petryshyn, O. V., Fastivetz, A. V., & Khomenko, P. V. (2021). Health-Saving Factors Of Youth Responsibility Formation At Physical Training And Recreational Establishments. *Acta Balneologica*, LXIII(2/164), 110–114. <http://repository.pdmu.edu.ua/handle/123456789/16731>
- Patterson, P. B., McIntyre, L., Anderson, L. C., & Mah, C. L. (2016). Political Rhetoric from Canada Can Inform Healthy Public Policy Argumentation. *Health Promotion International*, 32(5), 871–880. <https://doi.org/10.1093/heapro/daw019>
- Voronin, D. Ye. (2006). *Formuvannia zdoroviazberihaiuchoi kompetentnosti studentiv vyshchikh navchalnykh zakladiv zasobamy fizychnoho vykhovannia* [Formation of Health-Saving Competence of Students of Higher Educational Institutions by Means of Physical Education] [PhD Dissertation, Kherson State University]. Kherson State University [in Ukrainian].
- Yevtushenko, N., Tverdokhliebova, N., & Mezentseva, I. (2022). Ensuring Psychological Safety to Develop Students' Risk-Based Thinking of the Specialty "Civil Security". *Educational Challenges*, 27(2), 228-241. <https://doi.org/10.34142/2709-7986.2022.27.2.16>

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

ВИХОВАННЯ КУЛЬТУРИ ЗДОРОВ'Я ОСОБИСТОСТІ МАЙБУТНЬОГО ВЧИТЕЛЯ

Метою статті є обґрунтування процесу виховання культури здоров'я майбутнього вчителя.

Методологія. Серед теоретичних методів дослідження основними були: концептуально-порівняльний аналіз (вивчення педагогічної, філософської та психологічної літератури, підручників з теми дослідження); структурно-системний аналіз (теоретичний аналіз проблем, моделювання досліджуваних систем, порівняльний та ретроспективний аналізи, діагностика та прогнозування початкових підходів і наслідків дослідження).

У **результаті** дослідження було запропоновано модель, яка сприятиме вдосконаленню процесу виховання майбутнього вчителя в умовах створення здоров'язбережувального середовища закладу вищої освіти, а як результат – формування особистості, здатної творчо застосовувати набуті здоров'язбережувальні знання, уміння та навички на практиці, самостійно знаходити, опрацьовувати, аналізувати та використовувати інформацію, мислити нелінійно, використовувати у своїй діяльності сучасний зміст, методи навчання, технології, педагогічні прийоми, набувати необхідних особистісних якостей, самозмінюватися та прагнути постійного самовдосконалення.

Зроблено **висновок**, що виховання культури здоров'я особистості майбутнього вчителя – це цілеспрямована, структурована й керована система ідей і принципів, показників, рівнів, критеріїв, настанов і рекомендацій, а також певних організаційно-педагогічних умов і засобів, об'єднаних єдиною концепцією та спрямованих на індивідуальне творче формування особистості майбутнього вчителя в структурі багаторівневої педагогічної освіти.

КЛЮЧОВІ СЛОВА: науково-методичне забезпечення; освіта; особистість; здоров'язбережувальне середовище; заклад вищої освіти.

CITE THIS ARTICLE AS (APA style):

Momot, O., Novik, S., Shostak, Y., & Zhdanova-Nedilko, O. (2023). Education of the Health Culture for Future Teacher's Personality. *Educational Challenges*, 28(1), 128-138. <https://doi.org/10.34142/2709-7986.2023.28.1.10>



<https://doi.org/10.34142/2709-7986.2023.28.1.11>

PROVIDING EDUCATION TO THE 1ST YEAR STUDENTS AT THE MEDICAL UNIVERSITY IN THE CONDITIONS OF MARTIAL STATE IN UKRAINE

Received: 16/02/2023

Accepted: 22/03/2023

Alisa POPOVICH¹, & Olena ALIYEVA²



¹ *Ph.D. in Biology, Associate Professor, Department of Medical Biology, Parasitology and Genetics, Zaporizhzhia State Medical University, Zaporizhzhia, Ukraine.*

✉ E-Mail: gennpgp@gmail.com

 <https://orcid.org/0000-0002-9539-8431>



² *Ph.D. in Biology, Associate Professor, Department of Medical Biology, Parasitology and Genetics, Zaporizhzhia State Medical University, Zaporizhzhia, Ukraine.*

✉ E-Mail: aliyeva1eg@gmail.com

 <https://orcid.org/0000-0003-1287-674X>

ABSTRACT

Learning is a complex creative process based on the use of modern technologies and taking into account the psycho-physiological properties of an individual. The martial law introduced significant changes in the operation mode of higher education institutions in Ukraine. Therefore, the problem of organization and implementation training in higher education institutions is very relevant in current conditions.

*The **purpose** is the study and application of those modern forms and methods of education that would provide a sufficient level of knowledge in martial law, as well as the study of the peculiarities of student's motivation in martial law.*

© Alisa POPOVICH, & Olena ALIYEVA, 2023

Providing Education to the 1st Year Students at the Medical University in the Conditions of Martial State in Ukraine © 2023 by Alisa POPOVICH, & Olena ALIYEVA is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

Methodology. We conducted a comprehensive analysis of sources about various teaching methods and generalization own experience of teaching Medical Biology in online format in Zaporizhzhia State Medical University.

Results. It was implemented the interaction concept of higher education students with the teaching staff and educational activity was monitored, Zaporizhzhia State Medical University introduced a remote form of education using MS Teams and the edX platform. Based on Teams, the work was carried out to create and fill in online platforms with an educational material, a content visualization with a large amount of illustrative materials, video materials, packages of test tasks in MS Forms, along with educational methods adaptation, including interactive ones, to a distance form.

Interactive distance learning means are very diverse. They include synchronous tools such as video conferencing and virtual classroom discussions, as well as asynchronous tools such as online forums and chats. Interactive distance learning means are crucial for several reasons: increasing contact, improving communication and collaboration, and contributing to a more dynamic and collaborative learning environment. While our teachers in real-time use synchronous interactive methods, asynchronous methods provide great flexibility for students regarding when and where they can participate in classes, that is especially important for students in complex real-world settings of martial law.

Conclusions: Distance learning in modern higher education has become a forced alternative to traditional forms despite the difficulties ensuring the educational process under challenging conditions.

Interactive means are becoming increasingly important in distance learning, as they help boost student's communication and interaction, improve collaboration, and provide greater flexibility and convenience in the distance learning process for students and teachers. Modern technologies and means will be appropriate if we take into account the students' psycho-physiological state and the degree of their motivation.

KEYWORDS: Distance Learning, Higher Education System, Experience, Motivation, Martial Law Conditions.

INTRODUCTION

In the world, progress has touched all spheres of human existence without exception, including education. However, despite the fact that training programs, plans and methods change, the essence of the process remains unchanged: to raise a developed personality. Education lays the foundations for the ability to solve problems and operate with the information received. Educational processes become a mechanism for

copied with a person's difficulties while living in society. Learning using distance educational technologies is the most complex mechanism, among the most significant factors of which is the process of developing educational content and its organization – factors that are interconnected, forming a distance learning system. (Volkova, 2018; Ivanenko, 2020).

The conditions of martial law prompted higher educational institutions to digitally

transform the educational process into a distance format, which requires the search for optimal forms of implementation of the educational process aimed at maximum interaction between the teacher and students, increasing the interest of students in cognitive activities, which in general will lead to improved learning outcomes. The purpose of our work is the study and application of those modern forms and methods of education that would provide a sufficient level of knowledge in extreme conditions, as well as the study of the peculiarities of student motivation in martial law conditions.

METHODOLOGY

The research methods are: comprehensive theoretical analysis of sources about various teaching methods and generalization own teaching experience. The materials of the research were the manuscripts about education methodology, our experience of teaching Medical Biology in online format in Zaporizhzhia State Medical University using "The world's leading digital platform for science education Labster" and Microsoft Office 365 programs: Word, Excel, PowerPoint, OneDrive, OneNote, Teams, Forms, SharePoint.

RESULTS

In order to implement the concept of interactive cooperation of students of higher education with representatives of professors and teaching staff and monitoring of educational activity, Zaporizhzhia State Medical University introduced a remote form of education using MS Teams and the edX platform (Zidrashko et al., 2020). On the basis of Teams, work was carried out on the creation and filling of online platforms with educational material, visualization of content with the involvement of a large amount of illustrative material, video

material, creation of packages of test tasks in MS Forms, the adaptation of educational methods, including interactive ones, to the remote format.

Interactive distance learning methods refer to various methods and technologies that allow students and teachers to communicate and collaborate in real-time or asynchronously, even if they are not physically in the same place. These methods include synchronous tools such as video conferencing and virtual classroom discussions, as well as asynchronous tools such as online forums and chats (Posolenyk et al., 2020). Our teachers used various synchronous interactive methods: video conferencing, virtual group discussions, virtual whiteboard, and live webinars.

Video Conferencing technology allows students and teachers to communicate and collaborate via live video, which is especially useful for virtual group discussions and group projects. The use of video conferencing was particularly relevant for the Cell section. The slide presentation on the cell structure and its particular components provided the medical students with a detailed study of it, which in turn contributed to the understanding of the mechanisms of the cell, ensuring the penetration of drugs into the cell. Video films made it possible in dynamics to study such processes as protein biosynthesis in a cell, transfer of hereditary information, and cell division.

Virtual Group Discussion is a method of conducting online group discussions where students and teachers can communicate and collaborate in real-time through a virtual platform.

Virtual Whiteboard is a method used for real-time collaboration on a shared digital Microsoft Whiteboard, allowing students and teachers to write and draw together in

real time. In Genetics classes, the use of the MS Teams whiteboard made it possible to explain the solution to the most problematic tasks and problems. For example, let's take the topic: "Methods of human genetics – Genealogical analysis." The genealogical method is based on the study of the inheritance of traits in families over a number of generations.

It is used to establish the type of inheritance of a disease or a trait. It allows you to find out whether a given trait is inherited and how it is inherited, to trace the splitting of traits in the offspring, which causes certain abnormalities in the body. Using this method, the harmful effects of consanguineous marriages were discovered (Johnston, 2003, Zaharchuk et al., 2012). The genealogical method is often used in rheumatology, dermatology, hematology and other fields of medicine.

In order to direct the educational activity in a practical direction, and to make the assimilation of the educational material interesting, aware, and active, we proposed our algorithm for studying this method, namely, in compiling pedigrees. It is carried out in several stages. First, the students were asked to compile pedigrees based on the inheritance of a single trait in their families, collecting complete information about their relatives (living or deceased) by means of a survey of family members.

Students were particularly interested in the inheritance of the following traits in their families: eye color, hair color, and left-handedness. Having drawn up their genealogy, they found out which traits or hereditary diseases are transmitted in their families, found out from whom the existing traits were obtained, made assumptions about the inheritance of one or another trait in their future families. This line of work greatly interested students in studying issues related to the topic, and

also distracted them, at least for a while, from the harsh realities of martial law.

After checking the work, the teacher pointed out the most common mistakes, as well as those that need special attention. Students actively discussed the mistakes made, offering their options for their elimination. Next, on a shared digital Microsoft Whiteboard, all students of the group, in order to consolidate their knowledge, were asked to analyze several tasks for drawing up genealogies. Such an approach to the study of one of the most important methods of human genetics provided a complete understanding of this very complex and time-consuming method and created a basis for its further use as needed.

Live Webinars involve a presentation, usually a lecture or seminar, delivered to a remote audience over the Internet. Online classes – conferences were introduced at the medical and biological departments to increase students' motivation level (Syrtsov et al., 2021). For this, students receive tasks on the lesson's topic, creatively work on them and prepare reports and presentations. The teacher selects the best works and publishes a list of student speakers in the group channel.

These students present their works during the class, with the teacher's and other students' active participation (Fig.1). This training format stimulates students to a creative approach to the educational material and activates interest and desire to make their report or presentation better than others. Synchronous methods provide a sense of immediacy and closeness, which helps to create a more exciting and interactive learning process (Zidrashko et al., 2020; Syrtsov et al., 2021). However, they also require all participants to be available at the same time, which in some cases, has limitations.

Figure 1

Online Class-Conference on Medical Biology in Microsoft Teams



Asynchronous interactive methods do not require the simultaneous availability of all participants. The following asynchronous methods are used in the educational process at the departments of medical and biological disciplines of ZDMU.

Online forums and whiteboards are virtual platforms that allow students and teachers to communicate and collaborate on group projects by posting and responding to messages. This can be done anytime, providing a more flexible communication schedule. Online forums are used in the learning process for various purposes, such as group discussions, group projects, and peer review.

Asynchronous methods provide great flexibility for students and teachers regarding when and where they can participate in classes, which is especially important for students in the complex conditions of modern martial realities. They are valuable because they give students the opportunity to think and reflect on the material before posting their feedback, which significantly improves their learning outcomes. At the same time, these methods cannot provide the same

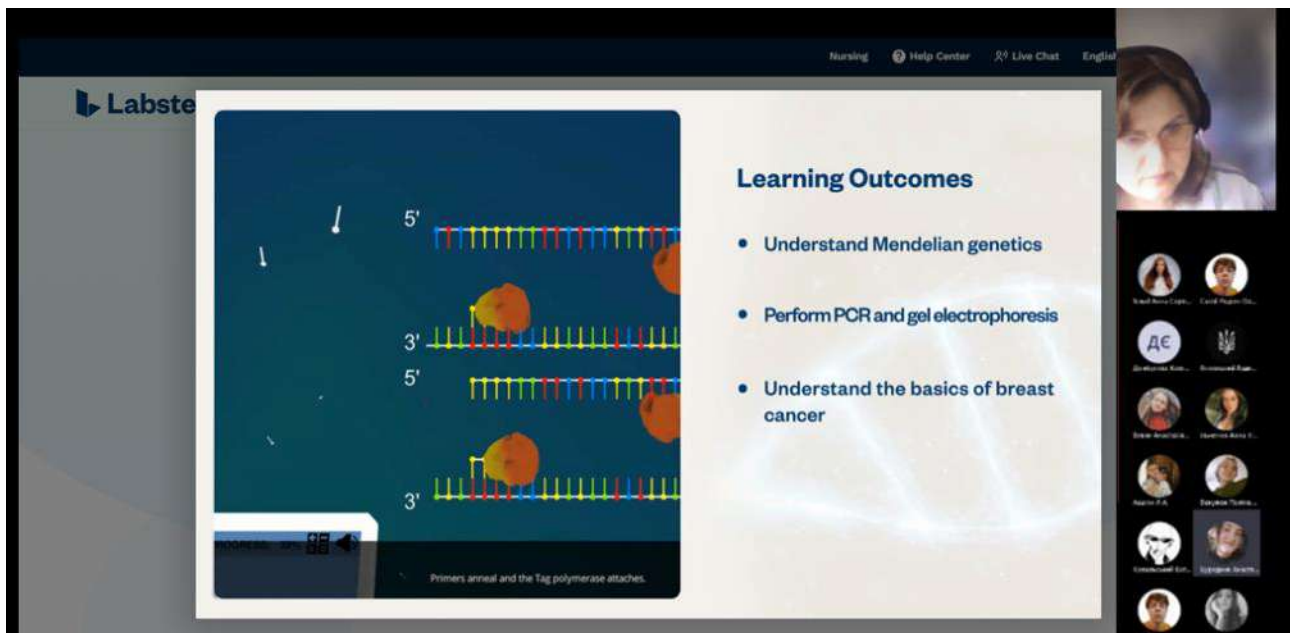
sense of immediacy and closeness that is achieved with synchronous methods.

In martial law conditions, the most expedient in education are those methods that involve different forms of communication in the groups of student-teacher, student-student. Therefore, most methods used in teaching the subject "Medical Biology" include elements of communication with students, although not live but at least through a computer screen. The profession of a doctor requires the development of communication skills.

The communicative competence of a doctor begins to form in the process of studying at a medical university and continues later in the process of independent professional communication with patients. Studying the discipline "Medical Biology", we conceded this factor and used some mechanisms for acquiring communication skills. One of these mechanisms was a method the "simulation of situations" that was applied based on the innovative educational platform of virtual laboratories and interactive science "Labster" (Fig.2).

Figure 2

Using Labster Simulations in Online Medical Biology Classes



We try to discuss various problematic issues, instruct students to prepare short presentations and demonstrate them in practical classes. When studying many topics, we use various interactive methods. Most often, we use the discussion method, which ensures the vigorous activity of the students and promotes the development of their cognitive thinking and interest. The discussion form of conducting the class requires the search for cause-and-effect relationships, the formation of which creates a basis for establishing the correct diagnosis, which is the main work of a doctor.

If a problem to be solved is announced, all students participate in its discussion through collective reflection – “brainstorming”. We also used this method when solving genetic problems, allowing individual students to present their results, followed by their discussion. Here is an example of an interactive test that requires a detailed group discussion and helps form the student’s clinical thinking: “Autopsy of a newborn boy

revealed polydactyly, microcephalia, cheiloschisis and uranoschisis as well as hypertrophy of parenchymatous organs. These defects correspond with the description of Patau’s syndrome. What is the most likely cause of this pathology?” During the brainstorming session, students are motivated to learn because the focus is on reaching a rational consensus in which every opinion counts.

When studying the topics of the “Medical Parasitology” section, the “case method” was used, based on learning by solving specific tasks – situations that allow applying theoretical knowledge to solving practical tasks. (Yermolenko, 2022). Based on the test results (which are offered) and knowledge of the life cycles of parasites, students learned to make the correct diagnosis and recognize parasitic diseases.

Students were offered a detailed description of an actual situation that could happen to a person. “The gynaecologist was examining a patient and found symptoms of genital tract inflammation. A smear from the vagina contains piriform protozoa with a spine,

flagella at their front; there is also an undulating membrane. What disease can be suspected?" It was necessary to establish a human disease based on knowledge of the morphology of the parasite, its localization, symptoms and test results. It was also necessary to decide whether it was necessary to carry out any further research for the final correct diagnosis. The discussion in the group helped to understand this real situation. In general, this method is especially relevant in the education of medical students and not only during the war.

The most effective in teaching medical biology, in our opinion, are online methods that combine visibility and student interaction.

DISCUSSION

Distance education is one of the most modern in the higher education system and has significant advantages: mass, the ability to study anywhere and at any time, and accessibility for people with disabilities. The researchers emphasize the potential for developing the student's self-organization, planning skills and responsibility for their learning (Ivanenko, 2020; Prybylova, 2017; Smulson, 2012). However, modern technologies and the listed methods will be appropriate if the psychophysiological state of students and the degree of their motivation are taken into account. Students should be motivated to participate in the learning process (Nalyvaiko, & Lykhoshvai, 2021).

Many scientists (Heckhausen et al., 2010; Lakhmotova et al., 2022) have studied the problem of learning motivation. It has always been and remains relevant. Its relevance increases significantly during the period of martial law. The complex socio-economic situation that has developed in martial law conditions is

accompanied by mental and moral discomfort.

Interruption of the educational process in the event of the activation of the air raid sirens or other warning signals, stabilization and emergency power outages, poor or absent Internet, strenuous emotional state and psychological problems of students due to the war, the difficulties of temporary study and stay abroad still prevent a normal education. The most crucial thing in this situation is to provide psychological support for students. The question arises of the formation of positive motivation for learning during martial law, which consists of the perceived need for independent acquisition of knowledge, high-quality preparation for classes, and the desire for constant self-improvement (Yakimova, 2010).

Specialist research shows that using interactive teaching methods allows not only significantly increase students' ability to acquire knowledge and skills but also to improve the level of formation of positive personal abilities (Kazmirenko et al., 2013). On the question of what exactly made it possible to distract from thoughts about the war, the majority of our students (73%) noted that the stimulus was precisely learning and involvement in joint work.

For the teacher, the results of the questionnaire are essential for analyzing the features of students' motivation for educational activities in order not to lose contact with their students and to create favourable conditions for strengthening students' motivation to study in general and especially during the military aggression of the Russian Federation against Ukraine.

Understanding the motivation and behaviour of students at such critical moments in life enables the teacher to

plan seminars, lectures and practical-laboratory complexes aimed at achieving the desired results. Scientists have proven that the student learns well what is presented as a subject and as the goal of his activity. (Derbeyova, 2012; Lakhmotova et al., 2022).

CONCLUSIONS

Distance learning in modern higher education has become a forced alternative to traditional forms but cannot fully replace them. It helped, despite the difficulties, to continue the educational process in martial law conditions.

In distance learning, interactive methods are gaining more and more importance, as they provide students increase communication and interaction as well as improve cooperation, which are the essential components of the future profession – medicine.

In martial law conditions, the most expedient training methods are those that involve various forms of communication in a group. Modern technologies and the listed methods will be appropriate if we take into account the psychophysiological state of students and the degree of their motivation.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Derbenyova, A. (2012). *Everything about Motivation*. Basis.
- Heckhausen, J., Wrosch, C., & Schulz, R. (2010). A Motivational Theory of Life-Span Development. *Psychological Review*, 117(1), 32–60. <https://doi.org/10.1037/a0017668>
- Ivanenko, Yu. (2020). Distance Learning as a Means of Developing Self-Organization of Students. *Collection of Scientific Works "Problems of modern psychology"*, 49, 60–83. <https://doi.org/10.32626/2227-6246.2020-49.60-83>
- Johnston, J., & Thomas, M. (2003). Summary: The Science of Genealogy by Genetics. *Developing World Bioethics*, 3(2), 103–108. <https://doi.org/10.1046/j.1471-8731.2003.00064.x>
- Kazmirenko, V. (2013). Basics Of Cognitive Psychology of Communication. Index-LTD.
- Lakhmotova, Yu., Shkrabyuk, V., & Tsapko, A. (2022). Motivation for Distance Education of Students of Higher Education Institutions in the Conditions of Marital State. *Current Issues of Humanitarian Sciences: Pedagogy*, 55(2), 198-200. <https://doi.org/10.24919/2308-4863/55-2-31>
- Nalyvaiko, O., & Lykshoshvai, K. (2021). Quality of Professional Psychologist Training in Online Space. *Educational Challenges*, 26(2), 75-89. <https://doi.org/10.34142/2709-7986.2021.26.2.07>
- Posolenuk, L., & Vydroynyuk, O. (2020). The Use of Interactive Teaching Methods and the Development of Distance Education of Doctors at the Ternopil National Medical University under Quarantine Conditions. *Medical Education*, 4, 80–84. <https://doi.org/10.11603/me.2414-5998.4.11666>

- Pribylova, V. (2017). Problems and Advantages of Distance Learning in Higher Educational Institutions of Ukraine. *Problems of modern education*, 4, 27-36. <https://periodicals.karazin.ua/issuededu/article/view/8791>
- Sirtsov, V., Makeeva, L., Alieva, O., Popazova, O., Zidrashko, G., & Pototska, O. (2021). Author's technology "Organization of Mixed and Distance Learning of Domestic and Foreign Medical Students in the Course of Histology, Cytology and Embryology". In *The Experience of Implementing a Mixed Form of Education at ZDMU, the Trajectory of Development and Its Place in the System of higher medical education: proceedings of the Educational and Methodological Conference, May, 26, Zaporizhzhia* (pp. 19-20). ZDMU.
- Smulson, Y. (2012). *Distance Learning: Psychological Foundations*. Imex-LTD.
- Volkova, N. (2018). *Interactive Learning Technologies in Higher Education: Educational and Methodological Manual*. Alfred Nobel University.
- Yakymova, L. (2010). *The Use of Active Teaching Methods in Forming The Professional Language Competence of Students*. PH Personal.
- Yermolenko, A. (2022). *Interactive Learning Technologies: Electronic Training Course*. BINPO.
- Zaharchuk, O., Pishak, O., Kryvchans'ka, M., Kadelnyk, L., Khomenko, V. (2012). Importance of a Pedigree Method at modern stage of Anthropogenetics Development. *Integrativna Anthropology*, 2(20), pp. 53-57.
- Zidrashko, G., Sirtsov, V., Alieva, O., Gromokovska, T., Tavrog, M., Popko, S., Makeeva, L., & Popazova, O. (2020). Experience of Implementing Distance Learning at the Department of Histology, Cytology and Embryology under Quarantine Conditions. In *Proceedings of the scientific and practical conference "Theory and practice of modern morphology" November 4-6, Dnipro* (pp.34-35). DDMU.
- Zidrashko, G., Sirtsov, V., Alieva, O., Pototska, O., Tavrog, M., & Popko, S. (2020). Application of the Microsoft Teams Program in Distance Learning of ZDMU under Quarantine Current Issues of Distance Education and Telemedicine. In *Proceedings of the All-Ukrainian Scientific and Methodical Conference, November 19-20, Zaporizhzhia* (pp.105-106). ZDMU.

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:**ЗАБЕЗПЕЧЕННЯ НАВЧАННЯ СТУДЕНТІВ 1-ГО КУРСА МЕДИЧНОГО УНІВЕРСИТЕТУ В УМОВАХ ВОЄННОГО СТАНУ В УКРАЇНІ**

Навчання – це складний творчий процес, заснований на використанні сучасних технологій та врахуванні психофізіологічних властивостей особистості. Запровадження воєнного стану внесли суттєві зміни у режим роботи закладів вищої освіти в Україні. Тому проблема організації і реалізації навчання у закладах вищої освіти є дуже актуальною в сучасних умовах.

Метою нашої роботи є вивчення та застосування тих сучасних форм та методів навчання, які б забезпечували достатній рівень знань, а також дослідження особливостей мотивації студентів в умовах воєнного стану.

Методи. Проведено комплексний аналіз джерел про різні методи навчання та узагальнення власного досвіду викладання медичної біології в онлайн-форматі в Запорізькому державному медичному університеті.

Результати. Для реалізації концепції інтерактивної взаємодії здобувачів вищої освіти з представниками професорсько-викладацького складу та моніторингу навчальної активності у Запорізькому державному медичному університеті запроваджена дистанційна форма навчання з використанням MS Teams та платформи edX. На основі Teams була проведена робота зі створення та наповнення он-лайн платформ навчальним матеріалом, візуалізації контенту із залученням великої кількості ілюстративного матеріалу, відеоматеріалу, створення пакетів тестових завдань у MS Forms, адаптації навчальних методик, у тому числі інтерактивних, до дистанційного формату.

Інтерактивні методи дистанційного навчання дуже різноманітні. Вони включають синхронні інструменти, такі як відео конференції та обговорення у віртуальних класах, а також асинхронні інструменти, такі як онлайн-форуми та спілкування у чатах. Інтерактивні методи дистанційного навчання важливі з кількох причин: підвищення комунікації між студентами і викладачами; краще спілкування та співробітництво; допомога створення більш динамічного та спільного навчального середовища.

Якщо синхронні інтерактивні методи використовуються нашими викладачами в режимі реального часу, то асинхронні методи забезпечують велику гнучкість для студентів з погляду того, коли і де студенти можуть брати участь у заняттях, що особливо важливо для тих студентів, які перебувають у складних умовах реалій військового стану.

Висновок. Дистанційна освіта в закладах вищої освіти стала вимушеною альтернативою традиційним формам і, не зважаючи на труднощі, забезпечила повноцінний навчальний процес у складних умовах. Інтерактивні методи набувають все більшого значення у дистанційному навчанні, оскільки вони допомагають підвищити комунікацію та взаємодію студентів, покращити спілкування та співпрацю студентів і викладачів, а також забезпечують більшу гнучкість та зручність дистанційного навчального процесу для студентів та викладачів. Сучасні технології та перелічені методи будуть доцільними, якщо врахувати психофізіологічний стан студентів та рівень їхньої мотивації.

КЛЮЧОВІ СЛОВА: дистанційне навчання, система вищої освіти, досвід, мотивація, умови воєнного стану.

CITE THIS ARTICLE AS (APA style):

Popovich, A., & Aliyeva, O. (2023). Providing Education to the 1st Year Students at the Medical University in the Conditions of Martial State in Ukraine. *Educational Challenges*, 28(1), 139-148. <https://doi.org/10.34142/2709-7986.2023.28.1.11>



<https://doi.org/10.34142/2709-7986.2023.28.1.12>

DEVELOPING DIGITAL COMPETENCE OF FUTURE TEACHERS IN THE MODERN DIGITAL LEARNING SPACE

Received: 14/02/2023


Accepted: 15/03/2023

**Serhii TKACHOV¹, Nataliia TKACHOVA²,
& Tamila SHCHEBLYKINA³**



¹ Doctor of Science (Pedagogy), Full Professor, Head of the Department of Pedagogy and Psychology, Kharkiv State Academy of Physical Culture and Higher Sports, Kharkiv, Ukraine.

✉ E-Mail: tkachsi2015@ukr.net

 <https://orcid.org/0000-0002-3250-011X>



² Doctor of Science (Pedagogy), Full Professor, Professor of the Department of Educology and Innovative Pedagogy, H. S. Skovoroda Kharkiv National Pedagogical University, Kharkiv, Ukraine.

✉ E-Mail: tkachna2015@ukr.net

 <https://orcid.org/0009-0006-3661-0793>



³ Doctor of Science (Pedagogy), Associate Professor, Professor of English Department, H. S. Skovoroda Kharkiv National Pedagogical University, Kharkiv, Ukraine.

✉ E-Mail: tamila.shch@gmail.com

 <https://orcid.org/0000-0002-7135-3757>

ABSTRACT

*The article is devoted to the problem of formation of future teachers' digital competence in the modern learning space. The **purpose** of the article is to determine the essence and content of a teacher's digital competence on the*

© Serhii TKACHOV, Nataliia TKACHOVA, & Tamila SHCHEBLYKINA, 2023

Developing Digital Competence of Future Teachers in the Modern Digital Learning Space © 2023 by Serhii TKACHOV, Nataliia TKACHOVA, & Tamila SHCHEBLYKINA is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

basis of scientific literature analysis, to analyze the possibilities of formation of digital competence of students of pedagogical specialties in the modern learning space.

The purpose realization involves the following tasks: to define and compare different definitions of the term “digital competence” by scientists; to reveal the essence and content of future teachers’ digital competence; to identify and characterize the ways, methods, forms, and means of formation of digital competence among the students of pedagogical specialties.

Methodology. *To achieve the purpose a complex of theoretical and empirical research methods was used. The theoretical methods included: analysis, comparison, generalization, systematization of scientific works and regulatory documents to determine the key concepts of the research and clarify the authors’ point of view regarding the essence of a teacher’s digital competence. In addition to the specified theoretical methods, empirical methods of scientific knowledge were used: the study of future teachers’ professional training, questionnaires, interviews with those who received pedagogical education, expert evaluation – in order to study the process of future teachers’ digital competence formation.*

Results. *The analysis of international legal documents and scientific works of various scientists proves that the concept of “digital competence” is interpreted ambiguously. In particular, the first European framework of teachers’ digital competence states that digital competence is a specialist’s personal formation that integrates the following components: professional involvement, working with digital resources, teaching and learning with the use of these resources, evaluation of results, expansion of students’ opportunities, the development of digital competence in subjects of education. The formation of digital competence of students of pedagogical specialties is provided in various ways: teaching special courses, involving future teachers in educational activities based on the use of various digital tools, organizing students’ work with digital textbooks, reference sources and multimedia information systems, electronic simulators, digital laboratory tools, encouraging specialists to receive non-formal education.*

Conclusions. *In the article, a future teacher’s digital competence is understood as a personal formation that integrates relevant motives, values, attitudes, knowledge of various digital resources, means, tools, technologies, as well as the ability to apply them in practical pedagogical activities on the basis of critical analysis and evaluation. The formation of future teachers’ digital competence involves a systematic combination of various methods and forms of education, constant rethinking of approaches to the organization and content of this process, ensuring an organic combination of methods of formal, non-formal and informal education.*

KEYWORDS: *Digital Competence, Future Teacher, Learning Space, Formal Education, Non-Formal Education, Informal Education.*

INTRODUCTION

At the current stage of social development, digitalization of education has turned into a global trend, the importance of which is constantly growing. This process is meant to meet the new demands of the state, in particular, the needs of the economy of the new technological order. It is also important to emphasize that digital learning tools make it possible to significantly increase the effectiveness of education, diversify it, optimize managerial operations of teachers and activities of education institutions administrators in general.

The process of education digitalization is characterized by the introduction of such important innovations:

- further development of the digital learning space contributes to the formation of a complete digital infrastructure in which technical and social components interact, which makes it possible to create and use new digital technologies in education, to connect new agents outside universities to this field;
- intensive shifts in the organization of education change the main roles of a teacher, who first of all becomes not an imparter of new information, but a moderator, consultant, facilitator, capable of providing effective pedagogical support to students in educational activities;
- supplementing existing information and digital technologies with virtual reality technologies;
- transition from the formation of hard skills in students to soft skills, which are general skills and abilities closely related to one's personal qualities, in

particular, critical thinking skills, digital communication skills, teamwork, etc.;

- elimination of territorial and temporal obstacles in acquiring necessary knowledge by a person due to massive open online courses;
- possibility of individualizing students' learning trajectories, primarily of students with disabilities;
- the dominance of blended and distance learning formats, penetration of elements of online education into the traditional (offline) education system (Docebo, 2019; Kostikova et al. 2022; Sobchenko et al, 2022; Sobchenko, & Vorozhbit-Horbatiuk, 2022; Plavčan et al, 2022; Tkachov et al, 2022; Ulianova, 2022).

According to the results of the conducted research, in recent years there has been an intensive growth in the consumption of digital means by the population. However, the increase in the number of computer and mobile devices and the expansion of the Internet network contribute to users' digital skills development only at the operational level, but do not ensure the development of an individual's ability to critically search and select information and use promptly in practical activities (Van Deursen, 2010; Skov, 2016). This confirms the necessity to ensure purposeful formation of digital competence among the participants of the educational process.

The success of implementing digital learning in education institutions largely depends on the level of teachers' digital competence formation. Therefore, there is an urgent need for teachers to acquire digital competence at all levels of continuous education, where the leading place belongs to education institutions. The analysis of the scientific literature (Baran et al, 2019; Basilotta-Gómez-Pablos

et al, 2022; Nagel I., 2021; Chernenko, 2021; Shevchuk, 2021; Sobchenko et al, 2022) confirms that this issue is not sufficiently covered by scientists. In particular, the issue of specifying the content of a teacher's digital competence as well as the ways and methods of its formation require further study (Howard et al., 2021; Novella-García & Cloquell-Lozano, 2021).

According to the results of a pilot study conducted by the authors of the article, in which 124 students of pedagogical specialties took part, it was found that, in general, future teachers have a low level of digital competence.

Thus, while conducting the survey and interviews, it was found that almost half of the respondents experience various difficulties when using digital tools in educational activities and self-education. 68.7% of the respondents admitted that they are not sufficiently prepared methodologically to use of digital technologies in future pedagogical activities.

The results of the assessment of the level of students' digital competence formation by experts, who were competent and experienced university teachers, also proved the need to increase its level. Therefore, the problem of future teachers' digital competence formation is really topical and requires an urgent solution.

The **purpose** of the article is to determine the essence and content of a teacher's digital competence on the basis of scientific literature analysis, to analyze the possibilities of formation of digital competence of students of pedagogical specialties in the modern learning space.

The purpose realization involves the following tasks:

- to define and compare different definitions of the term “digital competence” by experts;

- to reveal the essence and content of future teachers' digital competence;
- to identify and characterize the ways, methods, forms, and means of digital competence formation of students of pedagogical specialties.

METHODOLOGY

To achieve the purpose a complex of theoretical and empirical research methods was used. The theoretical methods included: analysis, comparison, generalization, systematization of scientific works and regulatory documents to determine the key concepts of the research and clarify the authors' point of view regarding the essence of a teacher's digital competence.

In addition to the specified theoretical methods, empirical methods of scientific knowledge were used: the study of future teachers' professional training, questionnaires, interviews with those who received pedagogical education, expert evaluation – to study the process of future teachers' digital competence formation.

RESULTS

Due to the fact that the views of leading national scientists on the problem under consideration are widely covered in Ukrainian scientific thought, and being under the conditions of the country's active integration into the European learning space, the primary attention in the article is paid to the analysis of the relevant views of Western European researchers. It was discovered that their works offer different interpretations of the concept of “digital competence”.

Thus, A. Skov claims that digital competence is a combination of a person's knowledge, skills and attitudes related to their effective and creative use of computer technology to perform tasks, solve existing problems, communicate

and cooperate with other people, manage information, create and exchange content. As the scientist points out, knowledge is the result of an individual's receiving and assimilating information in the process of learning.

According to A. Skov's conclusions, a person's digital competence includes the following knowledge: knowledge of facts, theories, principles of working with digital tools, communicative knowledge needed by a person in order to use digital tools for communication and cooperation with others; informative knowledge, in particular about various search systems, methods of storing information, strategies for assessing its reliability; productive knowledge which includes, for example, information about new digital technologies that can be successfully used in professional activities (Skov, 2016).

According to the author, an important component of an individual's digital competence is a combination of relevant skills that ensure their ability to solve tasks or actual problems in practice. A. Skov singles out the following groups of digital skills: productive skills, which in particular ensure the user's ability to use various programs to create and edit various types of multimedia; communication skills, such as the ability to use various methodological approaches, strategies and applications to solve existing communicative tasks; informative skills, including the skills of using logins, finding sources to complete a task, converting a file into another format (ibid.).

As stated by A. Skov, a person's attitude reflects their ways of thinking and motivation to perform certain actions, ethical priorities and personal values. Digital competence includes the following attitudes: attitude to online communication (for example, being aware of the value and meaning of

communicating with other people by means of the media); attitude to information (manifesting an active, analytical or critical position of searching and storing digital information); attitude to digital production (reflects ethical considerations regarding production and distribution of a digital product (ibid.).

According to Kirschner and Neelen, digital competence is an individual's personal formation that is manifested in their ability to use digital technologies successfully, as well as in the presence of appropriate motives and values, a manifestation of the need to constantly increase their awareness in the field of digital technologies, understand their strengths and weaknesses (Neelen et al, 2016).

According to the conclusions of other scientists (Dede, Erstad, Mishra, Voogt), digital competence is a combination of a set of appropriate simple information and communication skills (using software to find the necessary information, analyze it, transform it, save it and control its distribution) and more advanced skills, including the ability to properly analyze, evaluate and interpret different digital genres and media forms by means of critical and creative use of digital tools and media (Voogt et al, 2013).

The analysis of modern scientific works by Western European scientists shows that in defining the concept of "digital competence" most of them are guided by international normative legal acts on education, primarily by European Union documents, in which, since 2006, digital competence has been recognized as one of the eight key competences that are vitally important for every member of society.

Thus, in the document "Working Group on Education: Digital skills for life and work" (Atchoarena et al., 2017), created under the

auspices of UNESCO, it was determined that digital competence is an individual's personal formation that integrates the following components:

- information literacy (an individual's being aware of their information needs; the formation of the following skills: to be able to find and obtain the necessary information and content from various digital sources; to evaluate and formulate judgments about the relevance and reliability of information sources; to store, manage and organize digital information; to manage digital data in the process of working with digital technologies, exercising control over data and information from the perspective of data privacy and digital identification);
- readiness for digital communication and cooperation (the formation of such skills and abilities as being able to use digital technologies to interact and exchange information with others, to be a constructive member of online communities, to promote collective understanding of digital users' responsibilities in relation to each other based on being aware of each participant's individual needs, etc.);
- ability to create digital content (ability to publish digital content, edit, improve and integrate the processed information and content into the existing body of knowledge individually and within a group, contribute to updating the content of information on used platforms, create digital educational environment, etc.);
- ability to ensure digital security (understanding the risks and dangers of working on the Internet, in particular the legal consequences of copyright infringement, compliance with digital security requirements, starting from demonstrating the ability to protect information and privacy of personal data based on the use of appropriate security tools and anti-virus software to demonstrating awareness with social welfare issues, assimilation of information about potential sources of harm on the Internet (malicious websites, consumer fraud, etc.), awareness of the impact digital technologies have on the environment;
- awareness and realization of digital rights by the citizens (being aware of their rights as a person and a consumer of digital services, which are implemented on the basis of compliance with the principle of equality regardless of gender, age, race, sexual orientation and other differences; the ability to promote collective understanding of responsibilities of digital users in relation to one another (Atchoarena et al., 2017).

The document "Digital Skills and Competence, and Digital and Online Learning" (Brolpito, 2018) was also useful in the research. The document outlines the generally accepted position and strategic approach of the ETF (European Training Foundation) in the field of DOL (digital and online learning), where it is noted, that digital competence is a person's ability to confidently, critically, consciously and responsibly apply digital knowledge, skills and attitudes in a certain professional field (for example, in education). This competence primarily includes such basic digital skills and abilities as working with information and various data sets, implementing online communication and interaction with other people, creating digital content, ensuring safety of one's

activities, choosing optimal ways to solve existing problems (Brolpito, 2018).

An important event in the development of digital education was the development of the first European Framework for the Digital Competence of Educators (DigCompEdu) by the Joint Research Center in 2017.

We'd like to point out that document identifies six groups of competencies that educators must master, namely:

- 1) professional involvement (organizational communication, professional cooperation, reflection practice, digital continuing professional development);
- 2) working with digital resources (resources selection, creation and editing, implementation of management, protection and exchange processes);
- 3) teaching and learning (teaching, career guidance, joint learning, self-organized learning);
- 4) assessment (choice of assessment strategy, analysis of collected materials, feedback and planning);
- 5) expansion of students' opportunities (ensuring accessibility and inclusiveness of education; implementation of education process differentiation and personalization, active involvement of students in pedagogical interaction);
- 6) development of digital competence among subjects of education (formation of their information and media literacy, development of communication skills, ability to create content, ability to use information and digital resources responsibly, ability to successfully solve problems in this field) (Brolpito, 2018).

On the basis of the analysis of teachers' scientific and methodological developments and our own teaching experience, it was concluded that in the process of future teachers' digital competence formation, it is possible to use various means of formal and non-formal education.

In this regard, the joint work of Spanish teachers C. Romero-Garcia, O. Buson-Garcia and P. de Paz-Lugo is of interest. The work describes their experience in future teachers' digital competence formation. In particular, for this purpose, they actively use the following digital tools in their pedagogical work: Perusall (a service that helps organize group work with documents and automatically assess students' activity), collaborative digital wall linoit, Collaborative mind map, using the Mindmeister tool, Designing a motivational video to present the content of a unit plan, Preparing an escape room in Google Sites, Creating evaluation problems using learning platform The Kahoot, etc. (Novella-García, 2021).

In the context of the above-mentioned problem, the study of scientists (M.J. Gallego-Arrufata, N. Torres-Hernandez, T. Pessoa), dedicated to identifying the level of future teachers' awareness in the field of digital security, aroused considerable interest. According to the results of these scientists' scientific investigations, almost half of the interviewed teachers do not have sufficient skills in the specified field. These results coincide with the results of authors' research works. Therefore, scientists plan to create and teach a training course aimed at increasing future teachers' awareness in the field of digital security (Gallego-Arrufat, 2019).

The national higher education has also accumulated valuable methodological developments in the future teachers'

digital competence formation. Thus, higher education pedagogical institutions teach special training courses aimed at formation of this competence among students. For example, in Kharkiv National University they teach such subjects as “Information and Communication Technologies in Education and Science”, “Modern Information Technologies”, “Pedagogical Information Technologies”, “Means of Digital Training”, “Management of Distance Learning”, “Cybersecurity in Education”, “Graphic Design and Advertising”, etc.

The increase in the level of digital competence of students of pedagogical specialties is also facilitated by involving them in work based on the use of various digital tools such as data storage and sharing services, cloud-based services, instant messaging services, creation of multimedia presentations, etc. Future teachers' involvement in working with digital textbooks, reference and information search multimedia systems, electronic simulators, tools of digital laboratories, etc. contribute to the successful solution to the mentioned problem.

A prominent place in the process of future teachers' digital competence formation is occupied by involving them in work on various platforms of distance and blended forms of learning: Moodle, Google Classroom, Edmodo, etc. In particular, Kharkiv National University and Kharkiv State Academy of Physical Culture actively use the Moodle platform. It is convenient to upload didactic materials in various formats (text, audio, video, presentations) and students' works, monitor and evaluate students' educational achievements, and implement interactive interaction with them on this platform.

University teachers also motivate future teachers to get involved in various types of

non-formal and informal education, which ensure an increase in the level of students' digital competence.

In particular, massive open online courses (MOOCs) – distance interactive educational courses that require students to perform various types of educational activities, are of great interest in this regard. Ukrainian platforms and resources created for the organization of a teacher's self-education include: Vseosvita, Coursera, Prometheus, Webinars with mozaBook and mozaWeb from EdPro, etc.

DISCUSSIONS

The analysis of the provisions of international legal documents (Docebo: Elearning market trends and forecast 2017 – 2021, 2019; Working Group on Education: Digital skills for life and work, 2017), conclusions of Western European scientists (Voogt et al, 2013; Novella-García, 2021; Gallego-Arrufat, 2019) regarding the definition of the essence and content of a teacher's digital competence makes it possible to improve and enrich Ukrainian scientists' ideas about this phenomenon, to specify the content components of the competence. The scientific and methodological works of researchers, in which the authors' techniques of future teachers' digital competence formation are analyzed, typical drawbacks of this process are identified and the ways of their elimination are determined, are also of great value.

CONCLUSIONS

Summarizing the results of the conducted research, we note that different definitions of the concept of “digital competence” are offered in scientific literature. Taking into account the scientists' different points view, it was concluded a future teachers' digital competence is a personal formation that integrates relevant motives, values, attitudes, knowledge

about various digital resources, means, tools, technologies, as well as the ability to apply them in practical pedagogical activity based on critical analysis and evaluation. The formation of future teachers' digital competence involves a systematic combination of various methods and forms of education, ensuring an organic combination of formal, non-formal and informal education tools. Since

digital competence is a dynamically changing phenomenon, the process of its formation among teachers requires constant rethinking of approaches to the organization and content of this process. In the future, it is planned to develop and implement in practice the authors' technique of formation of digital competence among the students of pedagogical specialties.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Atchoarena, D., Selwyn, N., Chakroun, B., Miaho, F., West, M., & Coligny, C. D. (2017). *Working Group on Education: Digital Skills for Life and Work*. International Telecommunication Union, Broadband Commission for Sustainable Development., UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000259013>
- Baran, E., Canbazoglu Bilici, S., Albayrak Sari, A., & Tondeur, J. (2019). Investigating the Impact of Teacher Education Strategies on Preservice Teachers' TPACK. *British Journal of Educational Technology*, 50(1), 357-370. <https://doi.org/10.1111/bjet.12565>
- Basilotta-Gómez-Pablos, V., Matarranz, M., Casado-Aranda, L.-A., & Otto, A. (2022). Teachers' Digital Competencies in Higher Education: A Systematic Literature Review. *International Journal of Educational Technology in Higher Education*, 19(8). <https://educationaltechnologyjournal.springeropen.com/articles/-/10-1186/s41239-021-00312-8>
- Brolpito, A. (2018). *Digital Skills and Competence, and Digital and Online Learning*. European Training Foundation. https://www.etf.europa.eu/sites/default/files/2018-10/DSC%20and%20DOL_0.pdf
- Chernenko, A. (2021). Information and Digital Competence as a Key Demand of Modern Ukrainian Education. *Educational Challenges*, 26(2), 38-51. <https://doi.org/10.34142/2709-7986.2021.26.2.04>
- Docebo. (2019). *Elearning market trends and forecast 2017-2021*. Docebo: *Elearning E-Learning trends 2019*. <https://www.docebo.com/resource/elearning-market-trends-and-forecast-2017-2021/>
- Gallego-Arrufat, M.-J., Torres-Hernández, N., & Pessoa, T. (2019). Competence of Future Teachers in the Digital Security Area. *Comunicar*, 27(61), 57-67. <https://doi.org/10.3916/c61-2019-05>

- Howard, S. K., Tondeur, J., Ma, J., & Yang, J. (2021). What to Teach? Strategies for Developing Digital Competency in Preservice Teacher Training. *Computers & Education, 165*, 104-149. <https://doi.org/10.1016/j.compedu.2021.104149>
- Kostikova, I., & Miasoiedova, S. (2022). E-learning Teaching: Supportive Online Course 'English Fastpass'. *Educational Challenges, 27*(2), 92-104. <https://doi.org/10.34142/2709-7986.2022.27.2.07>
- Nagel, I. (2021). Digital Competence in Teacher Education Curricula: What Should Teacher Educators Know, Be Aware of and Prepare Students for? *NJCIE, 5*(4), 104-122. <http://doi.org/10.7577/njcie.4228>
- Neelen, M., & Kirschner, P. (2016, November 1). *21st Century Skills don't Exist: so Why do We Need Them?* 3-Star Learning Experiences an Evidence-Informed Blog For Learning Professionals. <https://3starlearningexperiences.wordpress.com/2016/11/01/21st-century-skills-dont-exist-so-why-do-we-need-them/>
- Novella-García, C., & Cloquell-Lozano, A. (2021). The Ethical Dimension of Digital Competence in Teacher Training. *Education and Information Technologies, 26*(3), 3529-3541. <https://doi.org/10.1007/s10639-021-10436>
- Plavčan, P., Tkachova, N., & Zeniakin, O. (2022). Digitalization of University Education: Advantages, Risks, and Prospects. *Theory and Methods of Teaching and Education, 53*, 62-73. <https://doi.org/10.34142/23128046.2022.53.06>
- Shevchuk, A. (2021). The Peculiarities of Teaching Foreign Languages by Means of Information and Communication Technologies. *Educational Challenges, 26*(1), 102-111. <https://doi.org/10.34142/2709-7986.2021.26.1.09>
- Skov, A. (2016). *What is Digital Competence?* Center for Digital Dannelsen. <https://digital-competence.eu/dc/front/what-is-digital-competence/>
- Sobchenko, T. M., Tkachova, N. O., & Tkachova, A. S. (2022). Formuvannia informatsiino-tsyfrovoi kompetentnosti maibutnikh uchyteliv v osvithomu seredovyschi pedahohichnoho universytetu [Formation of Information and Digital Competence of Future Teachers in the Educational Environment of Pedagogical Universities]. *Naukovyi Visnyk Uzhhorodskoho Universytetu. Seriya: «Pedahohika. Sotsialna Robota», 2*(51), 145-148. <https://doi.org/10.24144/2524-0609.2022.51.145-148> [in Ukrainian]
- Sobchenko, T., & Vorozhbit-Horbatiuk, V. (2022). Results of Digital Competence Development for Philology Students within Blended Learning. *Educational Challenges, 27*(2), 185-198. <https://doi.org/10.34142/2709-7986.2022.27.2.13>
- Tkachov, A., Tkachova, N., Trotsko, A., & Sheblikina, T. (2019). The Use of Modern Information technologies in the educational process of chinese students and postgraduates at ukrainian universities. *Education: Modern Discourses, 2*, 161-170. <https://doi.org/10.32405/2617-3107-2019-1-19>
- Ulianova, V., Tkachova, N., Tkachov, S., Gavrysh, I., & Khlitobina, O. (2022). Changing the Paradigm of Education in Postmodern Times. *Postmodern Openings, 13*(1), 408-419. <https://doi.org/10.18662/po/13.1/404>

Voogt, J., Erstad, O., Dede, C., & Mishra, P. (2013). Challenges to Learning and Schooling in the Digital Networked World of the 21st Century. *Journal of Computer Assisted Learning*, 29(5), 403-413. <https://doi.org/10.1111/jcal.12029>

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

ФОРМУВАННЯ ЦИФРОВОЇ КОМПЕТЕНТНОСТІ МАЙБУТНІХ УЧИТЕЛІВ У СУЧАСНОМУ ОСВІТНЬОМУ ПРОСТОРУ

Стаття присвячена проблемі формування цифрової компетентності майбутніх учителів у сучасному освітньому просторі. **Мета** статті – на основі аналізу наукової літератури визначити суть і зміст цифрової компетентності вчителя, проаналізувати можливості формування цифрової компетентності студентів педагогічних спеціальностей у сучасному освітньому просторі.

Реалізація поставленої цілі передбачає виконання таких **завдань**: визначити й зіставити різні визначення фахівцями поняття «цифрова компетентність»; розкрити суть та змістове наповнення цифрової компетентності майбутніх учителів; виявити та схарактеризувати шляхи, методи, форми, засоби формування цифрової компетентності у студентів педагогічних спеціальностей.

Методологія. Для досягнення сформульованої мети було використано комплекс теоретичних та емпіричних методів дослідження. Так, серед теоретичних методів використовувалися такі: аналіз, зіставлення, узагальнення, систематизація наукових праць та нормативних документів для визначення ключових понять дослідження й уточнення авторської точки зору щодо розкриття суті цифрової компетентності педагога. Поруч із зазначеними теоретичними методами застосовувалися емпіричні методи наукового пізнання: вивчення професійної підготовки майбутніх педагогів, анкетування, бесіди зі здобувачами педагогічної освіти, експертне оцінювання – для дослідження процесу формування цифрової компетентності майбутніх учителів.

Результати. Аналіз міжнародних нормативно-правових документів і наукових праць різних учених засвідчує, що поняття «цифрова компетентність» трактується неоднозначно. Зокрема, у першій європейській рамці цифрової компетентності педагогів визначено, що цифрова компетентність є особистісним утворенням фахівця, що інтегрує в собі такі складники: професійну залученість, роботу з цифровими ресурсами, викладання і навчання на основі використання цих ресурсів; оцінювання результатів, розширення можливостей учнів; розвиток цифрової компетентності в суб'єктів навчання. Формування цифрової компетентності студентів педагогічних спеціальностей забезпечується різними шляхами: викладання спеціальних навчальних курсів; залучення майбутніх учителів до навчальної діяльності на основі використання різноманітних цифрових засобів; організація роботи студентів із цифровими підручниками, довідниковими й інформаційно-

пошуковими мультимедіа-системами, електронними тренажерами, засобами цифрових лабораторій; заохочення фахівців до отримання неформальної освіти.

Висновки. У статті під цифровою компетентністю майбутнього вчителя розуміється особистісне утворення, що інтегрує в собі відповідні мотиви, цінності, ставлення, знання про різні цифрові ресурси, засоби, інструменти, технології, а також уміння оптимально застосовувати їх у практичній педагогічній діяльності на основі критичного аналізу й оцінювання. Формування цифрової компетентності майбутніх учителів передбачає системне поєднання різних методів і форм навчання, постійне переосмислення підходів до організації та змісту цього процесу, забезпечення органічного поєднання засобів формальної, неформальної й інформальної освіти.

КЛЮЧОВІ СЛОВА: цифрова компетентність, майбутній учитель, освітній простір, формальна освіта, неформальна освіта, інформальна освіта.

CITE THIS ARTICLE AS (APA style):

Tkachov, S., Tkachova, N., & Shcheblykina, T. (2023). Developing Digital Competence of Future Teachers in the Modern Digital Learning Space. *Educational Challenges*, 28(1), 149-160. <https://doi.org/10.34142/2709-7986.2023.28.1.12>



<https://doi.org/10.34142/2709-7986.2023.28.1.13>

UKRAINIAN IDENTITY DEVELOPMENT IN THE EDUCATION SYSTEM IN THE CONDITIONS OF MARTIAL LAW IN UKRAINE

Received: 19/01/2023

Accepted: 21/02/2023

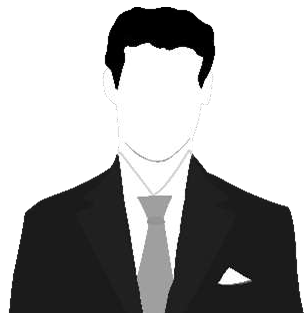
**Iryna TRUBAVINA¹, Oleksandr CHEREDNYCHENKO²,
Nadiia OLIINYK³, & Kirill NEDRIA⁴**



¹ Doctor of Sciences (Pedagogy), Ph.D. in Pedagogy, Full Professor, Associate Professor, H. S. Skovoroda Kharkiv National Pedagogical University, Alchevskyh Str., 29, Kharkiv, Ukraine.

✉ E-Mail: trubavina@gmail.com

id <https://orcid.org/0000-0003-1057-430X>



² Ph.D. in Economics, Professor, Associate Professor, Yaroslav Mudryi National Law University, Pushkinska Str., 77, Kharkiv, Ukraine.

✉ E-Mail: Ch.a.u@ukr.net

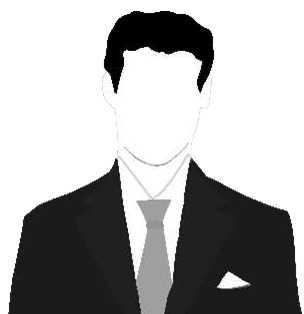
id <https://orcid.org/0000-0002-5304-5662>



³ Ph.D. in Pedagogy, Associate Professor, I. Horbachevsky Ternopil National Medical University of Ministry of Health of Ukraine, Maidan Voli, 1, Ternopil, Ukraine.

✉ E-Mail: oliinyk@tdmu.edu.ua

id <https://orcid.org/0000-0001-7770-7176>



⁴ Ph.D. in History, Associate Professor, Dnipropetrovsk State University of Internal Affairs, Haharina Str., 26, Dnipro, Ukraine.

✉ E-Mail: k.nedrya@gmail.com

id <https://orcid.org/0000-0002-9370-1900>

© Iryna TRUBAVINA, Oleksandr CHEREDNYCHENKO, Nadiia OLIINYK, & Kirill NEDRIA, 2023

Ukrainian Identity Development in the Education System in the Conditions of Martial Law in Ukraine © 2023 by Iryna TRUBAVINA, Oleksandr CHEREDNYCHENKO, Nadiia OLIINYK, & Kirill NEDRIA is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

ABSTRACT

*The article is devoted to the actual problem of modern Ukrainian pedagogy – the national identity development. The **purpose** of the article is to identify the peculiarities of the national identity development in education in the conditions of war and to suggest the ways to strengthen this process.*

*The research **methodology** is systemic, activity, cultural, axiological approaches. Research methods are: theoretical analysis of sources, generalization of experience, synthesis.*

Results. *The Ukrainian identity is the result of national-patriotic education and a component of national security. The peculiarities of the national identity development in the Ukrainian system of education in martial law are revealed: the need for simultaneous development of Ukrainian and European values, attention to the value of life and continuing education in war, respect for human rights. The ways to strengthen the national identity development in the education system include are: official restoration of educational function of teachers in all regulatory documents; emphasis on education which is based on national and European values; teaching educators to perform their new functions – security function, information function, social assistance, social education of parents and the community; official clarification in regulatory documents of the definition of educators' security function; normalization of the definition of a safe educational environment in martial law; introduction of the Declaration of School Safety into the education system, the Ukrainian Charter of a Free Person into the education system; the participation of students in volunteer activities; compliance of all stages of the educational process with the idea of national identity formation.*

Conclusion. *The peculiarities of the national identity development and the ways to strengthen the national identity development today are very important. The prospects for further research are to identify the effectiveness of new ways of the Ukrainian identity development.*

KEYWORDS: *Ukrainian National Identity, Ukrainian Values, European Values, Martial Law, Educators' Security Function, Functions of Educators.*

INTRODUCTION

The question of the Ukrainian identity formation is more relevant than ever in the conditions of martial law, when the country's autonomy depends on every Ukrainian, their consciousness, personal choices in favour of Ukraine, behaviour for the benefit of Ukraine's victory in the war with Russia. Ukraine is possible as a country, a nation, when each of its citizens feels Ukrainian. Therefore, the issue of the formation of the Ukrainian identity of

children and youth comes to the fore today in the aspect of national security, education, national-patriotic upbringing as a necessity and condition for the independence and freedom of the country. Thus, the following question arises: what is Ukrainian identity and how to form it, especially, in war?

Existing studies reveal the essence of national identity, ways of its formation from the point of view of culture, history, traditions, language (Bryndza, 2017;

Hrushevskiy, 1991; Zhurba et al., 2019). There are numerous research papers on the formation of Ukrainian identity from the standpoint of national, patriotic education, values of Ukrainians (Bryndza, 2017; Petrovskiy, 2022; Akulenko, 2020; Briukhovetskiy et al., 2012). These studies generally reveal the role of Ukrainian identity in the formation of the nation, the culture of Ukrainians, but do not talk about national interests, national security, the role and place of identity in this process. Today, these issues are interconnected.

Some studies (Dubyna, 2006; Okushko et al., 2018; Petrovskiy et al., 2022; Stelmakhovych, 1997) also emphasize the long-term everyday education of patriotism in children and youth, mastering the Ukrainian culture in everyday life, in Ukrainian education, educational teaching in education, etc. But these studies do not talk about how people preserve the Ukrainian identity and are socially united on this basis today, in the conditions of war, when people die and suffer for the independence of Ukraine and are in a difficult situation for a long time. Today it is necessary to raise it to a new level of formation, since it is a condition for the very existence of our country and every Ukrainian.

War reveals all the traits of people, distinguishes the black and the white and leaves no compromises. Either there is Ukraine and Ukrainians, or Ukraine and Ukrainians are not on the map, in life, etc. Ukrainians do not exist without Ukraine. And Ukraine does not exist without Ukrainians as well. This is important for understanding why the war is going on and for the formation of a national identity in the minds of Ukrainians, which determines their life choices and behaviour every day, every minute. Ukrainian identity is a conscious choice of

Ukrainians in wartime conditions. Both of adults and children.

In this aspect, Ukrainian-centrism is important as a principle of life, professional activity of every citizen (Trubavina, & Nedria, 2022), which ensures personal choice, one's behaviour and actions in favour of Ukraine. The national idea is important for uniting all Ukrainians for the protection and well-being of the country, which contributes to ensuring the national security of the country. But it is important to introduce this into the consciousness and behaviour of people, to form it as a value that will determine behaviour even in conditions of war and risk in favour of Ukraine.

This is especially important for young people and children who will have to protect the country's borders in the future, rebuild it, develop it and ensure the prosperity of the country and the well-being of everyone. This sort of research has not yet been performed in the theory of pedagogy. Moreover, this sort of teachers' training has not yet been provided in the Ukrainian higher education institutions (Prokopenko, & Trubavina, 2020).

There are scientific papers on education in the conditions of war, socio-pedagogical and psychological assistance in the conditions of war, new functions of educators in the war (INEE, 2018; UNICEF, 2016; Levchenko, Panok, & Trubavina, 2015; Trubavina, Cherednychenko, & Nedria, 2022; Trubavina, 2021; Opanasenko, & Novikova, 2022), but research on the formation of Ukrainian identity in children and youth in the conditions of war and at the same time in the conditions of European integration has not been conducted yet. And such a unique experience exists only today in our country, which requires generalization and justification, development of recommendations. Thus, the formation of

the Ukrainian identity among children and youth in the conditions of war and European integration is an urgent and unresolved problem.

Therefore, the **purpose** is to identify the peculiarities of the formation of national identity in education in the conditions of war and to suggest ways to strengthen this process.

The research **methodology** is:

- a systemic approach to understanding the phenomenon of identity formation in all relationships and the system, and not in isolation;
- an activity approach for its formation in practice, not just in words;
- a cultural approach to understanding the origins and sources of identity, which foregrounds the formation of national identity;
- an axiological approach, because the identity is based on the values of everything Ukrainian, which ensures the unity of the nation and the struggle for freedom and independence in the conditions of the war with Russia.

The following research **methods** were chosen: theoretical analysis of literary sources, generalization of the experience of formation of the Ukrainian identity, synthesis.

RESULTS

First of all, the question of the Ukrainian identity formation in the conditions of war requires an understanding of the concepts of “Ukrainian identity” and “martial law” and their consequences for Ukrainians.

Given the numerous studies of the problem, we can argue that identity is a subjective sense of a person’s belonging to a particular nation or group, the values of which they share and which determine their consciousness and behaviour.

Identity can exist regardless of the presence of citizenship, place of stay and residence of a person. This is a person’s conscious choice of the nation to which he or she refers themselves. We are interested in Ukrainian identity and ways of its formation.

According to the research, traditionally, prior to the war, the main ways of forming Ukrainian identity were language, history, and culture (Stepyko, 2011). It was important for a person to know all about these for the acceptance and conscious choice of a nation, to identify themselves with Ukraine as a state and a nation (Sievastianova, 2018; Siavavko, 1974). Today, it is important to preserve the state, its independence and thereby preserve the each and every Ukrainian. Thus, the idea of a free future, an independent state unites Ukrainians. It is important who we will be and for this we must survive now.

Today, the issue of language is decided by everyone at their own discretion, but most people show their support to Ukraine by choosing the Ukrainian language as the only state language, many stop using the Russian language as the language of the occupiers and aggressors. Ukrainian culture and values allow to defeat evil, to unite and help each other. History gives examples of the indestructibility of Ukrainians and their glorious victories.

If we talk about the experience of developed countries, we see that the unity of population and the formation of national identity in these countries, in particular, in resettlement countries, were ensured by super-ethnic values – human rights, democracy, general well-being, high level of social protection, etc. In this aspect, Ukraine, which strives for EU integration, shares its values, uses this aspect to unite the population.

In particular, the war of 2014 began with the fact that people stood up for democracy, the course towards European integration, and European values. And the values of the EU have become the values of Ukrainians, which our people today defend on the battlefield. Thus, national identity changes in society, it depends on the needs of society and politics, but it reflects the views of the people we want to be.

It should be noted that today in the world there are many aspects and ways to form the national identity of the population (Bryndza, 2017; Honskyi, 2001; Hrushevskiy, 1991; Levchenko et al., 2015; Petrovskiy, 2022; Akulenko, 2022; Stelmakhovych, 1997; Trubavina, Cherednychenko, & Nedria, 2022; Vyshniak, 2001; Zhurba, 2001; etc.):

- legal: through laws, punishments for the threats of national security and the Ukrainian language as the state language, protection of cultural heritage, etc.;
- economic: through general well-being;
- cultural: through the introduction of Ukrainian material and intangible cultural heritage into everyday life and consciousness of the citizens, popularization of the achievements of Ukrainians in Ukraine and abroad, educational work with the population;
- educational: through educating influence on the example of Ukrainians, our culture, language, history, traditions, etc., national-patriotic education based on the values of Ukrainians;
- historical: through the restoration of historical truth, informing about the achievements of Ukrainian citizens, showing the role of Ukrainians in history, events, etc.;
- political: through the policy of strengthening statehood, common security, language policy, policy of common well-being, preservation of historical memory, etc.;
- social: through the creation of conditions for the well-being of every citizen of the country and the nation as a guarantee for citizen's rights implementation (for the developed and resettlement countries), super-ethnic values that are important for all citizens of the country.

According to the Law of Ukraine “On the Legal Regime of Wartime” (2015), martial law is a special legal regimen introduced in Ukraine or in its individual areas in the event of armed aggression or threat of attack, threat to Ukraine’s independence, its territorial integrity. This regimen provides relevant state authorities, military command and local self-government bodies with the powers necessary to prevent the threat and ensure national security.

It is also a temporary restriction of the constitutional rights and freedoms of men and citizen, the rights and legitimate interests of legal entities, indicating the duration of these restrictions. Martial law implies a certain restriction of the rights and freedoms of citizens for their own security and national security. This restriction, in fact, is a manifestation of Ukrainian-centrism aimed at victory of Ukraine. What does martial law bring as a legal regime to educators in the context of the formation of national identity in children and youth? What are the peculiarities of today’s work of educators, threats and challenges that can be faced for the formation of national identity under martial law, often in case of online education when there is no permanent team of children?

We can recommend to disseminate the experience of the Ternopil region in implementing an educational program for children and youth regarding the Ukrainian Charter of the Free Person. The Charter is based on the values of Ukrainians, reflecting their national consciousness, which determines human behaviour and, accordingly, their moral choice (Briukhovetskyi et al., 2012):

- To be a free person.
- To be a Ukrainian.
- To be an active citizen.
- To love.
- To think.
- To be a master.
- To be a leader.
- To be an open society.
- To be a successful state.
- To be a member of a democratic community of peoples.

These groups of values are modern features of the Ukrainians' behaviour, reflect the ideas of Ukrainian-centrism, the theory of human rights and human development, the democratization of society, the values of Ukrainians and Europeans, universal human values. These values provide the answer to the following question: who we are and who we aspire to be being aware of the experience of generations and the wisdom of centuries.

But these values are formulated in such a way that they are explained in an understandable form, and being introduced into everyday life they are becoming a daily habit, if followed. That is why bringing up children with the account of these values is a modern type of civic education that is broader than rights and responsibilities, that shows that rights are part of values, but values are more important than rights. Responsibility for any of one's choices based on the values, therefore, is a broader concept than the

responsibility for the performance of duties (or their non-fulfilment).

And this is the conscious behaviour of a person who has certain guidelines in life. Interestingly, the Ukrainian Charter of the Free Person has no religious basis, it is worthy of any religion or atheist, these are the moral guidelines of Ukrainian society, which everyone should adhere to from an early age.

Since 2017, a pedagogical experiment has been underway in the Ternopil region to introduce this Charter into the education system. On October 20-21, 2022, on the basis of the Ternopil Regional Communal Institute of Postgraduate Pedagogical Education the All-Ukrainian conference "Educational Community as an Environment for the Education of a Ukrainian Citizen in the Context of the Ukrainian Charter of the Free Person" (Petrovskyi et al., 2022) was held.

Interestingly, thanks to the format of the All-Ukrainian Conference, the Ukrainian Charter of the Free Person went beyond the boundaries of secondary education institutions of the region and began to be used also in preschool educational institutions and higher education institutions. Ukrainian Charter of the Free Person is supported by higher education institutions from different fields, in different parts of Ukraine, which testifies to its benefits and expediency, the relevance of its application in educational work. But the value of life, the independence of the country and the freedom of all Ukrainians have come to the fore in the conditions of war today.

The value of the human life is not mentioned in the Ukrainian Charter of the Free Person, because it was written in peacetime. It should be noted that prior to the war, the children of the Ternopil region mostly chose the European values, but

today they focus mainly on the Ukrainian ones (Petrovskyi et al., 2022).

We must talk about their combination and those European values have already become Ukrainian ones, because this direction was chosen by our country. European and Ukrainian values today present the national interests of Ukraine, the national security system is aimed at their implementation and protection. Therefore, on the one hand, we popularize these values, on the other hand, we stop opposing them, change our negative and neutral perception of them, instead of speaking out against them we approve of them in the context of Ukrainian-centrism and national security.

In the context of national identity, we are also interested in the security function of educators, which provides for the creation of a safe educational environment, which today is defined only in the Law of Ukraine "On Complete General Secondary Education" (2020) and it deals only with peacetime threats.

Thus, this document defines it as "a set of conditions in an educational institution that make it impossible for participants of the educational process to cause physical, property and / or moral damage, in particular due to non-compliance with the requirements of sanitary, fire and / or construction norms and regulations, legislation on cybersecurity, protection of personal data, food safety and / or the provision of poor-quality nutrition services, through physical and / or psychological violence, exploitation, discrimination on any grounds, humiliation of honour, dignity, business reputation (bullying (harassment), dissemination of false information, etc.), propaganda and/or agitation, including using cyberspace, as well as making it impossible to use alcoholic beverages, tobacco products, narcotic drugs, psychotropic substances

on the territory of the educational institution" (Pro povnu zahalnu seredniu osvitu, 2020).

Therefore, the formation of Ukrainian identity consists mainly in the creation of conditions to preserve the life and health of all participants of the educational process, the maximum realization of human rights, first of all, the right for education even during war, ensuring the continuity of education through the application of experience and principles of education in conflict, creating conditions for obtaining education in various forms. This implements the idea of human rights and the state's concern for the possibilities of their implementation by Ukraine.

Our education today is Ukrainian by its essence. This allows to establish teaching on the basis of the Ukrainian history, language, culture, traditions, achievements, personalities, Ukrainian past and modernity. Education answers the question of Ukrainian identity – Who were we? Who are we? Who will we be?

Therefore, security in education is a condition for the formation of Ukrainian identity. It supports this process. But we need to strengthen it today, when the martial law was established on the whole territory of Ukraine. One of the ways to ensure this is the "Safe School Declaration", which Ukraine signed in 2019, but has not yet implemented into our legislation and regulatory documents.

It is also necessary to talk about the formation of national identity in children and youth not only at the first stage of education – the formation of consciousness, but also at its subsequent stages – the formation of behavioural experience, stimulation and correction of behaviour, stimulation to self-education.

This means that educational programs are not enough for the formation of an

identity. An activity approach is needed in practice, since only the inclusion of a person in the activity ensures the development of those qualities and personality traits that are necessary for the successful implementation of this activity. Activity involves solving problems, eliminating external and internal contradictions, overcoming which, a person acquires new experience of activity.

Therefore, it is necessary to engage children and young people in activities that require national identity and unity – work in volunteer headquarters, all possible assistance to people around, identifying needs and problems for those who need help and are not disabled, orphans, animals, etc. This will ensure both social security as a component of national security, and national-patriotic education, and will overcome differences focusing on the similarity of people from different regions of Ukraine.

Social assistance has become a new function of educators in the war due to the fact that, according to international social standards, educational institutions become centres of social assistance to families within the community. It will contribute to social unity in the community and the country. Such activities need to be awarded by the prizes like “Golden Heart” and others as incentives for the work, the dissemination of best practices and examples, forms of assistance.

As for the self-education of children and young people in national identity, it is important to teach how to do it, since no one will educate us for all our lives, but we must be able to change and develop independently. Therefore, teachers and tutors need to teach their students the methods of self-education in general, as well as how to combine collective and

individual interests, how to live according to rational needs, and not just all the needs which actually never end.

They have to teach how to determine priorities in life, in war, to set and achieve life goals, how to distinguish a system of promising guidelines even in conditions of uncertainty, planning to achieve them. If children are not taught this today, even in conditions of war, in a children’s educational environment, then a sensitive period of personal development will be missed.

And these are significant problems and gaps in the future in the planning of life goals and their implementation. Therefore, educational work on the formation of national identity today is not enough in relation to the results. It should be noted that only the combination of national education with social support gives the best results and a relatively high level of social well-being of students in displaced universities (Trubavina et al., 2021).

National identity is formed not only through educational activities, but also through social pedagogy as social education, socio-cultural activities, atmosphere and moods in society. Therefore, information security, counteraction to information and psychological operation (IPsO), provision of objective official information, openness of the authorities, citizens’ awareness are important for educators as a new function in the war and as the basis for work in the community and in an educational institution as a centre for helping families with children.

The information function of educators is a condition for managing moods and atmosphere in society, forming a new, victory-oriented and helping lifestyle (what everyone can do to win, how to live

in war, what competencies and life skills are needed in war), the formation of critical thinking in people, etc.

DISCUSSION

To discuss the problem, we'd like to state, in the national discourse there were no studies about the development of Ukrainian values in the war through education as a component of a national security, except ours. Some national studies are listed yet in the article, but they are connected with another issues.

Our conducted research testifies to the revealed peculiarities of the formation of Ukrainian identity in the conditions of war in Ukraine. In a peaceful society, the attention of other countries is focused on globalization, European integration, preservation of identity, at the same time.

In Ukraine, in the conditions of martial law, attention should be focused both on the Ukrainian values and independence, and on the European values in the conditions of European integration, which is part of the country's national interests and needs protection as a component of national security, which is not the case in other countries. Prior to the war, the value of human life was not largely discussed in educational work with children and was not even described in the Ukrainian Charter of the Free Person (Briukhovetskyi et al., 2012), for example, and in other countries it was and remains at the forefront in working with children and the population, just like the combination of collective and individual interests.

Today, everyone understands the value of life as the basis for the survival of Ukrainians and the country in the war. A nation without people does not exist. It is real, not abstract. Therefore, the survival of the whole country depends on the preservation of everyone's life, mutual assistance and social unity of society and

community. This has already been proven by research on the 2014 war (Levchenko, Panok, & Trubavina, 2015; Trubavina et al., 2021).

The war and the desire for independence and freedom as a condition for the survival of all Ukrainians contributed to the unification of people in our country, although other countries went different ways – through their super-ethnic values, well-being, politics, etc. This does not mean that Ukrainians do not need welfare or human rights, which are limited in martial law. But today, the preservation of the nation depends on social unity and mutual assistance.

That is why the educators need to learn how to perform new functions in education – security, information, social assistance, how to strengthen the educational function as the basis of social education of both the entire population and the upbringing of children in the education system (Petrovskyi et al., 2022; Trubavina, Cherednychenko, & Nedria, 2022; Trubavina et al., 2022). Some of these functions are described in the international social standards of public assistance for educators (INEE, 2018; UNICEF, 2016; Levchenko, Panok, & Trubavina, 2015), but in Ukraine they have only recently begun to be applied without prior training of specialists in the education system.

So, there is international experience that is not well adapted to the conditions of the war in Ukraine (INEE, 2018; UNICEF, 2016). The importance of national-patriotic education and values as national interests and a component of national security in the war was proven by Ukraine with its example of fighting aggressors. This did not happen in other countries. And this has not yet become the object of research by scientists dealing with the educational system.

As for the discussion issue of the present-day realities of the migration situation in Ukraine, and its impact on the national identity development of those living abroad in other cultures for nearly a year, we can state that there are some studies, but they are not conducted regarding Ukrainian identity. Each country has its own social, political, economic, and legal conditions for the residence of Ukrainian refugees. Not every country has Ukrainian diaspora that preserves language, culture, and history. There are different attitudes towards Ukrainians in different countries. So, it requires separate researches in different countries where Ukrainian refugees has been living during for the last year.

CONCLUSIONS

The peculiarities of the formation of national identity in the Ukrainian system of education in martial law include: the need for simultaneous formation of the Ukrainian and European values, attention to the value of life and continuing education in war, respect for human rights.

The ways to strengthen the formation of national identity today in the education system are: official restoration of educational function of teachers to all regulatory documents; the emphasis in educational work on national Ukrainian

values and European values; teaching educators how to perform their new functions: security, information, social assistance, with the account of martial law and the lack of training of educators for such work; social education of parents of students as educational work and national-patriotic education, when the school becomes a centre for helping families with children; in order to strengthen the work on the formation of the value of human life and the preservation of every citizen.

We can add as well the ways to officially clarify in the regulatory documents the definition of the security function of educators in conditions of war and peace; to regulate the definition of a safe educational environment, with the account of not only peacetime, but also martial law; the introduction of the «Safe School Declaration» in the education system; the introduction of the Ukrainian Charter of the Free Person in the educational work at all levels; the participation of students in volunteer activities for the sake of victory; the need to preserve all stages of the education process in the course of national identity formation. The prospects for further research imply identification of the effectiveness of new ways of Ukrainian identity formation, etc

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

Akulenko, L., Balakirieva, O., Volosevych, I., Dmytruk, D., Kostiuchenko, T., Latsyba, I., Pavlova, D., & Shurenkova, A. (2020). *Svitove doslidzhennia tsinnosti 2020 v Ukraini* [World Values Survey 2020 in Ukraine]. Ukrainyskyi tsentr yevropeiskoi

polityky. https://ucep.org.ua/wp-content/uploads/2020/11/WVS_UA_2020_report_WEB.pdf [in Ukrainian].

- Briukhovetskyi, V., Shavrylyshyn, B., Hluzman, S., Dziuba, I., Horbulin, V., Huzar, L., Marynovych, M., Popovych, M., Sverstiuk, Ye., Skurativskyi, V., & Yukhnovskyi, I. (2012, December 1). *Ukrainska Khartiia vilnoi liudyny* [Ukrainian Charter of the Free Person]. Initsiatyvna hrupa «Pershoho hrudnia». <http://1-12.org.ua/ukrajinska-khartija-vilnoji-liudyny> [in Ukrainian].
- Bryndza, V. (2017, October 23). «*Chy my pryrecheni? Shcho potribno znaty pro tsinnosti ukraintsiv ta yikh zminu*» [“Are we Doomed? What You Need to Know about the Values of Ukrainians and Their Change”]. *Ukrainska pravda*. <https://life.pravda.com.ua/columns/2017/10/23/227073/> [in Ukrainian].
- Dubyna, M., & Rudenko, Yu. (2006). Patriotychne vykhovannia molodi [Patriotic Education of Youth]. *Osvita Ukrainy – Education of Ukraine*, 8, 5-7 [in Ukrainian].
- Honskyi, V. (2001). Patriotyzm yak osnova suchasnoho vykhovannia ta ideolohii derzhavy [Patriotism as the Basis of Modern Education and Ideology of the State]. *Ridna shkola – Native school*, 2, 9-14 [in Ukrainian].
- Hrushevskyi, M. (1991). *Pro Ukrainsku movu i ukrainsku shkolu* [About Ukrainian language and Ukrainian school]. Kyiv [in Ukrainian].
- INEE. (2018). *Conflict Sensitive Education – online course* [Online course]. <https://spherestandards.org/online-courses/conflict-sensitive-education-online-course/>
- Levchenko, K.B., Panok, V.H., & Trubavina, I.M. (Eds.). (2015). *Sotsialno-pedahohichna ta psykholohichna dopomoha simiam z ditmy v period viiskovoho konfliktu* [Socio-Pedagogical and Psychological Assistance to Families with Children During the Military Conflict]. Ahenstvo “Ukraine” [in Ukrainian].
- Okushko, T. K., Petrochko, Zh. V., Kyrychenko, V. I., Kharchenko, N. V., Pashchenko, O. V., & Sokol, L. M. (2018). *Osobystisno oriientovani tekhnolohii natsionalno-patriotychnoho vykhovannia uchnivskoi molodi u hromadskykh obiednanniakh* [Personally Oriented Technologies of National-Patriotic Education of Student Youth in Public Associations]. Imeks-LTD. <http://lib.iitta.gov.ua/711696/> [in Ukrainian].
- Opanasenko, Y., & Novikova, V. (2022). Distance Learning in Higher Education: The Experience of the Covid-19 Pandemic and War in Ukraine. *Educational Challenges*, 27(2), 151-168. <https://doi.org/10.34142/2709-7986.2022.27.2.11>
- Petrovskyi, O. M., Mysyk, V. S., Vitenko, I. M., Kohut, O. I., Shainiuk, Yu. Ch., Mahera, T. V., Polianskyi, F. I., Kostyuk, S. V., Stryivus, N. B., & Herasymchuk, H. I. (Eds.) (2022). *Formuvannia natsionalnoi identychnosti ukraintsia cherez tsinnosti Ukrainskoi Khartii vilnoi liudyny. Naukovyi, metodychnyi, informatsiyni zbirnyk Ternopilskoho oblasnoho komunalnoho instytutu pisliadyplomnoi pedahohichnoi osvity* [Formation of the National Identity of a Ukrainian Through the Values of the Ukrainian Charter of a Free Man. Scientific, Methodical,

- Information Collection of the Ternopil Regional Communal Institute of Postgraduate Pedagogical Education]. Ternopil [in Ukrainian].
- Pro povnu zahalnu seredniu osvitu [On Complete General Secondary Education] (2020). <https://zakon.rada.gov.ua/laws/show/463-20#Text> [in Ukrainian].
- Pro pravovyi rezhy m voiennoho stanu [On the Legal Regime of Wartime] (2015). <https://zakon.rada.gov.ua/laws/show/389-19#Text> [in Ukrainian].
- Prokopenko, I. F., & Trubavina, I. M. (Eds.) (2020). *Theory and Practice of Future Teacher's Training for Work in New Ukrainian School*. Prague: OKTAN Print.
- Siavavko, Ye. I. (1974). *Ukrainska etnopedahohika v yii istorychnomu rozvytku [Ukrainian Ethnopedagogy in Its Historical Development]*. Kyiv [in Ukrainian].
- Sievastianova, O.A. (2018). Natsionalne vykhovannia suchasnoi molodi v osvitnomu prostori [National Education of Modern Youth in the Educational space]. In *Priorytety rozvytku pedahohichnykh ta psykholohichnykh nauk u XXI stolitti: zbirnyk naukovykh robit uchasnykiv mizhnarodnoi naukovo-praktychnoi konferentsii* [Priorities of the Development of Pedagogical and Psychological Sciences in the 21st century] (pp. 91-94). Odesa [in Ukrainian].
- Stelmakhovych, M.H. (1997). *Ukrainska narodna pedahohika [Ukrainian Folk Pedagogy]*. IZMN [in Ukrainian].
- Stepyko, M.T. (2011). *Ukrainska identychnist: fenomen i zasady formuvannia [Ukrainian Identity: Phenomenon and Principles of Formation]*. NISD [in Ukrainian].
- Trubavina, I. M., Cherednychenko, O. Yu., & Nedria, K. M. (2022). Robota pedahohichnykh pratsivnykiv ZZSO z vnutrishno peremishchenymy ditmy v umovakh viiny [The Work of Pedagogic Workers of ZZSO with Internally Displaced Children in the Conditions of War]. In *Ya. A. Komenskyi – fundator naukovoi pedahohiky (z nahody 430-richchia vid dnia narodzhennia vydatnoho pedahoha): materialy VII Vseukrainskoi naukovo-praktychnoi onlain-konferentsii z mizhnarodnoiu uchastiu* [Ya. A. Komensky – the founder of scientific pedagogy (on the occasion of the 430th anniversary of the birth of the outstanding pedagogue), Proceedings of the 7th All-Ukrainian Scientific and Practical Conference]. Uman [in Ukrainian].
- Trubavina, I., Cherednychenko, O., Oliinyk, N., & Nedria, K. (2022). Justification of the Educators' New Professional Functions under the Conditions of Martial Law. *Educational Challenges*, 27(2), 199-215. <https://doi.org/10.34142/2709-7986.2022.27.2.14>
- Trubavina, I., Karaman, O., Kamenova, D., Stepanenko, V., & Yurkiv, Y. (2021). A Research on Transformation of Social Wellbeing and Life Attitudes in Students from the Occupied Territories and the Demarcation Line at Relocated Higher Education Institutions from the East of Ukraine. *SHS Web Conf. Second International Conference on History, Theory and Methodology of Learning (ICHTML 2021). Learning Methodology*, 104, 03010. <https://doi.org/10.1051/shsconf/202110403010>
- Trubavina, I.M., & Nedria, K.M. (2022). Ukrainotsentryzm yak osnova naukovopedahohichnykh doslidzhen i pedahohichnoi diialnosti [Ukrainocentrism as the Basis of Scientific and Pedagogical Research and Pedagogical Activity]. In

V. Chernyak et al. (Eds.), *Innovatsii v suchasni osviti: ukraïnskyi ta svitovy kontekst: materialy Mizhn. nauk.-prakt. konf., (Ternopil, 09-10 cherv., 2022)* [Innovations in modern Education: Ukrainian and world context: materials of Internationally scientific-practical. conf., (Ternopil, June 09-10, 2022)] (pp.46-47). Ternopil: TRIPPE Publishing Center [in Ukrainian].

UNICEF. (2016). *Conflict Sensitivity and Peacebuilding Programming Guide (November 2016)*. <https://www.unicef.org/media/59156/file>

Vyshniak, M. (2001). Patriotychne vykhovannia uchniv za dopomohoiu ukraïnskoi movy ta literatury [Patriotic Education of Students with the Help of Ukrainian Language and Literature]. *Ridna shkola – Native School*, 9, 25-28 [in Ukrainian].

Zhurba, K. O., Bekh, I. D., Dokukina, O. M., Fedorenko, S. V., & Shkilna, I. M. (2019). *Natsionalno-kulturna identychnist u stanovlenni pidlitka* [National and Cultural Identity in the Formation of a Teenager]. Imeks-LTD. <http://lib.iitta.gov.ua/718615/> [in Ukrainian].

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

ФОРМУВАННЯ УКРАЇНСЬКОЇ ІДЕНТИЧНОСТІ В СИСТЕМІ ОСВІТИ В УМОВАХ ВОЄННОГО СТАНУ В УКРАЇНІ

Стаття присвячена актуальній проблемі сучасної української педагогіки – формуванню національної ідентичності.

Мета статті – виявити особливості формування національної ідентичності в освіті в умовах війни і запропонувати шляхи посилення цього процесу.

Методологією дослідження є системний, діяльнісний, культурологічний, аксіологічний підходи. Методами дослідження є: теоретичний аналіз джерел, узагальнення досвіду, синтез.

Результати. Українська ідентичність є результатом національно-патріотичного виховання і складовою національної безпеки. Виявлено особливості формування національної ідентичності в українській системі освіти в воєнний стан: необхідність формування українських і європейських цінностей одночасно, увага до цінності життя і безперервної освіти в війну, поваги до прав людини. Шляхами посилення формування національної ідентичності в системі освіти є: повернення офіційно виховної функції освітян в усі нормативні документи, наголос в освіті на національних і європейських цінностях, навчання освітян виконанню нових функцій – безпекової, інформаційної, соціальної допомоги, соціальне виховання батьків і громади, офіційно уточнити в нормативних документах визначення безпекової функції освітян, унормувати визначення безпечного освітнього середовища в воєнний стан, впровадити Декларацію безпеки шкіл у систему освіти, Української хартії вільної людини в систему освіти, участь здобувачів освіти у волонтерській діяльності, дотримання у формуванні національної ідентичності всіх етапів процесу виховання.

Висновок. Особливості розвитку національної ідентичності та шляхи її посилення сьогодні є вкрай важливими. Перспективами подальших досліджень є виявлення ефективності нових шляхів формування української ідентичності.

КЛЮЧОВІ СЛОВА: українська національна ідентичність, українські цінності, європейські цінності, воєнний стан, безпекова функція освітян, функції освітян.

CITE THIS ARTICLE AS (APA style):

Trubavina, I., Cherednychenko, O., Oliinyk, N., & Nedria, K. (2023). Ukrainian Identity Development in the Education System in the Conditions of Martial Law in Ukraine. *Educational Challenges*, 28(1), 161-174. <https://doi.org/10.34142/2709-7986.2023.28.1.13>



<https://doi.org/10.34142/2709-7986.2023.28.1.14>

PEDAGOGICAL CULTURE OF TEACHERS AT TECHNICAL UNIVERSITIES FOR SAFE EDUCATIONAL PROCESS DURING THE WAR IN UKRAINE

Received: 06/02/2023

Accepted: 07/03/2023

Natalia TVERDOKHLIEBOVA¹, & Nataliia YEVTUSHENKO²



¹ Ph.D., Associate Professor, Department of Occupational and Environmental Safety, National Technical University "Kharkiv Polytechnic Institute", 2 Kirpicheva St., 61002, Kharkiv, Ukraine.


✉ E-Mail: natatv@ukr.net

 <https://orcid.org/0000-0003-3139-4308>



² Ph.D. in Technical Sciences, Associate Professor, Department of Occupational and Environmental Safety, National Technical University "Kharkiv Polytechnic Institute", 2 Kirpicheva St., 61002, Kharkiv, Ukraine.

✉ E-Mail: natalya0899@ukr.net

 <https://orcid.org/0000-0003-0217-3450>

ABSTRACT

The entire education system is currently undergoing structural changes, which are reflected in the increased use of digital and distance learning technologies. Pedagogical culture as a personal characteristic of a teacher acts as a means of implementing professional activities in the unity of goals, objectives, as well as means and results. Simultaneously, different types of pedagogical activity form the functional structure of culture. The main features of pedagogical activity should be its complexity and integrity, creative nature, a combination of collective activity and individual creativity of teachers, because the process of solving pedagogical goals and objectives is a technology of pedagogical activity that characterizes the mode of existence and functioning of the teacher's pedagogical culture.

© Natalia TVERDOKHLIEBOVA, & Nataliia YEVTUSHENKO, 2023

Pedagogical Culture of Teachers at Technical Universities for Safe Educational Process During the War in Ukraine © 2023 by Natalia TVERDOKHLIEBOVA, & Nataliia YEVTUSHENKO is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

Teaching in the context of the war in Ukraine involves the use of various forms of education with the introduction of digital technologies and tools to ensure the safety of all participants in the educational process and flexibility in time and space. This approach allows you to adapt educational content to the needs of students and the requirements of the curriculum. At the same time, it becomes important to choose an individual educational trajectory in which students can change and adapt their educational process.

*The **purpose** of this article is to analyze the content of the concept of pedagogical culture of teachers of technical universities in modern conditions, to determine the most convenient format of university education to ensure the safety of all participants in the educational process in a war in Ukraine.*

*The **methodology** on which this article relies includes empirical methods (observation, conversation, dialogue), which are used in full-time and distance learning, and theoretical methods (analysis, synthesis, generalization, explanation, classification). Based on them, we will formulate practical recommendations for the introduction of digital technologies and tools to ensure high-quality education for students of technical universities in the modern conditions of Ukrainian society.*

*The following **results** are achieved within the framework of our research: the analysis of the essence of the concept of "pedagogical culture" was carried out, the main features and criteria for its formation were identified, the conditions for the formation of the pedagogical culture of teachers of technical universities in war conditions were outlined and analyzed, a study was conducted to identify the most convenient form of university education using digital technologies and tools to ensure the safety of all participants in the learning process in modern conditions.*

*The **conclusions** make it possible to state that, despite the difficult situation in the country, it is necessary to prepare students of technical universities for their further professional and personal careers, accompanied by lifelong learning. The combination of digital tools is often a successful response to rapidly changing environments and results in a flexible teaching and learning system. This requires mandatory interaction between students and teachers who act as mentors.*

KEYWORDS: *Education, Pedagogical Culture, Digital Technologies, Teacher of a Technical University, Pedagogical Activities.*

INTRODUCTION

In the current conditions of the war in Ukraine, the importance of universities as integrators of scientific, educational, business and production areas is growing (Opanasenko, & Novikova, 2022). (Kostikova et al., 2023). Today, security in the education system is of particular

importance. Dynamic and ambiguous events taking place recently, rapid unpredictable changes in society, give rise to many personal problems and affect primarily mental health, mental state and life satisfaction (Yevtushenko, Tverdokhliebova, & Mezentseva, 2022;

Lebedeva, & Norik, Lebedev, 2022; Nalyvaiko, & Lykshosvai, 2021).

The priority goal of education at the present stage of development of society remains the development of general cultural components in the content of education. Among the requirements for a modern teacher, there is a high level of pedagogical culture, which is expressed in the current system of personal values, professional education, mastery of pedagogical theory and practice, as well as the embodiment of experience in various types of pedagogical activity and communication. A high level of pedagogical culture is a necessary condition and guarantee of successful pedagogical activity of a modern teacher.

Forms of pedagogical work in which students, through independent activity under the guidance of a teacher, acquire technology-related knowledge and skills (Holubnycha et al., 2021) and train in their practical application are of particular importance for polytechnic education. Teachers of technical universities possess a system of special and subject knowledge at a fairly high level. As for pedagogical knowledge, in particular, the subject teaching methods, they represent a weak link in this system. The vast majority of teachers at technical universities do not have special pedagogical training, they are poorly aware of the pedagogical tasks of their activities; do not have a clear idea of its structure; they do not think about what depends on the success of students learning and the success of their own pedagogical activities.

The **purpose** of the article is the analysis of the content of pedagogical culture concepts of teachers at technical universities in today's conditions, determination of the most convenient format of university education to ensure the safety of all participants in the

educational process in the conditions of war in Ukraine.

THEORETICAL FRAMEWORK

The analysis of philosophical, historical-pedagogical and psychological-pedagogical literature, as well as theoretical generalizations, allow us to conclude that pedagogical culture is an essential characteristic of a teacher's personality, the measure and method of his creative self-realization in various types and methods of pedagogical activity and communication aimed at creation and assimilation of pedagogical values and technologies.

Some experts identify the main features of pedagogical culture that characterize the teacher's creative activity and are a qualitative indicator of the teacher's pedagogical activity; secondly, it influences the process of formation of the teacher's thinking; thirdly, it is not only the result, but also the very process of transforming both the teacher and his students in the course of the educational process (Batrun, 2022). We share this position because the values and achievements of pedagogical culture are mastered and created by the individual in the process of activity, which confirms the fact of the inextricable connection between culture and activity.

There is an approach that the pedagogical culture of teachers is specified in the concepts of "culture of pedagogical activity", "culture of pedagogical communication" and "culture of the teacher's personality" (Bilonozhko, 2022). This is the creative self-realization of the teacher's personality in various types of pedagogical activity and communication aimed at the implementation of in-depth programs of professional education, at the creation and assimilation of pedagogical values and technologies. In order to

understand the essence of professional and pedagogical culture, the authors of this approach singled out provisions that reveal the connection between general and professional culture and their specific features. The theoretical model of professional-pedagogical culture is substantiated, the components of which are axiological, activity and personal. In our opinion, each of the presented components is important for understanding the essence of pedagogical culture.

The pedagogical culture is represented as a system and at the same time as an element of the pedagogical system in the unity of its structural (knowledge system, skill system, and value system) and functional (cognitive, didactic-professional, educational, diagnostic-organizational, communicative, normative, protective) components. The author singles out the subsystems of the named systems of components, which "...are interconnected and interdependent and form an integral property that characterizes one or another level of pedagogical culture". We share the author's opinion about the need to consider pedagogical culture as a whole system. It should also be noted that the functional purpose of pedagogical culture is expressed in the formed moral readiness of teachers for professional and pedagogical activity and its structural components. Moreover, the specialty of a teacher's professional activity requires a formed emotional culture, necessary for him to regulate relations with colleagues, students, and parents (Grinyova, 2000).

The criteria is identified for the formation of pedagogical culture, namely: the formation of knowledge, pedagogical thinking, the formation of skills and abilities; value attitude, use of knowledge

and skills; the manifestation of individuality (Grinyova, 2000).

It should be noted that, like any culture, pedagogical culture does not arise spontaneously, it must be formed. In modern conditions, this is a whole technological process that cannot be ensured without special scientific foundations. Pedagogical studies of various directions are devoted to this problem, namely: the formation of the pedagogical culture of the future teacher; teachers, pedagogues, educators; teachers of the higher school; parents. Summarizing the views of scientists on this problem, we can conclude that the object, goal and result of pedagogical culture is a person (his education, upbringing, formation and development of his personality). This makes pedagogical culture not only a part, but also an important mechanism of reproduction of society's culture in all its spheres.

In general, the humanistic paradigm of education brings the process of researching pedagogical culture to the personal level. However, in our opinion, the concept of pedagogical culture has not fully become the property of pedagogy.

It is necessary to take into account that the variety of activities in the system complex of the teacher's interaction with information is quite large and relies on organizational, intellectual, sensory, sociocultural and other capabilities of both the individual and the information (Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011). Pedagogical activity has a creative nature, therefore there is also experience in performing this activity. Therefore, the foundations of a teacher's creative potential are laid, formed in the process of his professional training and further developed in pedagogical activity (Rahman, Tambi, & Anny, 2020).

Pedagogical culture is a qualitative characteristic not only of the personalities of individual teachers, parents and other people who are engaged in education and upbringing throughout life, but also of the life activities and educational relations of society as a whole.

METHODOLOGY

Empirical methods (observation, interview, questionnaire), which are widely used in face-to-face, mixed and distance learning, and theoretical methods (analysis, synthesis, generalization, explanation, classification) were used to achieve the goal. Based on them, we conducted a study to determine the most convenient training format for students of the “Occupational and Environmental Safety” department of the National Technical University “Kharkiv Polytechnic Institute”, formulated practical recommendations for the implementation of digital technologies and tools to ensure the safety of all participants in the educational process in modern conditions.

RESULTS

In technical universities, the content of the basics of science, which includes elements of polytechnic education, is learned by students in the process of lectures, seminars, during the application of various forms of practical and laboratory work, which are filled with general pedagogical content determined by curricula and programs.

It is known that in education there should be a special system of educational tasks that meets the specified requirements both in terms of quality characteristics and properties (abroad for this they use the term problems sequence – a sequence of tasks), which allows you to operate with all knowledge. However, this is practically not the case in real education at technical

universities. The main content of educational systems remains knowledge, and the activity of processing this knowledge is given a secondary role, often illustrative. Under these conditions, it is rare for anyone to be guided by their own values, to form their goals of educational activity, to plan and independently monitor the achievements of science.

Meanwhile, if the personality of a professional teacher is considered as the desired result of education, then the most important components of his pedagogical culture should be the following skills: setting a goal and planning strategies for its achievement; selection and creation of means and methods of activity that would correspond to the chosen goal; monitoring (reflection) of one’s own actions, adjusting them according to the planned result, etc. Such skills and personal qualities that support them are important especially for teachers of technical educational institutions as a mechanism for mastering the basics of education and professional activity.

In the course of research and experimental works, pedagogical conditions for the development of the professional and pedagogical culture of a higher school teacher were identified and substantiated: the integrity of the structure of pedagogical activity, the innovative direction of the development of professional and pedagogical culture; individualization and differentiation of the formation of professional and pedagogical culture.

Let’s consider these conditions from the point of view of the formation of pedagogical culture of teachers of technical universities. The integrity of the structure of the pedagogical activity of a teacher of a technical higher educational institution means, in our opinion, the level of development of its system, internal

connection, harmonious interaction and development of the components of this system. This condition confirms the unity of the teacher's personality and activity in the pedagogical culture; contributes to the development of a systematic, holistic vision of the pedagogical process.

It is advisable to analyze the integrity of the pedagogical activity of a teacher of a technical institution according to the level of formation of professional and pedagogical skills, because they are not only the most important condition for the choice of actions, but are also a generalized, universal characteristic of the activity and the degree of its mastery by the individual. In the context of the innovative strategy of the educational process, the role of the teacher of a higher technical institution as a direct bearer of innovative processes that contribute to mastering the experience of creative pedagogical activity is significantly increasing.

Here, the processes of integration of pedagogical science and practice play a decisive role: research and experimental implementation, compatible socio-pedagogical creativity, cooperation of scientists and practitioners in the development of curricula, programs, preparation of textbooks, methodological guides, technical teaching aids, etc. With all the variety of learning technologies (dialogic, computer, problem-based, modular), the implementation of pedagogical functions remains with the teacher. With the introduction of modern information and communication technologies into the educational process, a teacher of a higher technical school should master the functions of a consultant, advisor, and educator. This requires special pedagogical training, implementation of pedagogical innovations (Dron, 2022).

Differentiation and individualization as conditions for the development of the pedagogical culture of a teacher of a higher technical institution are dictated by a number of socio-pedagogical features. First, the characteristics of the teacher's personality with his formed individual system of life and professional attitudes, value orientation, experience and professionalism, which puts subject-subject relations in priority positions. Establishing a partnership system of relations in the process of pedagogical training is the task of both the teacher-teacher and the student-teacher. However, the transition of teachers of a higher technical school to the position of a listener is often accompanied by strong emotional and mental stress. They, moving from the position of "the one who teaches" to the position of "the one who is taught", can react very subtly, often painfully, to various factors related to the qualifications of lecturers, the content, forms and methods of teaching, the quality of the educational process, relationships, consisting between "students" and "teachers" (Nind, & Lewthwaite, 2018).

Secondly, the peculiarities of the educational motivation of teachers, their needs in the assimilation of new pedagogical knowledge and technologies. The motives for including a teacher in cognitive activities depend on the general level of his pedagogical culture, the direction of professional activity, and the initiation of individual professional qualities. Thirdly, the peculiarities of teachers' pedagogical reflection aimed at the analysis and evaluation of their new position, the new status of a "student", evaluation of self-perception by teachers and fellow students, evaluation of their level of professional training compared to others, etc. (Wayne, & Youngs, 2003).

Fourthly, due to the limitation of study time, the intensity of classes, when it is necessary to master a large amount of new pedagogical knowledge in a short period of time, to complete the educational and research tasks provided for by the program, and the graduation work.

Thus, differentiation and individualization are socially and pedagogically determined, their purpose is mediated by the goals and tasks facing teachers, aimed at forming the foundations of pedagogical culture.

In the process of forming the pedagogical culture of teachers of technical universities, it is necessary to take into account the following patterns:

- the teacher's understanding of the content of pedagogical culture as a way of developing and transforming his personal and professional growth;
- sequences in directions: formation of motivation, inclusion of the teacher in educational activities, selection of content, methods and forms of pedagogical activity;
- the integrity of the development of pedagogical culture while relying on universal, national, regional values as guidelines for the choice of the professional "I" in interaction with teachers.

In the conditions of war, it is important for a person to be in a safe and stable environment for the development of personal potential and abilities. A safe environment around a person is the most important condition for his development. The institute of education is a psychological-pedagogical environment where specially organized conditions are built for the development of a person included in the spatial-objective and social environment, the essence of which is a set

of communicative actions and relationships of participants in the educational process (Tverdokhliebova, & Yevtushenko, 2022).

At the National Technical University "Kharkiv Polytechnic Institute", Office-365 is a platform for interaction between teaching staff and students at all levels of the organization of the educational process. The "Occupational and Environmental Safety" department of the National Technical University "Kharkiv Polytechnic Institute" trains occupational safety specialists (bachelor's and master's degrees in specialty 263 – "Civil Safety").

The educational and professional program of the specialty "Civil Security" involves the formation of general and special professional competencies of future labor protection engineers. Classes are held according to the schedule live in Teams, while it is possible to view the recording of lectures by those students who could not attend the classes. Educational presentations are available both in the online conference and in the Office-365 storage. Weekly messages from the dean's office and department through social media channels provide students with information throughout the semester. Regular communication of the teaching staff in social networking channels and in Teams turned out to be very important for planning, organizing and regulating the educational process in groups of different courses and specialties.

An important point in the organization of the educational process is the use of digital tools for transferring knowledge, developing new content for academic disciplines and testing the acquired knowledge. An explanatory video with a live demonstration of experiments and experiments has proven itself well. Many examples can be found on open platforms (YouTube, etc.).

Digital tools range from preparatory materials and videos, online tests and questionnaires, to experiments with online support or remote analysis and reporting of results. Practical exercises in digital format contribute to the formation of the necessary skills and control of their implementation. During the semester, students can receive bonus points in academic disciplines and receive a final grade in the rating.

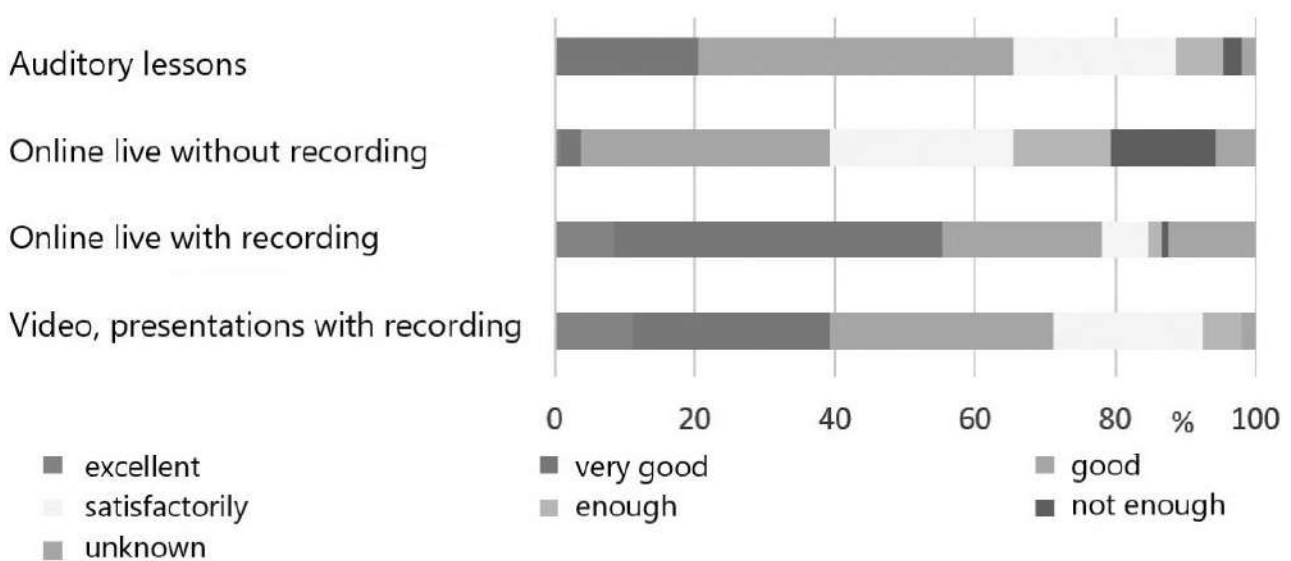
Validation of the learned material includes the application of knowledge and its interpretation in models and in practical systems. This can be the case in various problem situations when modeling a manufacturing process. A variety of testing modes range from simple answering questions to establishing

correspondence between events / phenomena, evaluation and process analysis. Online exams allow students to be assessed and assess their level of academic achievement. Online exams follow a specific procedure, which includes controlling the student's screen while answering and controlling behavior while answering questions.

We conducted an online survey for students about the implemented forms of education using digital technologies in the current conditions to ensure maximum safety for all participants in the educational process. A total of 112 responses were collected and evaluated. Figure 1 presents the main results where students compared face-to-face learning with three digital learning formats.

Figure 1

The Most Convenient Learning Format for Students in War Conditions



For more than 70% of students, the format of video lectures is attractive. 12% of students say that video lectures are better than face-to-face classes. Almost 80% of students attend online live classes. In their opinion, this format of classes is preferable, lectures should be recorded and available. Almost 90% of students watch online

recorded lectures and are satisfied with their content. Most of the time, the teacher and students work with the "screen sharing" function. For almost 80% of students, the ability to ask questions offline or live is important, especially in complex disciplines.

For students who make a living or have other daily responsibilities, flexible learning formats are very attractive. Learning with recorded videos or slides with sound is considered supportive and adapted to the respective learning progress. In the event of an unstable internet connection for data transfer during online training, recorded files are an alternative. Students summarize that from a technical point of view, they are better at online classes, especially videos or Power Point presentations, compared to face-to-face learning.

Almost every lecture is accompanied by exercises to illustrate the content and prepare for the exam. The advantage of video lectures is that students have the opportunity to increase or decrease the playback speed for a comfortable perception of educational information. In general, interpersonal interaction between teachers and students is an important aspect and should be adapted to the respective discipline. The technical quality of digital tools is also important for the learning process. Good sound quality is the main condition along with a stable Internet connection. What format of education (full-time, mixed, online lectures live with and without recording) for lectures and practical classes is most convenient for students? According to the survey, live online lectures with recordings are the most popular.

Practice/labs are best done in a mixed format to ensure close interaction in small groups and direct exchange of information with supporting tools of the recorded content. The role of the teacher is changing to that of a mentor. At the same time, mentoring becomes a key success factor in building a research career for students in study groups.

DISCUSSION

We agree with the opinion of scientists S. I. Aimah, & D. A. Bharati (2017) that it is desirable to consider pedagogical activity not only as the organization and conduct of the educational process by the teacher, but also as the process of his communication with colleagues, students, information, because the teacher's communication culture occupies a significant place in the structure of his pedagogical culture. The culture of communication presupposes the manifestation of moral qualities and abilities for mutual understanding, sympathy, empathy. The culture of communication is especially important for the professional activity of a teacher, because it is in communication that the inner culture of a person is revealed.

It is also worth paying attention to the fact that recently, in connection with the change of the role of the individual in the information society to a subject-active one, communication is increasingly considered as an activity of partnership, cooperation, based on the mutual informational addition of participants.

It should be noted that today there is not a sufficient number of practical developments aimed at creating safe conditions for the implementation of educational activities by all participants of the educational process in higher education in conditions of war.

CONCLUSIONS

Therefore, the formation of the pedagogical culture of teachers of technical universities in the conditions of deepening the actions of new trends in the socio-cultural development of the country can be considered as a multifaceted problem of urgent social and scientific importance. It must resolve the contradiction between the anticipatory

growth of requirements for the formation of a highly cultured personality and the real military conditions, the objective difficulties of achieving this goal.

The future of teaching at universities is based on digital formats for organizing the educational process. As learning platforms develop, higher education becomes more accessible. At the same time, in the conditions of war, in order to ensure safe conditions for all participants in the educational process, it becomes more and more individual.

In general, personal contact, feedback of online learning is important. Students can attend online classes and participate in academic discussions or study material in the form of live recorded lectures. For large groups in practical / laboratory work, the alternative would be to form subgroups.

The specification of course accessibility already requires the implementation of various digital tools with the availability of comprehensive lecture and practical materials.

Mixed format learning formats with a face-to-face learning structure are promising. At the same time, digital formats provide a better overview, as well as more detail and flexibility in the delivery of educational material using applications for new content and pedagogical methods and techniques.

The design of the future education, of course, depends on the further development of events in Ukraine, depending on which various scenarios have to be considered. The online format will be the result of the ongoing war in the country.

CONFLICT OF INTERESTS

The authors declare that there are no conflicts of interest regarding the publication of this paper.

FUNDING

The authors declare that this study received no specific financial support.

REFERENCES

- Aimah, S. I., & Bharati, D. A. (2017). Building Teacher's Pedagogical Competence and Teaching Improvement through Lesson Study. *Arab World English Journal*, 8(1), 66-78. <https://dx.doi.org/10.24093/awej/vol8no1.6>.
- Batrun, I.V. (2022). Teacher's Pedagogical Culture and Values of the Post-School. *Prospects and Innovations of Science*, 3(8), 237-247. [https://doi.org/10.52058/2786-4952-2022-3\(8\)-237-247](https://doi.org/10.52058/2786-4952-2022-3(8)-237-247)
- Bilonozhko, O. (2022). Technology of the Development of Lyceum Teachers' Pedagogical Culture in the System of Methodical Work. *Pedagogical Education: Theory and Practice. Psychology. Pedagogy*, 37(1), 42-46. <https://doi.org/10.28925/2311-2409.2022.375>
- Dron, J. (2022). Educational Technology: What It Is and How It Works. *AI & Society*, 37, 155-166. <https://link.springer.com/article/10.1007/s00146-021-01195-z>
- Grinyova, V.M. (2000). *Formation of the Future Teacher's Pedagogical Culture (Theoretical and Methodical Aspects)*. Kyiv [in Ukrainian].

- Holubnycha, L., Kostikova, I., Sytnykova, Y., Melnikova, T., Guzenko, N., & Dorozhko, A. (2021). Information Technology Implementation in On-line Teaching and Learning: Staff and Students' Attitude. *Journal of Theoretical and Applied Information Technology*, 99(21), 4958-4968 <http://www.jatit.org/volumes/Vol99No21/4Vol99No21.pdf>.
- Kostikova, I., Holubnycha, L., Marmaza, O., Budianska, V., Pochuieva, O., & Marykivska, H. (2023). Real Country Experiences: On-line Teaching in Wartime after Pandemic in Ukraine. *International Journal of Interactive Mobile Technologies (IJIM)*, 17(03), 123-134. <https://doi.org/10.3991/ijim.v17i03.36419>
- Lebedeva, I., Norik, L., & Lebedev, S. (2022). Digital Resources as a Way to Increase the Motivation of Economic Specialties Students in Studies of Mathematics. *Educational Challenges*, 27(2), 105-121. <https://doi.org/10.34142/2709-7986.2022.27.2.08>
- Nalyvaiko, O., & Lykhoshvai, K. (2021). Quality of Professional Psychologist Training in Online Space. *Educational Challenges*, 26(2), 75-89. <https://doi.org/10.34142/2709-7986.2021.26.2.07>
- Nind, M., & Lewthwaite, S. (2018). Methods that Teach: Developing Pedagogic Research Methods, Developing Pedagogy. *International Journal of Research and Method in Education*, 41(4), 398-410. <https://doi.org/10.1080/1743727X.2018.1427057>
- Opanasenko, Y., & Novikova, V. (2022). Distance Learning in Higher Education: The Experience of the Covid-19 Pandemic and War in Ukraine. *Educational Challenges*, 27(2), 151-168. <https://doi.org/10.34142/2709-7986.2022.27.2.11>
- Rahman, S., Tambi, F., & Anny, N.Z. (2020). The Importance of Enhancing Pedagogical Skills Through Continuing Professional Development. *International Journal of Research in Business and Social Science*, 9(4), 121-129. <http://dx.doi.org/10.20525/ijrbs.v9i4.757>
- Richter, D., Kunter, M., Klusmann, U., Lüdtke, O., & Baumert, J. (2011). Professional Development Across the Teaching Career: Teachers' Uptake of Formal and Informal Learning Opportunities. *Teaching and Teacher Education*, 27(1), 116-126. <http://dx.doi.org/10.1016/j.tate.2010.07.008>
- Tverdokhliebova, N., & Yevtushenko, N. (2022). Formation of Psychological Safety of Students in Modern Minds of Education. *Actual Nutrition in Modern Science (Series "History", "Pedagogy", "Law", "Economics", "State Management", "Technology")*, 1(1), 421-428. [https://doi.org/10.52058/2786-6300-2022-1\(1\)-421-428](https://doi.org/10.52058/2786-6300-2022-1(1)-421-428)
- Wayne, A.J., & Youngs, P. (2003). Teacher Characteristics and Student Achievement Gains: A review. *Review of Educational Research*, 73(1), 89-122. <http://dx.doi.org/10.3102/00346543073001089>
- Yevtushenko, N., Tverdokhliebova, N., & Mezentseva, I. (2022). Ensuring Psychological Safety to Develop Students' Risk-Based Thinking of the Specialty "Civil Security". *Educational Challenges*, 27(2), 228-241. <https://doi.org/10.34142/2709-7986.2022.27.2.16>

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

**ПЕДАГОГІЧНА КУЛЬТУРА ВИКЛАДАЧІВ ТЕХНІЧНИХ УНІВЕРСИТЕТІВ
ЯК ЗАПОРУКА БЕЗПЕЧНОГО НАВЧАЛЬНОГО ПРОЦЕСУ
В УМОВАХ ВІЙНИ В УКРАЇНІ**

Вся система освіти нині зазнає структурних змін, які знаходять свій відбиток у більш широкому використанні цифрових та дистанційних технологій навчання. Педагогічна культура як особистісна характеристика педагога виступає засобом реалізації професійної діяльності в єдності цілей, задач, а також засобів і результатів. Одночасно різноманітні види педагогічної діяльності утворюють функціональну структуру культури. Основними особливостями педагогічної діяльності повинні виступати її комплексність і цілісність, творчий характер, сполучення колективної діяльності й індивідуальної творчості педагогів, тому що процес рішення педагогічних цілей і задач являє собою технологію педагогічної діяльності, що характеризує спосіб існування й функціонування педагогічної культури викладача.

Викладання в умовах війни в Україні передбачає використання різних форм навчання з впровадженням цифрових технологій та інструментів для забезпечення безпеки всіх учасників навчального процесу та гнучкості у часі та просторі. Такий підхід дозволяє адаптувати навчальний контент під потреби студентів та під вимоги навчальної програми. При цьому стає важливим вибір індивідуальної освітньої траєкторії, в якій студенти можуть змінити та адаптувати свій освітній процес.

Метою даної статті є аналіз змісту поняття педагогічної культури викладачів технічних університетів в умовах сьогодення, визначення найбільш зручного формату університетського навчання для забезпечення безпеки усіх учасників навчального процесу в умовах війни в Україні.

Методологія, на яку спирається ця стаття, включає емпіричні методи (спостереження, бесіда, діалог), які зараз використовуються в очній та дистанційній формах навчання, та теоретичні методи (аналіз, синтез, узагальнення, пояснення, класифікація). Спираючись на них, ми сформулюємо практичні рекомендації щодо впровадження цифрових технологій та інструментів для забезпечення якісного навчання студентів вищих навчальних закладів технічного профілю в сучасних умовах життя українського суспільства.

У рамках нашого дослідження досягнуто наступних **результатів**: проведено аналіз сутності поняття «педагогічна культура», виділено основні ознаки та критерії її сформованості, викладено та проаналізовано умови формування педагогічної культури викладачів технічних університетів в умовах війни, проведено дослідження щодо виявлення найбільш зручної форми університетського навчання із застосуванням цифрових технологій та інструментів для забезпечення безпеки всіх учасників навчального процесу у сучасних умовах.

Висновки дозволяють стверджувати, що, незважаючи на складну ситуацію в країні, необхідно готувати студентів технічних університетів до їхньої подальшої професійної та особистої кар'єри, що супроводжується навчанням протягом усього життя. Поєднання цифрових інструментів є успішною відповіддю на умови, що швидко змінюються, і призводить до гнучкої системи викладання та навчання. При цьому необхідно створити умови для обов'язкової взаємодії між студентами та викладачами, які виступають у ролі наставників.

КЛЮЧОВІ СЛОВА: освіта, педагогічна культура, цифрові технології, викладач технічного університету, педагогічна діяльність.

CITE THIS ARTICLE AS (APA style):

Tverdokhliebova, N., & Yevtushenko, N. (2023). Pedagogical Culture of Teachers at Technical Universities for Safe Educational Process During the War in Ukraine. *Educational Challenges*, 28(1), 175-187. <https://doi.org/10.34142/2709-7986.2023.28.1.14>



<https://doi.org/10.34142/2709-7986.2023.28.1.15>

THE SYSTEM OF CAREER GUIDANCE FOR HIGH SCHOOL STUDENTS IN THE UNITED STATES OF AMERICA

Received: 03/02/2023

Accepted: 03/03/2023

Yuliia ZAHREBNIUK

Ph.D. in Education, Associate Professor, English and Methodology Department, Pavlo Tychnya Uman State Pedagogical University, Uman, Ukraine.

✉ **E-Mail:** yu.zahrebniuk@udpu.edu.ua

 <https://orcid.org/0000-0002-0997-4026>

ABSTRACT

The **aim** of the article is to examine the system of career guidance of high school students in the United States of America.

The **methodology** is based on the analyses of the process of career guidance work in the USA, the structure of secondary education in the USA, the role of career counselors, the principles of professionography, three stages in the work of counselors in the United States of America. In order to analyse the general system of professional self-determination of students in secondary schools in the United States, it is considered the structure of secondary education in this country. The 10 participants in the action research were career counselors from the USA.

The **results**. It was determined that the main role in career guidance is played by the National Career Development Association. The structure of secondary education in the USA, the role of career counselors, the principles of profession, three stages of the work of counselors in the USA are analyzed.

The article found that secondary education in the United States of America is compulsory and consists of different types of schools: public, private, and schools run by religious organizations. It was noted that at the end of the 20th century about 90% of students studied in state (free) educational institutions; the secondary education system consists of primary, secondary and high school; the total duration of education is 12 years. It is noted that in order to optimize the transition of students from secondary school to high school, schools can change the terms of study. Thus, primary education is reduced to 4-5 years, the duration of high school education varies from 2 to 4 years.

© Yuliia ZAHREBNIUK, 2023

The System of Career Guidance for High School Students in the United States of America © 2023 by Yuliia ZAHREBNIUK is licensed under **Attribution-NonCommercial 4.0 International**. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

The main role in the coordination and management of career guidance and employment of students is played by the employment services and education departments of individual states. Various councils of the association of business representatives and members of communal communities are of great importance for the organization and implementation of this work.

The principles of professionography are clarified: the specificity of the description of a certain activity; step-by-step study of activities – procedural sequence of material collection and analysis focus of description – compliance with specific goals of the research and implementation of a specific practical task; selectivity of the research object – concentration on the most difficult tasks of the labor process; learning dynamics – taking into account the development of the subject and changes in activity; systematicity – the study of interaction of individual components of activity at all its hierarchical levels; identity of methodological techniques and training programs and description for correct comparison of professions; use of qualitative and quantitative research methods – complementing content and statistical information.

*It was **concluded** that the features of career guidance are: the degree of professional self-determination; strengthening the role of non-state forms of career guidance of students and the connection of their schooling with practice; timely response of the education system to changes in the structure and labor market; use of the competence approach in pre-vocational and professional training of youth; psychological and pedagogical support of the process of choosing a future profession for a young person in the context of solving a broader problem of preparation for choosing a professional career.*

KEYWORDS: Content, Principles, Process, Profession, Career Counselors.

INTRODUCTION

At the present stage young people in the United States face new challenges in terms of maintaining their own competitiveness and mobility in lifelong employment. New requirements for the professional development of the younger generation have led to a rethinking of the activities of career guidance and counseling services.

Our analysis confirms that American society has always been aware that education is the driving force of progress, one of the main conditions for the development of the state. Evidence of this is the authoritative assessment of leading American economists and sociologists

(H. Becker, D. Bell, R. Benket, J. Galbrate, E. Denison, H. Rogers, M. Savickas etc.) who prove that investment in education provides up to 40% of the actual achieved rate of economic growth: capital invested in people brings more profit and has a greater impact on production than capital invested in machinery and equipment (Savickas, 2019a).

The **aim** of the article is to examine the system of career guidance of high school students in the United States of America.

METHODOLOGY

The process of career guidance work in the USA, the structure of secondary education in the USA, the role of career counselors, the principles of professionography, three

stages in the work of counselors in the United States of America have been analysed.

In order to analyse the general system of professional self-determination of students in secondary schools in the United States, it is advisable to consider the structure of secondary education in this country. The 10 participants in the action research were career counselors from the USA.

RESULTS

Secondary education in the United States is compulsory and consists of different types of schools: public, private, and schools run by religious organizations. At the end of the twentieth century about 90% of students studied in public (free) educational institutions. The system of secondary education consists of primary (term of study 6 years in urban, 8 – in rural schools), secondary and high school (training lasts three years in each). The total term of study is 12 years. In order to optimize the transition of students from secondary to high school, earlier definition of profiling and in case of the absence of a unified school structure, the terms of study may change.

Thus, there is a reduction in primary education to 4-5 years, the duration of study in high school ranges from 2 to 4 years (Savickas, 2019b). Each state is responsible for running its own education system (Nalyvaiko et al., 2021). Taking into account the needs of the state, education policy is developed and directions for its implementation, which may differ from educational activities in other states. The central government in this area is represented by the Department of Education, the Board of Education and the authorized person (administrator of the Board of Education) who is responsible for school education (Brown, & Lent, 2013).

The main role in the coordination and management of career guidance and employment of students is played by employment services, education departments of individual states. Of great importance for the organization and conduct of this work are various councils of the association of representatives of business circles, members of communal communities.

The National Career Development Association (NCDA), which is a division of the American Counseling Association (ACA), plays a key role in providing career guidance.

The main practical work on career guidance among students is carried out by full-time career counselors who work full-time or part-time. The ratio of the number of counselors and students in schools is about 1: 430, in some areas it ranges from 1: 1000 to 1: 200 (in private schools on the outskirts of large cities). In most schools, career counselors have a degree in psychology and sociology or a teacher's degree (Tian et al., 2020).

Career guidance work begins in the last grades of primary school with the help of interviews to acquaint students with the "world of work". High school graduates fill out questionnaires to determine professional interests, participate in group or individual consultations and tests to determine their abilities.

Elements of the organizational structure of the US career guidance system include public and private employment agencies that provide career counseling, testing, and other forms of career guidance to jobseekers and, through career selection, provide candidates with vacancies. To provide career guidance and youth employment.

Employment agencies work with electronic banks, which contain data on

the availability of vacancies in each state, a description of the main mass occupations and a daily list of vacancies. This information is published in the agency's bulletins and is available to career counselors and those who need the agency's services.

Career guidance in the United States is a necessary component of general education and is controlled by the state. As already mentioned, career guidance is available in secondary schools. Specialists in psychology, psychodiagnostics and career guidance also give advice on choosing a profession based on professionograms (designed for 35,000 specialties). Professionography – a practical direction of the psychology of work, associated with the study of the requirements of a particular profession to personal qualities, psychological abilities and physiological capabilities of a person (Savickas, 2021).

The principles of professionography are: specificity of the description of a certain activity; step-by-step study of activity – procedural sequence of collection and analysis of material (stages: informational, analytical, synthetic, experimental, resulting); orientation of the description – compliance with specific objectives of the study and implementation of a specific practical task; selectivity of the object of study – concentration on the specifics of subject-object relationships, the most complex tasks of the labor process; multilevel study of subject-object relationships at all levels of the system of activity.

The principles are as well as dynamics of study – taking into account the development of the subject and changes in activities; systematic – the study of the relationships and interactions of individual components of activity at all its hierarchical levels; identity of methodical

methods and programs of study and description – for correct comparison of professions; the use of qualitative and quantitative methods of study – the complementarity of content and statistical information.

Professionograms can be divided into private and complex. Private professionograms are given from the point of view of one science (for example, psychology). If the psychological professionogram reflects only physiological, or sanitary-hygienic, or sociological, or technological-economic indicators, such a professionogram is classified as private (Savickas, 2019a).

The complex professionogram is a comprehensive description of the work, which collects the results of the professionography of all disciplines of ergonomics and relevant special disciplines (engineering, organization, economics). The characteristics contained in the professionogram are available to all professionals involved in its compilation, and can be used by them in their practical work.

Depending on the purpose of professionograms are divided into universal and special. A special professionogram is a highly specialized selection of the most important characteristics needed to solve a specific task to achieve a certain goal.

Universal professionograms contain information and characteristics of professional activity, valid for all types of work.

The classification of professions according to the subject, goals, means and working conditions has four tiers: classes of professions, departments of professions, types of professions, groups of professions (Savickas, 2019b).

The first tier distinguishes several types of professions. According to the subject of work, all professions are divided into

bionomic (nature), technomic (technique), sign (signs), arthonomic (artistic images) and socionomic (human interaction). Depending on this, five areas of professional activity are identified:

1. "Man – living nature". Representatives of this type of professions deal with plant and animal organisms, microorganisms and the conditions of their existence (agronomist, zootechnician, veterinarian, microbiologist).
2. "Man – man". The subject of interest, service, recognition, transformation here are social systems, communities, groups, people of all ages (doctor, teacher, social worker).
3. "Man – technology" and inanimate nature. Workers deal with technical objects of work (electrician, engineer, technologist).
4. "Man is a sign system". Natural and artificial languages, symbols, symbols, numbers, formulas (camera operator, programmer, mathematician, publisher, linguist).
5. "Man is an artistic image". Phenomena, facts of artistic reflection of reality. Representatives of professions of this type – decorator, painter-restorer, tuner of musical instruments, concert performer, ballet dancer, actor of drama theater.

These five types of professions are divided into three classes (second tier):

- 1) gnostic professions;
- 2) transformational professions;
- 3) exploratory professions.

On the basis of basic tools, means of labor within each class there are four departments (third tier):

- 1) the profession of manual labor;
- 2) the profession of machine labor;

- 3) professions related to the use of automated and automatic systems;
- 4) professions related to functional means of labor.

According to the working conditions of the profession can be divided into four groups (fourth tier):

- 1) work in a microclimate close to household: laboratory assistants, accountants, computer operators;
- 2) work related to being outdoors in any weather: agronomist, installer of steel and reinforced concrete structures, inspector of the State Traffic Inspectorate;
- 3) work in unusual conditions, at height, underground, under water, at high and low temperatures: antenna mast, diver, combine operator, firefighter;
- 4) work in conditions of increased moral responsibility for the life and health of people – adults or children, great material values: preschool teacher, teacher, doctor, investigator.

Work begins on career guidance in preschool age (from 5 years). As already mentioned, counselors teach to communicate with people (the course "Make friends with people"), because 77% of layoffs, according to experts in engineering psychology, are due to inability to build relationships. In addition, there is one psychologist per 4,000 students in US schools (Savickas, 2021).

Conduct role-playing games and socio-dramas "Orientation", "Life Planning" and more. Acquaintance with professions takes place at lessons of labor training (1/10 of time is allocated for acquaintance with specialties on processing of a tree, metals and other materials) and in the course of labor activity of schoolboys. There are private institutions and special state

centers of career guidance at colleges and universities.

The US Board of Education has a special department for career guidance and counseling. The Career Development program includes: identifying the necessary knowledge to achieve a career in all academic subjects, meeting with representatives of various professions, visiting companies and jobs, gaining work experience, using special career centers.

Further education takes place in secondary and high school. High school students even study in separate buildings. In addition to the minimum required subjects, high school students have the opportunity to choose additional classes on their own. Testing helps teenagers to make this choice. For example, the David Carey test, which looks like a standardized questionnaire and is used to select candidates for a vacancy, consists of 70 statements, each with two options for continuing an unfinished sentence.

The student has to read the sentence, choose one of the options, enter these results in the registration form. After filling in this form, the calculation of four indicators on the appropriate scales, as well as determines the total indicator of the typological features of the individual. These indicators determine the appropriate socionic type. You get a detailed description of your individual character traits, strengths and weaknesses. Once the student has determined his / her abilities, level of physical and mental training, he / she should get as much information as possible about the professions, from which he / she will then choose his / her own (Savickas, 2019a).

Occupations are divided into two interests: interpersonal relationships and non-human occupations, such as science or

outdoor work. But the main thing is that future specialists have a real opportunity to try themselves in business, to pass a professional test – for example, to practice in a kindergarten, hospital or workshop. Adolescents regularly visit training and production plants, where they have the opportunity to choose classes according to their inclinations. If you do not like the chosen specialty – it's not a problem, you will be offered the second, and then the third. The main thing is that the student's inclinations and his idea of the profession eventually coincide with the requirements of the chosen profession. Moreover, every school holds an open day every month to meet with potential employers.

Also, in recent years in the United States there is a trend towards closer cooperation between schools and universities. Each college and university has a whole Career Development department or center in its structure. A new type of class has emerged in high school that prepares students for entrance exams. Most universities consider a good grade in this course as an introductory course in a relevant subject. Interestingly, even when entering the university, the applicant may not be determined with a particular faculty. The student can choose his specialization only at the end of the first and sometimes even the second year.

Career guidance does not lose its importance in employment. Back in the 1980s, US economists noted that if professional selection was not conducted when hiring employees, the turnover of staff would reach 50% of the recruited staff in just one year. Americans leave their jobs because they understand their unfitness for work or banal dissatisfaction with their work. At the same time, career guidance, which costs only a few percent of the cost of retraining an employee, halves the

number of redundancies for these reasons.

DISCUSSION

The findings raise three questions, strongly related to the research question, that will be addressed in this section. The first: *In what way do career counselors work in the United States?* The second: *Is professional counseling different at each of the stages?*

There are three stages in the work of career counselors in the United States:

1. Preparatory career counseling should lead students to a conscious choice of profession, it is conducted throughout the school period.
2. The purpose of the final professional consultation – to provide assistance in choosing a profession in accordance with the interests, inclinations and psychophysiological abilities of the student. This consultation is conducted by career counselors together with school teachers.
3. Clarifying career counseling often goes beyond the school and is carried out in secondary vocational schools, universities, enterprises, etc.

At each of these stages, professional counseling is different.

At the first stage, preparing students to choose a profession is impossible without the development of self-esteem and positive personality traits. Thus, professional consultation, first of all, has developmental character. If the student has already developed interests that correspond to his abilities, the task of career counselors, teachers is to guide him.

In the second stage, career guidance is of a recommendatory nature and solves the following main tasks: compliance with the

requirements of the chosen profession, psychological readiness of the individual to master the chosen profession, background information about the content and nature of work, opportunities for special education, training and employment.

For psychological and pedagogical consultation use the data of preliminary professional diagnosis of the student's personality. Medical counseling is provided in advance to enable the adolescent to make the right choice of profession, taking into account the state of their health and the requirements of the profession. This work is carried out with the participation of a school doctor and other medical staff.

Some professions place increased demands on the psychological characteristics of the individual. The inconsistency of the personal qualities of the employee to the requirements of the profession can lead to overload of the nervous system, and sometimes to disease.

In that case, if after comparing the medical and psychological-pedagogical examination of the student with his professional orientation contraindications are found, the career counselor must tactfully and conclusively explain to him the impossibility of his choice of profession and recommend another profession. At the same time, it is necessary to make sure that the recommended profession does not conflict with the inclinations and abilities of the student, but in some way corresponds to them.

The last stage of career counseling is related to the transferring of the student to a vocational school or directly to work. It can also be called formative, because the main task at this stage is to help a young person to establish himself in a

professional choice. During the years of study at the school, students get acquainted with the future conditions of their activities, preparing to continue their studies or get a job.

CONCLUSION

Describing the system of career guidance of students in the United States of America it was concluded that in modern American pedagogy features of career guidance of students in secondary schools in the United States are: the degree of professional self-determination;

strengthening the role of non-state forms of career guidance of students and the connection of their schooling with practice; timely response of the education system to changes in the structure and labor market; use of the competence approach in pre-vocational and professional training of youth; psychological and pedagogical support of the process of choosing a future profession for a young person in the context of solving a broader problem of preparation for choosing a professional career, etc.

CONFLICT OF INTERESTS

There is no conflict of interest for this study.

FUNDING

There is no funding for this study.

REFERENCES

- Amundson, N.E., Harris-Bowlsbey, J.A., & Niles, S.G. (2013). *Essential Elements of Career Counseling: Processes and Techniques* (3rd ed.). Pearson Education.
- Bolles, R.N. (2013). *What color is Your Parachute?: A Practical Manual for Job-Hunters and Career-Changers*. Ten Speed Press.
- Brown, S.D., & Lent, R.W. (2013). *Career Development and Counseling: Putting Theory and Research to Work* (2nd ed.). Wiley.
- Castellanos Rodríguez, R., Baute Rosales, M., & Chang Ramírez, J. A. (2020). Orígenes, desarrollo histórico y tendencias de la orientación profesional. *Revista Universidad y Sociedad*, 12(5), 269-278. <http://scielo.sld.cu/pdf/rus/v12n5/2218-3620-rus-12-05-269.pdf>
- Chin, M. Y., Blackburn Cohen, C. A., & Hora, M. T. (2019). Examining US business undergraduates' use of career information sources during career exploration. *Education + Training*, 62(1), 15-30. <https://doi.org/10.1108/et-05-2019-0103>
- El-Sofany, H. F., & El-Seoud, S. A. (2020). Educational and Career Guidance Cloud-Based System to Improve Learning Outcomes. In M. Auer, H. Hortsch, P. Sethakul (Eds.) *The Impact of the 4th Industrial Revolution on Engineering Education. ICL 2019. Advances in Intelligent Systems and Computing*, vol. 1134 (pp. 346-357). Springer. https://doi.org/10.1007/978-3-030-40274-7_35
- Fischer, A., & Winch, C. (2022). Vocational Guidance and Vocational Counsellors (1920). *Journal of Philosophy of Education*, 56(3), 450-466. <https://doi.org/10.1111/1467-9752.12672>

- Fogg, N., Harrington, P., & Harrington, T.F. (2012). *College Majors Handbook with Real Career Paths and Payoffs: The Actual Jobs, Earnings, and Trends for Graduates of 60 College Majors* (3rd ed.). JIST Works.
- Maree, J.G. (Ed.). (2019). *Handbook of Innovative Career Counselling*. Springer Cham. <https://doi.org/10.1007/978-3-030-22799-9>
- McMahon, M., & Watson, M. (2020). Career Counselling and Sustainable Decent Work: Relationships and tensions. *South African Journal of Education*, 40(Suppl 1), 1-9. <https://doi.org/10.15700/saje.v40nsla1881>
- Nalyvaiko, O., Khomenko, A., Vereshchak, D., & Poliakov, D. (2021). Comparative Analysis of Distance Learning Systems in the United Arab Emirates and the United States of America. *Educational Challenges*, 26(1), 74-85. <https://doi.org/10.34142/2709-7986.2021.26.1.07>
- Niles, S.G. & Harris-Bowlsbey, J.E. (2012). *Career development interventions in the 21st century* (4th ed.). Pearson.
- Pollak, L. (2012). *Getting from College to Career: Your Essential Guide to Succeeding in the Real World*. Harper Business.
- Reason, P. (2006). Choice and Quality in Action Research Practice. *Journal of Management Inquiry*, 15(2), 187–203. <https://doi.org/10.1177/1056492606288074>
- Rehfuss, M. C., Cosio, S., & Corso, J. (2011). Counselors' Perspectives on Using the Career Style Interview with Clients. *The Career Development Quarterly*, 59(3), 208–218. <https://doi.org/10.1002/j.2161-0045.2011.tb00064.x>
- Savickas, M. L. (2013). The 2012 Leona Tyler Award Address: Constructing Careers – Actors, agents, and authors. *The Counseling Psychologist*, 41(4), 648–662. <https://psycnet.apa.org/doi/10.1177/0011000012468339>
- Savickas, M. L. (2015a). Career Counseling Paradigms: Guiding, Developing, and Designing. In P. J. Har-tung, M. L. Savickas, & W. B. Walsh (Eds.), *APA handbook of career intervention, Vol. 1. Foundations* (pp. 129–143). American Psychological Association. <https://psycnet.apa.org/doi/10.1037/14438-008>
- Savickas, M. L. (2015b). *Life-Design Counseling Manual*. Mark L. Savickas.
- Savickas, M. L. (2019a). *Career Construction Counseling Manual*. M. L. Savickas.
- Savickas, M. L. (2019b). *Career Counseling* (2nd ed.). American Psychological Association. <https://doi.org/10.1037/0000105-000>
- Savickas, M. L. (2021). Career Construction Theory and Counseling Model. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (3rd ed.) (pp. 165–199). Wiley. URL: https://www.hzu.edu.in/uploads/2020/9/Career%20Development%20and%20Counseling_%20Putting%20Theory%20and%20Research%20to%20Work.pdf
- Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J.-P., Duarte, M. E., Guichard, J., Soresi, S., Van Esbroeck, R., & van Vianen, A. E. M. (2009). Life designing: A paradigm for career construction in the 21st Century. *Journal of Vocational Behavior*, 75(3), 239–250. <https://doi.org/10.1016/j.jvb.2009.04.004>

- Supriyanto, G., Widiaty, I., Abdullah, A. G., & Yustiana, Y. R. (2019). Application expert system career guidance for students. *Journal of Physics: Conference Series*, 1402(6), 066031. <https://doi.org/10.1088/1742-6596/1402/6/066031>
- Tian, X., Hou, Z. J., Wang, D., Savickas, S., Chang, X., Cao, Y., & Jia, Y. (2020). Counselor actions to facilitate client change during life-design counseling. *The Career Development Quarterly*, 68(1), 48–62. <https://doi.org/10.1002/cdq.12212>

АНОТАЦІЯ / ABSTRACT [in Ukrainian]:

**СИСТЕМА ПРОФЕСІЙНОЇ ОРІЄНТАЦІЇ ШКОЛЯРІВ
У СПОЛУЧЕНИХ ШТАТАХ АМЕРИКИ**

У цій статті **за мету** взято розгляд системи професійної орієнтації школярів у Сполучених Штатах Америки.

Методика базується на аналізі процесу профорієнтаційної роботи в США, структурі середньої освіти в США, ролі кар'єрних радників, принципах професіографії, трьох етапах роботи консультантів у США. З метою аналізу загальної системи професійного самовизначення учнів загальноосвітніх шкіл США розглянуто структуру середньої освіти цієї країни. 10 учасників дослідження були кар'єрними радниками зі США.

Результати. Визначено, що головну роль у профорієнтації відіграє Національна асоціація розвитку кар'єри. Проаналізовано структуру середньої освіти в США, роль профконсультантів, принципи професіографії, три етапи роботи профконсультантів у США.

У статті з'ясовано, що середня освіта в Сполучених Штатах Америки є обов'язковою і складається з різних типів шкіл: державних, приватних і шкіл, які керуються релігійними організаціями. Зауважено, що наприкінці ХХ століття близько 90% учнів навчалося в державних (безкоштовних) навчальних закладах; система середньої освіти складається з початкової, середньої та старшої школи; загальний термін навчання 12 років. Зазначено, що з метою оптимізації переходу учнів із загальноосвітньої школи в старшу, школи можуть змінювати терміни навчання. Так, відбувається скорочення початкової освіти до 4-5 років, тривалість навчання в старшій школі коливається від 2 до 4 років.

Основну роль у координації та управлінні профорієнтацією та працевлаштуванням учнів відіграють служби зайнятості, управління освіти окремих штатів. Велике значення для організації та проведення цієї роботи мають різні ради асоціації представників бізнесу, членів комунальних громад.

З'ясовано принципи професіографії: конкретність опису певної діяльності; поетапне вивчення діяльності – процесуальна послідовність збору та аналізу матеріалу спрямованість опису – відповідність конкретним цілям дослідження та виконання конкретного практичного завдання; вибірковість об'єкта дослідження – зосередженість на найскладніших завданнях трудового процесу; динаміка навчання –

врахування розвитку предмета та змін у діяльності; системність – вивчення взаємозв'язків і взаємодії окремих компонентів діяльності на всіх її ієрархічних рівнях; тотожність методичних прийомів і програм навчання та опис для коректного порівняння професій; використання якісних і кількісних методів дослідження – взаємодоповнення змісту та статистичної інформації.

Зроблено **ВИСНОВОК**, що ознаками профорієнтації є: ступінь професійного самовизначення; посилення ролі недержавних форм профорієнтації учнів та зв'язку їх навчання в школі з практикою; своєчасне реагування системи освіти на зміни в структурі та ринку праці; використання компетентнісного підходу в допрофесійній та професійній підготовці молоді; психолого-педагогічний супровід процесу вибору молоддю людиною майбутньої професії в контексті вирішення більш широкої проблеми підготовки до вибору професійної діяльності.

КЛЮЧОВІ СЛОВА: зміст, принципи, професія, професійні консультанти, процес.

CITE THIS ARTICLE AS (APA style):

Zahrebniuk, Y. (2023). The System of Career Guidance for High School Students in the United States of America. *Educational Challenges*, 28(1), 188-198. <https://doi.org/10.34142/2709-7986.2023.28.1.15>



Scientific International Journal

EDUCATIONAL CHALLENGES

Volume 28, Issue 1, 2023

FOUNDER and PUBLISHER:

H. S. Skovoroda Kharkiv National Pedagogical University

JOURNAL LISTED/INDEXED BY:

ERIH PLUS, Index Copernicus, Open Ukrainian Citation Index (OUCI),
Google Scholar, ROAD, Crossref, OpenAIRE, Scilit, Sherpa Romeo,
LOCKSS, Vernadsky National Library of Ukraine.

EDITOR-IN-CHIEF:

Ilona KOSTIKOVA

DEPUTY EDITOR:

Emerson Abraham JACKSON

TECHNICAL EDITOR:

Victor CHETVERYK

PUBLISHER'S ADDRESS and EDITORIAL BOARD'S ADDRESS:

H.S. Skovoroda Kharkiv National Pedagogical University,
Alchevskyh str., 29, Kharkiv, 61002, Ukraine.

E-MAIL:

educationalchallengesjournal@gmail.com

OFFICIAL WEBSITE:

<http://educationalchallenges.org.ua/>

Харківський національний педагогічний університет
імені Г.С. Сковороди.
Україна, 61002, м. Харків, вул. Алчевських, 29.

