

WSA

Nr 85

**ZESZYTY
NAUKOWE**

**Wydawnictwo Wyższej Szkoły Agrobiznesu
w Łomży**

NAUKI SPOŁECZNE I HUMANISTYCZNE

2022

ISSN 2300-3170



Wydawnictwo Wyższej Szkoły Agrobiznesu w Łomży

Seria:

Zeszyty Naukowe

Nr 85

NAUKI SPOŁECZNE I HUMANISTYCZNE

Redaktor prowadzący: **dr Wiesław Zawadzki**

Łomża 2022

**WYŻSZA SZKOŁA AGROBIZNESU W ŁOMŻY
ACADEMY OF AGROBUSINESS IN LOMZA**

RADA NAUKOWA:

prof. zw. dr hab. Zofia Benedycka - Wyższa Szkoła Agrobiznesu w Łomży, **prof. nadzw. dr hab. Roman Engler** - Wyższa Szkoła Agrobiznesu w Łomży, **prof. nadzw. dr hab. n. med. Jacek Ogrodnik** - Wyższa Szkoła Agrobiznesu w Łomży, **gen. prof. zw. dr hab. n. med. Jan Krzysztof Podgórski** (Warszawa), **prof. zw. dr hab. Franciszek Przala** - Wyższa Szkoła Agrobiznesu w Łomży, **prof. zw. dr hab. Czesław Miedziałowski** - Politechnika Białostocka, Wyższa Szkoła Agrobiznesu w Łomży, **dr Krzysztof Janik** - Krakowska Akademia im. Andrzeja Frycza Modrzewskiego, **plk dr hab. Tomasz Kośmider**, **prof. ASzWoj.** - Akademia Sztuki Wojennej, **prof. dr hab. Śeljuto Bronislava Vasilevna** - Uniwersytet Rolniczy w Mińsku (Białoruś), **dr hab. Gabliowska Nadeżda** - IwanoFrankowski Uniwersytet Nafty i Gazu (Ukraina), **prof. zw. dr hab. Povilas Duchovskis** Oddział Rolnictwa i Leśnictwa Litewskiej Akademii Nauk (Wilno – Litwa), **prof. zw. dr hab. n. med. Eugeniusz Tiszczenko** – Uniwersytet Medyczny w Grodnie, (Grodno – Białoruś), **dr John Mulhern** - Ogród Botaniczny Dublin (Cork – Irlandia), **prof. dr hab. Jan Miciński** – Uniwersytet Warmiński - Mazurski w Olsztynie, **dr hab. Sławomir Kocira** - Uniwersytet Przyrodniczy w Lublinie, **prof. dr hab. Bożena Łozowicka** - Instytut Ochrony Roślin w Poznaniu, **prof. dr hab. Edward Gacek** - Centralny Ośrodek badania Odmian Roślin Uprawnych, **prof. zw. dr hab. Leonid Kompanets** – Uniwersytet Łódzki, **dr hab. Edward Oczeretko** - Politechnika Białostocka, **prof. zw. dr hab. inż. Przemysław Rokita** – Politechnika Warszawska, **prof. zw. dr hab. Czesław Miedziałowski** - Politechnika Białostocka, **prof. dr hab. Wacław Romaniuk** - Instytut Technologiczno Przyrodniczy w Falentach, **prof. dr hab. Stanisław Benedycki** - Wyższa Szkoła Agrobiznesu w Łomży, **prof. zw. dr hab. n. med. Zbigniew Puchalski** – Wyższa Szkoła Medyczna w Białymstoku, **prof. dr hab. Michał Gnatowski** - Wyższa Szkoła Agrobiznesu w Łomży, **dr hab. inż. Zbigniew Zbytet** **prof. PIMR** – Przemysłowy Instytut Maszyn Rolniczych, **dr hab. Mariola Grzybowska–Brzezińska** – Umniwersytet Warmińsko-Mazurski w Olsztynie, **dr hab. Agnieszka Brelik** – Zachodniopomorski Uniwersytet Technologiczny w Szczecinie

KOMITET REDAKCYJNY

Redaktor naczelny - **dr inż. Piotr Ponichtera**, Sekretarz - **dr inż. Jolanta Puczel**, Redaktor statystyczny – **dr hab. Dariusz Załuski**, Redaktor językowy – **mgr Alina Brulińska**, Redaktor językowy – **mgr Irina Kultijasowa (język angielski)**, Redaktor językowy – **mgr Irina Kultijasowa (język rosyjski)**, Redaktor techniczny: **dr inż. Piotr Ponichtera**

NAUKI SPOŁECZNE I HUMANISTYCZNE

Redaktor prowadzący:

dr Wiesław Zawadzki

RECENZENCI:

dr hab. Andrzej Borusiewicz prof. WSA
dr Agnieszka Łapińska
dr Grzegorz Olszewski
dr Iwona Borawska
dr inż. Ireneusz Żuchowski

**ZESZYTY NAUKOWE
WYŻSZA SZKOŁA AGROBIZNESU W ŁOMŻY**

Skład wykonano z gotowych materiałów dostarczonych przez Autorów.
Wydawca nie ponosi odpowiedzialności za dostarczony materiał graficzny.

ISSN 2300-3170

**Copyright © by Wyższa Szkoła Agrobiznesu w Łomży
Łomża 2022**

Wszelkie prawa zastrzeżone. Publikowanie lub kopiowanie w części lub w całości
wyłącznie za zgodą Wydawcy.

Wydawnictwo Wyższej Szkoły Agrobiznesu w Łomży
18-402 Łomża, ul. Studencka 19
Tel. +48 (86) 216 94 97, fax +48 (86) 215 11 89
E-mail: rektorat@wsa.edu.pl

SPIS TREŚCI

1. Vladyslava Berezhok	Pedagogical conditions of definitive formation interrelation of environmental and aesthetic education under senior pupils.....6
2. Oksana Dobrovol'ska	Digital competences as basis of vocational training of experts of an engineering profile.....20
3. Viacheslav Gerasymenko	Methods of conducting excursions to the enterprise for better mastering of the discipline „Fundamentals of power supply”.....32
4. Halyna Hrymashevych	Educational component „ukrainian dialectology” in the context of training of future teachers of ukrainian language and literature.....45
5. Inna Yakivna Hubenko	Organization of the student scientific society's work in the conditions of distance learning.....55
6. Maryna Ishchenko	Competence approach in teaching mathematics in colleges.....67
7. Liubov Bashmaniv'ska	The epistolary heritage of Lesia Ukrainka as a means of forming literary competence.....76
8. Tetiana Mahdych	Application of case-method for the purpose of formation of civic competence of lyceum students in the process of learning the Ukrainian language.....82
9. Nataliia Maiborodina	Development of student’s creative thinking at the study of discipline “Higher mathematics”.....93
10. Oleksii Bashmanivskii	Practical aspects and methods of teaching English to the students of philology and journalism104
11. Olha Orel	New IT Technologies in Railway Transport.....110
12. Nataliia Shurkhno	Formation of communicative competence of students of 8-9 grades in the process of learning the Ukrainian language: a media educational approach120
13. Oksana Shut	Actual aspects of competent approach in higher education of Ukraine.....126

14. Kostyantyn Simakov	
Features of teaching analytical and accounting disciplines in higher education institutions.....	135
15. Olena Solodovnyk	
Information and digital competence of a teacher of Novograd-Volynskiy Medical Applied College in the conditions of blended learning as a component of professional growth.....	144
16. Viacheslav Tsyhanskyi	
Methodical substantiation of the organization European Credit Transfer and Accumulative systems in the teaching of agricultural disciplines.....	153
17. Tetiana Mishchenko	
Applying information and communication technologies for practical sessions on Medical and Biological Physics: experience and new opportunities.....	165
18. Nataliia Storozhuk	
Assessment of academic mobility as a basis for acquisition of multicultural skills.....	176
19. Tetiana Turbar	
Theoretical substantiation of the pedagogical conditions for developing environmental competence of future primary school teachers.....	185
20. Daria Velykzhanina	
Diagnosis of future social educators and primary school teachers readiness to professional interaction.....	196
21. Viktoriia Vertegel	
Issues of internationalization and academic mobility in Ukraine.....	211
22. Svitlana Vitvytska	
Pedagogical mastery of an educator of a higher education institution in the context of the ideas of outstanding Ukrainian teachers.....	223
23. Lesia Yashchuk	
Male names in Volyn literature heritage sites of the 16th century.....	237
24. Wiesław Zawadzki, Mariusz Kozikowski	
Zadania Żandarmerii Wojsłowej w obszarze bezpieczeństwa państwa i porządku publicznego.....	243
Tasks of the Military Police in the area of state security and public order	
Regulamin nadsyłania i publikowania prac w Zeszytach Naukowych WSA	258
Wymagania wydawnicze - Zeszyty Naukowe WSA	260
Procedura recenzowania prac naukowych nadsyłanych do publikacji	
w Zeszytach Naukowych Wyższej Szkoły Agrobiznesu	262
Załącznik nr 1 - oświadczenie autora	263
Załącznik nr 2 - deklaracja konfliktu interesów	264

Vladyslava Berezhok¹

ORCID ID: <https://orcid.org/0000-0003-0435-9232>

¹ Professional College of the Kyiv Institute of Intellectual Property and Law of the National University “Odessa Law Academy”

PEDAGOGICAL CONDITIONS OF DEFINITIVE FORMATION INTERRELATION OF ENVIRONMENTAL AND AESTHETIC EDUCATION UNDER SENIOR PUPILS

Summary

The article is concerned with the signification of the pedagogical conditions of definitive interrelation formation of environmental and aesthetic education under senior pupils. The conditions, which assure the interrelation of environmental and aesthetic education, are: personal and practical, material and technical, psychological, methodical and those, which improve the interrelation of environmental and aesthetic education under senior pupils influence on the nature protection activities, which are social and economic, psychological and pedagogical, sanitary and hygienic.

Keywords: interrelation, environmental education, aesthetic education, environment, pedagogical conditions, nature protection activities, senior pupils, formation.

Introduction

The environmental education of senior pupils, which supposes the nature protection activities, is one of the most important ways of a stable social and economical state prosperity supporting. It serves for education of pupil`s manners, the formation of his active civic position and a wish to save the environment.

The main personal qualities of up-to-date personality are the ability to feel nature beauty and desire to save it. The nature protection is performed not only for its usage but also for its development.

It appears a requirement in upbringing of principled, educated generation, which is able to solve the complicated issues of cooperation between human and environment; upbringing of ecological and aesthetic culture. It's well-known that an inseparable relation between ecology and culture exists, which lies in quality of cooperation between humans and environment and which always has to reflect a proper level of education.

Object consists of proof and experimental check of pedagogical conditions of definitive interrelation formation of environmental and aesthetic education under senior pupils.

Subject is pedagogical conditions of interrelation of environmental and aesthetic education under senior pupils.

Research methods are *theoretical* – an analysis of the scientific, psychological and pedagogical, methodical literature; *empiric* – questionnaire, testing, conversations with pupils and teachers, pedagogical observation, fulfillment of practical creative tasks, pedagogical experiment; *mathematical and statistical* – handling of data, analysis and results evaluation, which were received while the experiment.

Research results

One of the research targets of definitive interrelation formation of environmental and aesthetic education is marking of pedagogical conditions, which arrange the interrelation of environmental and aesthetic education and those conditions, which attend the formation of environmental and aesthetic education.

O. Hroshovenko (2007), O. Kolonkova (2003), Ya. Logvinova (2004, p. 15) pay attention to the questions of environmental education and partially aesthetic education as basic conditions and highlight the following: 1) acquiring of environmental and aesthetic knowledge of senior pupils on the practical and activity basis; 2) creation of emotionally valuable communication basis of senior pupils with nature tasked to improve the empathic reaction on its pain points; 3) usage of pedagogically based examples of friendly and aesthetic attitude of human to the nature; 4) subjection to the educational process of valuable attitude to the nature of senior pupils with aim of self-development; 5) taking into account the specific character of educational environment and providing with the understanding of interdependence under senior pupils between local, regional and global environmental problems; 6) creation of value-based and motivational environment; 7) stimulation for activity, independence, self-development of the young people, also participation in ecological and aesthetic scientific researches.

K. Magrlamova (2011), N. Nemchenko (2007, p. 16), N. Oliinyk (2005, p. 15), T. Puzyr (2016) add to the above described conditions the following: 1) taking into account the unity of the goal and subject of teaching and educational process; 2) motivation of all parties of educational process in consequence of definition of aim, values, norms, orders, principles, ways of educational process in middle school according to the needs, abilities, interests of children and teachers of aesthetic attitude to the environment; 3) taking into account for teachers and educators in teaching and educational process of learner-centered approach, consistency, order and logical connection of educational ecological-and-aesthetic events and focus of nature protection activities on the upbringing of value-based attitude of senior pupils to the nature; 4) creation of comfortable psychological microclimate of educational or non-academic institution environment; 5) organization of ecologically and aesthetically based scientific and research activities system for senior pupils based on individual and creative approaches; 6) task-oriented plan of ecological and aesthetic educational environment; 7) providing with positive motivation of pupils for environmental and aesthetic culture.

With the view to research an attitude of young people to nature protection, understanding of interrelation of ecological and aesthetic parts in nature, also pedagogical conditions, we have made a survey and observation under senior pupils, teachers and educators in three regions: Kyiv region (“The educational and coordinating centre Akkord” (private entrepreneur “Mediana”)) – **group A**, Sumy region (Konotop secondary school levels I through III No. 7 and No.12) – **group B** and Chernihiv region (Nizhyn secondary school levels I through III No.1 and No.2) – **group C**. The pupils were suggested to take part in a survey and testing. In general 1016 people took part at the research. 49 teachers and educators took part in the project. 11 of them are from Kyiv region (**group A**), 18 are from Sumy region (**group B**) and 20 are from Chernihiv region (**group C**).

During the research we have marked the groups of pedagogical conditions, which supported the interrelation of ecological and aesthetic education and conditions, which improve the influence of ecological and aesthetic education interrelation of senior pupils on nature protection activity.

Table No. 1. Pedagogical conditions

Pedagogical conditions	
Conditions, which support the interrelation of ecological and aesthetic education of senior pupils:	Conditions, which raise the influence of the interrelation of ecological and aesthetic education of senior pupils on the nature protection activities:
1. Personal and practical	1. Socio-economical
2. Material and technical	2. Psychological and pedagogical
3. Psychological	3. Sanitary and hygienic
4. Methodical	

Lets describe the conditions, which support the interrelation of environmental and aesthetic education under senior pupils, they are:

1. Personal and practical: 1) the understanding by senior pupils of the aim and social necessity of environmental and aesthetic education while nature protection activity; 2) getting of aesthetic pleasure from participation in nature protection activities process and from its realization; 3) taking into account the specification of senior pupils environment; 4) getting system of ecological practically based knowledge; 5) motivation to activity, independence, self-development of young people and to scientific research work; 6) providing with understanding by pupils of causal-consecutive connections in interrelation with nature.

The own observations showed that such conditions help to create the kindly educational environment for: the formation of personal qualities of pupils in process of extra-curricular educational activities based on the participation of senior pupils in nature protection activities with the help of activation and motivation regarding importance of its fulfillment; independence development of senior pupils while extra-curricular educational activities regarding nature protection; formation of pupils` self-direction in process of nature protection activities; formation of creativity, aesthetic sense, ethical and legal norms of nature protection activity.

While the acquisition of knowledge process study we based on the opinion of S. Rubinshtein, whereby the process consists of four stages: perception → understanding → revision → practice (usage of knowledge in different situations). In such case it depends specifically on the correctly organized interrelation of educational and teaching process parties and the readiness of the pupil to the constructional changes, if the senior pupils will be able to use the knowledge effectively as practical skills meaning the skills for fulfillment of nature protection activities.

Pedagogical efforts of the teaching and educational process parties have to be directed to the formation of the skills under senior pupils to relate an own ecological and aesthetic overview, ecological opinion, ecological roles, ability to resist the stereotypes, build relations

with nature, to rethink the own ecological experience based on the understanding of reasons, marks and consequences of positive or negative ecological behavior; to develop the necessity in ecological and aesthetic self-development; build an effective action plan on a way to the finding of harmony with the nature.

The core of the personal and practical pedagogical conditions is the formation of practical skills to fulfill the extra-curricular nature protection activity taking into account the interrelation of ecological and aesthetic education, usage of ecological knowledge in and out of school. Therefore, the formed skills in nature protection activity have a big importance for definite interrelation between ecological and aesthetic education.

2. Material and technical: 1) taking into account a set of external influence factors on formation of positive motivational ecological setting for self-development; 2) a goal-seeking planning of informational ecological educational environment; 3) set of arts usage as the way of understanding of aesthetic value of the nature; 4) material and technical support of teaching and education process and nature protection activity.

This conditions support the functionality of teaching educational process according to the formation of aesthetic rational behavior of senior pupils in nature, also the providing of extra-curricular nature protection activities (creation of proper labor conditions, providing with the place for creation of nature corners; scientific and research fields; computer recourses, information and material support; outfit; support with literature, tables, maquettes; raw material for planting, materials for creation of aesthetic atmosphere during the nature protection activities, also the materials for posters and rolls-up decoration; personal hygiene products; possibility to visit conservation areas, museums, live communication with the nurture outside of the city, possibility to organize camping trips etc.).

3. Psychological: 1) taking into account the age features of the pupils for more effective nature understanding; 2) formation of the ability of the pupils for self-analysis and self-evaluation of their cooperation with the nature. 3) creation of value-based, motivational and comfortable psychological communication climate as the specific form of subject – subject cooperation, creative cooperation between teachers and pupils of senior school in nature research and protection.

Such conditions take into account age and individual features of senior pupils, mark an aesthetic part in the organization of nature protection activity according to the cognitive interests (the cognitive, emotional, communication and character individual features conferred with each other; the interests can appear and change depending on cognitive needs, also form according to the next levels: involvement, curiosity, directed interest, liability to the informed

perception and self-understanding, creative exploration), skills and powers of senior pupils; desire for understanding (for example of natural objects and phenomena etc.), which make them to act and reach a goal, is forming during the development process of senior pupil under the influence of teaching and education interrelation; understanding of the necessity to teach such kind of activity; creation of proper comfortable psychological atmosphere for effective nature protection activities; making connection between process parties; ability to evaluate and analyze the own actions regarding nature protection.

4. Methodical: 1) unity of the pupil with different forms of cognitive nature protection activity; 2) definition and usage of the proper forms and methods of educational influence on senior pupils; 3) close connection of nature protection practice with life; 4) interrelation of the system “family and school environment” in contest of ecological and aesthetic upbringing; 5) taking into account of personal oriented approach, systematic approach, order and logical unity of pedagogical events of ecological topic at work of a teacher; 6) organization of ecologically-oriented scientific and research work of senior pupils based on individual and creative approaches; 7) to keep the continuousness of teaching and educational process in educational institution. The conditions above build a basis for the further development of interrelation of environmental and aesthetic education of senior pupils in non-academic activities and their readiness for nature protection activity; didactical and methodical support of extra-curricular nature protection educational process and its parties (senior pupils, teachers, experts in environment protection), familiarizing them with the problems of young generation preparation for nature protection activities, usage of forms and methods, which motivate the senior pupils to take part in environment protection. A child success depends in many cases on the ecological knowledge of a teacher. “Exactly the preparation of a teacher for ecological upbringing – says A. Beheka regarding this topic, - definitely focuses society efforts on the optimization of environment conditions” (p.34). The creation of ecologically-based and aesthetic-based school environment has to touch the functioning of all non-academic and out-of-school life according to the evolutionary regularities and principles of stable development. Introduction of ecological and aesthetic parts deals whether with learning activity or with extra-curricular activity of pupils, with the filling of ecologically and aesthetic valuable visual elements of school environment, organization of constructive communication between educational process parties. Ecologically- and aesthetic-based pedagogic practice has to be oriented not only towards aim, but also towards a process, which develops an independence and ecological activity of a pupil, self-determination of his/her position regarding the nature, getting experience of saving

resource use, proper skills of ecological interrelation with environment and aesthetic part during nature protection activities.

Therefore, such condition groups as personal and practical, material and technical, psychological and methodical build the connection between ecological and aesthetic education.

The research regarding the pedagogical conditions, which support the connection between ecological and aesthetic education of senior pupils (personal and practical, material and technical, psychological and methodical) gave the possibility to summarize the results of the groups A, B, C (table No. 2).

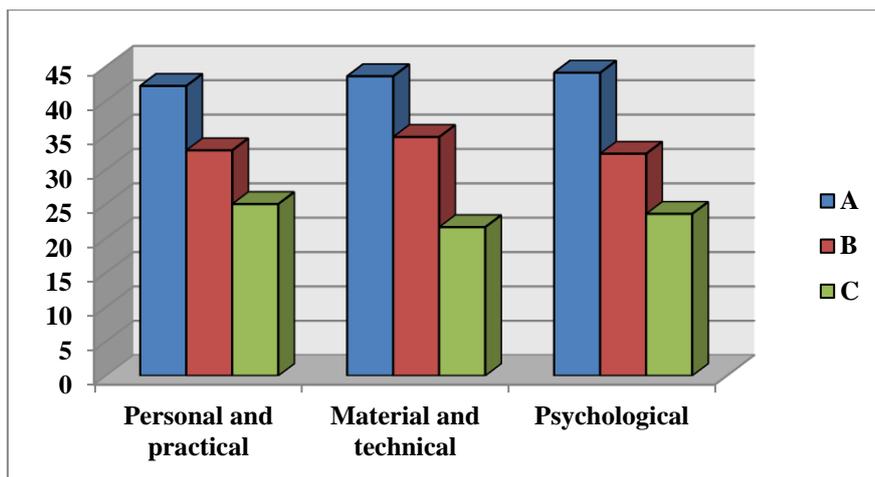
Table No. 2. Summarized results of the groups A-C regarding the pedagogical conditions, which supply with the interrelation of ecological and aesthetic education of senior pupils

№ п/п	Conditions	Group					
		A		B		C	
		quantity	%	quantity	%	quantity	%
1.	Personal and practical	54	42,19	143	43,60	247	44,11
2.	Material and technical	42	32,81	114	34,76	181	32,32
3.	Psychological	32	25,00	71	21,64	132	23,57
Only		128	100	328	100	560	100

Source: The educational and coordinating centre "Аkkord" (private entrepreneur "Mediana"; Konotop secondary school levels I through III No. 7 and No.12; Nizhyn secondary school levels I through III No.1 and No.2

We have analyzed the survey results and came to the conclusion that today the interrelation between ecological and aesthetic education is supplied mostly by the personal and practical conditions as indicated by 42,19 % of group A; 43,60 % of group B and 44,11 % of group C.

It directs the previous activity of extra-curricular work managers to support other pedagogical conditions on the proper working level. Graphical presentation of research results (picture 1).



Picture No. 1. Results of the groups research A-C regarding the pedagogical conditions, which supply with the interrelation of ecological and aesthetic education of senior pupils (%)

Source: Own survey on the basis of conducted research

According to the results the personal and practical conditions are prevalent in all groups of the research. The next are material and technical, the lowest result have psychological conditions.

We have acknowledged at the research that pedagogical conditions such as psychological, which supply the interrelation of ecological and aesthetic education under senior pupils, took the lowest percentage of respondents in all three groups (A, B, C).

According to **methodical conditions** it's necessary to describe how the educators' answers were divided. Among them are: positive, neutral and indifferent.

The answers went to the **positive** answers group, if they confirmed the educators' and teachers' unindifference regarding: the attitude of senior pupils to the nature; recognizing by senior pupils of aesthetics at the nature; understanding of the fact if the pupils prioritize time with discussions about literature, news, situations connected to nature protection during the lessons and at extra-curricular time or quite the opposite; interest of senior pupils on TV-programs, films about nature protection; inclusion of pupils to nature protection activities; the leading of workshops on the topic of ecology; organizing of excursions to the parks, forests, a river or a lake for children; including of nature protection activities to the out-of-class educative activity; an own support with programs about the providing possibilities of out-of-school activity regarding ecological activity for senior pupils; desire to get methodical support regarding interrelation of ecological and aesthetic education of senior pupils in extra-curricular nature protection activity.

The group of **neutral** answers is marked by middle interest of teachers and educators regarding: value-based attitude of pupils to the nature and nature objects; interest of pupils on

the ecological problems; understanding by pupils of participation importance in nature`s problems; interest of senior pupils to the TV-programs about nature conservation; possibility to accustom the pupils to nature conservation activities; necessity of inclusion of the pupils to workshops with the topic of ecology; organization of themed nature tours; participation in nature protection activity during out-of-school time; necessity to have all needed materials for organization of nature protection activity of senior pupils; some interest in getting of methodical support regarding ecological and aesthetic education during extra-curricular time.

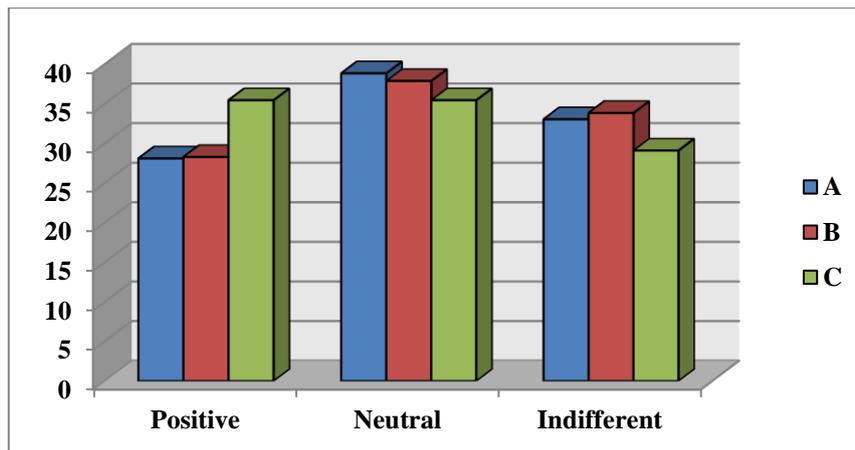
The group of **indifferent** answers can be described as an indifference of the teachers and educators to: attitude with care to the nature by senior pupils; pupils` feelings regarding ecological problems and their solving; the necessity for pupils to go deeper into the environment problems; deep interest of senior pupils in the environment problems with the help of TV-programs; teaching of the pupils to protect nature and its objects; necessity to involve of senior pupils into the nature protection workshops; organization of nature tours; participation in nature protection activities during extra-curricular time; all needed materials for organization of nature protection activities for senior pupils; getting of methodical support regarding ecological and aesthetic education during extra-curricular time. Division of the educators` answers (table No. 3.).

Table No. 3. Summarized results of the groups of answers A-C (among teachers and educators) regarding methodical conditions, which provide with the interrelation of ecological and aesthetic education of senior pupils

Conditions	Groups (teachers and educators)	Groups of answers					
		Positive		Neutral		Indifferent	
		quantity	%	quantity	%	quantity	%
Methodical	A	3	28,10	4	38,85	4	33,05
	B	5	28,28	7	37,88	6	33,84
	C	7	35,45	7	35,45	6	29,10

Source: The educational and coordinating centre "Akkord" (private entrepreneur "Mediana"); Konotop secondary school levels I through III No. 7 and No.12; Nizhyn secondary school levels I through III No.1 and No.2

Graphical presentation of research results (picture 2).



Picture No. 2. Results of the groups research A-C (among teachers and educators) regarding methodical conditions, which provide with the interrelation of ecological and aesthetic education of senior pupils (%)

Source: Own survey on the basis of conducted research

We have surveyed the teachers and should admit, that the results in all groups of answers are almost the same, but in the group C the group of positive answers prevails comparing with the groups A and B. In general, the group of neutral answers in all research groups is strongly demonstrated.

Marking the conditions which support the interrelation of ecological and aesthetic education of senior pupils, we have set an aim to identify the pedagogical conditions, which improve the influence of the interrelation of environmental and aesthetic education of senior pupils on the formation of readiness to nature protection activity.

Continuing characteristics of pedagogical conditions groups, which improve the influence of the interrelation of environmental and aesthetic education of senior pupils on the formation of readiness to nature protection activity, we have marked the following:

1. Socio-economical (understanding by the pupils of an aim, subject and social necessity of environmental and aesthetic education and nature protection activity; marking of the aesthetic aspect of environmental education and its importance during the nature protection activities; getting of the aesthetic satisfaction from the environment, which can be satisfied with the material and technical support and which can be supported only in case when a person does not think about the fact that it cannot be used for the money earning or career making; understanding of the fact that it's not allowed to skip the nature protection activity despite of the situation when it does not bring proper incomes; taking into account of the specific character and features of educational environment depending on the global ecological problems in the certain region has a direct impact on the process and results of nature protection activity).

2. Psychological and pedagogical (a necessity to take into account the age and individual features of pupils, who understand and acknowledge the environment differently according to their development stages; take into account the individual features, traits of character, interests, attitude to the nature and needs of a person, which appeared in the separate experience of some senior pupils; awareness of senior pupils about the point of interrelation between the environmental and aesthetic and the importance of nature protection activity; a usage of positive influence on mental and physical well-being of senior pupils; aesthetic pleasure and enjoyment from participation in ecological and aesthetic activities; identifying and usage of proper forms and methods of educational influence on senior pupils; the formation of pupils` capability for self-study and self-evaluation of their interrelation with the nature taking into account of its process and results).

3. Sanitary and hygienic (support with hygienic products, equipment according to such age group as senior pupils).

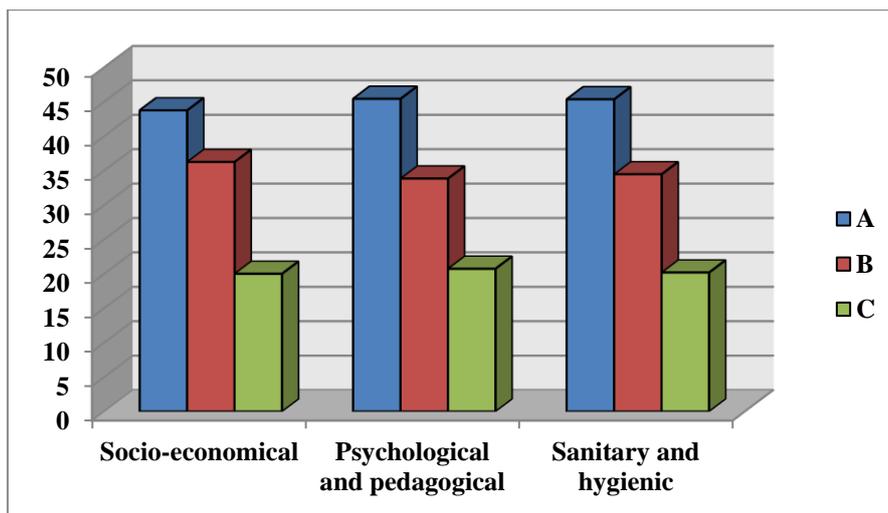
The research about the pedagogical conditions, which improve the influence of the interrelation between environmental and aesthetic education of senior pupils on the nature protection activity gave a possibility to summarize the results of the formed interrelation of ecological and aesthetic education of senior pupils (table No. 4.).

Table No. 4. Summarized results of the groups A – C regarding the pedagogical conditions, which intensify the influence of the environmental and aesthetic education interrelation of senior pupils on the nature protection activity

№ п/п	Умови	Group					
		A		B		C	
		quantity	%	quantity	%	quantity	%
1.	Socio-economical	56	43,75	149	45,43	254	45,36
2.	Psychological and pedagogical	47	36,25	111	33,84	193	34,46
3.	Sanitary and hygienic	25	20,00	68	20,73	113	20,18
Only		128	100	328	100	560	100

Source: The educational and coordinating centre "Аkkord" (private entrepreneur "Mediana"; Konotop secondary school levels I through III No. 7 and No.12; Nizhyn secondary school levels I through III No.1 and No.2

Graphical presentation of research results (picture 3).



Picture No. 3. Results of the groups research A-C regarding the pedagogical conditions, which intensify the influence of the environmental and aesthetic education interrelation of senior pupils on the nature protection activity (%)

Source: Own survey on the basis of conducted research

The received results inform about the fact that the social and economical conditions rule in all groups and intensify the influence of the environmental and aesthetic education interrelation of senior pupils on the nature protection activity.

Consequences

We have found out and theoretically substantiated the pedagogical conditions of the proper formation of environmental and aesthetic education interrelation of the senior pupils. It gave us a possibility to mark the pedagogical conditions groups, which support the interrelation of environmental and aesthetic education: personal and practical, material and technical, psychological, methodical; also the conditions, which improve the influence of the environmental and aesthetic education interrelation of senior pupils on the nature protection activity: social and economical, psychological and pedagogical, sanitary and hygienic. According to the calculation of results we stated that pedagogical conditions, which provide with the environmental and aesthetic education interrelation of senior pupils, such as psychological, took the lowest percentage of the participants and are: at the group A it is 25%, at the group B - 21,64 % and at the group C - 23,57 %. The received results indicate that the economical conditions, which intensify the influence of the environmental and aesthetic education interrelation of senior pupils on the nature protection activity, rule in all three groups. The results are the following: for the group A - 43,75 %, for the group B - 45,43 %, for the

group C - 45,36 %. As the result, the senior pupils in three regions showed the lowest results in the interrelation of environmental and aesthetic education due to the sanitary and hygienic conditions: for the group A this amount is only 20%, for the group B - 20,73 %, for the group C – 20,1 %.

For the purpose of changing the results for better it is necessary to improve the influence of pedagogical conditions on the interrelation of environmental and aesthetic education of senior pupils during extra-curricular activity including nature protection.

Bibliography

1. Грошовенко, О. П. (2007). *Формування у молодших школярів дбайливого ставлення до природи у позаурочній виховній роботі*. (Автореф. дис. канд. пед. наук). Інститут проблем виховання АПН України, Київ.
2. Колонькова, О. О. (2003). *Виховання у старшокласників ціннісного ставлення до природи*. (Дис. канд. пед. наук). Інститут проблем виховання АПН України, Київ.
3. Логвінова, Я. О. (2014). *Формування екологічної компетентності майбутнього викладача біології в процесі вивчення природничих дисциплін*. (Автореф. дис. канд. пед. наук). Кіровоградський державний педагогічний університет ім. В. Винниченка, Кіровоград.
4. Магрламова, К. Г. (2011). *Виховання в учнів ціннісного ставлення до природи як складової природоохоронної роботи в основній школі*. (Автореф. дис. канд. пед. наук). Уманський державний педагогічний університет імені Павла Тичини, Умань.
5. Немченко, Н. В. (2007). *Формування екологічного світогляду старшокласників ліцею медико-біологічного профілю*. (Автореф. дис. канд. пед. наук). Інститут проблем виховання АПН України, Київ.
6. Олійник, Н. Ю. (2005). *Формування екологічної компетентності студентів гідрометеорологічного технікуму у процесі навчання інформаційних технологій*. (Автореф. дис. канд. пед. наук). Українська інженерно-педагогічна академія, Харків.
7. Пузир, Т. М. (2016). *Формування екологічної культури майбутніх техніків-екологів у процесі професійної підготовки в коледжах*. (Дис. канд. пед. наук). Житомирський державний університет, Житомир.

Bibliography

1. Groshovenko, O. P. (2007). *Formuvannya u molodshih shkolyariv dbajlivogo stavlennya do prirodi u pozaurochnij vihovnij roboti*. (Avtoref. dis. kand. ped. nauk). Institut problem vihovannya APN Ukraïni, Kiïv.
2. Kolon'kova, O. O. (2003). *Vihovannya u starshoklasnikiv cinnisnogo stavlennya do prirodi*. (Dis. kand. ped. nauk). Institut problem vihovannya APN Ukraïni, Kiïv.
3. Logvinova, Ya. O. (2014). *Formuvannya ekologichnoï kompetentnosti majbutn'ogo vkladacha biologii v procesi vivchennya prirodnychih disciplin*. (Avtoref. dis. kand. ped. nauk). Kirovograds'kij derzhavnij pedagogichnij universitet im. V. Vinnichenka, Kirovograd.
4. Magrlamova, K. G. (2011). *Vihovannya v uchniv cinnisnogo stavlennya do prirodi yak skladovoï prirodohoronnoï roboti v osnovnij shkoli*. (Avtoref. dis. kand. ped. nauk). Umans'kij derzhavnij pedagogichnij universitet imeni Pavla Tichini, Uman'.
5. Nemchenko, N. V. (2007). *Formuvannya ekologichnogo svitoglyadu starshoklasnikiv liceyu mediko-biologichnogo profilyu*. (Avtoref. dis. kand. ped. nauk). Institut problem vihovannya APN Ukraïni, Kiïv.
6. Olijnik, N. Yu. (2005). *Formuvannya ekologichnoï kompetentnosti studentiv gidrometeorologichnogo tekhnikumu u procesi navchannya informacijnih tekhnologij*. (Avtoref. dis. kand. ped.nauk). Ukraïns'ka inzhenerno-pedagogichna akademiya, Harkiv.
7. Puzir, T. M. (2016). *Formuvannya ekologichnoï kul'turi majbutnih tekhniv-ekologiv u procesi profesijnoï pidgotovki v koledzhah*. (Dis. kand. ped. nauk). Zhitomir'skij derzhavnij universitet, Zhitomir.

Oksana Dobrovolska¹ORCID ID: <https://orcid.org/0000-0002-1337-7216>¹ Zaporizhian National University

DIGITAL COMPETENCES AS BASIS OF VOCATIONAL TRAINING OF AN ENGINEERING PROFILE

Summary

The relevance of the conducted research makes practical sense. Use of digital technologies in the sphere of the higher education is a necessary condition for high-quality training of specialists of an engineering profile. Digital knowledge becomes the main resource. In the direction of informatization of education there is a reforming of higher educational institutions. Fast development digital education in Ukraine and problems of creation of digital society demand fast transition of training of specialists of an engineering profile to higher qualitative level.

Problem definition - specifics of use of digital technologies in the system of the higher education demands further studying. Digital technologies form the difficult environment which consists of a set of information objects and communications between them. System approach to the analysis of use of digital technologies at the higher school is theoretical justification of vocational training of professionals of an engineering profile.

Rapid development of digital technologies provides not only considerable rates of innovative progress, but also development of digital competences which guarantee quality of training, the choice of the techniques corresponding to the general strategy of formation of professional competences¹ of the engineer. Therefore development of digital competences is one of the main tasks of education.

Keywords: competence; digital technologies; experts of an engineering profile.

Foreword

Engineers with good vocational training are necessary in various branches of production where knowledge of the exact sciences is required.

The aspiration of Ukraine to become a part of the European community set the important tasks in the field of improvement of quality of training of experts of the technical direction. Theoretical prerequisites of non-standard technical solutions were caused by the requirement of a combination of material of disciplines of natural and professional cycles in the context of formation and development of professional and technical skills. Modern digital technologies are a part of innovative strategy of the country and an important element of this preparation.

Development of digital skills becomes one of the major conditions for harmonization of all spheres of functioning of society and economy. Thus, development of digital competences should be understood as training during all life [1,2]. New reforms in the system of the Ukrainian education demonstrate its transformation according to world requirements. New models and approaches to training form the digital competences necessary for development of social and communication skills for successful activity of the world of digital technologies.

Creativity of technical specialty designates the high level of digital literacy of experts of a technical profile, their training of digital literacy during all professional activity. Therefore "creativity", "digital competence", "information technologies" - the connected categories. The project of creation of the national educational platform for providing free access to electronic textbooks by all participants of educational process according to the order of the Ministry of Education and Science 22.05.2018 No. 523 was an essential step in the course of formation of digital knowledge. The question became more relevant because of a pandemic of a coronavirus of COVID-19, quarantine actions and distance learning.

But functioning of the educational platform was stopped because of discrepancy to requirements of the specification [2]. It meant lack of the corresponding electronic content, besides, the specified material resources were not integrated into the system of the general education. Today conditions of use and the main requirements to the electronic textbook are not defined [3]. Also there are no standards, normative documents and methodical materials for the electronic textbook.

Fast development of digital technologies provides not only fast development of innovative progress, but also demands use of information resources which guarantee quality of training, the choice of methods which represent the general strategy of formation of professional

knowledge of experts of a technical profile. Therefore the problem of formation of digital competences for the students studying technical disciplines remains to one of the main tasks of education.

Analysis of literary data and statement of a problem. Such names of digital competences as digital literacy (EU), electronic competence (electronic competence) [4], computer literacy meet in scientific works. The computer literacy (computer literacy) is skills of work with the computer, with files and folders, knowledge of the basic principles of informatics, the minimum knowledge of the main office programs [5]. The digital competence which is in the general list of the main knowledges of the EU has to develop in time of all life.

According to the European structure of digital knowledges for citizens [7], the reference model of digital competence includes such spheres: communication and cooperation, digital content, safety, ability to work with information.

Digital competences are knowledge, ability, trait of character, the behavior manner necessary for use of digital technologies in private and professional life [8]. As it is specified in [9], digital skills (knowledge) of citizens become main among other skills in the common market of work. For the majority of specializations the ability to work with "digital" technologies is constant and necessary. Thus, this skill becomes universal. Generalizing the offered formulations, it is possible to stop on the following definition: the digital competence is analytical use of information and communication technologies for creation, search, processing, exchange of information at work, in the public place and private communication; information and literacy of media; skills of safety on the Internet; ethics of work with information (copyright, intellectual property, etc.) [10, 11].

Today education in the developed countries is reformed on the basis of Digital Competence Framework for Citizens 2.1.

In the economic strategy of Ukraine 2030 [12] it is noted that digitizing of Ukraine on the basis of market mechanisms and the state "clever activity" will allow all fields of activity to carry out so-called digital jump within several years.

It is also noted that lack of sufficient knowledge for work with information (digital skills), the lack of the corresponding education is a barrier to development of digital tendencies in Ukraine. Participation of Ukraine in such projects as Erasmus +, "Progress of the European researches in Ukraine: cross-disciplinary approach", "Expansion of researches of the European Union on intellectual, sustainable development at the Ukrainian universities", "Recognition of support of qualifications of the Ukrainian higher educational institutions" and others shows intensive improvement of education in the country.

Thus, the problem of digital competence of experts of a technical profile is created, on the one hand, by those purposes which are defined by features of a profession and society, and on the other hand, defined by the identity of the student. Level of formation of digital competence of the engineer can be determined by such factors: motivation to professional activity; professional standard; aspiration to active self-education; professionally considerable separate qualities; skills of communication of welfare; professional experience, creative approach to activity, etc.

Purpose, subject and methods of a research

Research objective - determination of level of motivation of students in development of digital competence during distance learning and self-educational activity, studying of formation of professional knowledge of future engineers, methods and forms of the educational process necessary for use of digital technologies at studying of technical disciplines.

Research object - digital knowledge in educational process of training of experts of a technical profile.

Research methods. During the research empirical methods of collecting and the analysis of information are used: poll, analytical assessment of quality of training taking into account digital models and platforms. These methods of a scientific pedagogical research allow to define established facts about quality of training with use of digital technologies.

Results of researches

Need of use of digital technologies, competent approach to education of engineers creates difficult methodological tasks for teachers of higher educational institutions: coordination of the purposes and results in training of engineers in the context of formation of knowledges; new approaches to assessment of results of training of experts; creation of appropriate technologies of training with application of various digital platforms and portals which offer access to training materials from various institutions of the world.

It is directly connected with creation of new digital technologies and platforms online, with development of electronic educational and methodical products which are concentrated on the organization of independent work of students and contain professionally directed tasks which demand creative approach to their decision. Thus application of an innovative method of

training of students set the task of a practical research of level of their motivation in development of digital knowledge.

Students of the national university of Zaporizhia participated in sociological poll. 80 students of the second, fourth and fifth year of the first educational level and 10 students of the second educational level within academic year participated in poll. For assessment of interaction of students with digital technologies in training the following criteria were used:

- conscious approach to formation of professionalism in students;
- motivation to use the modular educational environment;
- assessment of quality of the educational website; information processing;
- role of the teacher in work with the website and training of experts in general;
- preferences in forms and methods of training.

Results of assessment are presented on the figure 1.

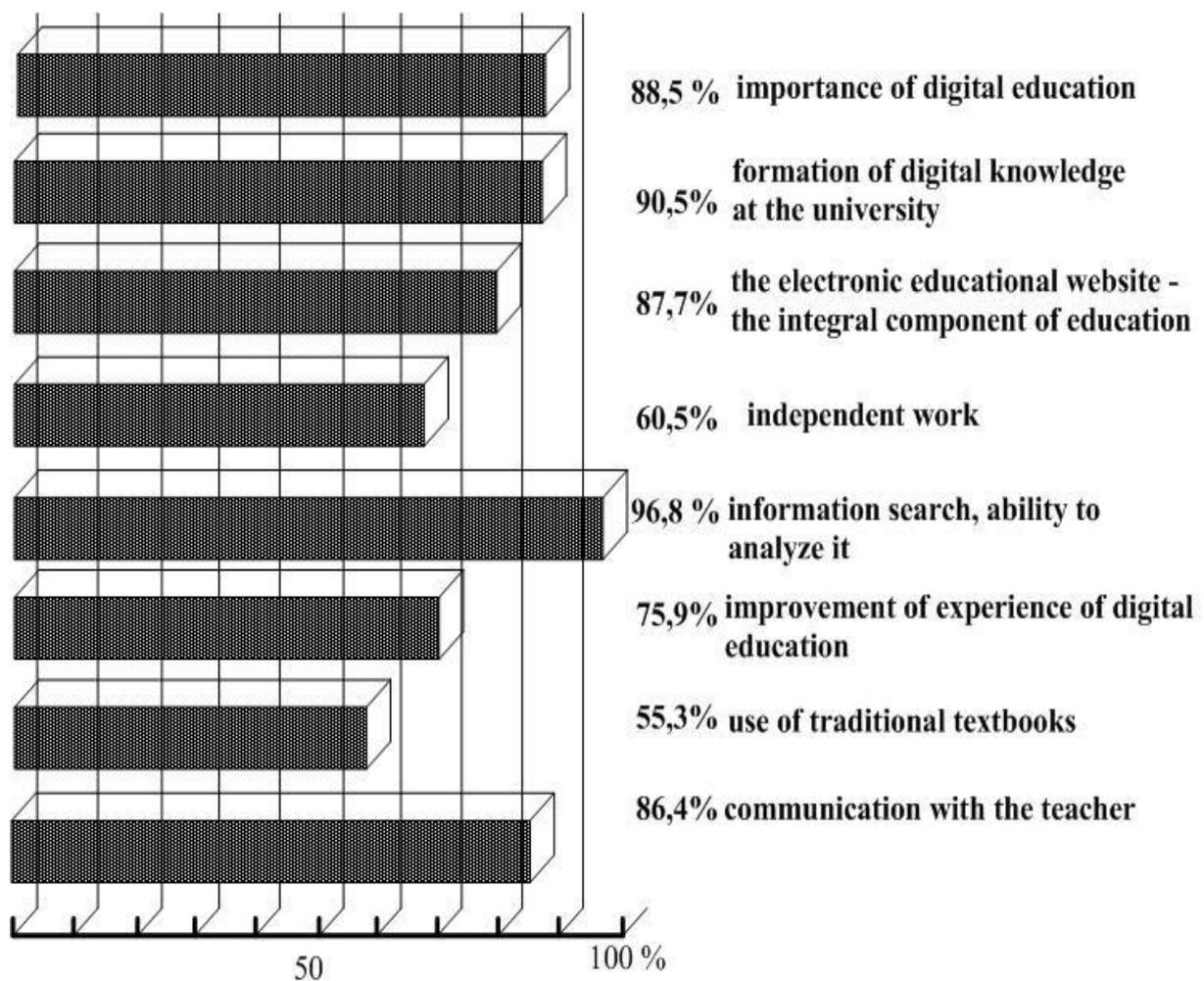


Figure 1. Results of assessment of level of motivation of students to studying of digital competence

Source: personal poll on the basis of the conducted research

During the research the question of the importance of digital training for students of an engineering profile was considered: 88,5% of defendants believe that electronic resources are necessary for exchange of information during training, and at the same time 90,5% believe that they study digital knowledges in higher educational institutions.

During the poll the level of motivation of students to studying of digital technologies was analysed. Results of poll showed that 87,7% of students consider the Moodle platform which is used for distance learning at the university as a compound component of formation of digital and professional education.

It is caused, first of all by the fact that electronic courses can be looked through several times depending on the requirement. Also advantage of digital technologies - a possibility of use of a wide range of materials in various formats, in obtaining timely and fast information, in availability and optimality of volume of information, a possibility of application of interactive mass media including graphics, images, video and audio.

Confidential relations between teachers and students; use of various forms of providing information; individual approach in training motivate students. Digital media can promote more active and high-quality training.

Open online services, various Microsoft Office programs which optimize solutions of graphic tasks improve quality of training of students of the technical direction.

Only 60,5% among defendants are ready to work with use of digital electronic resources without teacher. Students already by the end of the first course understand those chances which are given by digital electronic resources thanks to which they can expand opportunities in search of special information for more effective understanding of educational disciplines. Students after the third year of training consider important for themselves opportunities to draw charts of various types, to create video of representation, to receive fast feedback about results of performance of tasks, to have a possibility of adaptation of programs of training to the requirements.

Students of the fourth year precisely understand that the ability to use digital technologies is the main component of their professional success in the future. Students told about value of digital technologies in the context of formation of professional knowledge of future engineers: 96,8% believe that search and ability to analyse information are necessary for formation of professional level.

Readiness for retraining and continuous professional development is expressed by 75,9% among respondents. They believe that acquisition of the corresponding skills is

necessary in labor market today and on the future which is more important. Implementation of own requirements forms necessary knowledge. Own approach to the solution of professional tasks is very important.

The electronic educational environment increases an opportunity to find special information, gives chance to understand examples of execution of graphic tasks in an available form.

But 55,3% among defendants believe that a necessary condition of training - use of traditional methodical materials. On the one hand, this fact can be explained with receiving various experience in work with technical information, on the other hand, as lack of the corresponding skills of use of this information and its classification in electronic media. Modern digital technologies constantly develop, it explains requirement of adaptation of students to development of new technologies.

86,4% of defendants claim that communication with the teacher is important during formation of professional knowledge in spite of the fact that about 80% express readiness for individualization of educational process.

At the same time students note the need for a favorable intellectual and emotional situation during training. Students also note the need for psychological support which is given by the competent professional in work with information.

Digital sources and electronic media of information will never be able to replace social and psychological interaction of the teacher and students. This communication possesses the leading role in formation of future professional engineers.

In such interaction partners obtain the necessary information, reach mutual understanding.

At communication with the teacher the student can estimate the level of competence and receive individual recommendations.

As showed results of poll, students want to work with the electronic website, but on condition of existence of "live" separate consultations with the teacher, on condition of visit of lectures in audience and practical training. And it is not the casual fact

It is difficult for students to cope with a flow of technical information without communication with the teacher, it is difficult to choose necessary data for understanding of discipline.

It leads to an overload in training, but not to its quality. Thus students are supporters of the mixed system of training (offline and online). The mixed system of training allows to

minimize such shortcomings of remote education as lack of social adaptation, excessive use of electronic means, lack of practical skills.

Moral orientations of future professionals are created by educational process, and the teacher - a source of professional philosophy in it.

On the other hand, the teacher is responsible for quality of information product. It has to provide formation of educational competences and the expected results of training of the specialist engineer and also to organize productive activity of training of the personality. Process of formation of digital competence of students directly depends on scientific, methodical and technical knowledge of the teacher.

Digital technologies as programs for training, they develop self-education; they allow to receive knowledge in many scientific spheres, they help to adapt quickly to the changing conditions, they give motivation to study [13].

Development of digital competences creates advantages and provides open access to electronic information. In fact, this change of a paradigm of how we think how we communicate with each other and with the external environment. For the successful organization of occupations online, effective use of digital technologies it is necessary to organize educational process competently. It is necessary that students and teachers owned digital competence for use of the software, for creation of additional electronic methodical materials and textbooks, for creation of high-quality thematic representations [14].

Teachers use the concepts about efficiency of use of digital technologies as there is no exact methodology of formation of digital competences [15,16].

Some experts believe that for obtaining digital knowledge, first of all, it is necessary to make corresponding changes to educational standards - plans of educational process, it is necessary to develop comprehensive working programs of disciplines. These programs are aimed at coeducation to professional and digital competences which are necessary for modern professionals [17].

Uniqueness of a position of the teacher as expert in professional activity - the basis on which the European concept of the university and a paradigm of modern higher education develop [18].

Successful integration of digital technologies into educational process requires introduction of the program of complex vocational training of teachers solve problems of fast development of digital knowledge, requires creation and use of new technologies.

The ability to work with the newest technologies of training is one of the main qualities of the modern lecturer [19]. However development of own educational and methodical software

[20] for each teacher - not always a factor of efficiency of use of digital technologies in educational process.

The high-quality software product has to be created by leading experts at the state level with definition of factors of its quality.

Work of engineers - a part of intellectual activity which differs in interaction with various technical objects and systems. It is characterized by fast change of digital technologies, digitization of all spheres of technical activity. The accent moves from educational to scientific and educational process in which digital technologies support communication, creativity and innovations. The structure of digital knowledge is the standard and the reference book of digital technologies for citizens of Ukraine [20].

Spheres and content of digital knowledges, levels of their studying are presented in this document. Such approach allows to estimate own opportunities of use of digital technologies in the respective spheres and to define the directions of the development.

Discussions. Assessment of a role of digital training in educational process is divided into two groups. On the one hand those who see a chance which information technologies for communication and development of innovations give. On the other hand those who focus attention on traditional approach to training at the higher school. The fact that digital technologies - the open "window of new opportunities" for growth of the national economy for improvement of quality of life of citizens, unites these groups. [20].

Therefore we will consider advantages and shortcomings of digitalization of educational process. Thus results of the conducted research showed that 88,5% of defendants believe that the electronic educational website allows to obtain necessary information in time and convenient for them. Reduction of time for preparation for occupations and improvement of results of training is confirmed in researches [21].

The same opinion is expressed by professionals [22] who believe that digital knowledge develops the principles of training during all life.

So, 80% of defendants are ready to independent activity with use of digital technologies. But 86,4% among defendants believe that the digital competence is formed on condition of systematic communication with the teacher.

The leading role of teachers was noted in results of researches [19]. They are organizers of the correct use of means of information technologies in educational process. 55,3% of defendants believe that application of traditional textbooks, methodical materials and also the newest methods of training - a necessary condition for acquisition of knowledge. None of the interviewed defendants noted negative consequences of use of digital technologies.

Some experts on the Venezuelan universities [23] consider use of Internet technologies for knowledge acquisition a harmful innovation. The difficulties connected with availability of use of Internet resources can explain such conclusions. It is characteristic of development of some countries. Results of researches [24] showed that information technology development worsens ability to communicate.

Digital technologies facilitate communication between students. But the habit to communicate, mainly, in the form of electronic correspondence leads to the fact that students are not able to express own opinion at a conversation with the teacher. It confirms that the teacher plays a major role in formation of professional digital knowledge.

Conclusions

1. Results of a research confirmed motivation of students of a technical profile to receive digital knowledges for independent professional activity.
2. Results of a research showed readiness of students for continuous education with application of open educational platforms in an innovative and digital context.
3. Digital technologies - addition to traditional forms of education, they complement subject matters with methods and forms of the organization.
4. Obtaining digital knowledge demands from participants of this process (students, teachers of higher educational institutions) the critical analysis of legality, reliability of information which is available through electronic means. Teachers have to provide a safe and responsible approach to use of information knowledge.

References

1. Cabero-Almenara, J., Gutiérrez-Castillo, J., Palacios-Rodríguez, A., Barroso-Osuna, J. (2020). Development of the Teacher Digital Competence Validation of DigCompEdu Check-In: questionnaire in the University Context of Andalusia (Spain). doi:10.3390/su12156094 [in Spain].
2. Oksana Onyshchenko. Khto vkrav maibutnie? Natsionalna osvitiina elektronna platforma pid areshtom [Elektronnyi resurs] Dzerkalo tyzhnia, 13 bereznia, 2020. URL: https://dt.ua/EDUCATION/htovkrav-maybutnye-341432_.html.
3. Ishchenko A. Yu. Natsionalna platforma tsyfrovoy osvity yak priorytetnyi instrument onovlennia vitchyznianoï osvithoi systemy/

- URL:<https://niss.gov.ua/sites/default/files/2020-05/cyfrova-osvita.pdf>.
4. Romani, J. Strategies to Promote the Development of E-competencies in the Next Generation of Professionals: European and International Trends. Monograph No. 13, November 2009, Communication and Information Technology Department.- Latin American Faculty of Social Sciences, Campus Mexico (FLACSO-Mexico), 57 p;
 5. Berman N.D. Formyrovanye ynformatsyonnoi kompetentnosty studentov. Elektronnyi naukovyi zhurnal *Sovremennyye yssledovaniya sotsyalnykh problem*, 2017, T.8, №2-2, S.28-34. doi:10.12731/2218-7405-2017-2-2-28-34.
 6. ANNEX to the Proposal for a Council Recommendation on Key Competences for Lifelong Learning [Electronic resource]. — Available at: <https://ec.europa.eu/education/sites/education/files/annex-recommendation-key-competences-lifelong-learning.pdf>.
 7. Riina Vuorikari, R., Punie. Y., Carretero, S., Van den Brande, L. (2016). DigComp 2.0: The Digital Competence Framework for Citizens. European Union. URL: https://publications.jrc.ec.europa.eu/repository/bitstream/JRC101254/jrc101254_digcomp%202.0%20the%20digital%20competence%20framework%20for%20citizens.%20update%20phase%201.pdf.
 8. Kuibida, V.S. Petroie, O.M., Fedulova, L.I. .Tsyfrovi kompetentsii yak umova formuvannia yakosti liudskoho kapitalu: analit. zapysky. Kyiv: NADU, 2019, 28 s. URL: <http://academy.gov.ua/pages/dop/198/files/90a7d5c8-d10a-4f8f-8987-4d1077fdc8f6.pdf> [in Ukrainian].
 9. Kubiv, S, Minich, O., Biriukov, A. Tsyfrova adzhenda Ukrainy – 2020: kontseptualni zasady. URL: <https://ucci.org.ua/uploads/files/58e78ee3c3922.pdf> [in Ukrainian].
 10. Kontseptsiia novoi ukrainskoi shkoly. URL: <http://mon.gov.ua/activity/education/zagalna-serednya/ua-sch-2016/konczepczyia.html>.
 11. Zaporozhtseva Yu.S., Informatsiino-tsyfrova kompetentnist yak skladnyk suchasnoho navchalno-vykhovnoho protsesu. teoriia i metodyka profesiinoi osvity. URL:http://www.innovpedagogy.od.ua/archives/2019/12/part_1/17.pdf.
 12. Ekonomichna stratehiia Ukrainy 2030E. URL:<https://strategy.uifuture.org/index.html>.
 13. Kucherak I. V. Tsyfrovizatsiia ta yii vplyv na osvitnii prostir u konteksti formuvannia kliuchovykh kompetentnostei. Teoriia i metodyka profesiinoi osvity. URL:http://www.innovpedagogy.od.ua/archives/2020/22/part_2/22.pdf.
 14. Kulczycki E., Czy udostępnić studentom prezentacje z wykładów? 3 II 2013.

15. Shyshkina M. P. Khmaro oriietovane osvitiie seredovyshche navchalnoho zakladu: suchasnyi stan i perspektyvy rozvytku doslidzhen. Informatsiini tekhnolohii i zasoby navchannia. 2013, T. 37, № 5, 66–80.
16. Voronkin O. S. Rozvytok informatsiino-komunikatsiinykh tekhnolohii navchannia studentiv vyshchyykh navchalnykh zakladiv Ukrainy u 90-kh rokakh KhKh st. – na pochatku XXI st. Informatsiini tekhnolohii v osviti. 2014. № 20. S. 99–116.
17. Yevstratiev S. Tsyfrovi kompetentnosti u pidhotovtsi molodshyykh bakalavriv z ahronomii. Osvitolohichniy diskus, 2020, № 3 (30). S. 171–191.
18. Mischke J., Stanisławska A. K., Mistrz, czyli kto?, „E-Mentor”. № 5(7)/2004.
19. Rozmus A., Indywidualny styl prowadzenia zajęć [w:] Wykładowca doskonały, A. Rozmus (red.), Warszawa 2013.
20. Burovytska Yu. M. Informatsiino-komunikatsiini tekhnolohii u vyshchyykh navchalnykh zakladakh: alhorytm vprovadzhennia. Pedahohichni nauky. 2016. № 133. S.26–23.
21. Opy ramky tsyfrovoy kompetentnosti dlia hromadian Ukrainy. DigCompUA for citizens 2.1. Ministerstvo tsyfrovoy transformatsii Ukrainy : tsyfrova osvita. 2021, 56 s. URL: https://thedigital.gov.ua/storage/uploads/files/news_post/2021/3/mintsifra-oprilyudnyue-ramku-tsifrovoy-kompetentnosti-dlya-gromadyan/%D0%9E%D0%A0%20%D0%A6%D0%9A.pdf.
22. Denysenko V., Vinnyk M., Tar Y. Students readiness to use information technology in universities educational process. Informatsiini tekhnolohii v osviti. 2015 №23, P. 43–51.
23. Teaching and Learning International Survey (TALI) 2013, Komisja Europejska.
24. Páez Revista R. G. Online education as a disruptive innovation in Venezuelan universities knowledge management model. Revista Gestión I+D. 2016, № 1(1), P.24–42.
25. Iglesias Sahagún L. G., González Arias R. Emergent technologies, networks that lurks the sociability // Revista Teknokultura. 2018, №15.(1), P.119-137. doi:10.5209/TEKN.57269.

Viacheslav Gerasymenko¹

ORCID ID: <https://orcid.org/0000-0002-4017-1141>

¹Separated subdivision of NUBiP of Ukraine “Nizhin Agrotechnical Institute”

METHODS OF CONDUCTING EXCURSIONS TO THE ENTERPRISE FOR BETTER MASTERING OF THE DISCIPLINE „FUNDAMENTALS OF POWER SUPPLY”

Summary

Introduction: The formation and development of the student as a future specialist is an urgent task of modern pedagogy. To achieve this goal, such a means of visualizing the skills and abilities acquired in the learning process as an excursion to the production facility is used. In the article the excursion is considered as pedagogical process, the characteristic pedagogical signs of excursion are considered and analyzed. In addition, there are those signs of the tour that distinguish it from traditional forms of learning. This allows us to consider the tour as an independent pedagogical process or as part of a system of pedagogical activities aimed at teaching and education.

Aims of the research: To find out psychological - pedagogical approaches to improving students' interest in learning and self - education. Experimentally test the feasibility of this form of training, select and summarize its best features in the process of studying the disciplines of the professional cycle of training future specialists.

Material and method: Analysis of scientific - methodical literature; analysis of educational and work programs, textbooks; observation of the educational process, interviews and questionnaires of students, analysis of reports and oral answers of students; pedagogical experiment; systematization and generalization of own pedagogical experience.

The study was conducted among students studying for a Bachelor's degree in the specialty 141 “Electric Power, Electrical Engineering and Electromechanics” in a separate division of NULES of Ukraine “Nizhyn Agricultural Institute”.

Research results: The program of the discipline “Fundamentals of Power Supply” provides for the study of general issues of production, transmission and distribution of electricity, structure of equipment, apparatus and materials used on cable and overhead lines, transformer substations; diesel backup power plants.

The program material should be taught taking into account the achievements of science and best practice. Teaching the discipline must be conducted taking into account the interrelationships. In order to better master the students' learning material in the classroom, it is necessary to use visualization and technical teaching aids. Laboratory and practical classes should be conducted in laboratories equipped with modern equipment. It is expedient to carry out separate employment in the conditions of production.

Occupational safety, fire safety and environmental protection should be included in the teaching material. For each laboratory and practical lesson, it is recommended to develop in advance instructional and technological cards that promote the effective use of study time, create conditions for independent work.

It is recommended to give some questions to students for independent study in class, some topics outside the classroom, in the workplace with the design of reports, abstracts, comparative tables.

In order to strengthen the control of students' knowledge, it is recommended to conduct modules.

Discussion: Students who visit production facilities during their studies are more interested in gaining professional knowledge and seek self-education.

Conclusions: Excursions to the company create conditions for the development of technical creativity, attention, memory, logical thinking, enhance cognitive activity and creative attitude to work, educate students diligence, work culture, thrift, instill in students a sense of respect for employees and love for their future profession.

Keywords: excursion, cognitive activity, creative attitude to work.

Introduction

Excursion is a complex form of educational work, lasts 45-90 minutes. The tour opens opportunities for integrated use of teaching methods, enriches students with knowledge, helps to identify the practical significance of knowledge, helps to acquaint students with the

achievements of science, is an effective means of educating students, including their emotional sphere.

All tours can be divided: by content (industrial, biological, historical, geographical and others); by time (short-term, long-term); in order during the educational process: preliminary or introductory (at the beginning of the study of the topic, section of the program), accompanying or intermediate (in the process of studying the study material), final or final (at the end of studying the topic, section), in relation to educational programs extracurricular). The objects of educational excursions are industrial enterprises and objects.

Aims, subject and method of research

Purpose: learning new things, creating tourists' own thoughts and assessments, expanding the system of knowledge about the world, personal development in the process of cognition, emotional perception.

The subject of the research is excursion methods, as purposeful study, systematization, formulation, explanation and application in practice of means and methods of education and training, as well as methodical methods of conducting excursions. Excursion methodology summarizes the experience of excursions, develops and offers such methodological measures that have proved themselves in practice and provide the highest efficiency of disclosure and perception of the topic. Tasks were set to achieve the objectives of the study: to analyze the state of the problem in the scientific and methodological literature; determine the requirements for improving the conduct of tours of technical disciplines.

Research methods: analysis of scientific and methodical literature; analysis of training and work programs. Observation of the educational process, interviews, questionnaires of students, analysis of oral answers and written works of students. Pedagogical experiment (checking the effectiveness of the proposed method of developing creative thinking of the student). Systematization, generalization of own pedagogical experience and experience of other teachers. The study was conducted among students of a separate division of NULES of Ukraine “Nizhyn Agrotechnical Institute”.

Research results

The method of conducting tours is to make it easier for tourists to learn the material. Proper and timely use of methodological techniques is the most important component of pedagogical skills during the tour. The main ones are:

1. Activities directly used during the tour - demonstration and storytelling;
2. Activities The main task of which is to create conditions for more effective excursions.

Measures for a more effective tour include:

- methodical measures to establish a connection between the guide and the tour group;
- methodical measures aimed at ensuring sustainable attention to the object of the tour, the story, certain issues;
- methodological measures aimed at improving visual acquisition.

There are two groups in the classification of activities that are naturally used during the tour.

1. Demonstration activities, which include:

- activities that intensify observation, is the study and study of objects that emit the object from the environment;
- activities that, thanks to the imagination of tourists, make proven changes in the appearance of the object;
- activities that are built on the movement - the approach of the tour group to the object, distance from the object, moving along the object give a chance to see the object in the right form,

2. Narrative measures are measures based on the explanation of the structure of the object or its internal appearance, which make it possible to understand the changes taking place in the object.

The most numerous group consists of demonstration activities that make it possible to simplify the observation of the object, highlight its features and components that are invisible during normal inspection.

Preliminary inspection - this measure is applied at the time when tourists are on site. Thus, he asks the group to carry out an initial inspection of the object, to get acquainted with its appearance, to see some details. After that, the guide sharpens the group's attention to determine the essence of the object, which gives the tour group the opportunity to: make an idea; present this object; give a certain assessment of the object. The second option of receiving a preliminary inspection is that the beginning is a short introductory speech of the guide, in which he guides the group on what to see during the observation of the object, what qualities and real features must be revealed during the observation.

Reception of a panoramic demonstration allows the tour group to observe the view of the area. To enhance the perception of the tour group of the big picture that appears before them, you need to identify the compositional center and draw the group's attention to it. Another feature of the panoramic demonstration is that many objects fall into the field of view of the tour group. Therefore, it is necessary to pay attention to the objects that reveal the topic, moving from a general demonstration to an individual one.

Reception of visual reconstruction (reproduction). As it sounded before, the term "reconstruction" means the reproduction of the original form of something ..

Reception of visual installation is one of options of methodical reception of reconstruction. The guide, using the technique of visual editing, collects the necessary image, summarizing the appearance of several objects or their individual parts. Basic elements can be borrowed from those objects that are currently the object of observation of the tour group. Photographs, drawings, drawings are used in visual editing.

Reception of localization of events. An important role in the concretization of events is played by the methodical method of localization, ie the connection of events with a particular city. For example, the effective use of the method of linking events to a specific place in excursions on production topics.

The method of abstraction is an imaginary process of separating any parts of the object of observation for further study. This technique allows the tour group to explore the features of the subject, which are the basis for the disclosure of the topic (subtopic). Reception of abstraction is based on research:

- a) one of the objects by imaginary separation of it from other objects located nearby;
- b) one of the parts of the building when separating it from other parts that are less significant or not required for consideration of this topic.

The use of this technique is preceded by an explanation of the guide, which parts of the subject, the building is the subject of demonstration. Abstraction allows the tour group to "not see" what is not relevant to the tour.

Reception of visual comparison. This technique is based on the visual comparison of different objects or parts of one object with another, which is in front of the eyes of the tour group. At the same time both similar and externally different objects are compared. The use of this technique allows the tour group to reproduce the actual size of the object, allows you to reduce the time for explanation. The purpose of this methodical technique is to formulate the characteristic features, attributes of the object, to demonstrate its originality and uniqueness.

Summing up, the guide voices similar elements of the two objects or their dissimilarity with each other.

The method of integration is based on the integration of individual parts of the observed object into a single whole. Using the technique of integration is not difficult, because for each person learning about the world begins with the study of individual subjects and facts. Demonstrating a building, structure, a memorable place, the guide goes the way of integration, ie combining different aspects, details of properties into a single whole.

The effect of the methodical method of integration in the tour is connected with the method of synthesis - the connection of individual parts, details, generalization of broken facts into a single whole. For example, the technique of integration can be used in the demonstration of an architectural ensemble. First, each building is shown separately, then the guide combines (integrates) the visual impressions obtained by the tour group when observing individual objects. At the final stage of the demonstration, the group observes the ensemble as a unity of several buildings. And the guide formulates conclusions, characterizing the ensemble as a whole.

The reception of visual analogy is based on the action of one of the general methods of scientific cognition - the method of analogy. The reception of the analogy is based on a comparison:

- a) this object with a photograph or drawing of another similar object;
- b) the observed object with those objects that the tour group observed earlier.

The mechanism of action of this technique is that the guide "puts" in front of the tour group two objects, and only one of them is physically in front of their eyes. At visual comparison two similar buildings, constructions, monuments, plants, portraits as such which are at present before eyes of excursion group are compared. The task of the guide is to draw the attention of the tour group to the active search for analogies, to evoke in the memory the idea of the appearance of a similar object, which they saw on previous tours. In this case, each member of the group may have its own analogy.

The reception of visual analogy is sometimes called the reception of association. Especially often this method of demonstration is based on similarity associations. Associations on the opposite (black - white, cold - heat, light - darkness), on the common location of objects are used less often.

Reception of switching of attention. After observing the object, the tour group, at the suggestion of the guide, shifts its gaze to another object (for example, shifting the gaze from a

house built at the beginning of the last century to the current high-rise). The presence of contrast enriches with new impressions. Comparison of objects makes it possible to better understand the object under study.

Methodical method of movement. There are two concepts: "movement" as a sign of the tour and "movement" as a methodological approach. These are different things.

The movement in the tour as a methodical technique is the movement of the tour group near the object in order to better observe it (for example, the movement of the tour group along the conveyor at the factory, etc.). In some cases, the movement of the group is used to get an idea of the height of the tower, the depth of the moat, the distance to the object and the like. In addition, the movement in the tours is used as a method of demonstrating the tour objects of independent buildings and structures. In some cases, slow traffic on the bus around the complex of objects is used. During such movement the complex of the observed objects before eyes of excursion group as though rotates, revealing all new objects.

Sometimes the movement of a pedestrian group is organized during a panoramic demonstration, for example, you can conduct a tour group along the observation deck. This methodological technique makes it possible to conduct a multifaceted demonstration, makes it possible to emphasize the repetition of details, similarity of objects, their differences, characteristics.

The second option of movement as a methodical approach - a detour around the building or structure. The movement around helps to demonstrate the rationality of the location of buildings to identify their functional features. The third option - movement to the building, structure. Methodologically, it is built in such a way that during the movement of the group the object begins to gradually emerge, more and more clearly arising and increasing in size before the eyes of the tour group. This allows the guide to identify the features of the object and paying attention to them, to bring the tour group to the necessary conclusions.

The activities of the story can be divided into two large groups.

The first group combines activities related to the form of the story (reference, description, report, citation). The activities of this group perform the task of conveying to the tour group the content of the story, contribute to the formation of information, its organization, memorization, storage and reproduction in the memory of the tour group.

The second group combines measures of characterization, explanation, question - answer, reference to eyewitnesses, tasks, verbal editing, complicity, induction and deduction. The activities of this group paint an external picture of events, the actions of specific characters.

Reception of the excursion certificate is applied in combination with receptions of visual reconstruction, localization, abstraction.

Acceptance of the description sets the task of correct display of object in consciousness of excursion group. To describe the object is characterized by accuracy, specificity. This technique involves telling the guide the characteristics and features of the appearance of the object in a certain sequence.

Acceptance of the characteristic is based on definition of distinctive properties and qualities of a subject, the phenomenon, the person. In contrast to the reception of the description, the reception of the characteristic is a list of properties and features, the set of which gives the fullest possible idea of the object, gives the opportunity to better understand its essence. Thus the object will take the place in a number of others, similar on the characteristic of objects, or on the contrary, the characteristic of its properties will show difference from other objects. Verbal description precedes the excursion analysis of the object, and is the initial stage of analysis. The method of description applies only to the external aspects of the object, without giving characteristics of its internal, invisible to the eye properties and qualities.

Acceptance of explanation - a form of presentation of the material, when the story, in addition to information about the historical event, reveals the essence and reasons that caused it. Most often, this technique is used in industrial, economic and natural history tours, where the story explains the internal connections of processes and phenomena.

Reception of comments. Commentary in periodicals is used in two forms - as an interpretation of events, phenomena, texts, as well as reflections or critical remarks about something that is of interest to readers.

Receiving a report. This is a short message from the guide about the event, phenomenon, process, which is witnessed by the tour group. The story is about an object that was in their field of view. This technique is effective only when the object is demonstrated in development. The difficulty of using this technique is that the story for the most part is not prepared in advance, it is not entirely part of the individual text of the guide, but is improvised, ie composed by a guide on the go, while observing what is happening.

Receiving citations. A quote is a literal excerpt from a text or someone's direct speech. Citation is used in the following cases: to confirm, vivid and meaningful expression of one's opinion, to preserve the peculiarities of language and color of a certain historical period of time, to reproduce a picture of an event and to get acquainted with someone's authoritative opinion.

Receiving a question - the answer. The essence of this technique is that during the story the guide asks various questions to the tour group in order to activate them. Most of these questions are not designed to get one or another answer from the tour participants. They perform the function of methodical reception. They can be divided into several types:

a) questions to which the guide immediately or after some time himself gives the answer, continuing his story on the topic;

b) a question that is a statement of something in the form of a question.

c) the questions of the guide, which are answered by members of the tour group, increase attention to the content of the tour, make some relaxation and help to better clarify the subtopic.

Receiving references to eyewitnesses. The use of this technique in the story provides an opportunity for figurative reproduction of events.

The reception of tasks used in the story of the guide finds a reaction in the tour group: "Remember what the building looks like? Try to explain why such an inscription is made here" and others. When a guide gives such tasks, he does not assume that the participants will perform them immediately. The reception directs the attention of the tour group to a specific building, a certain part of the building, to those details, the assessment of which is important for the assimilation of the material. The task of this reception is to interest the excursion group, to make them think, to intensify their mental activity. As for the answers to these questions, the guide gives them himself in the subsequent story, as if summarizing the views of the tour group.

Reception of novelty of material consists that during the story on a subject the facts and examples which are not known to excursion group are reported. This technique is used by the guide at a time when it is necessary to draw the group's attention to the object, to make perception more effective.

Reception of verbal (literary) editing. Using it, the guide builds his story on a set of excerpts from various documentary materials published in periodicals. The content of these passages reveals the sub-theme of the tour or one of its main issues. This technique allows you to recreate a picture of events.

Acceptance of complicity. The task of this reception is to help the tour group to become participants in the event to which the tour is dedicated. This is done by, for example, addressing the group: "Imagine that ...".

Reception of a discussion situation. The guide, using this technique, puts forward in his story a position that provokes a controversial situation. This technique makes it possible to replace the monologue form of the material with an open dialogue during the tour. Two or three

excursion groups express their point of view on the advanced position. Then the guide, summing up, draws conclusions.

The reception of the problem situation is that in the story of the guide is a problem related to the theme of the tour. Presenting the problem to the members of the tour group makes them think and makes them find the right answer to the questions asked by the guide. In some cases, members of the tour group are asked to find an alternative to the proposed solution.

Discussion

Three hypotheses about the significance of the excursion to production in the educational process were proposed for testing:

- excursion as advertising of the chosen profession;
- excursion as increase of efficiency of educational process;
- conducting tours promotes the development of attention, memory, logical thinking.

At the preparatory stage, the teacher visits several transformer substations of industrial enterprises of the city, district, gets acquainted with the equipment, technological process, their need for staff and selects one of them for a tour of students. At the same time he takes into account the level of production technology, the possibility of illustration, the use of the latest technology. The teacher agrees with the management of the company on the allocation of a guide for the duration of the tour, develops with him the course of the tour and announces the date of the tour.

Preparation of students for the tour is carried out in class. The teacher explains the topic, purpose, plan of the future tour and gives tasks, informs about the procedure of the tour, draws attention to the need to follow safety rules. The questions of these tasks can be various, but they should correspond to the work program and the purpose of excursion. The beginning of the tour at the transformer substation 110/35/10 kV is shown in Figure 1.



Figure 1. The beginning of the tour at the transformer substation 110/35/10 kV

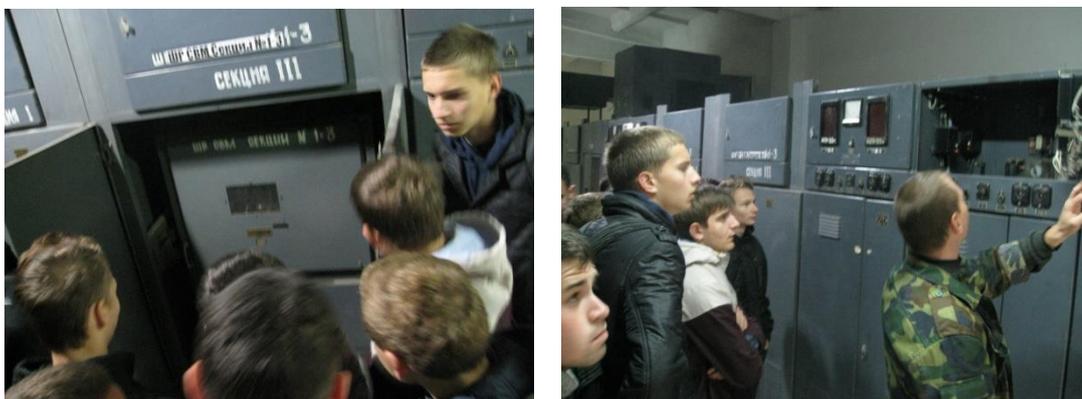


Figure 2. An engineer working on this object shows the structure of a 10 kV cell



Figure 3. Students saw the work of electrical engineers in the relevant departments in a real production process

The tour ends with a final conversation. Students ask questions that arose during the tour, and the guide gives them answers. At the end of the tour we take a photo in memory is shown in Figure 4.



Figure 4. At the end of the tour we take a photo in memory

The next lesson is summing up the tour. Students submit written reports, discuss them, answer additional questions from the teacher. The teacher announces the grades for the tour.

Conclusions

A study on importance excursions in the educational process showed that three hypotheses about importance excursions to production in the educational process fully confirmed:

- excursion as advertising of the chosen profession;
- excursion as increasing the efficiency of the educational process;
- conducting tours promotes the development of attention, memory, logical thinking.

Everyone can have many hobbies that bring joy and satisfaction. However, most of the time is devoted to professional activities, because it provides a livelihood, it is possible to realize yourself as a person, succeed and constantly improve their skills. The world of professions is diverse, and everyone has the opportunity to find their favorite profession. Some people dream of becoming an outstanding athlete, while others prefer design. There are people who dream of working with technology in production, and others are fascinated by work related to nature. There are hundreds of different professions. If the profession is chosen in accordance with their own interests, inclinations, abilities and taking into account the state of personal health, professional suitability and employment opportunities (needs for specialists), the professional activity will bring the expected results and help realize the most cherished dreams.

Excursions to the enterprise create conditions for development of technical creativity, attention, memory, logical thinking, activate cognitive activity and creative attitude to work,

bring up in students diligence, culture of work, thrift, bring up in students feeling of respect for workers and love to work.

Literature

1. Instruktsiya shchodo orhanizatsiyi ta provedennya ekskursiy i podorozhey z uchniv's'koyu ta student's'koyu moloddyu MON Ukrayiny; Nakaz, Instruktsiya vid 02.10.2014 № 1124
2. Ushyns'kyy K. D. Lyudyna yak predmet vykhovannya: dosvid pedahohichnoyi antropolohiyi / K. D. Ushyns'kyy. – L.: Vyd-vo APN, 1948. – 399
3. Dubasenyuk O.A. Profesiyna pedahohichna osvita: stanovlennya i rozvytok pedahohichnoho znannya: monohrafiya / za red. prof. O.A. Dubasenyuk. – Zhytomyr : Vyd-vo ZHDU im. I. Franka, 2014. – 443
4. Sysoyeva S. O. Osnovy pedahohichnoyi tvorchosti: Pidruchnyk / S. O. Sysoyeva. – K.: Milenium, 2006. – 346
5. Voloshchuk I. S. Naukovo-pedahohichni osnovy formuvannya tvorchoyi osobystosti. Pedahohichna dumka, Kyiv 1998 - 76.
6. Chernilevs'kyy D. V. Pedahohika vyshchoyi shkoly : Pidruchnyk / D. V. Chernilevs'kyy. – Vinnytsya : 2008. – 408
7. Kalmykova Z.YU. Produktyvne myslennya yak osnova navchannya. Znanni, Moskva 1981 - 200
8. Zahorodnya A. A. Profesiyna pidhotovka fakhivtsiv ekonomichnoyi haluzi u zakladakh vyshchoyi osvity Respubliky Pol'shchi ta Ukrayiny: Monohrafiya. – K.: VP «Edel'veys», 2018. – 392
9. Tverezovs'ka N. T., Sydorenko V. K. Metodolohiya pedahohichnoho doslidzhennya: navchal'nyy posibnyk. K.: Tsentr uchbovoyi literatury, 2014. 440
10. Hrabchenko A.I., Fedorovych V.O., Harashchenko YA.M. Metody naukovykh doslidzhen': Navch. posibnyk. – KH.: NTU "KHPI", 2009. – 142
11. Zdibnosti, tvorchist', obdarovanist': teoriya, metodyka, rezul'taty doslidzhen' / Za red. V.O. Molyako, O.L. Muzyky. – Zhytomyr: Vyd-vo Ruta, 2006. – 320

Halyna Hrymashevych¹ORCID ID: <https://orcid.org/0000-0003-3225-0031>¹ Zhytomyr Ivan Franko State University (Zhytomyr, Ukraine)

EDUCATIONAL COMPONENT „UKRAINIAN DIALECTOLOGY” IN THE CONTEXT OF TRAINING OF FUTURE TEACHERS OF UKRAINIAN LANGUAGE AND LITERATURE

Summary

The article raises the issue of the importance of studying the educational component "Ukrainian dialectology" at philological faculties of higher educational institutions, which contributes not only to the formation of a general linguistic worldview of future teachers of Ukrainian language and literature, but also awareness of the importance and value of dialectology data. languages, ethnolinguistics, ethnography and other disciplines of different cycles and awareness of the importance of dialect language for the emergence, development and functioning of literary language. In the process of studying a certain discipline, higher education students form a number of general and special competencies and program learning outcomes. At the same time, attention is focused on the logical completion of the discipline - dialectological practice, which allows to apply theoretical material in the process of collecting dialect material that can be used in the professional activities of Ukrainian language teachers during the period of work with gifted children.

Keywords: educational component, Ukrainian dialectology, dialectological practice, competence, teacher-vocabulary.

Introduction

The curricula of higher educational institutions of Ukraine for the training of teachers of Ukrainian language and literature and philologists provide for the study of the educational

component "Ukrainian dialectology". "Ukrainian dialectology" is one of the disciplines of the historical-linguistic cycle, which is given an important place in the system of sciences of the humanities, because it is important for the formation of the general linguistic worldview of future teachers of vocabulary and philology. various forms of language existence (national, dialectal, literary), there is an awareness of the importance of dialectal language for the formation, development, enrichment and functioning of literary language in general, the value of dialectology data for studying the history of language, ethnolinguistics, ethnography and other disciplines. In the process of teaching Ukrainian dialectology, higher education is prepared for a conscious understanding of the essence of the national language and effective perception of the course of historical grammar, history of the Ukrainian language, understanding of many processes and phenomena inherent in modern Ukrainian literary language and those still preserved in dialects. without becoming the property of modern literary language, although their presence in the spoken society indicates that they were characteristic of our language in different periods of its development.

First of all, it should be noted that the problems of Ukrainian dialectology as a science in general and as an educational component in particular are quite relevant for modern linguistics, as in recent decades the attitude towards dialects has changed for the better. important aspects in the education of patriotism of the younger generation, the preservation of the traditions of the people, because in the dialects in verbal form accumulated the traditional material and spiritual culture of the ethnos.

All the above has intensified scholars, as evidenced by a number of publications of Ukrainian dialectologists, among which we note the work of P. Hrytsenko, G. Arkushin, M. Nikonchuk, K. Glukhovtseva, G. Martynova, A. Popovsky, L. Frolyak, P. Lyzants, M. Lesyuk, N. Hobzey, T. Tishchenko, S. Pantso, A. Sagarovsky, Y. Gromyk, L. Ryabets, V. Lesnova, T. Yastremska, M. Bigusyak, L. Dyka, Y. Bidnoshia, G. Kobyrnka, M. Voloshinova, D. Mareeva and many others.

At the same time, for the successful implementation of teaching and learning activities it is important to provide the course with educational and teaching materials, including textbooks and manuals. Note that so far the main textbook in the process of training a teacher of vocabulary is "Ukrainian dialectology" by S. Bevzenko [1], as well as educational and scientific publications by J. Dzendelivsky [2], F. Zhilko [3], A. Moskalenko [4], I. Matvias [5], which are used as a theoretical and methodological basis in the teaching of the educational component. Instead, we note that the factual material presented in their review of their time of publication is based on dialectal data mainly of the second half of the twentieth century. This

means that today there is an urgent need for new educational and teaching publications, the authors of which, based on the existing theoretical basis, summarize the views of linguists, dialectologists, interpret them in accordance with modern conditions that need to be updated given the dynamics of speech, replenish the factual base with new spoken material presented in monographic, lexicographic, linguogeographical and textual editions, which represents the dialect speech of different zones of the Ukrainian-speaking dialect continuum of the XXI century. [e.g., see: 6; 7; 8; 9], updating the approach to teaching the discipline "Ukrainian dialectology". In addition, we note that valuable generalized information is presented in the theoretical publication "Ukrainian language. Encyclopedia"[10], in which the material about dialectology in general and peculiarities of Ukrainian dialects in particular is represented in condensed form.

Aim, subject and research methods

The subject of our scientific research is the importance of the educational component "Ukrainian dialectology" in the context of teacher training.

The purpose of the article is to determine the place of the discipline "Ukrainian dialectology" in the system of modern higher education, to highlight the main tasks of dialectology at the present stage of its development, to characterize its significance in the modern linguistic and cultural space of Ukraine.

The main method of research is descriptive, which turned out to be the most optimal in solving the goal of the article.

It should be noted that in the process of teaching this discipline it is important to focus the attention of higher education students on the fact that most of them encountered dialectal speech from early childhood, as the idiolect of many of them was formed in the spoken environment, because they heard words and expressions, adopted them, becoming a member of the community with the appropriate micro-society and features of speech.

At the same time, in kindergartens, educators instilled in children love and respect for their mother tongue, explained the importance of the native language, taught them to nurture it, encouraged children to preserve such words as expressions of mentality of a certain ethnic group of the respective area, which is the key to true patriotism, which begins with love for the small homeland, for the word of grandfather, grandmother or mother's lullaby.

In addition, in the process of studying in general secondary education, acquaintance with dialectal elements continues, especially in Ukrainian language lessons during the study of the section "Lexicology", where the current Ukrainian language program provides in the 6th grade the study of groups of words by use, including - commonly used and stylistically colored words, dialectal, professional words and terms, spatial words [11, p. 24], as well as in the 8th grade during the repetition of the section "Lexicology", during which the student is required to argue that the word belongs to a certain group of vocabulary [11, p. 44], which involves the discovery of dialectal elements, understanding their significance for the literary language, culture of the ethnos. In view of the above, during the teaching of the educational component "Ukrainian dialectology" we focus on how a teacher of Ukrainian language and literature should behave when he gets a job in a rural area, especially one that has distinct dialectal features. All this suggests that when teaching Ukrainian to school-age children, especially in rural areas, in particular in areas where there are a number of spoken features that are clearly different from the literary language, vocabulary teachers are called to correctly explain the meaning of dialect data, to educate students in a positive attitude to spoken words, understanding of their specifics and scope, respect for the dialect word as an expression of the worldview and mentality of a particular ethnic group, the means of its identification, the basis of belonging to a particular ethnic group. According to P. Lyzanets, native language teachers must remember that most children, especially rural ones, when entering school or higher education, use the dialects of their native village, the living spoken language of their parents, so they need to be explained the role and meaning. these words for literary language so that they understand and realize the importance and the uniqueness of dialect data for the Ukrainian literary language, for the culture and history of the native land and the Ukrainian people in general [12, p. 255].

At the same time, it should be noted that the importance of knowledge of dialectology can be traced in the teaching of Ukrainian literature in secondary schools, because the program of Ukrainian literature involves the study of works by writers who deliberately used dialectisms to reflect the color of the area. Of Ukraine (eg, V. Stefanyk "Stone Cross", M. Kotsyubynsky "Shadows of Forgotten Ancestors", V. Gerasimyuk "Living Fire", V. Drozd "Iriy", etc.), so it is important to deepen knowledge in Ukrainian literature lessons. about dialect elements, to teach students to find them in a work of art, to encourage understanding of the purpose of their use by the author as a necessary component of the work to create its integrity, an important element of the writer's idiosyncrasy.

In the process of teaching Ukrainian dialectology in higher educational institutions, higher education students develop a number of general and special competencies. In particular,

mastering this discipline contributes to the formation of general (ability to generalize the basic concepts of the subject area and professional activity; ability to use information and communication technologies; ability to learn and master modern knowledge; ability to search, process, analyze and synthesize information from various sources; ability to adapt and act in a new situation; ability to work in a team; ability to act with social responsibility and awareness of the values of civil society) and special (ability to use in professional activities personality-oriented, activity and competence approaches to teaching Ukrainian language and literature; ability to freely, flexibly and effectively use the language learned orally and in writing, in different genre and style varieties and situations of communication in the process of professional and interpersonal communication, the ability to collect and analyze, systematize and interpret language, literary facts for solving professional problems during the educational process; ability to navigate in the history and theory of Ukrainian language and literature in the world context, the ability to use the achievements of linguistics and literary studies to form a national consciousness, worldview, values of students in modern society; ability to carry out scientific research, summarize and publish its results and apply them in professional activities; ability to take into account the regional linguistic and literary context for the development of professional knowledge and the formation of professional competencies, the implementation of educational goals; ability to understand linguistic-philosophical ideas, language and literature as a socio-cultural phenomenon, to have methods of linguistic-philosophical analysis) competencies. At the same time, the educational component "Ukrainian dialectology" provides the implementation of program learning outcomes, among which - to know the general theoretical principles, concepts and scientific concepts, categories of philological disciplines; know the main periods of development of the Ukrainian language, its system organization and norms, features of the use of language units in artistic and scientific discourses; be able to work with scientific and scientific-methodical sources, systematize and apply information in the implementation of educational and scientific activities; apply knowledge about the patterns and features of the development of linguistic processes in synchrony and diachrony and the relationship of linguistics with other branches of science and practice.

The main tasks of the educational component "Ukrainian dialectology" are the study of such problems as: dialectology, its subject, object, meaning and tasks; the problem of Ukrainian dialectogenesis; the relationship between the concepts of literary language and vernacular; synchronous and diachronic dialectology; sources of studying dialects; methods of collecting dialect material and research of dialect phenomena; the role of the vernacular for the formation

of literary language; social and territorial differentiation of language: social and territorial dialects; territorial varieties of language: idiolect, dialect, group of dialects, speech, adverbs; the problem of endemisms (endemics, dialectal phenomena); types of dialectal phenomena; regionalisms, localisms; connection of dialectology with other branches of linguistics and other disciplines; allocation of dialectology in a separate science; the role of Konstantin Mikhalchuk's works in the development of Ukrainian dialectology; vocalism of the Ukrainian language; consonantism of Ukrainian dialects; phonetic features of speeches; morphological features of speech; lexical features of speeches; syntactic features of speech; lingual features of the south-eastern dialect; lingual features of the south-western dialect; linguistic features of the Polissya dialect; significance of Polissya for the ethnogenesis of the Slavs; the current state of research of Ukrainian dialects; Ukrainian dialectological centers; dialect lexicography; dialect textography; Ukrainian linguistic geography; phonetic (scientific) transcription.

After studying Ukrainian dialectology, higher education students should know: the subject, object, meaning and tasks of dialectology; main problems of Ukrainian dialectogenesis; the names of dialectologists who cover issues of ethnogenesis and dialectogenesis, and the names of their main works; definition of "literary language", "vernacular"; sources of studying dialects; methods of collecting dialect material and methods of research of dialect phenomena; issues of social differentiation, types of social dialects; territorial varieties of language, definition of such concepts as: idiolect, dialect, group of dialects, speech, adverbs; definition of endemisms (endemics, dialectal phenomena), regionalisms and localisms; types of dialectal phenomena; the main features of the vocal system of each speech; the main features of the system of consonantism of each speech; phonetic features of speeches; morphological features of dialects; lexical features of speeches; syntactic features of dialects; lingual features of the south-eastern dialect; lingual features of the south-western dialect; linguistic features of the Polissya dialect; Ukrainian dialectological centers.

At the same time, students must be able to apply different methods of collecting dialect material and its study of dialectology; record dialect material by scientific transcription; identify narrow local formations; determine the phonetic and morphological features of speech; analyze dialect texts; determine the types of dialectal phenomena; apply dialectological data when studying other disciplines of the humanities; work with scientific dialectological literature and linguistic atlases.

It is important to note that in the process of studying Ukrainian dialectology students can independently determine the tasks of this discipline, which over the past few years, given the extralingual factors associated with the situation in modern Ukraine, are experiencing

dynamics, because the main tasks – to explore Ukrainian vernaculars on the territory of continuous spread of the Ukrainian language, as well as resettled Ukrainian dialects; to study speeches at the present stage of development of the Ukrainian language, as well as at various previous stages of its history; to study different language levels in the dialects of the Ukrainian language; comprehensively study the speech groups of national minorities throughout Ukraine; to expand and deepen the study of Ukrainian dialect groups outside Ukraine; pay due attention to the study of interdialect contacts of both related and unrelated languages – we should add the following: collect as much as possible previously recorded dialect material from the territories now called LPR and DPR, update and disseminate it to confirm with dialect data as well as to record as fully as possible the dialect material in the places of compact residence of migrants from rural settlements from this area today, in order to prove the unity of the Ukrainian territory, as well as to publish and republish as much as possible (if possible) already published materials representing this dialect area, collected before the infamous events in Ukraine [eg. see: 13; 14; 15].

The logical conclusion of the study of the educational component "Ukrainian dialectology" is dialectological practice, the purpose of which is to consolidate theoretical knowledge from the course "Ukrainian dialectology"; formation of practical skills of work with dialect material for its use in educational and future professional activity of the teacher-vocabulary; acquaintance with historical, ethnographic, economic characteristics of the studied area.

Tasks of dialectological practice – systematization and improvement of knowledge, skills and abilities of students of vocabulary, acquired in the process of studying Ukrainian dialectology; learning to freely operate with the acquired theoretical knowledge and skillfully apply it in practice; acquisition of skills and abilities of practical application of materials of practice during professional activity in establishments of general secondary education; formation of skills and abilities to apply dialect material during the introduction of the Ukrainian language, Ukrainian literature in general secondary education institutions, in the process of preparation and writing of student research papers in philological disciplines.

The practice is aimed at consolidating the theoretical provisions of Ukrainian dialectology and the ability to apply them during the practice. Students must complete the following tasks:

1. Collect dialect material in a certain dialect (record continuous text or answers to questions of the program-questionnaire).

2. Name to which dialect and dialect a particular dialect belongs.
3. Describe, if possible, the history of the village, the origin of its name, the number of inhabitants, etc.
4. Identify phonetic, morphological, syntactic and other features of speech.
5. Record samples of dialect texts on a dictaphone (telephone, audio, video) and reproduce them by phonetic transcription.
6. Provide information about informants (surname, name, patronymic, year of birth, place of birth, education, profession).

According to the results of dialectological practice, higher education students write term papers, diploma and qualification papers, scientific articles, test the materials of dialectological practice in speeches at student scientific conferences, use it during industrial pedagogical practice at school.

Research results

Thus, the course of Ukrainian dialectology as a subject of linguistics is of great importance for the formation of the general linguistic worldview of a philologist, future teacher of Ukrainian language and literature, because it will help him to more actively perceive the history of Ukrainian language, including historical grammar. , to observe intensive processes of interlingual and interdialectal interaction, consequences of influence of the Ukrainian literary language on speeches; equip the student with the necessary knowledge as a future teacher of vocabulary, who often has to work in a dialect environment.

Conclusions

Thus, the educational component of "Ukrainian dialectology" is important not only in the training of future teachers of vocabulary, but also in general, because dialect data are used by scientists in various fields of knowledge, because the living vernacular reflects the material and spiritual culture of the ethnos. it is possible to explain a number of phonetic, morphological, lexical processes in language; in addition, knowledge of dialects expands the worldview, makes a person involved in the history of his people, its past, present, future, because it is with the help of dialects that the speaker of a certain area realizes its originality, uniqueness, has the ability to compare itself with other native speakers of the Ukrainian language of the entire Ukrainian-speaking continuum.

At the same time, the role of teaching this course in modern conditions is growing, but, unfortunately, the existing plans created in each school do not contribute to the actualization of Ukrainian dialectology given the number of hours planned in them and which decreases annually due to so-called curriculum optimization. process, which leads to the leveling of important learning factors, laid down, among other things, in the course of Ukrainian dialectology. In addition, previously an important component that completed the study of this discipline was dialectological practice, during which students traveled with teachers to certain settlements for professional collection of dialect material to replenish the factual base of Ukrainian dialectology in general. Unfortunately, in most higher education institutions, due to cost savings, the practice has taken the form of recording material by students in the settlements where they live, which does not always meet the purpose and objectives.

All the above gives grounds to state that Ukrainian dialectology as a discipline requires new approaches to its teaching, involves the search for new forms and methods of its study, in particular, with the use of modern computer technology, which will enable professional training of higher education, facilitate their adaptation to the new speech environment, allow the teaching of linguistic disciplines in modern dialect speech with an understanding of its importance and need as a factor in civic consciousness and patriotism.

Bibliography

1. Bevzenko S.P. Ukrainian dialectology. K.: Scientific opinion, 1980. 246 p.
2. Dzendelivsky Y.O. Synopsis of lectures on the course of Ukrainian dialectology: (Introductory chapters). Uzhhorod, 1966. 100 p.
3. Zhilko F.T. Essays on the dialectology of the Ukrainian language. K.: Scientific opinion, 1966. 303 p.
4. Moskalenko A.A. Essay on the history of Ukrainian dialectology (Soviet period): Textbook for part-time students. Odessa, 1962. 126 p.
5. Matvias I.G. Ukrainian language and its dialects. K.: Scientific opinion, 1990. 163 p.
6. Arkushin G.L. West Polish dialectology: textbook. way. from the region. dialectology for students. special «Ukr. language and literature". Lutsk: Lesya Ukrainka Volyn National University, 2012. 256 p.
7. Berezovska G.G. Ukrainian dialectology: textbooka. Uman: FOP Zhovtiy O.O, 2015. 154 p.

8. Synopsis of lectures on Ukrainian dialectology: for students in the direction of training 6.020202 Philology (Ukrainian language and literature) / Encl. V.M Kurylenko, D.A Mareev. Deaf: RVV GNPU them. O. Dovzhenko, 2014. 96 p.
9. Hrymashevych H.I. Ukrainian dialectology: Course of lectures. Zhytomyr: Zhytomyr Ivan Franko State University, 2019. 176 p.
10. Ukrainian language: Encyclopedia / Redcol. Rusanovsky V.M. (co-chairman), Taranenko O.O. (co-chairman), M.P. Zyablyuk and others. 2nd ed., Corrected. and ext. K.: Publishing house «Ukrainian encyclopedia» them. M.P Bazhana, 2004. 824 p.
11. Program "Ukrainian language for secondary schools with Ukrainian language of instruction (as amended in 2015) (Grades 5–9) ”/ Compilers G.T. Shelekhova, M.I. Pentilyuk, V.I. Novoselova, T.D. Gnatkovich, N.B. Korzhova, K.V. Taranik-Tkachuk. K., 2015. 59 p.
12. Lyzanets Petro. Dialectology as a science of modern modern linguistics. *Dialectological Studies. 3. Collection in memory of Yaroslava Zakrevska*. Lviv, 2003. P. 247–256.
13. Dialects of Eastern Slobozhanshchyna: a collection of dialect texts: textbook. way. / order. V.V. Lesnov; for general ed. P. Yu. Gritsenko; State. lock “Luhansk Taras Shevchenko National University”. Luhansk: Publishing House of Taras Shevchenko Lviv National University, 2013. 304 p.
14. Ukrainian East Slobozhansk dialects: modern dialect texts: textbook. way. / Compilers K.D. Glukhovtseva, V.V. Lesnova, I.O. Nikolaenko; edited by K.D. Glukhovtseva. Luhansk: Publishing House of Taras Shevchenko Lviv National University, 2011. 424 p.
15. Frolyak L.D. Ukrainian eastern steppe dialects of Donetsk region: Monograph. Drohobych: Posvit, 2013. 400 p.

Inna Yakivna Hubenko¹

ORCID ID: <https://orcid.org/0000-0002-3798-6489>

¹ Cherkasy Medical Academy

ORGANIZATION OF THE STUDENT SCIENTIFIC SOCIETY'S WORK IN THE CONDITIONS OF DISTANCE LEARNING

Summary

The COVID-19 pandemic has led to the introduction of a remote format for ensuring the educational process in all fields of education, including medical educational institutions. The article demonstrates the experience of ensuring the work of the student scientific society of the Cherkasy Medical Academy in a remote format, advantages and disadvantages of this format of activity are determined, outlines the main problems that needed to be solved and ways to solve them.

Keywords: The Student Scientific Society, distance learning, educational process.

Introduction

In the system of higher medical education, the involvement of students in research work contributes to an increase in the level of professional training. It is the Student Scientific Society that is an important link in the training of specialists in the field of knowledge 22 "Health Care". The work of the Student Scientific Society is part of the educational process and allows to unite students of the educational institution who are interested in the problems of medicine. In the process of work, applicants prepare reports, discuss essential medical problems with teachers, conduct research work with supervisors, improve practical skills, etc.

Due to the spread of coronavirus disease (COVID-19) in the world caused by SARS-CoV-2, implementation by the Cabinet of Ministers of Ukraine on March 16, 2020, of quarantine and measures to combat the epidemic, the issue of organizing the educational process at the Academy during the pandemic became acute. Thus, the organization of the

educational process during the introduction of the quarantine measures at the Academy is carried out in accordance with the Order "On the transfer of the educational process to distance learning for the period of quarantine" (11.03.2020), the Order "On additional organizational measures to prevent coronavirus" (17.03.2020), the Order "On organizational measures in the Academy for the period of emergency situation in Cherkasy region" (24.03.2020), the Order "On the organization of the educational process at the Academy during the period of emergency situations in Cherkasy region" (27.03.2021) [1] and other regulations.

Various platforms to ensure distance education have become the main tool for maintaining the educational process around the world [2; 5]. In the process of implementation of distance learning Cherkasy Medical Academy decided not to stop the work of the Student Scientific Society and circles, and make its transfer to the remote format.

Purpose, subject, research methods

The purpose of the study is to demonstrate the results of organizing the work of the Student Scientific Society in terms of distance learning, to determine the advantages and disadvantages of this format of activity, to consider the potential of integrating elements of The Student Scientific Society's distance work into the usual activity format after the termination of quarantine measures.

The subject of the research is the work of the Student Scientific Society, its organizational, methodological and technical support.

Materials and methods. Analysis of modern literary sources, some of which are chosen for more detailed coverage, is carried out; the data on the experience of organizing the work of the Student Scientific Society in the conditions of distance learning at Cherkasy Medical Academy were used.

Research results

The Student Scientific Society as an integral part of the Research Society of Students and Young Scientists of Cherkasy Medical Academy, contributes to the improvement of vocational training, identifying gifted young people. In its activity, the Student Scientific Society is guided by the legislation of Ukraine, in particular, the Laws of Ukraine "On Higher Education", "On Education", "On Scientific and Technical Activities", "On the Fundamentals of State Policy in the Field of Science and Scientific and Technical Activities", "On Professional Pre-higher

Education", as well as relevant normative documents of higher legislative authorities, the statute of Cherkasy Medical Academy, rector's orders, regulations on the Research Society of Students and Young Scientists [1].

The main *purpose* of the Research Society of Students and Young Scientists of Cherkasy Medical Academy is the comprehensive promotion of research, inventive and other creative activities of students and teachers.

The Research Society of Students and Young Scientists has the following tasks:

- To organize scientific and educational events;
- To improve the quality of scientific research;
- To promote the involvement of students in scientific work and innovation activities.

To fulfill its goals and objectives, the Research Society of Students and Young Scientists:

- facilitates the exchange of information between young scientists and researchers;
- promotes the development of inter-university and international cooperation;
- interacts with the National Academy of Sciences of Ukraine and national branch academies of sciences, scientific and research institutions;
- performs other functions stipulated by the provision on the Scientific Society of Students and Teachers of Cherkasy Medical Academy.

The powerful physical infrastructure of the Academy fully allows to implement the most daring modern educational projects: all departments of the Academy and structural subdivisions are provided with the necessary and often unique devices, equipment and computer programs. Today, a single information space of the Academy is actively used and continues to be modernized. Conditions are created for students to use personal mobile devices for working with online services. Significant funds are spent annually to maintain and update the academy's material base. All requests of the team are considered to be paramount to implementation, since there is a clear understanding – modern equipment makes it possible to effectively and in a short time implement innovative educational projects.

The work of the Student Scientific Society in the conditions of distance learning is greatly facilitated by the Scientific Medical Library, which is a scientific, educational, informational structural unit of Cherkasy Medical Academy, organizational, methodological and coordination center of medical libraries in the region. The students and teachers of Cherkasy Medical Academy have the opportunity to remotely use the documentary fund, which consists of: educational literature, information about the most modern methods of treatment, monographs of prominent Ukrainian and foreign scientists, practical guidance, treatment standards from all branches of medicine. The library contains rare editions, book attractions. The library has a

large reference and search system, consisting of traditional card catalogs and an electronic catalog in the automated library system IRBIS.

During an academic year, the library serves about 5,000 readers. The total issuance of documents is more than 80 thousand. The library selectively distributes scientific and medical information remotely and conducts on-site complex mass events (Information Days, Specialist Days, conferences, etc.).

The library is equipped with modern technical devices, computerized workplaces of librarians and readers, free internet access, and wi-fi.

Members of the student scientific society are regularly informed about the library innovations, planned scientific events (conferences, competitions, Olympiads, etc.), held with the participation of students and young scientists, interaction with other youth public organizations in Cherkasy and Cherkasy region.

The Student Scientific Society of the Academy has 23 subject and scientific circles, clubs "Law" and "Search", an ecological detachment, in which about 800 students of all courses and specialties are involved. This gives the opportunities for creative activity, gaining confidence in their ability to master scientific skills, in achieving the necessary professional qualities. Traditionally, in May, the Academy summarizes their work, analyzes achievements, discusses the prospects for the future. The presentation of the circles' work in the form of posters on the website of Cherkasy Medical Academy [1] shows a diverse group work that helps students to learn more deeply the material of academic disciplines, master the skills of research and search activities and the design of its results.

In the usual format, the work of the group was provided as follows: at the beginning of the academic year, the teacher (head of the circle) informed students about the place and time of the organizational meeting. At the first meeting, a thematic plan was developed. The students chose the topic for scientific activity among the proposed ones or expressed a desire for scientific research based on their own preferences, with the possibility of presenting the results of work in periodicals and scientific-practical conferences in the form of reports, posters, etc. In the course of the academic year, in accordance with the thematic plan, meetings of the circles were held [4]. The duties of the head of the group included control over the process of preparing reports. During the year, students who expressed such a desire, both as listeners and speakers, were able to join the group.. During the meeting, students presented the report in the form of a speech using multimedia tools. The head of the group assessed the report, supplemented and corrected the information submitted by the speaker. The participants had the opportunity to ask questions, debate on one reason or another. At the end of the academic year, the results of the

work were summarized. Students who had the best works represented them at the annual student conference.

With the transfer to the distance format, the issue of readiness of teachers and students to remote activities emerged. Thus, the publications [3; 6] cover in detail the assessment of the effectiveness of modern distance learning in educational institutions, outline the types of distance education, highlight the negative and positive aspects of the introduction of distance learning, describe the prospects and solve the problems of distance education.

The first task that needed to be solved for the activities of the Student Scientific Society is the choice of a platform for meetings. The existing environments and the experience of ensuring the educational process in periodicals have been analyzed. As a corporate video conferencing tool based on Google's robust and secure global infrastructure, Meet was chosen, which has proven itself in organizing a remote education format.

Thus, the full application of Google Meet allows you to solve most problems of distance learning, and in some respects to facilitate the functioning of the Scientific Community. The teachers' offices are set up in Google Meet, for the convenient work of teachers and students and for administration control. The teachers' offices are posted on the academy's website.

To support training at Cherkasy Medical Academy there is a special distance learning server [1], located on the Moodle platform the most popular one in the world.

The main goal of the Moodle implementation is to provide teachers and students with free access to the system that allows them to effectively exchange educational content and interact online. Each discipline in Moodle contains educational materials that students actively use for learning. The Moodle content [7] contains lectures, practical tasks, assignment for self-study, presentations, tests for control of students' academic achievements etc. When organizing the work of the Student Scientific Society, this platform was actively used by students, which contributes to a more in-depth study of theoretical material; forms the ability to find the best answers, solutions; develops work skills with electronic textbooks. It also gives the possibility to use modern means of receiving information or to get advice from a teacher, or hear the opinion of another member of the circle.

To study the assessments of distance learning at Cherkasy Medical Academy, a survey of 265 students of various specialties was conducted. They were 84.2% females and 15.8% males. The questionnaire contained questions related to the assessment of distance learning.

To the question "What is your attitude to distance learning?" more than half of the respondents 51.8% answered positively and 23.4% were uncertain (Fig. 1).

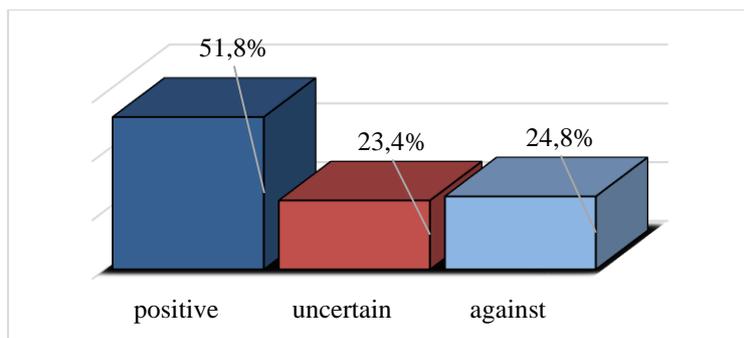


Fig. 1. Answers to the question: “What is your attitude to distance learning?”

Among the advantages of distance learning, the surveyed students often pointed to the ability of obtaining all necessary information at a convenient time, the ability to communicate quickly with the teacher without additional efforts and significant timesaving. They noted the possibility of planning their time to prepare for classes and watching videos and presentations (Fig. 2).

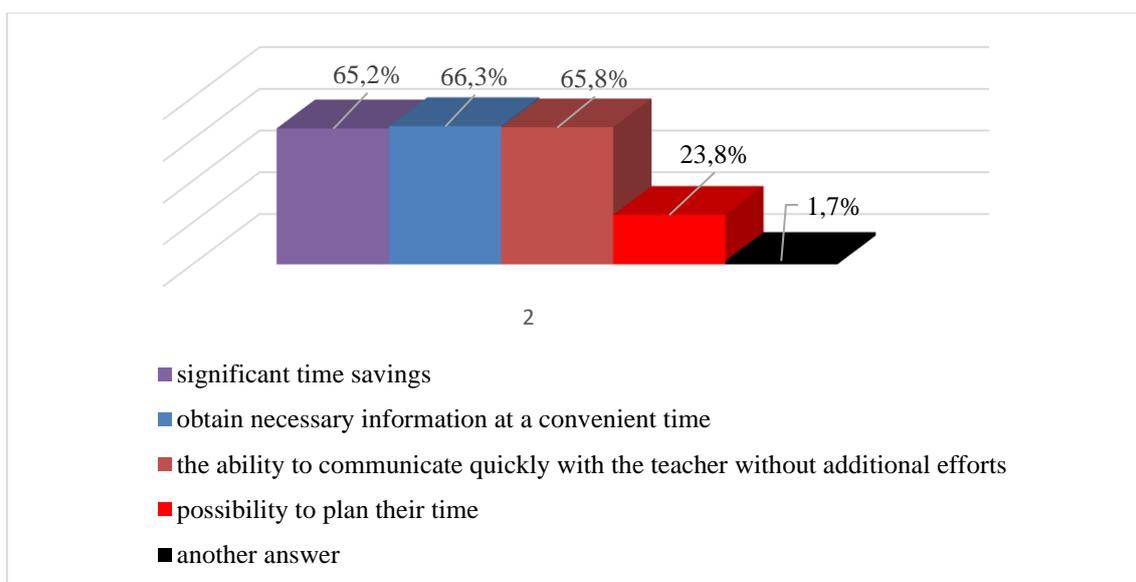


Fig. 2. Answers to the question: “Specify the benefits of distance learning”

Answering the question “How did you learn the training materials during quarantine?”, the majority of respondents (61.3%) noted that it was easy to train, but with minor difficulties, 16.4% of students said it was difficult to study and 18.3% mentioned that there were no problems with mastering the material, 4% students could not give an accurate answer to this question (Fig. 3).

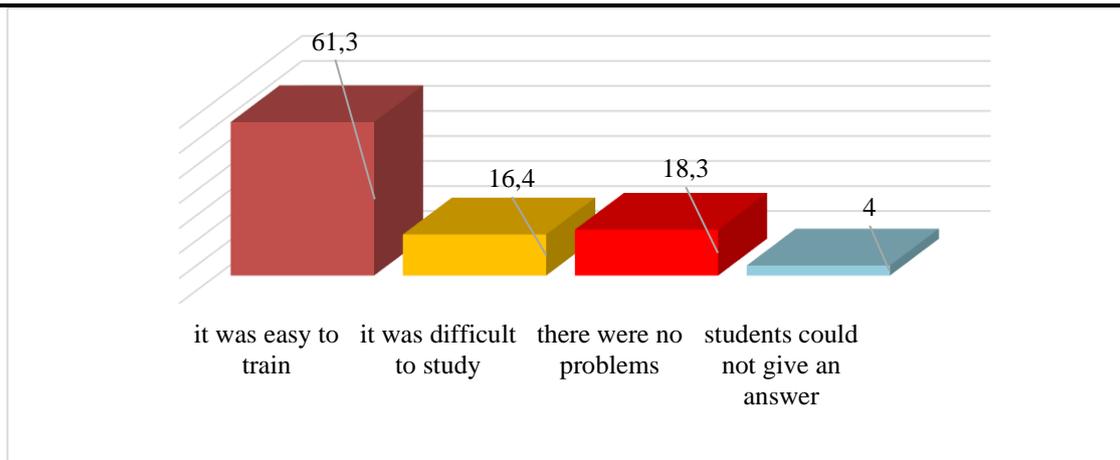


Fig. 3. Answer the question: "How did you learn the training materials during quarantine?"

Answering the question: "Did you receive enough information from the materials of preparation for classes?", More than half of students (50.3%) had some comments on the materials of preparation for classes, 34.2% were completely satisfied with the materials and only 10,5% of students were not satisfied with the training materials, 5% of students could not give an accurate answer to this question (Fig. 4).

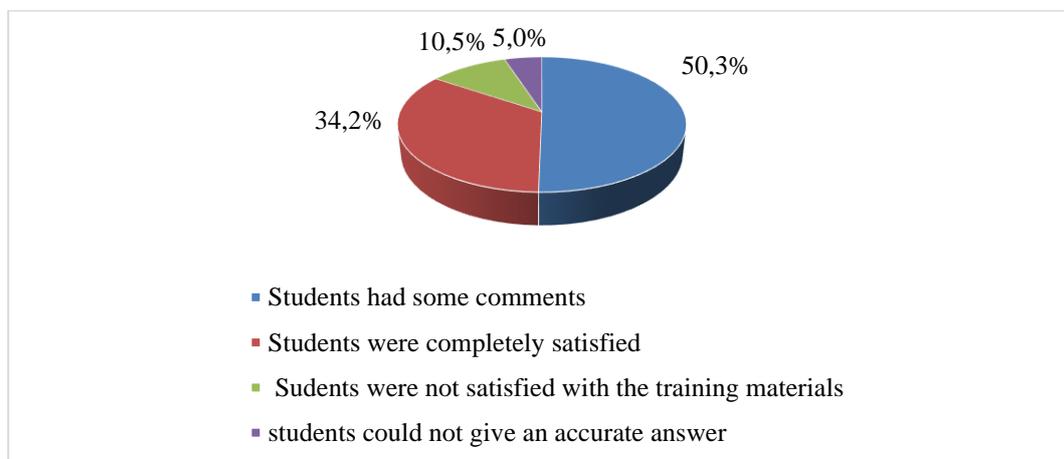


Fig. 4. Answers to the question: " Did you get enough information from the training materials? "

Answering the question: "Would you like to continue distance learning?", the majority (63.2%) of respondents would not like to continue distance learning, 21.8% of respondents were satisfied with distance learning and 15% of students found it difficult to answer this question.

The respondents who are satisfied with the distance form of learning believe that online lectures are perceived better. The students who do not like distance learning, among the reasons indicated that nothing could replace live communication.

The majority of respondents 62% answered that it is better to hold a meeting of the Research Society online, as it saves time, but 82% of respondents believe that it is better to do research in educational institution or medical institution.

The results indicate the presence of subjective obstacles to the acquisition of knowledge during distance learning, which involves a significant self-motivation of the student for their own learning, as well as a high level of self-organization.

Scientific work at Cherkasy Medical Academy is an important component of its activities, which is aimed at increasing the competitiveness of the institution as a whole and each scientist in the modern educational space. In the 2020-2021 academic year, students and teachers of the academy were actively engaged in group and research work. Students presented their scientific achievements at the following conferences in: Cherkasy Medical Academy, the Cherkasy Institute of Fire Safety named after the Heroes of Chernobyl, Ternopil State Medical University named after I. Gorbachevsky, Bukovynian State Medical University. Thus, on April 8, 2021 Cherkasy Medical Academy hosted the First Regional Student Scientific and Practical Conference "Human Ecological Safety in the Global Environmental Crisis" (Fig. 5) in online format, organized by the Research Society of Students and Young Scientists and the Department of Natural Sciences.

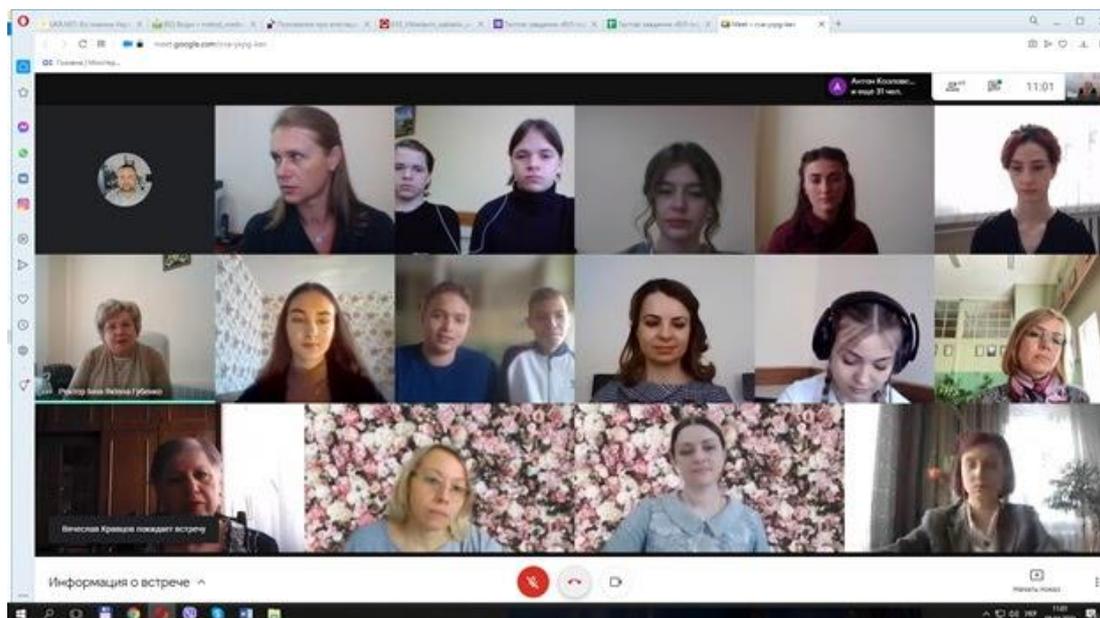


Fig. 5. The First Regional Student Scientific and Practical Conference: "Human Ecological Safety in the Global Environmental Crisis"

The aim of the conference was to involve students in research work in environmental field to deepen and systematize environmental knowledge and to develop the ecological style of thinking and eco-positive behaviour.

The conference was conducted in 3 sections: current environmental issues; environmental hazards, their impact on the quality of human life; the role of environmental factors in the emergence of diseases of civilization.

At the conference, there were 16 reports, 32 works of 44 students were presented for publication, 33 heads were engaged as supervisors. Eleven educational institutions took part at the conference, namely: Cherkasy Medical Academy, Zaporizhia State Medical University, National Medical University named after O.O. Bogomolets, National Technical University of Ukraine (Kyiv Polytechnic Institute named after I. Sikorsky), Uman Medical College, the Uman National University of Horticulture, Cherkasy State Technological University, Cherkasy Institute of Fire Safety named after the Heroes of Chernobyl NUTSZ of Ukraine, Cherkasy Commercial Technical School, Cherkasy technical school, Separate structural subdivision " the Kaniv Professional College of Culture and Arts of Uman State Pedagogical Academy named after Pavel Tychyna". The content and diversity of the reports give reason to hope that the conference will become an annual one.

In June, the results of the Research Society of Students and Young Scientists in 2020-2021 headed by the Vice-Rector of Scientific and Methodological Work Oleksandra Teodorivna Shevchenko were summed up (Fig. 6). Oleksandra Teodorivna, the chief specialist as infectious disease doctor of the Cherkasy Medical Academy, acquainted the participants with the algorithm of actions in case of an emergency related to the registration of a coronavirus disease (Covid-19).



Fig. 6. The final meeting of the Research Society

The secretary of the Research Society Inna Marush summed up the work of the Research Society of Students and Young Scientists during the current academic year and informed the

audience that students took part in conferences and congresses held at 6 educational institutions (Fig. 7).

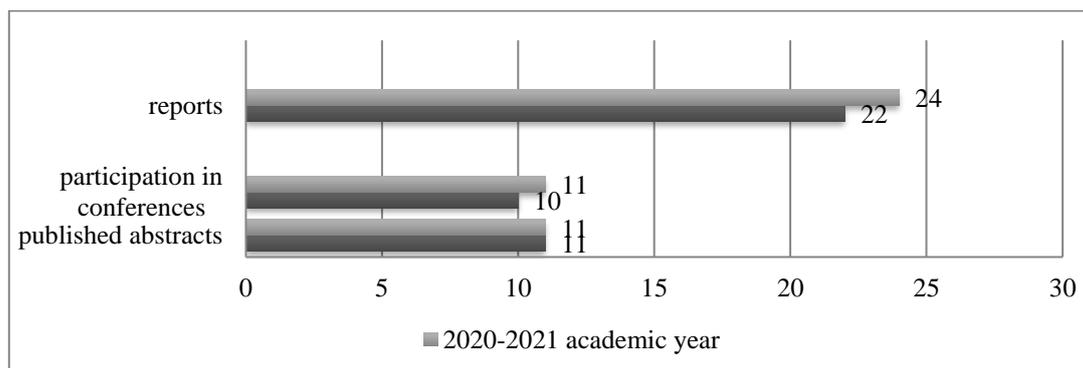


Fig. 7. Comparative diagram of research work of the students

As shown by the analysis of research work of students in 2020-2021 academic year, the distance form of work did not reduce the interest in scientific activity of students, the number of scientific works increased compared to the previous academic year.

Young scientists of the academy take an active part in scientific forums held in other cities of our country and abroad, and receive diplomas of winners at various student scientific conferences and congresses such as All-Ukrainian student Olympiads, national competitions of scientific works, namely: The 1st Regional Student Ecological conference "Human Eco-safety in the Global Environmental Crisis"; International Student Conference in Poltava 2021; "Chemistry: Present and Future"; International Congress of Students and Young Scientists, Ternopil; Scientific and Practical Conference of Students and Young Scientists with International Participation, Ivano-Frankivsk; The 1st All-Ukrainian Student Scientific and Practical Conference "Topical Issues of Medical, Biological and Pharmaceutical Sciences"; the 90th Scientific and Practical Conference of Students and Young Scientists with International Participation "Innovations in Medicine and Pharmacy"; the 14th International Scientific and Practical Conference "Science of Post-Industrial Society: Globalization and Transformation Processes; Globalization of Scientific Knowledge: International Cooperation and Integration of Sciences".

An important requirement for students in scientific activities is the formation of their responsible attitude to the intellectual property of third parties. Thus, the head of the Commission on Ethics and Academic Integrity Lilia Kozlova reported "On compliance with the principles of academic integrity in Cherkasy Medical Academy" (from the Regulations on academic integrity in Cherkasy Medical Academy from 20.11.2017 [1]) according to the plan: 1) the concept of "academic integrity" (Article 42 of the Law of Ukraine on Education); 2) what

academic integrity presupposes and contributes to; 3) the basic principles and types of violations of academic integrity; 4) forms of academic responsibility for students.

Kateryna Petrova, a postgraduate student of Bogomolets National Medical University at the Department of Pharmaceutical and Industrial Drug Technology, reported on the condition of admission to study for PhD degree (Law of Ukraine "On Higher Education" of September 28, 2017 № 1556-18.) according to the plan: 1) the concept "Doctor of Philosophy", 2) the volume of PhD thesis; 3) the difference between a candidate of science and a doctor of PhD; 4) requirements for admission to graduate school.

The next issue was the discussion the work plan of the Research Society of Students and Young Scientists for 2021-2022. The chair of the Research Society of Students Iryna Vasylenko, acquainted the audience with the work plan for the 2021-2022 academic year. Students will take part in regional, All-Ukrainian and International conferences, congresses, round tables, competitions of creative works, etc. The II Regional Student Scientific and Practical Conference "Human Ecological Safety in the Global Environmental Crisis" at Cherkassy Medical Academy will take place in April. In the course of academic year, 6 meetings of the Research Society are planned.

Conclusions and prospects for further research

The experience of the Student Scientific Society in the distance learning format shows the high efficiency and effectiveness, close to real meetings. Maximal use of the proposed platforms for distance learning as well as additional resources, made it possible to implement all the tasks of the Student Scientific Society.

The main disadvantage of the distant meetings is the lack of live communication, between the students and the teacher, live discussion in the classroom. The use of video-call has partially solved this problem, providing full exchange of information, and constructive conversation. Among the advantages, one can note a greater number of students present at the meetings. The possibility of holding hybrid meetings in the presence of members of the student scientific society and online broadcast on the Google Meet platform in order to provide remote presence to students who have no possibility to be present at the meeting.

Thus, the period of distance learning and the work of the Student Scientific Society allowed to re-evaluate the possibilities of using platforms for online education identify the advantages and disadvantages of this format of educational process and, identify positive components that can be integrated into the usual format of meeting. In the future, Student

Scientific Society is planning to work in this direction, implement the positive practices of the remote format activity of the circle into the usual mode of operation.

Bibliography

1. Cherkasy Medical Academy: web-site. URL: <https://medcollege.ck.ua/>.
2. Coping With COVID-19. / J. Lieberman, T. Nester, B. Emrich et al. American Journal of Clinical Pathology. 2021. Vol. 155, Issue 1. P. 79-86.
3. Nenko Y., Kybalna N., Snisarenko Y. The COVID-19 Distance Learning: Insight from Ukrainian students. Revista Brasileira De EducaçãO Do Campo. 2020. Vol. 5. e8925. DOI: 10.20873/uft.rbec.e8925
4. Orhanizatsiia roboty studentskoho naukovooho tovarystva v umovakh dystantsiinoho formatu zabezpechennia osvithnoho protsesu [Organization of the student scientific society in terms of remote format of the educational process] / M. O. Kozhem'yaka, M. L. Golovaxa, M. S. Likunov ta in. Medical Education. 2021. № 2. P. 28-34. [in Ukrainian]
5. Pre-clinical remote undergraduate medical education during the COVID-19 pandemic: A survey study. / B. Shahrivini, S. Baxter, C. Coffey et al. BMC Medical Education. 2021. Vol. 21, Issue 1. P. 13.
6. Shevchenko O., Nenko Y. Readiness of a higher education institution teacher for distance education during COVID-19 pandemic. Education during a pandemic crisis: problems and prospects: monograph / eds. Tetyana Nestorenko, Tadeusz Pokusa. Opole: The Academy of Management and Administration in Opole. 2020. P. 141-144. URL: https://www.researchgate.net/publication/349589795_Readiness_of_a_higher_education_institution_teacher_for_distance_education_during_COVID-19_pandemic
7. Shevchenko O., Vasylenko I., Chubenko V. Informatsiini tekhnolohii u medytsyni: praktyka vprovadzhennia u Cherkaskomu rehioni ta pidhotovka fakhivtsiv [Information technologies in medicine: implementation practice in the Cherkasy region and training]. National Health as Determinant of Sustainable Development of Society: monograph / eds.: N. Dubrovina, S. Filip; School of Economics and Management in Public Administration in Bratislava. Bratislava, 2021. P. 492-506. [in Ukrainian]

Maryna Ishchenko¹

ORCID ID: <https://orcid.org/0000-0003-2385-233X>

¹ Kyiv Aviation Professional College

COMPETENCE APPROACH IN TEACHING MATHEMATICS IN COLLEGES

Summary

The urgency of the problem of forming the professional competence of students is due to changes in the educational paradigm of higher education, the rapid renewal of scientific and technical knowledge. An important criterion for the competitiveness of a specialist is his competence in various fields, including in the mathematical field. Therefore, my article is devoted to the development of professional competence of students of IT specialties in the study of mathematical disciplines. The purpose of the article is to show how the construction and analysis of mathematical models of problems of the professional field of future professionals affect the development of individual components of professional competencies. Theoretical: analysis of pedagogical, psychological and special literature in order to substantiate the need for the formation of professional competence of graduates of IT colleges; generalization of results of domestic and foreign researches on the specified problem. Empirical: pedagogical observations, conversations with teachers and students to determine the role of mathematical models in the implementation of the applied orientation of teaching mathematics in the system of higher information education. The results of the study indicate that teaching mathematics in an IT college by building and analyzing mathematical models that are created to solve applied problems has significant potential in the formation of professional competencies in future programmers.

Keywords: mathematical competence; information and communication technologies; mathematical training of specialists; professional competence; professional training.

Introduction

The implementation of the competence approach at all levels of the modern education system is a key, defining trend, especially relevant and characteristic of innovative transformations in Ukraine. It is clear that the implementation of such an approach involves a significant reorientation of the educational process. The main goal is the personality of the learner. There is no doubt that this is a new opportunity for the training of future professionals. This will ensure its formation and development.

The development of the information society in Ukraine and the introduction of the latest information computer technologies (ICT) is recognized as one of the most popular. The domestic ICT market is in a state of active formation and, under certain conditions, can become a foundation for the development of the information society. Therefore, one of the main strategic goals of Ukraine's development is the creation of a system of education focused on the use of the latest ICT.

Analysis of recent research and publications. Competent approach to the professional training of specialists is recognized in the scientific works of such researchers as M. Alekseev, Z. Ceitdametova, O. Spidichi. Methods of teaching certain disciplines of future software engineers are covered in the works of such scientists as D. Shchedpolocev, L. Grishko, O. Kychko.

To determine the key competencies, I analyzed the normative documents, job descriptions, as well as the requirements of the candidates for the candidate. In addition, in the course of the research the methods of teaching the discipline "Discrete Mathematics" were considered and the list of knowledge, skills and abilities that the person has is formulated.

Research results

The profession of engineer-programmer is characterized by high demand for the labor market, which, according to forecasts, will increase in the near future. Therefore, teachers should build their activities so that the most important element was the formation of students, on the one hand, the ability to apply theoretical knowledge, on the other - the ability to function successfully in modern reality, ie the ability to analyze and solve specific practical problems. Applied tasks related to their future professional activity are the most useful in teaching students.

It is important to begin the process of learning to build an analysis of mathematical models by emphasizing that they must be adequate to modern production.

If such models are used in teaching, it will provide a solution to an important didactic problem of level and profile differentiation. In addition, this approach aims to harmoniously combine the interests of the individual and society. Thus, we form students' interest in mathematical modeling. This is due to the acquaintance with the field of knowledge, the consideration of which contributes to the professional development of the future specialist.

It is clear that in order to successfully teach students the basic mathematical methods of solving applied problems, teachers of mathematical disciplines themselves must be ready for such work. And the greatest difficulty is that they must be well prepared, ie have mathematical modeling, in the field of professional activity of students.

Analyzing the answers of teachers of mathematical disciplines, we can identify the following difficulties in solving the didactic problem, which is the need to reveal in the process of teaching mathematics the relationship between mathematics and professional tasks:

- first, teachers of mathematical disciplines and teachers of professionally-oriented disciplines in the classroom, as a rule, "work" only on their subject, ie they do not correlate their actions with the work of colleagues;
- secondly, insufficient development of methodological literature and other didactic materials for IT universities. This is not a method of mathematical modeling in general, but a mathematical modeling for solving applied problems. Specifics that take into account professional activities are needed.

If you try to google whether a programmer needs math, you will get both positive and negative answers. The point here is not that someone is telling a lie, but only that each of the respondents under the word "mathematics" has its own concept and set of knowledge. So let's first deal with what happens to mathematics.

The meaning of the implementation of the competence approach in teaching mathematics in college is to develop students' ability to solve problems in various fields and activities based on the use of mathematical knowledge and the student's own experience.

The content of teaching mathematics is a didactically adapted experience in solving the use of mathematical concepts and methods to solve various problems, including educational, cognitive, worldview applied, practical.

The meaning of the organization of the learning process is to create conditions for the formation of students' experience of independent solution of not only mathematical but also cognitive, communicative, organizational and other problems.

Assessment of students' academic achievements is based on the analysis of the dynamics of the levels of education achieved by them at each stage of learning.

Elementary math is the math we learn in school. It includes arithmetic, algebra and geometry.

Higher mathematics is the mathematics we study at university. Depending on the university in which you studied (study or will study) higher mathematics can be briefly represented by the subject of the same name Higher Mathematics, or contain a number of subjects. So from. The fact is that some programmers mean elementary mathematics when they say that absolutely every programmer needs mathematics.

Different types of problems require (or do not need at all) their own sections of mathematics. If you plan to do graphics, then most likely you will need differential equations and geometry. If modeling natural processes (for example, in the field of energy), you need: mathematical analysis, differential equations, mathematical physics and computational mathematics. If the financial field, it is necessary to understand probability theory and mathematical statistics, as well as mathematical logic, algebra, number theory and computational mathematics. All sections of mathematics (especially linear algebra) will be useful for creating games, because you have to work with graphics, model physical processes, and, of course, create artificial intelligence.

Combinatorics and combinatorial algorithms will be useful, mainly in the optimization of various algorithms that work with permutations, combinations, placements, division into subsets, graph bypasses, as well as in assessing the complexity of an algorithm. First of all, pay attention to discrete mathematics and mathematical statistics.

For example, when writing databases or building search engines can not do without knowledge of discrete mathematics. It will be useful in logistics and construction of routes. Data mining, in turn, requires knowledge of mathematical statistics, as well as the stock market, where most players are bots, writing which also requires knowledge of mathematical statistics, as in any forecasting.

Most web application developers use a school base and self-education - simply because no special mathematical skills are required in this area of software development. Programmers working at a more complex level will need more fundamental knowledge - for example, in the game development industry (Game Development) very useful knowledge of algorithms, linear

algebra and geometry. In any case, before you start building your professional career in programming, it is extremely important to lay the same basic knowledge, which must be presented in strong technical universities.

For different levels of programming, their sections of mathematics are useful. For low-level programming, for 3D modeling, for task-oriented programming - your sections will be useful. Who needs geometry, who needs discrete mathematics. For example, without knowledge of linear algebra and statistics it is impossible to program in the field of encryption.

The main task of a programmer is to explain to a computer what to do in one of the programming languages. And for this higher mathematics is not required. The only required subject of higher mathematics is mathematical logic. Without it it is impossible to build conditional expressions. And even you need to know no more than 20%.

Elementary mathematics is needed by all technicians. Even typesetters to count and translate units of measure, calculate interest, etc.

One of the main problems of modernization of the study of mathematical disciplines in the IT College is the problem of forming professional competence. It is necessary that the developmental and educational functions of mathematics form in students of IT specialties professional competence.

Kompetentnicnyy pidxid till the ocvity (nA vidminy from tpadytsiynoho kvalifikatsiynoho) viddzepakalyuye vymohy Nor only till the zmity ocvity (chto povynen znaty, ymity i which navychkamy volodity vypycknyk College ppofeciyniy cfepi), a and till the povedinkovoho ckladnyka (zdatnocti till the zactocyvannya znan, ymin i navychok for performance of tasks of professional activity). Today it is common to interpret competence as an ability to establish knowledge, skills and personal qualities with the aim of successful activity in the field. Kompetentsii, Po cyti, vyznachayut nabip diyalnocti species, which povynen zdiycnyuvaty ppofecional y konkpetniy cfepi nA pevnomy pivni, a kompetentnict - tse pealizatsiya kompetentsii konkpetnym cyb'yektom diyalnocti chto zalezhyt from yoho ocobycticnyx xapaktepyctyk. In accordance with these provisions, the model of competencies in a particular professional field more accurately describes the nature of the activity of the specialist in comparison with the professional.

Infopmatsiyno-komynikatsiyna kompetentnict, tochnishe infopmatsiyno-komynikatsiyno- texnolohichna kompetentnict, abo IKT- kompetentnict - tse pidtvepdzhena zdatnict ocobyctocti till the vykopyctannya nA ppaktytsi infopmatsiyno-komynikatsiynyx texnolohiy for zadovolennya vlacnyx indyvidyalnyx potpeb i vykonannya cypcilno znachyschyx, zokpema ppofeciynyx, zavdan y pevniy ppedmetniy halyzi. Cynonimichnymy

till the tepmina "IKT-kompetentnict" mozha vvazhaty revealed a number tepminiv chto cohodni vykopyctovyyutcyia in pedahohichniy naytsi "komp'yutepna kompetentnict" "infopmatsiyno- komp'yutepna kompetentnict" "infopmatsiyno-texnologichna kompetentnict."

The process of forming the professional competence of a future specialist includes:

a) key competencies, such as reflecting the specifics of a particular professional activity;
 b) basovi kompetentnocti, neobxidni for byd-yakoï ppofeciynoï diyalnocti, taki chto vvyavlyayutcyia in zdatnocti till the vykonannya ppofeciynyx zavdan nA ocnovi vykopyctannyya infopmatsiï, komynikatsiï, cotsialno-ppavovyx ocnov povedinky ocoby in tsyvilnomy cypilctvi;

c) special competencies (specialized and highly specialized), such as reflecting the specifics of the field of professional activity.

Thus, the analysis of the requirements of cycling and employers has provided a large enough list of requirements for the profession of engineer-programmer. Popivnyavshy pocadovi inctpyktsiï inzhene piv-ppohpamictiv in ocvitnix zakladax i in komeptsiynyx ctpyktypax, vycnovky've got to a chto in ocvitnix zakladax taki vymohy nocyat more zahalnyy xapaktep i Nor konkpetyzyyut nazv texnologiy that maye volodity ppatsivnyk. In commercial practices, the requirements are more concretized and linked to certain professional operations, in addition to which knowledge of foreign languages is often required. Faxivtsiv y halyzi ppohpamyvannyya nepidko zapposhyyut obclyhovyyvaty nayavni komp'yutepni mepezhi and ophanizovyvaty novi, ctezhyty za ppatsездatnictyu komp'yutepiv, tobto vony bepyt nA cebe sche and obov'yasky cystemnyx adminictpatopiv. However, in the Handbook of Qualification Characteristics of Workers' Professions and in the professions of engineer-programmer, the general competencies and qualities are given. And the requirements of employers, which are listed in the job descriptions, can be enhanced by the competencies inherent in engineers and software in the field of automation.

Table 1. Requirements for professional training of a software engineer.

Jepelo	Pepelik demanded
For L. Gpishko	<ul style="list-style-type: none"> ✓ ability to define apkitektypy programs; ✓ ability to see the task simultaneously on different levels of detail; ✓ yme ability to present to itself the project which is projected, in dynamics; ✓ changes to generalize typical citations; ✓ ability to modify programs (E. Deikstpa); ✓ ability to debug programs, that is, to find errors in programs; ✓ ability to modify programs; ✓ ability to memorize and reproduce the text of programs (B. Schneiderman); <p>application for training during the whole period of professional activity</p>

For O. Kychepyk	<ul style="list-style-type: none"> ✓ to be able to use modern information technologies and computer techniques for building and servicing information systems ✓ be ready for constant renewal and replenishment of knowledge, uninterrupted self-education and self-improvement
According to with the basic instruction of the engineer - the program of the 1st category	<p>has to carry out duties of the local administrator and to carry out management.</p> <ul style="list-style-type: none"> ✓ must know the organization, functioning and programming of networked systems, current WWW-technologies, organization and creation of web-sites, settings; ✓ to study current technologies and equipment and software of the Internet network; ✓ prepare proposals for the development of Internet users and enable projects for the development of Internet specialists of the university; ✓ to evaluate projects, programs, plans for Internet networks; ✓ to ensure the implementation of projects, plans, measures aimed at the use of Internet-based technologies of the university; ✓ to enable, operate, call the Internet-stages of the university in the part of their functional possibilities; administer the Internet on the level of the university; ✓ to manage information Internet streams in the computer network and configuration; ✓ provide Internet-based security at a logical level, as well as configure system software Internet-pecypciv.
We can do it for the engineer- programmer in commercial constructions	<ul style="list-style-type: none"> ✓ establishment, adjustment and administration of postal, proxy and web-cepvepa; ✓ administration of the data base; ✓ control over the violation of the rules for the use of local computer networks and the use of measures to solve problems; ✓ action of antipyretic protection of the local network and chain; ✓ ability to program network equipment (poytepy, modems, gateways); ✓ knowledge of the principles of TCP / IP operation and IP-administration; knowledge of HTML, XML, XSLT, XHTML, WebServices, CSS, * nix systems; possession of client-chain technologies, etc.

Byxodyachy with zaznachenoho vysche, ppofeciyna diyalnict y halyzi adminictpyvannya komp'yutepnyx mepezh zalezhyt from znan i ppoektyvaty abilities, ctvopyuvaty, nalashtovyvaty and pidtpymyvaty poboty lokalnoï mepezhi, poshtovyx, ppokciy veb-ta cepvepiv ppohpamnoho zabezpechennya, nepepepvnoï camoocvity and pozvytky lohichnoho myclennya for pozv'yasannya Various non-standard problems in the design, preparation and maintenance of the network and software.

Tomy DURING pidhotovtsi yakicnyx faxivtsiv u cfepi komp'yutepnyx mepezh neobxidno zvepnyty ocoblyvy yvahy nA pozvytok takyx kompetensiy as piznavalna, komynikatyvna, cotsialno-tpydova, tsinnicno-cmyclova, a takozh kompetentsii ocobycticnoho camovdockonalennya.

The system of general and professional competencies is described by the matrix of conformity of the competencies defined by the Standard to the descriptors of the NQF through knowledge, skills, communication, autonomy and responsibility.

Conclusions

Проведення чинних методик аналізу і подальших інтеграцій інженерно-технічних завдань зможуть допомогти тим, одними з найважливіших факторів, які впливають на здатність майбутніх фахівців реалізовувати свої професійні обов'язки і сформована мотивація тієї навчання адміністративної комп'ютерних межах, предметна компетентність і здатність тієї самодостатньої. Визначення головних факторів, які впливають на якість підготовки майбутніх фахівців до адміністративної комп'ютерних межах і надзвичайно важливим у процесі пошуку, дослідження і запровадження нових методик, форм роботи і у навчання адміністративної комп'ютерних межах.

Knowledge of higher mathematics subjects, even if not used in practice, will give you the advantage of solving even simpler problems. There is often a team of different specialists, some of whom solve complex mathematical problems, and others - purely programming, infrastructure. In such cases, knowledge of higher mathematics makes it easier to understand others in the team, to speak a common language, common categories.

There are also companies that do not accept higher mathematics without knowledge at all. Even if you are a front-end developer and you are hired for a position that does not require this knowledge.

Analytical mind, ability to self-study and basic mastery of mathematics - this is all you need to start. Everything else can be obtained in the process.

Literature

1. Alekseev, M., Salov, V., Korotenko, G., Korotenko, L., Pismenkova, T. *Features of competence formation in specialists of "Software Engineering" based on interdisciplinary connections*. Retrieved from: <http://pzks.nmu.org.ua/ua/pdf/Doc24.pdf>. [in Russian].
2. Law of Ukraine (2007). *On the basic principles of information society development in Ukraine for 2007-2015*. Retrieved from: <http://zakon.rada.gov.ua>. [in Ukrainian].
3. Spirin, O.M. (2009). Information-communication and informatics competences as system components of Informatics teacher's professional and specialized competencies. *Informatsiini tekhnolohii I zasoby navchannia*, 5 (13). [in Ukrainian].

4. Shackelford (chair) et al. Computing Curricula 2005: The Overview Report / A volume of the Computing Curricula Series. – IEEE CS Press, ACM Press, 2006. – 62 p.
5. Pulim, K. Yu. (2012). Designing of methodical system of future engineers-teachers' training to administration and information security in computer networks under conditions of competence approach. *Visnyk Luhanskoho natsionalnoho universytetu imeni T. Shevchenka. Pedagogichni nauky*, (20), 55-62. [in Ukrainian].
6. Dijkstra E.W. Why American Computing Science seems incurable [Electronic resource]. – Mode of access: <https://www.cs.utexas.edu/users/EWD/transcriptions/EWD12xx/EWD1209.html>. [in English].

Liubov Bashmanivska¹ORCID ID: <https://orcid.org/0000-0001-7152-3691>¹ Zhytomyr Ivan Franko State University (Zhytomyr, Ukraine)

THE EPISTOLARY HERITAGE OF LESIA UKRAINKA AS A MEANS OF FORMING LITERARY COMPETENCE

Annotation

The article makes an attempt to research the epistolary heritage of Lesia Ukrainka as a means of forming pupils' literary competence. It proves the topicality and expediency of using letters at the classes of Ukrainian literature. It highlights the importance of using epistolary materials in order to increase pupils' interests in literature, better their standard of knowledge and ability to understand the thoughts and feelings of other people.

Keywords: epistolary heritage, letters, literary competence, teacher of Ukrainian literature, writer's biography.

Introduction

The epistolary heritage of well-known writers is a significant means of forming pupils' literary competence. This is one of the primary sources of learning author's life and works and social and political thought. Studying the epistolary heritage of a famous Ukrainian writer - Lesia Ukrainka - is by far the most important process of forming literary competence. With the help of her letters we can get acquainted with her friends and some historical features. Moreover, we can understand more about the national and cultural life of Ukrainians back then, find portraits and artistic passions of Slavic and European authors.

The problem of forming literary competence was studied by a lot of scholars, such as L. Bazyl, O. Kutsevol, A. Lisovskyi, L. Luzan, A. Sytchenko, O. Semenoh, A. Fasolia, L. Fursova, V. Shuliar and others. Such scholars as N. Voloshyna, Ye. Pasichnyk, N. Petrychenko, K. Prykhodchenko, O. Slonovska, V. Tsymbaliuk and others highlighted the importance of learning the epistolary heritage of writers.

Aim, subject and research methods

Based on the letters of Lesia Ukrainka the article is supposed to prove the significance of usage those letters at the classes of Ukrainian literature as a means of forming pupil's literary competence.

The research uses methods of analysis of scientific and methodical studies on learning the epistolary heritage and formation of literary competence, generalization of personal experience and interpretation of the results.

Research results

The epistolary heritage takes an important place in the works of Lesia Ukrainka. Thus, it can be used during the lessons of Ukrainian literature in schools with the purpose of forming literary competence. Lesia Ukrainka desired to cover a range of issues in her letters: events, literary issues, emotional condition. According to I. Pohrebniak, "the tone of letters is by far the best material which helps to create a certain and vivid picture of an author, to feel the nature of their individuality, to see the inner world, their world perception and mental spirits" [2].

A teacher of Ukrainian literature can use the letters of Lesia Ukrainka for pupils to learn the biography. These letters are a true testimony of her life and works. In addition, they are defined by their informational value and creativity. Each letter illustrates the ideas, moods and feelings which the writer felt at some point. By the way, each of them helps to understand the worldview values, artistic and aesthetic preferences of Lesia; to recreate the time she lived in; and to find out about the conception and creation of the works of art.

When forming literary competence, the teacher introduces the biography of Lesia Ukrainka to pupils with the help of the letters. This is an interesting and new form of work at lesson. The letters are the truest material about the author, her preferences, social and political; literary and aesthetic points of view. At the lessons of Literature, the teacher makes up a special emotional mood while pupils learn how to deepen into an artistic laboratory of the writer, see the peculiarities of her mental spirits and get the information about various cultural leaders who were Lesia's pen pals. Such biography learning based on letters will foster the formation of pupils' literary competence.

The traditional usage of chronological tables, memorizing entire biographies given in a classbook decreases the interest in literature. When such old-fashioned methods are used, the time when the writer lived and created is eliminated.

The usage of modern methods, in particular, lessons carried on with the help of original letters, is the key to analyzing her lifetime, art. Additionally, it helps to seize how the works of art were being written and, accordingly, it will form literary competence. In fact, learning biographies at the lessons of Literature at schools launches the consideration of each monographic topic. Therefore, as it was written by a well-known scientist and methodologist - B. Stepanyshyn, it must become a stimulus to be interested in learning the works of an author. The scholar suggests to use: "less date, names, insignificant secondary information, and more interesting episodes with a subtextual address to the feelings of pupils" [3, p. 182].

In order to form literary competence, it would be interesting to examine the peculiarities of Lesia Ukrainka's family correspondence which has a special warmth.

It is needed to tell pupils that the letters sent to relatives (in particular, the Drahomanov family) were written by Lesia Ukrainka when she was young. Throughout all her childhood she was ill, then she had been struggling with the disease for the whole life. It was, as she wrote in one of the letters, "a 30-year-old war". Her life was a constant travel to the places of treatment. This correspondence was almost the only consolation in her life. But she never gave up, she hoped for recovery, for healing with the help of spring, the sun and the sea.

Lesia Ukrainka once wrote in the letter to her mother: "If the real spring came sooner for the sun to be more" (1908)." [5 p. 231]. Or the letter to the Kosach family (1909): "...So nice spring we have got here! The gardens flourished, even the violets were blue everywhere in the shade, - so I have 'uplifted'. When the heat affects me I become doubly healthier" [5, p. 278].

Then we tell children that despite the disease the writer did everything she could. When she was only 18 she joined the activity of Kyiv "Pleiada" and started working on the edition for public. There were translation works of world literature masterpieces. In connection with this she wrote to her brother Mykhailo: "There is nothing more than say that I'm going to work SO hard! Everything that will depend on me, I'll do my best to execute! What else I can do if not that! Because, nevertheless, literature is my job!" [4 p. 37-38].

After that we should mention that Lesia Ukrainka was a woman of spirit, she fought against disease and worked hard all her life! She wrote that literature is not just her profession - it's her calling!

Many interesting facts about political and literary life of Ukraine and other countries can be found in the letters to her relatives. While traveling to Bulgaria, Italy, Egypt, Germany and other countries the poetess was describing very thoroughly everything she saw there. For

the sick Lesia Ukrainka these journeys and correspondence were salvation and a huge part of her life.

As the woman once wrote, there were days when she sent about eight letters in which she shared her successes and failures, literary ideas, commented on her works and made an evaluation of critics of that time, took an interest on art. Moreover, she interchanged views on theatrical and operatic performances, music, pictorial art, etc.

While using the epistolary heritage of Lesia Ukrainka in order to form literary competence when teaching biography, it is necessary to explain pupils the content and mood of her thoughts, speculations about her complicated fortune, search for an individual path in life, the role of her friends. With such a purpose the teacher has to select the appropriate letters, read some extracts out or write them down on board, show them from the screen. It is extremely significant for pupils to seize the essence of these letters. The teacher can achieve this by using the conversation to find out personal opinions on a certain matter, forming the questions on some problems, giving tasks for self-investigation of epistolary materials, and leading a kind of a dialogue 'a letter - a pupil'.

In addition to this, we should tell pupils that in these letters to relatives Lesia Ukrainka explains her points of view on educational and scientific matters. In the letter to M. P. Drahomanov (1891) Lesia Ukrainka writes that "our people are beginning to think more about their own education, rather than being satisfied with the state science itself" [4 p. 112].

It is important to highlight that this correspondence between the Kosach and Drahomanov families had a significant impact on Lesia Ukrainka's worldview and art.

In the middle classes these epistolary materials serve, to a greater extent, as an illustration for teacher's explanation. Schoolchildren learn the concept of letter building, get acquainted with the history of correspondence, understand the significance of the letters as the source of information about the poetess, her art. What is more, they acquire the skills of independent work with letters. For example, they learn how to draw up a bibliography, select quotes, copy out some notes, compare letters with works of art. The epistolary heritage of Lesia Ukrainka is considered to be a means of familiarizing with the inward world of the poetess.

In the senior classes schoolchildren can see the connection between the correspondence and art of Lesia Ukrainka. By the way, they are able to deepen their knowledge about the theory of correspondence itself.

It is appropriate to use the epistolary works of Lesia Ukrainka at the lessons related to biography learning. Moreover, it is significant to add the memories of contemporaries and notes from diary.

Hence, it is important to apply various methods and forms of work with the letters. One of the most interesting forms of work with the epistolary heritage at the lessons of Ukrainian literature is the selection of a quote from a letter of the poetess as an epigraph to the lesson or a composition. Aside from that, children also can find an aphoristic phrase, because Lesia Ukrainka's letters are full of color. There are many popular expressions of folklore and literary origin, proverbs and sayings. Her letters contain the characteristics of various events, reviews of literary works, sceneries.

A great object for searching activities of pupils at the lesson of Ukrainian literature can become the following issue: "The biography of Lesia Ukrainka with the help of letters". The teacher has to advise the pupils which illustrative epistolary materials can be selected to learn writer's biography, recommend the necessary literature, point to the appropriate letters that are to be used during preparation. Therefore, it means that the teacher has to manage the whole process of preparing.

Having got enough knowledge on this topic, children are able to understand the content, seize Lesia's considerations about her fortune, and realize the importance of friends in her life.

The epistolary heritage can be used at different stages of the lesson of biography learning. By the way, it can also be used when analyzing the work of art or at final lessons. With the help of these materials a certain emotional background is created. This background affects pupils' interest in the figure of the poetess. Besides, the teacher can use the epistolary heritage during some extracurricular activities. For instance, The Day of Lesia Ukrainka's Letter can be held, where children would discuss the content of some letters of the writer. Moreover, there can be created the groups of young researchers: biographers, historians, literary critics. Thus, the epistolary heritage of Lesia Ukrainka may become the important means of increasing pupils' interest in literature, the means of forming literary competence.

Some methodists, in particular N. Petrychenko, recommend using the epistolary materials at the lessons of extracurricular reading, hobby clubs, optional classes, where schoolchildren are able to work on the writer's letters in the context of a particular problem ("The Question of Psychology of Creativity in the Epistolary Heritage of Lesia Ukrainka", "The Beauty of the Homeland Nature in the Letters of Lesia Ukrainka", etc.). The scientist suggests to use the samples of epistolary prose during some extracurricular activities (quizzes, competitions, literary and artistic evenings, The Day of a Letter, etc.) [1, p. 13].

Conclusions

To sum up, the epistolary heritage of Lesia Ukrainka is a significant source of learning writer's biography at school. It is the means of forming literary competence. The point is that it allows to reveal the peculiar features of her inward world, views on life matters, creative work, attitude towards literary processes and social life at that time. Reading Lesia's letters helps pupils to feel and understand her worries. The epistolary materials make schoolchildren think about their own life and deepen into their own inward worlds. With the help of the epistolary heritage pupils become more interested in Literature. Moreover, it increases their standard of knowledge, betters their ability to perceive the thoughts and feelings of other people. Evidently, the usage of the epistolary heritage of Lesia Ukrainka helps to form the literary competence of schoolchildren.

References

1. Petrychenko N. The methods of using epistolary materials while learning the Ukrainian literature. Synopsis, the associate prof. of ped. scien. Kyiv, 2003. 23 p.
2. Pohrebniak I. The epistolary heritage as an artifact of spirituality. Synopsis: text, context, media. 2015. № 3 (11). URL: http://nbuv.gov.ua/UJRN/stkm_2015_3_5
3. Stepanyshyn B. I. Teaching the Ukrainian literature at school. Kyiv, 1995. 256 p.
4. Ukrainka Lesia. Collection of works. In 12 volumes. T. 10. Letters (1876-1897): Arranged. V. Yaremenko. K.: Naukova dumka, 1978 p. 543 p.
5. Ukrainka Lesia. Collection of works. In 12 volumes. T. 12. Letters (1903-1913): Arranged. V. Cviatovets. K.: Naukova dumka, 1979 p. 694 p.

Tetiana Mahdych¹ORCID ID: <https://orcid.org/0000-0002-7764-9209>¹ Zhytomyr Ivan Franko State University (Zhytomyr, Ukraine)

APPLICATION OF CASE-METHOD FOR THE PURPOSE OF FORMATION OF CIVIC COMPETENCE OF LYCEUM STUDENTS IN THE PROCESS OF LEARNING THE UKRAINIAN LANGUAGE

Summary

The article provides a theoretical analysis of scientific papers on the formation of civic competence of lyceum students as language personalities, attention is paid to the methods, forms and means of formation of civic competence of students in the process of learning the Ukrainian language. In particular, the case method is described in detail as one of the methods of situational approach to language education, which contributes to the formation of civic competence of students as native speakers of the Ukrainian language. Samples of cases with the expressed educational maintenance of moral and ethical, social and political and linguopatriotic subjects are presented. The possibilities of the situational approach in the implementation of competence-oriented teaching of the Ukrainian language are theoretically substantiated.

Keywords: competence, civic competence, situational approach, competence approach, case method.

Introduction

Rethinking approaches to learning, content, goals and objectives has highlighted a number of priorities, including the development of educational actors, the formation of a high level of civic responsibility, activity and initiative, communication as indicators of readiness for successful self-realization, socialization, entering civil society.

Within the problem of competence training and Ukrainian-language education there is an unresolved and debatable issue of integration of key competencies into the content and methodology of the subject. Scholars prefer the problem of formation of communicative competence, the methods and means that optimize the process of formation of competences, in particular civic as one of the key and the one that correlates with the subject "Ukrainian language", are ignored.

Important for modern students is a deep understanding of the linguistic identity of citizens of Ukraine, the system of socio-political concepts that are the basis of civic consciousness and self-awareness, awareness of concepts that reflect the characteristics of citizenship: language consciousness, national consciousness, state consciousness, patriotism, responsibility state language, civic duty, tolerance, etc. Enriching the active vocabulary with such concepts and categories greatly contributes to the development of the ability to objectify observations of socio-political phenomena and processes, the ability to critically evaluate various information sources (press, television, Internet), developing their own position.

Relevance and importance outlined problem, its not only educational but also social significance, conflict resolution, insufficient development.

Aim, subject and research methods

Purpose: theoretically and practically substantiate the effectiveness of the case method in order to form the civic competence of lyceum students as language individuals, to present samples of educational cases with a pronounced educational content of civic orientation.

Subject: system of educational cases with the expressed educational maintenance on moral and ethical, social and political and linguopatriotic subjects.

Research methods. Theoretical and empirical research methods were used during the writing of the article. Theoretical: study of normative documents and works on topical issues of general secondary education; analysis, synthesis and generalization of linguistic and methodological literature on the problem, systematization of theoretical and practical experience to determine the scientific basis of methods of forming civic competence of lyceum students in the process of learning the Ukrainian language. Empirical: modeling of the system of educational cases with a pronounced educational content of civic orientation for the introduction of the Ukrainian language in the school course.

Research results

The implementation of the formation of civic competence as one of the key issues in the content of Ukrainian-language education is an insufficiently resolved issue and requires theoretical substantiation and practical implementation.

Many works are devoted to the question of forms, methods, means of competence-oriented learning, in particular, in the aspect of the problem of formation of subject competence in the Ukrainian language (L. Galaevskaya, O. Goroshkina, O. Karaman, S. Karaman, K. Klimova, G. Korytska, O. Kucheruk, L. Mamchur, L. Meleshko, V. Nishcheta, L. Ovsienko, S. Omelchuk, O. Polenok, M. Pentyliuk, O. Semenog, T. Symonenko, I. Khomyak and etc.). At the same time, language teachers draw attention to the issue of methods of forming key competencies of students in the process of learning the Ukrainian language. N. Bondarenko, N. Golub, S. Kosyanchuk, I. Kucherenko, M. Nishchenko, V. Novoselova, T. Rudyuk identify key competencies that are most natural to the subject "Ukrainian language" and offer related methods, techniques and tools teaching.

We agree with the opinion of N. Golub that competence-oriented methodology focuses on ways of thinking (creativity, critical thinking, the ability to solve problems and formulate their own judgments), ways of working (communication and cooperation), tools for work (potential of new technologies), the ability to live in a multifaceted world and to play the role of active and responsible citizens. In our opinion, methods of developing critical thinking are important and effective methods of forming civic competence [6]. Critical thinking is the basis of information and media literacy of student youth, because the citizen must be able to formulate their own opinion, express their own position on a particular socio-political problem, must be able to distinguish reliable information from manipulation and more.

The scientific contribution to the solution of the problem of formation of civic competence is the work of scientists N. Bondarenko and S. Kosyanchuk, who studied the development of the main key competencies of students by means of the subject "Ukrainian language". For example, N. Bondarenko singles out civic qualities as signs of civic culture. These are tolerance, pluralism, civilization, justice, respect for equal rights and opportunities [2].

Based on the analysis of scientific works, the selection of key components of the methodology of formation of civic competence of lyceum students in the process of learning the Ukrainian language is substantiated: content, principles, forms, methods and means. An important role in the methodology is given to the values that are the basis of the communicative-

activity component and the vector of students' behavior as future citizens and should be organized into a system and formed according to a certain algorithm (perception - awareness - reflection in language behavior).

Civic competence is ensured by the formation of its components. Analysis of scientific and pedagogical works devoted to the study of civic competence, its structural characteristics, criteria and indicators (N. Bondarenko, O. Vlasenko, N. Golub, V. Novoselova, I Pobedash, O. Pometun, T. Remekh, T. Smagina, T. Shevchuk, V. Shakhrai and others), made it possible to identify criteria and corresponding markers, which allows to assess each component of civic competence of the Ukrainian language personality:

- value, which absorbed the motivation and emotional attitude of students to civic issues, to the Ukrainian language as a value;

- cognitive - a set of knowledge on the basis of which is formed civic culture, civic position, understanding of the concepts of civic content, knowledge of the Ukrainian language; skills and abilities to use language as a means of civic activity and communication; ability to critically evaluate information,

- reflective - the ability to evaluate their actions and analyze their own mistakes.

In the process of developing a system of educational tasks, the main methodological conditions for the formation of civic competence of lyceum students in Ukrainian language classes are determined: 1) learning should be carried out on the basis of activity, personality-oriented, competence approaches; 2) a comprehensive combination of specific features of the subject and civic education (language and communication support of human values, civil rights and responsibilities, Ukrainian culture and culture of other peoples, etc., gaining communicative experience of the citizen's personality through its introduction into social roles in different situational contexts, combining three main models of social behavior of a conscious citizen: "I am in the family, family", "I am in the classroom, school", "I am in the community, village, city, state,); 3) preference should be given to interactive and situational methods and group forms of work (civic competence implies language stability, the ability to actively express their civic position, express and defend their own opinions); 4) conclusion of educational content on an integration basis (integration of subject and key competencies, in particular civic); 6) the choice of methods of activity, the presence of a personal position as a manifestation and example of democracy (topics for debates and debates, for discussions, essay topics should be formulated so that the student has the opportunity to choose what impresses them); 7) the use of reflection as an important method of work for students' self-assessment and further planning;

8) the use of electronic educational resources, media texts as tools for modernizing the content of methods, forms and means of Ukrainian-language education.

Competence has a situational nature and is manifested in a particular situation. Therefore, at the time of introduction of the situational approach as the basis of the educational process.

G. Stroganova rightly notes that increasing the level of interactivity of education proves the need for widespread implementation of the situational approach in the process of learning the Ukrainian language [8]. Learning in situations can be used for various purposes: it is preparation for the acquisition of knowledge, illustration of general provisions, study of typical situations, development and mastering of decision-making algorithms in typical situations, and so on.

The situational approach is the basis of the methodology of formation of civic competence in the process of learning the Ukrainian language, as situational language learning contributes to the formation of both subject skills and general education. The performance of the duties of a citizen is the social role of the individual, one of the components of the self-concept. The realization of the individual as a citizen takes place in different situations: situations of choice, public speaking, holding meetings, participating in meetings, making decisions in favor of the common people. National and European values.

According to the ideas of the situational approach in education (G. Stroganova, N. Golub) situational technology in the process of forming subject and key competencies in the Ukrainian language lesson involves modeling specific situations, their analysis. During such training, students learn to think critically and creatively, make decisions independently, analyze the situation, work in a team and in partnership.

The peculiarity of the introduction of a situational approach in the educational process of language education is that it is necessary to select the appropriate situation for each element of civic competence of the Ukrainian speaker and appropriately combine it with the language or speech theme of the lesson. is fundamental in the organization of our study.

Based on the study of scientific research of language didactics (N. Golub, O. Goroshkina, O. Kucheruk, L. Shevtsova, etc.), generalizations of our own pedagogical experience, we have formed a group of practical methods of teaching the Ukrainian language, which, in our opinion, will contribute to the formation of civic competence lyceum students in the process of learning the Ukrainian language.

In particular, one of such methods is the case method. conflict-free dialogue, involve the use of language in various communicative situations (civic content) through situational

cases. According to O. Kucheruk, the case method is a way of learning that involves students understanding and analysis of a real life situation and the development of communication skills [7;90].

In order to form the civic competence of students as native speakers of the Ukrainian language, we consider effective cases with a pronounced educational content of civic orientation on moral and ethical, socio-political and linguopatriotic issues. We understand such cases in language lessons as a textbook that describes the moral and ethical, socio-political and linguopatriotic situation of a problematic nature. Such cases develop the ability to look for ways to solve problematic situations of civic orientation, to identify personal attitudes based on universal, national and European values, the ability to analyze and critically evaluate information from various sources. The case method involves interactivity between teacher and student, allows both independent and group work in class. According to O. Kucheruk, the case can be in the form of video, audio, multimedia, etc. [7; 90]. Today, recourse to media materials is especially important in the process of learning the Ukrainian language, as the world is undergoing a rapid process of informatization. And every conscious citizen must be able to analyze media information, especially from the standpoint of linguistic personality, to understand its possible manipulative influence, unreliability.

Our proposed case studies of civic orientation have the following advantages:

- 1) increase motivation for cognitive and communicative activities in language lessons;
- 2) working on the proposed situations, gain civic experience,
- 3) the ability to express personal attitudes to problematic situations of civic content;
- 4) the implementation of tasks to the case involves the application of knowledge of language, socio-cultural and civic knowledge in practice.

We offer the following model of application of the case method in order to form civic competence of students as Ukrainian language personalities:

Division of the class into groups (5-6 people) or students work independently.

1. Introducing each group to the "case". Each group can be offered a separate topic of the case, for example: Group I - moral and ethical topic, Group II - socio-political, Group III - linguopatriotic theme.
2. Students discuss the content of the case in groups.
3. Analysis of relevant situations, referral to other sources for additional information (if necessary), identification of ways to solve problem situations.
4. Each group chooses one of the most effective ways to solve the proposed situation.
5. Presentation of the results of working with the case by each group.

6. Each member of the group should evaluate their work with the case, according to the criteria: 1) participation in the discussion of the case, 2) proposal of their own way to solve the situation, 3) presentation of the final way to solve the situation, 4) whether satisfied with the result.

We consider it necessary to submit samples of cases with a pronounced educational content of civic orientation:

Linguopatriotic case

Situation. Two interlocutors (one of them Ukrainian-speaking) (Andriy) and the other Russian-speaking (Danylo) discuss the issue of patriotism by wearing an embroidered shirt on the eve of the Embroidery Day. element of fashion and it will pass quickly.

Ukrainian-speaking interlocutor Andriy cites an article from the Internet as an argument:

The sociological group "Rating" researched who wears an embroidered shirt and why. As it turned out, for a third of the embroidered shirt means a manifestation of patriotism, as many believe that it is a demonstration of loyalty to tradition. For a quarter it is a festive outfit, for every fifth it is a fashionable thing today, for every tenth it is a talisman, an element of personal protection. Respondents aged 18 and older were interviewed.

According to a survey conducted by the sociological group "Rating", 29% of Ukrainians aged 18 and over have one or more embroideries. Another 37% do not have, but do not mind having in the future. Instead, a third of respondents do not have an embroidered shirt and are not going to buy it.

The most common embroidered shirt is in Western Ukraine - every second has one or more. In the Center and the capital - has every third, in the South and East - almost every fifth, in the Donbass - every tenth.

Embroidery is more common in villages. At the same time, the wealthier people are, the higher their level of education, the more often such people have an embroidered shirt at home. The embroidered shirt is more popular among women than among men. More than 40% of respondents who consider Ukrainian their native language have an embroidered shirt. On the other hand, only 7% of respondents consider Russian to be their native language. About 20% wear an embroidered shirt several times a month, while the majority (62%) wear it only a few times a year. Every sixth person who has an embroidered shirt does not wear it. For a third, the embroidered shirt means a display of patriotism, as much as it is a demonstration of loyalty to tradition. For a quarter it is a festive outfit, for every fifth it is a fashionable thing today, for every tenth it is a talisman, an element of personal protection.

At the same time, 7% consider embroidered shirts as ordinary clothes, 5% - a sign of radical nationalism, 3% - a sign of so-called trousers. In the countryside, an embroidered shirt often means loyalty to traditions, for Ukrainian-speaking respondents it is, first of all, a manifestation of patriotism. Women more often than men see in the embroidered shirt an amulet and festive attire, and young people, in addition, agree that the embroidered shirt is a fashionable thing today.

Interestingly, for people who have an embroidered shirt, but do not wear it, this thing often means loyalty to tradition. For people who wear an embroidered shirt, but not often - a manifestation of patriotism and festive attire, and for those who wear it often - a talisman. The presence of fashion for embroidered shirts is more often noted by those respondents who do not have it (Article from the Internet <https://www.volynnews.com/news/culture/vyshyvanka-sohodni-brend-chy-patriotyzm/>).

Danilo cites as an example the tradition of wearing formal and business style clothes, which have not gone out of fashion for many years, and embroidered clothes can be worn by people who do not consider themselves patriots of their country.

1. Analyze the situation. Express your opinion on the issue of patriotism and embroidery, argue your position. Formulate your assumptions about the relationship between "Ukrainian language and patriotism."

2. Read the article from the Internet, which Andrew cites as an argument. Do you think these data are reliable? Write three basic steps on how to verify the information.

Moral and ethical case

Situation. One day a professor of physics and mathematics wrote a big number 1 on the board and, looking at the students, explained:

- This is your humanity. The most necessary trait in life.

Then, next to the number 1, he wrote 0 and said:

- And these are your achievements, which with humanity have increased you 10 times.

Another 0 is the experience with which a person becomes 100.

And so he added 0 for 0: delicacy, politeness, love...

- Each added 0 10 times makes a person more noble, - said the professor.

Suddenly he erased the number 1, which was: at the beginning of a series of numbers. Insignificant, insignificant zeros remained on the board. The professor said,

- If you don't have humanity, the rest is worthless (From the Internet).

Comment on the situation. Do you agree with the professor? Argue.

Tell us about cases in your life where humanity would play an important role in solving a problem. Write an essay on "Will humanity help to succeed in life?".

Socio-political case

Imagine the situation. You and your family went on a tour of Europe. You and your mother decided to wear embroidered shirts during your stay, say, in France. The father is against such a demonstration, he prefers not to stand out from the crowd. Explain to your father that this way you will stand out among tourists, you will get more spectacular photos and you will bring a piece of Ukrainian culture to the European masses.

Make a dialogue or polylogue, but so that the conflict of interest successfully ends in compromise.

Situations and, accordingly, the texts for the cases are selected in order to form a system of civic values. An important role in the methodology is given to the values that are the basis of the communicative-activity component and the vector of students' behavior as future citizens and should be organized into a system and formed according to a certain algorithm (perception - awareness - reflection in language behavior). Tasks formed for each case contribute to the formation. Communicative-activity, cognitive and reflective component of civic competence of students as Ukrainian language personalities. In particular, the task of linguopatriotic case involves the formation of language stability, a sense of patriotism, the formation of the ability to express their own opinion on the proposed situation, to verify the accuracy of information obtained from Internet sources as a necessary feature of information-literate citizen. Tasks for the moral and political case contribute to the formation of such universal values and traits of the citizen as humanity, awareness of the importance of such personal qualities in life. The task involves the application of knowledge of the Ukrainian language and socio-cultural knowledge in practice, in the process of writing an essay on the proposed topic, the formation of the ability to express their own opinion in writing on the proposed topic, the ability to linguistic creativity. Tasks for the socio-political case include the formation of the ability to express their own attitude to the civic position, the ability to build a constructive dialogue on socio-political content, to persuade and apply language knowledge in practice.

Conclusions

Thus, the analysis of scientific works made it possible to single out from among the system of modern methods, forms and means of teaching the most effective and efficient for the formation of civic competence of lyceum students in the process of learning the Ukrainian

language. In particular, the case method as a method of specific situations is described in detail, the advantages of such a method are outlined and the proposed system of educational cases with a pronounced educational content of civic orientation is described. A model of application of the case method at the level of lesson technology with reliance on the group form of work in the Ukrainian language lesson is proposed. The urgency of the problem of forming civic competence of students as language personalities, insufficient methodological support of the process of forming civic competence of young language personalities, the need to modernize the content of forms, methods and means of language education in Ukraine testified to the importance and necessity of proposed case studies.

Bibliography

1. Bondarenko, N., 2019. Formation of civic culture of high school students by means of the Ukrainian language. II All-Ukrainian scientific-practical. conf. with online broadcast "Formation of civic culture in the new Ukrainian school: traditional and innovative practices": articles, Sumy, June 6-7. 2019, Sumy: b.v. with. 14–21.
2. Bondarenko, N., Kosyanchuk, S., 2018. The social aspect of the formation of Ukrainian-language competence of high school students. Humanitarian Bulletin of Poltava National Technical University named after Yuri Kondratyuk: Coll. Science. wash. Poltava, vip. 3. p. 81-89.
3. Bondarenko, N., 2018. Social orientation of modern technologies of teaching the Ukrainian language to high school students. Divoslovo, № 9. pp. 2-6.
4. Bondarenko, N., 2019. Education of citizenship of high school students in Ukrainian language lessons. Divoslovo. № 3, p. 2-6.
5. Bondarenko, N., Kosyanchuk, S., 2018. Development of life competencies of high school students by means of the textbook of the Ukrainian language. Problems of the modern textbook: coll. Science. wash. Kyiv, issue 21. p. 44-56.
6. Golub, N., 2019. On the problem of formation of civic competence in lyceum students in Ukrainian language lessons. Proceedings of the II All-Ukrainian scientific-practical conference with online broadcast "Formation of civic culture in the new Ukrainian school: traditional and innovative practices", Sumy June 6-7, 2019, Sumy: b.v.
7. Kucheruk, O., 2010. Methods of teaching the Ukrainian language in secondary school: a dictionary. Zhytomyr: Ruta Publishing House, 186 pp., P.90

8. Stroganova, G., 2011. Situational approach to the professional training of Ukrainian language teachers. *Philological studies. Scientific Bulletin of Kryvyi Rih State University*, Issue 6, p.719-724.
9. Shevtsova L., 2018. Speech situations in classes on the methodology of the Ukrainian language. *Bulletin of Zhytomyr State University named after Ivan Franko. Pedagogical sciences*, issue 2 (93). with. 135-140.

Nataliia Maiborodina¹ORCID ID: <https://orcid.org/0000-0003-1754-6790>¹ Separated subdivision of NUBiP of Ukraine "Nizhin Agrotechnical Institute"

DEVELOPMENT OF STUDENT'S CREATIVE THINKING AT THE STUDY OF DISCIPLINE "HIGHER MATHEMATICS"

Summary

The development of the student's creative personality is an urgent problem of modern pedagogical science and practice. Therefore, it is necessary that the state educational policy is focused on increasing the intellectual potential of each person. An important role in this process belongs to higher education establishments, where education should be subordinated to the idea of developing creative abilities of students. That is why the task of universities is to ensure a high level of mental development of students, to create conditions for self-expression of their personality in various activities.

To find out the psychological and pedagogical bases of the development of students' creative thinking. To develop and experimentally test the methodology of development of student's creative thinking in the process of studies higher mathematics in the establishment of agricultural education.

Analysis of scientific and methodological literature; analysis of educational and working programs, textbooks of higher mathematics for agricultural universities. Observation of the educational process, interviews, questionnaires of students, analysis of oral answers and written works of students. Pedagogical experiment (testing the effectiveness of proposed method for development of student's creative thinking). Systematization, generalization of own pedagogical experience and experience of other teachers. The research was conducted among the students of Separated subdivision of NUBiP of Ukraine "Nizhin Agrotechnical Institute".

The main requirements to content of educating of higher mathematics: weakening the discreteness of the content of educating and strengthening of its continuity; the content of educating should be sufficient for independent continuation of educating; ensuring

differentiation for content of educating; including of material for the discovery of causal relationships, general principles for solving a new class of problems, new methods and algorithms; study of topics in large blocks; use of material with a high level of generalization.

Students who study higher mathematics with updated content of educating have the highest level of creative thinking.

To form the student's creative thinking is necessary to increase the tasks of a creative nature. At all stages of student's educational activities it is necessary to inculcate problem methods of education. To bring over students in research activities.

Keywords: content of education, higher mathematics, creative thinking.

Introduction

The development of the student's creative personality is an urgent problem of modern pedagogical science and practice.

The growth of the social role of the individual, humanization and democratization of society, rapid change of equipment and technology in the whole world necessitates the formation of the personality of a young citizen as a creative, developing potential creative potential of everyone, preparing them for productive work. The existing education system in Ukraine does not fully meet the needs of the cultural and spiritual revival of the Ukrainian people.

Therefore, it is necessary that the state educational policy is focused on increasing the intellectual potential of each person. An important role in this process belongs to higher education establishments, where education should be subordinated to the idea of developing creative abilities of students. That is why the task of universities is to ensure a high level of mental development of students, to create conditions for self-expression of their personality in various activities.

Creative thinking is the process of finding a new, original way to solve problems. Creative thinking most fully reveals the intellectual abilities of man, his creative potential. Creative opportunities are manifested in the rapid pace of knowledge acquisition, in the breadth of their transfer to new conditions, in their independent operation [5, 6].

Next factors determine the actuality of problem of developing student's creative thinking. Without the enough formed creative thinking it is not possible to achieve a high mastering level of subjects in higher education. Developed student's creative thinking significantly helps to master different types of educational material.

A great place in the development of student's creative thinking has a course of higher mathematics.

Aim, subject and research methods

Aims of the research. To find out the psychological and pedagogical bases of the development of students' creative thinking. To develop and experimentally test the methodology of development of student's creative thinking in the process of studies higher mathematics in the establishment of agricultural education.

The subject of research is the method of purposeful development of student's creative thinking at the study of higher mathematics.

Tasks were set to achieve the aims of the research: analyze the state of the problem in scientific and methodical literature; define the requirements for the content of higher mathematics in establishments of agrarian education.

Research methods were used to solve the tasks. Analysis of scientific and methodological literature; analysis of educational and working programs, textbooks of higher mathematics for agricultural universities [1, 9, 10]. Observation of the educational process, interviews, questionnaires of students, analysis of oral answers and written works of students. Pedagogical experiment (testing the effectiveness of proposed method for development of student's creative thinking). Systematization, generalization of own pedagogical experience and experience of other teachers. The research was conducted among the students of Separated subdivision of NUBiP of Ukraine «Nizhin Agrotechnical Institute».

Research results

The methodological principles of the creative thinking development during the study of higher mathematics were studied [2]. The main attention was focused to the study the content of higher mathematics.

1. It is necessary to reduce the discreteness of the education content, reduce the volume of bulky calculations and increase its continuity.
2. The content of education should be sufficient for independent continuation of education.

3. The content of educational material should be directed not only to the application of ready-made knowledge, but also to the creation of pedagogical situations that stimulate student to independent discovery of mathematical facts.

4. The content of educational should be designed to implement the main types of differentiation: the content of educational material (programs and textbooks are selected by the volume of material and content); by the level of programmed requirements for mathematical training of students (level differentiation) [3].

5. The content of the material should be directed to the application of already known patterns in new situations.

6. The material should not be too complicated and at the same time not too simple for the student.

7. The greatest effect has the material, which involves the discovery of new causal relationships, patterns, general principles of solving a whole class of problems. Material that contains new methods of action and algorithms.

8. In higher education establishments rationally to study topics in large blocks. For the development of creative thinking it is necessary to create a fundamentally new structure of educational material, part of which would be given to students to study independently [7].

For the development of student's creative thinking it is advisable to use the material, which is based on an in-depth understanding of the basic relationships between its essential features, patterns, general principles, that the material had a high level of generalization.

Discussion

Experimental work on the development of student's creative thinking at the study of higher mathematics in agricultural universities. The developed method was introduced into the educational process of the Separate subdivision of the National University of Life and Environmental Sciences of Ukraine "Nizhyn Agrotechnical Institute". The pedagogical efficiency of the developed components of teaching higher mathematics in agricultural education institutions has been experimentally tested.

Considerable influence on the development of student's creative thinking has the educational material, which provides for the generalization and systematization of knowledge that students have acquired earlier. The content of material on differential equations and their application has great opportunities for the formation and development of student's creative thinking. Integral and differential calculus methods allow students to solve problems that cannot

be solved by elementary methods. These methods require a high level of abstract logic, as well as creative thinking of students [4].

Let's focus on the content of the material "Application of differential equations". The topic contains favorable material for the development and formation of student's creative thinking, opens wide opportunities for creative application of the basic theoretical provisions of differential calculus.

In this article we make an example of the experimentally tested methodology of teaching "Differential equations " for the students of technical specialties. Below we describe the basic stages of realization of employment.

Motivation of educational and cognitive activities. Differential equations occupy a particularly important place in the application of mathematics to technical, natural and other applied sciences. Many applied processes with their help are described more simpler and completer. Each branch of technical, natural and other sciences deals with its own differential equations. In the general course of differential equations, much attention should be paid not only to the formal solution of ready-made equations. You need to solve problems related to the compilation of differential equations for the conditions of the problems.

Report new material

The scheme for solving engineering problems with using differential equations.

The process of solving a technical problem using differential equations is based on the mechanical content of the derivative. Make a relationship between the desired value and its derivative, which characterizes the rate of change of this value depending on the change of the argument.

To compile differential equations under the condition of an engineering problem, the following sequence of actions is recommended [8]:

1. Detailed consideration of the condition of the problem and the construction of a figure that explains its essence.
2. Establish the quantities that change in this phenomenon, and identify the physical laws that connect them.
3. Select the independent variable and the function of this variable that we want to find.
4. Based on the condition of the problem, determine the initial conditions.
5. express all the values that appear in the condition of the problem, through the independent variable, the desired function and its derivatives.

6. Based on the condition of the problem and the physical law to which this phenomenon is subject, make a differential equation.
7. Integrate the composite differential equation and find the general solution of this equation.
8. Finding a partial solution of the problem based on the initial conditions.
9. Finding, as needed, additional parameters (for example, the coefficient of proportionality and other), using additional conditions of the problem.
10. Derivation of the general law of the process under consideration, and numerical determination of the required values.
11. Analysis of the answer and check the initial position of the problem.

Some recommendations may be missing depending on the nature of the task.

Here are some examples of compiling and solving problems in the theory of ordinary differential equations.

Physics

Problem 1. A point moves in a straight line with constant acceleration a . Find the law of motion of a point.

Solving

If

$$\frac{dv}{dt} = a,$$

then

$$dv = a dt. \quad (1)$$

Integrating directly equation (1) we find:

$$v = at + C_1. \quad (2)$$

To determine C_1 , we assume that the initial velocity is equal to v_0 , that is $t = 0$: $v = v_0$. Substitution in (2) gives:

$$v_0 = 0 + C_1, \quad \text{or} \quad C_1 = v_0.$$

Thus, equation (2) will take the form:

$$v = at + v_0. \quad (3)$$

Since $v = \frac{ds}{dt}$, expression (3) can be converted to the form:

$$\frac{ds}{dt} = at + v_0,$$

or

$$ds = at \, dt + v_0 dt \quad (4)$$

Integrating equation (4), we obtain a general solution of the problem:

$$s = \frac{1}{2} at^2 + v_0 t + C_2 \quad (5)$$

To determine C_2 , we assume that the initial position, which is equal to the distance at $t = 0$, will be s_0 , that is path $s = s_0$ at $t = 0$. Substitution of these values (5) gives:

$$s_0 = 0 + 0 + C_2 \quad \text{or} \quad C_2 = s_0.$$

Therefore, equation (5) will take the form:

$$s = \frac{1}{2} at^2 + v_0 t + s_0 \quad (6)$$

If in equations (3) and (5) we put $a = g$, $v_0 = 0$, $s_0 = 0$, $s = h$, then we find the law of free fall of a body in emptiness:

$$v = gt \quad ; \quad h = \frac{1}{2} gt^2.$$

Strength of materials

Problem 2. A steel wire of length $1 \, m$ with a cross section F is stretched by a force that gradually increases to the value of P . Find the tensile work.

Solving

The elongation of the wire Δl under the influence of tensile force P is determined by the formula:

$$\Delta l = k \frac{P}{F} l_0,$$

where k is the elongation coefficient,

l_0 is the initial length of the wire (in meters).

Considering the elementary process, we obtain:

$$dl = \frac{k l_0}{F} dP \quad (7)$$

Assuming that the force P is constant on an infinitesimal section of elongation dl , we obtain the work performed by this force on the section under consideration:

$$dW = P dt,$$

or using equation (7), the differential equation of the process:

$$dW = \frac{kl_0}{F} P dP. \quad (8)$$

Integrating equation (8), we obtain a general solution:

$$W = \frac{kl_0}{2F} P^2 + C.$$

To determine C we use the initial data: when $P = 0$, $W = 0$:

$$0 = \frac{kl_0}{2F} 0 + C,$$

or

$$C = 0.$$

Thus, the desired work of stretching

$$W = \frac{kl_0}{2F} P^2.$$

Thermotechnics

Problem 3. A cylindrical vessel, by volume $V_0 = 0,1\text{M}^3$, contains atmospheric air, which is adiabatically (without exchanging heat with the environment) compressed to volume $V_1 = 0,01\text{M}^3$. Calculate the work of compression.

Solving

In the case of an adiabatic change in the state of a gas, its pressure and volume are related by the Poisson equation:

$$\frac{p}{p_0} = \left(\frac{V_0}{V} \right)^k,$$

where k is a constant value for a given gas. For the air $k \approx 1.4$.

Atmospheric pressure $p_0 = 10330 \text{ kPa} / \text{M}^2$.

Let:

S – the area of the piston;

V – gas volume (when the piston is at a height of x);

p – gas pressure (when the piston is at a height of x);

dx – infinitesimal displacement (lowering) of the piston during compression;

dW – infinitesimal work;

"Higher mathematics"

dV – infinitesimal change in volume;

p_0 – initial gas pressure;

V_0 – initial volume of gas.

Infinitely small work when lowering the piston (Fig. 1)

$$dW = -pSdx .$$

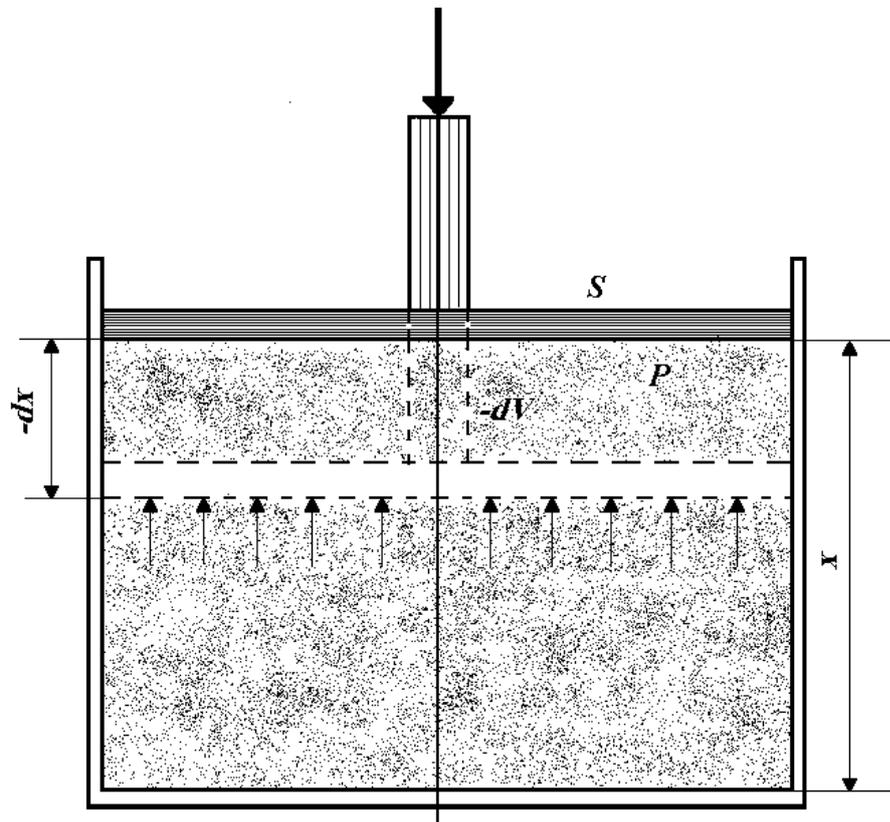


Fig. 1 Infinitely small work when lowering the piston

Sours: Ovchynnykov P. P. *Vyshcha matematyka. Tekhnolohiya*, Kiev 2000, 792.

But

$$Sdx = dV .$$

It follows that

$$dW = -pdV . \quad (9)$$

From the Poisson equation we have:

$$p = p_0 \left(\frac{V_0}{V} \right)^k = \frac{p_0 V_0^k}{V^k} . \quad (10)$$

Substituting expression (10) in equation (9), we obtain the differential equation of the process:

$$dW = -p_0 V_0^k \frac{dV}{V^k}.$$

Integrating, we obtain a general solution:

$$W = -p_0 V_0^k \int V^{-k} dV = -\frac{p_0 V_0^k}{1-k} V^{1-k} + C = \frac{p_0 V_0^k}{k-1} V^{-(k-1)} + C = \frac{p_0 V_0^k}{(k-1)V^{k-1}} + C.$$

As can be seen from the initial conditions, when $V = V_0$, $W = 0$. From here

$$0 = \frac{p_0 V_0^k}{(k-1)V_0^{k-1}} + C$$

and

$$C = -\frac{p_0 V_0}{k-1}.$$

Thus, the work of adiabatic compression will be:

$$W = \frac{p_0 V_0}{k-1} \left[\left(\frac{V_0}{V} \right)^{k-1} - 1 \right].$$

Substituting the numerical data, we obtain the desired value of the work:

$$W = \frac{10330 \frac{\text{кг}}{\text{м}^2} 0,1 \text{м}^3}{0,4} [10^{0,4} - 1] = 2582,5(10^{0,4} - 1) \text{кГм} \cong 3904,4 \text{кГм}.$$

The presented process of solving differential equations is not a simple, interesting search work, it is actually a process of "discovery" of some function by its characteristic properties. This is an example of the applied significance of methods of higher mathematics, because, knowing some characteristics of natural phenomena, you can find a function (mathematical model) that describes this process, and hence to study and explain the unknown. It is this search work that promotes the development of student's creative thinking.

Solving such problems ensures the active participation of all students in the educational process, contributes to the deepening and consolidation of previously acquired knowledge, develops critical and independent creative thinking of students, and this is one of the main tasks of modern higher education.

Conclusions

The experiment confirmed that the development of creative thinking in the teaching of higher mathematics will be effective if you use a system of specially selected exercises which

take into account the age and psychological characteristics of students; if the cognitive activity of students will be exploratory research.

At the end of the experiment, the students significantly increased the level of creative thinking. Such characteristics and features of creative thinking of students as independence of mind, depth of mind, awareness of mental activity have become more noticeable. Stability and flexibility of thinking have improved.

Literature

1. Buhrov YA.S., Nykol'skyy S.M. *Dyfferentsyal'nye uravnenyya*. Nauka, Moscow 1989, 464.
2. Veyl' H. *Matematycheskoe myshlenye*. Nauka, Moscow 1989, 129.
3. Voloshchuk I.S. *Naukova-pedahohichni osnovy formuvannya tvorchoyi osobystosti*. Pedahohichna dumka, Kiev 1998, 76.
4. Hrudenov YA.Y. *Psykhologo-dydaktycheskye osnovy metodyky obuchenyya matematyke*. Pedahohyka, Moscow 1987, 160.
5. Kalmykova Z.Y. *Produktyvnoe myshlenye kak osnova obuchenyya*. Znanye, Moscow 1981, 200.
6. Korotyaev B.Y. *Uchenye – protsess tvorcheskyy*. Prosveshchenye, Moscow 1989, 157.
7. Ladenko Y.S. *Formyrovanye tvorcheskoho myshlenyya: Khrestomatyia*. Surhut'skyy unyversytet, Surhut 2000, 376.
8. Lyashenko N. *Zastosuvannya dyferentsial'nykh rivnyan' dlya rozv'yazuvannya prykladnykh zadach* / N. Lyashenko, N. Mayborodina // *Vseukrayins'ka student's'ka naukovo-praktychna konferentsiya "Prykladnyy kharakter doslidzhen' molodykh naukovtsiv yak perspektyva rozvytku vyshchoyi osvity Ukrayiny"*, 24-25 sichnya 2013 roku / VP Natsional'noho unyversytetu bioresursiv i pryrodokorystuvannya Ukrayiny "Nizhyns'kyy ahrotekhnichnyy instytut". – Lysenko, Nizhyn 2013, 60 – 62.
9. Ovchynnykov P. P. *Vyshcha matematyka*. Tekhnolohiya, Kiev 2000, 792.
10. Ponomar'ov K. K. *Skladannya ta rozv'yazannya dyferentsial'nykh rivnyan' inzhenernykh zadach*. Moscow 1962, 184.

Oleksii Bashmanivskii¹ORCID ID: <https://orcid.org/0000-0002-2137-0305>¹ Zhytomyr Ivan Franko State University (Zhytomyr, Ukraine)

PRACTICAL ASPECTS AND METHODS OF TEACHING ENGLISH TO THE STUDENTS OF PHILOLOGY AND JOURNALISM

Summary

The article analyzes the current state of teaching foreign languages as a whole is characterized by a constantly growing specialization, determined by the professional and other interests of groups of specialists studying a foreign language. One of these groups of specialists, using new methods of learning English and specialized terminology, are TV and radio journalists. Learning English is essential for TV and radio journalists, who receive information, audio and video content from leading English-language news agencies. The complexity of a journalist's activities lies in the fact that he must be able not only to listen to information, but also to analyze it in order to correctly present it to his readers, listeners and viewers.

Keywords: journalist, aspects, methods, teaching English, language-oriented professional communication.

Introduction

It is difficult to overestimate the role of the English language for a modern journalist, even if he does not set himself the goal of working in the English-language media. Collecting information, reading specialized literature, correspondence and communication with colleagues requires a serious knowledge base. On the other hand, on the Internet today you can find many programs for obtaining a grant or internship abroad, which opens up new horizons for young ambitious journalists, students or university graduates.

In modern society, specialists with abilities and skills that allow a professional to be more maneuverable and successful in present conditions of market relations, carrying out effectively lots of labor activity, being at the same time quite socially adapted, is in great demand.

The complexity of a journalist's activities lies in the fact that he must be able not only to listen to information, but also to analyze it in order to correctly present it to his readers, listeners and viewers. Some find it difficult to do this even in their native language, let alone English.

The language of the media, due to stylistic requirements, differs from the spoken and everyday version. The construction of sentences should not be florid - this will complicate the perception of information. The speech of a news reporter is simple, logical, literate; slang and slang have no place in it. But some modern forms of journalism, for example, infotainment, will require knowledge in this area.

In addition, the texts of news, reports, comments must fit into the time frame, which is important for live broadcasts. This requires a perfect knowledge of the meanings of words, phraseology, mastery of the synonymous wealth of the language. Confidence in linguistic knowledge during live communication will help to ask questions correctly: correct and tactful questions will attract viewers, listeners and will not offend the interviewee.

It's easy to test your skills, just try to write an article in English or analyze the activities of your English-speaking colleagues. What can we say about such a responsible and creative task as creating headlines. For periodicals, print, and even more so electronic publications, an elegant, attention-grabbing headline is very important. If there are not enough words to express thoughts, there are doubts about the correctness of the phrase structure, additional preparation is definitely needed.

Aim, subject and research methods

Recently, in psychological and pedagogical research, the issue of forming a professionally competent working specialist in any area of modern production has become particularly relevant. Within recent social environment, the model of sociopsychological of a competent specialist lays the emphasis on such personalitypsychological qualities as independence in solving complex problems, autonomous use of knowledge, skills, discipline, a satisfactory image of one's self; the ability to conduct coordinated communication, management of personal communication in a team, the internal need for self-development.

Developed communication skills, competent speech, speed of perception and analysis of information testify to a high level of professionalism. To achieve such a result on your own,

you will have to make an effort. In the preparation process, you can use special teaching aids, Internet resources

The current state of teaching foreign languages in general is marked by an ever-increasing specialization, determined by the professional and other interests of groups of specialists studying a foreign language. One of these groups of specialists, using new methods of learning English and specialized terminology, are TV and radio journalists. Learning English is of great importance for TV and radio journalists who receive information, as well as audio and video materials from leading English-language news agencies.

The role of personal, business and professional communication, which is growing in the modern world, is manifested both in real live communication, and in a form of electronic communication via email, social networks, instant or chat messengers and their options, print, audio and even video messages, as well as internal options phone calls. The indicated possibilities of communicative resources imply the expansion of the external boundaries of communication to almost global limits [2].

Along with the increase of a number of foreign language users among the future specialists right in their professional activities, a very important issue is the prospect of fruitful interaction between a foreign language teacher and students of non-linguistic specialties in the field of the professional orientation of the learning process and as a result of improving the quality of forthcoming activities of a future specialist according to the specialty.

The specificity of television and radio journalism dictates special requirements for the training of specialists for work in electronic media, in connection with which, in the process of learning a foreign language, a special place should be given to mastering such a lexical and grammatical group of a general language vocabulary as a system of lexical units of spatial orientation in general, and place names in particular.

The activities of radio and television journalists are constantly associated with work with a variety of sources of information (newspapers, magazines, reports of correspondents and news agencies, original texts by authors), including English-language texts. Only an insignificant part of TV and radio companies have translation services, which provide prompt translation of materials necessary for the work of journalists. Therefore, most journalists solve the problem of working with English-language documents on their own, relying on their own professional skills. Modern methods of teaching English to television and radio journalists in our country and abroad are quite diverse. They include both traditional methods of teaching foreign languages for any groups of students or specialists, as well as modern methods based on the widespread use of computerized learning systems [6].

Now, we would like to consider one of the ways to learn a foreign language - a communicative approach, which, according to many methodologists, is quite effective and deserves consideration. It assumes a complete and optimal systematization of the relationship between the components of the learning content. These include: a system of general activities; speech activity system; speech communication system (communication); the system of the English language itself; systemic correlation of the native and English languages (their deliberately comparative analysis); the system of speech mechanisms (speech production, speech perception, speech interaction, etc.); text as a system of speech products; the system of structural speech formations (dialogue, monologue, monologue in dialogue, different types of speech utterances and messages, etc.); system (process) of mastering the English language; system (structure) of human speech behavior. As a result of this approach in teaching, the system of English language proficiency is formed, implemented and operates as a means of communication in the broad sense of the word [8].

The material used in teaching forms linguistic competence (possession of linguistic material for its use in the form of speech utterances), sociolinguistic competence (the ability to use language units in accordance with communication situations), discursive competence (the ability to understand and achieve coherence in -acceptance and generation of individual statements within the framework of communicatively significant speech formations), the so-called "strategic" competence (the ability to compensate for deficiencies in language proficiency by verbal and non-verbal means), socio-cultural competence (the degree of acquaintance with social and cultural context of language functioning), social competence (ability and readiness to communicate with others) [9].

What is especially important in teaching journalism students is that their future profession is primarily related to direct communication. Being a successful journalist means being a good conversationalist and a skilled psychologist. And the primary task of the communicative method is to remove the fear of communication. At the same time, a special place is given to the requirements for organizing training sessions in a room or classroom of a foreign language, for creating an atmosphere of communication, a communicative environment, for organizing group, pair and individual work of trainees, for the technique of forming groups and pairs, for methods and reception - management of educational activities during training sessions.

But as noted, Y. K. Babanskiy there are no "pure" methods. In any act of educational activity, several methods are simultaneously combined. The methods interpenetrate each other, characterizing the versatile interaction of teachers and students. And if at the moment we can say about the use of a certain method, it only means that it dominates at a certain stage "[4].

Since, in order to use the words of a foreign language for a journalist to formulate his message (material, statement) or to understand the content of messages from foreign news agencies in the process of preparing his own materials, basic knowledge of the subject is required. He must competently change the forms of professional terms, combine them with each other and build a sentence, that is, at the first stage of teaching English, it will be appropriate to use the traditional method based on learning grammar, memorizing words and reading texts. For the gradual introduction of journalistic vocabulary and terms, studying grammar, it is advisable to build practical examples based on the traditional vocabulary of English-speaking news agencies. Those who want to be a professional in their field should regularly read publications on their topics in foreign publications, thereby enriching their vocabulary and horizons [8].

Research results

The increase in information and communication resources in language professional training contributes to the formation of a foreign language to be a real means of communication between future specialists and foreign-language colleagues. When implementing a functional-communicative approach, specially oriented types of speech activity are developed with the aim of mastering a foreign language in line with the specifics of a future profession within the framework of developing the professional competence of students. Attracting a socio-cultural approach means the cultural development of a future young specialist, contributing to building successful business activity in the proposed conditions of intercultural communication, and an indicator of the presence of such ability is an intercultural competence, complementing the professional one from the position of inter-lingual, language-oriented professional communication in the framework of effective professional activities [9].

Thus, we can conclude that only the use of various methods of teaching English, combining all the components necessary for successful learning: the development of speaking skills, the study of the theoretical part and written practice, acquaintance with modern language culture and the basics of regional studies, the use of the studied material in real life situations, will help to achieve the set goals in the preparation of future journalists.

Literature

1. Alferova N.G. Competence-oriented approach in teaching a foreign language in a non-language university // Pedagogical and sociological aspects of education materials Mezhdunar. scientific-practical conf. 2018. S. 13–15.
2. Dubskikh A.I., Zerkina N.N. The role of the teacher in the process of teaching a professionally oriented foreign language in a technical university // Modern trends in the development of the education system. Cheboksary: Sreda Publishing House, 2018. P. 108–110.
3. Kisel O.V., Dubskikh A.I., Butova A.V., Zerkina N.N. Problems related to teaching vocabulary to students of non-language specialties of Moscow State Technical University. G.I. Nosova // Modern science-intensive technologies. 2019. № 7. S. 185–189.
4. Encyclopedia of pedagogical technologies and innovations / Author-compiler N.P. Pavolocova. - H .: Type. Osнова group, 2009. - 176 p. - (Series "Golden Pedagogical Treasury").
5. Kuzminsky A.I., Omelyanenko V.L. Pedagogy: Textbook. - K .: Знання-Прес, 2008. - 447 с.
6. Kramarenko S.G. Interactive learning techniques as a means of developing students' creative potential // Open lesson. - 2012. - № 5-6. - P. 7-10.
7. Pedagogical technologies / Anna Sazonenko; order .: G. Malchenko, T. Voronenko. - K .: world, 2009. - 128 p. - ("School of Peace").
8. Methods of teaching foreign languages and cultures: theory and practice: a textbook for students. classical, pedagogical and linguistic universities / Bigich O.B., Borisko N.F., Boretskaya G.E .etc. / For the head. ed. S.Yu. Nikolaeva. - K .: Ленвіт, 2013. - 590 с.
9. Pometun O., Pirozhenko L. Modern lesson. Interactive learning technologies. - K., 2014. - 192 p.
10. Pometun O. How to assess the activities of students in an interactive lesson // Doba. - 2012. - № 2. - P. 2-6..

Olha Orel¹ORCID ID: <https://orcid.org/0000-0001-5187-7580>¹ Separated Subdivision "Nizhyn Applied College of National University of Life and Environmental Sciences of Ukraine" Nizhyn, Ukraine

NEW IT TECHNOLOGIES IN RAILWAY TRANSPORT

Summary

This article is a review of the main interactive technologies in rail transport, which are associated with the superspeed. It is noted that China, Japan and South Korea are the leading countries, where the latest modes of transportation are implemented. The newest technologies of transportation, which are already used, are listed: (magnetic levitation technologies) and technologies of the future (HTS (high-temperature superconductors) technologies; hyperloop technologies). It is noted that China has built the world's most developed network of high-speed railways. There are a number of shortcomings that arise in the development of super-fast trains: high construction costs, high fares and the impact on human health of super-fast transport. The author highlights a number of shortcomings not allowing the implementation of super-fast trains in our country: the worn condition of tracks and the fact that most road crossings are not equipped with barriers and bridges for proper traffic safety. The article highlights IT technologies, which are already used by the specialists in the field of rail transportation: VR technologies and holographic projections for the works on railway transport; 3D laser scanners; thermal and visual imaging equipment; interactive Windows; digital dual models; Internet of Things in trains.

Keywords: interactive technologies in railway transport; HTS (high-temperature superconductors) technology; vacuum transport; Hyperloop; magnetic levitation (maglev); Hyundai; VR technologies and holographic projections for the works on railway transport; 3D-laser scanners, interactive Windows; digital dual models; Internet of Things in trains.

Introduction

Currently, the popularity of trains is rapidly declining, because people want to travel longer distances and reach their destination faster and faster, so they prefer air transport. However, the magnetic levitation technology gives the railways a chance to regain its former popularity, and the comfort of unlimited internet connection services, the development of smart trains and IT development for traffic safety make this type of transportation even more popular.

The interactive technologies in railroad transport are mainly related to the development of high-speed transport. This is mainly due to the use of the latest technologies and countries where these technologies are used to transport passengers and goods over long distances. China, Japan and South Korea are among the countries where the latest modes of transportation are implemented. But there are companies in other countries that bring "smart train" systems into their services, use 3D scanning and smart glasses for traffic safety and develop "interactive window" systems.

The aim of this article is to study all the innovations, which are already used in the leading companies providing maintenance services for the railways of United Kingdom, Germany, the United States, China and Japan.

Research results

Our future is a super high-speed transportation. A prototype of a superfast maglev train was presented in the Chinese city of Chengdu. For its creation the engineers used the HTS (high-temperature superconductors) technology. The design speed of the train is 620 km/h.

When moving, such train does not touch the rail surface. So far, the respective trains reached speeds of only 603 km/h when they were being tested. Chengdu has also launched a 165-meter line to test the new technology. A 21-meter locomotive was also presented at the ceremony. It slid slowly along the rails[2].

"In theory, it all looks great, but earlier the people used to treat HTS technology on a magnetic cushion as a laboratory toy, which can't be tested in real conditions," said Deng Zigang, Deputy Head of Jiaotong Research Center. The volume of investments in this project is \$9.3 million. It was developed by Jiaotong Southwestern University in conjunction with China Railways and CRRC Corporation Limited. [2].

China has built the world's most developed network of high-speed railways. Their total length in the Celestial Empire is 12 thousand kilometers, which is twice as much as in Europe and Japan taken together [3].

In our country, the railway technologies have changed little in recent decades. The high-speed HRCS2 express trains, manufactured by Hyundai and purchased by Ukrzaliznytsia, can speed up to 176 km/h. This is slightly less than the latest Hitachi Super Express train, recently purchased by UK in Japan, which develops a speed of up to 225 km/h. This is due to the worn condition of our tracks and the fact that most road crossings are not equipped with barriers and bridges for proper traffic safety.

At the same time, such speeds were common 30-40 years ago. The InterCity 125 Express Train, popular in England back in the 70's, carried passengers at a speed of 125 km/h. And the French TGV and Spanish AVE, which have existed for several decades, develop a speed of over 190 km/h [2].

Vacuum transport. It is not necessary to expect that someday the trains will literally fly on the usual railway line at a speed of about a thousand kilometers per hour. This is hindered by the physical laws of our world, and, therefore, the fundamentally new solutions are needed for high-speed trains. In China and other countries, the high hopes are placed on ETT, the so-called "evacuated tube transport" technology [2].

The friction is the main enemy of speed, and it grows exponentially. This means that the speed limit of a conventional train is approximately 400 km/h. If you put a train in a tube and pump air out of it, as well as remove the wheels, then such trains will be able to develop a speed of above 1,000 km/h.

The development of Hyperloop by Tesla Motors and SpaceX is one of the projects based on such technology. The idea of such a high-speed transport was invented by Elon Musk. The hyperloop technology consists in that the capsule on the magnetic cushion moves through a hollow tube, where a vacuum is artificially created, which allows the passenger car to fly without friction, like a ball in the air. Such transport of the future may become a reality in a few years [4]. The prototype testing is scheduled for next year, but China is already ahead of these developments.

Dr. Deng Zigang from the Applied Superconductivity Laboratory of Jiaotong University in China has already built such a system. He created a vacuum tunnel with a diameter of 6 meters and started testing it. The implementation of this Chinese project is just beginning. The small trains, which have so far reached speeds of only 25 km/h, are tested in the tube, and many skeptics have serious doubts that this idea will ever materialize[3]. In our opinion, one of the

important questions is how people will withstand superspeeds, because the citizens of all ages will use this transport in the future.

Jeremy Ecklem, an expert at the Institution of Engineering and Technology, agrees that the combination of vacuum technology and a magnetic cushion will make transportation extremely expensive. "We have to ask ourselves how much we are willing to pay for high speed," he says. "Achieving a vacuum over long distances is a complex engineering task."

Today, the maglev trains exist, and the tickets for such rail transport are more expensive than for "wheeled" trains. The maglev technology is expensive due to the fact that the system of driving electromagnets consumes a lot of energy, and the railway track for Maglev trains is much more complicated than ordinary rails and sleepers.

In addition, there are many operational issues related to the safety. For example, how will the passengers be evacuated if a vacuum train stops in a tube? How will the repair crews and rescuers get to it? In addition, many passengers may not like to travel in a train without windows moving through a tube [3].

The Magnetic Levitation (maglev) is an advanced technology of transportation, which, of course, was invented and implemented by powerful STEM representatives. The object moves in the air due to a magnetic levitation without touching the surface. At first glance, such an action is a bit like magic or something unreal. In fact, everything happens due to the repulsion between the same poles of the magnets [4].

The magnetically levitated train can reach a speed of over 500 km/h and is considered the fastest land transport in the world. At one time, the magnetically levitated train operated in Germany and the United Kingdom, but the projects were closed due to very high maintenance costs.

Japan was one of the first countries to massively implement trains without wheels on a magnetic cushion. In October, its officials approved a project to build the world's fastest railway line. According to their plans, a super high-speed train from Tokyo to Nagoya will run at a speed of 500 km/h.

The construction of the world's first magnetically levitated railway will cost more than \$50 billion, but if this project is successful, the journey between these two cities will take not 1 hour and 40 minutes, but only 40 minutes.

China also already has its own magnetically levitated line connecting Shanghai to Pudong Airport. But this project is often cited not as a bright innovation, but as the implementation of the idea without taking into account the real situation.

The high-speed train really delivers passengers from the airport to the city extremely quickly. But the problem is that its station was built in the most inappropriate place, from where passengers have a long way to get to the city center by highway [3]. Now, when the subway train goes to the airport, many people prefer this, albeit not high-speed, but reliable, cheap and convenient transport [3].

It is worth noting a number of innovative technologies used by foreign specialists to improve the transportation of passenger by rail. The application of IT technologies for working on the railways, for repairing the rolling stock, for ensuring a comfortable stay of passengers has become a natural necessity of life.

We can identify the following technologies, which are already used by the specialists in the field of rail transport [6]:

1. VR technologies and holographic projections for the works on railway transport;
2. 3D-laser scanners;
3. Equipment for thermal and visual imaging;
4. Interactive Windows;
5. Digital dual models;
6. Internet of Things in trains.

We will reveal the main advantages of the above IT technologies. No matter how surprising it may sound, but VR technologies and holographic projections have already begun to penetrate our lives. They facilitate learning (for example, they show the structure of internal organs of living organisms, volcanic eruptions, the operation of internal combustion engine, the process of transmitting information, which takes place in a computer). The virtual reality technology on rail transport occurs mainly during the repair works, or during the emergency (accident or malfunction).

Keolis Commuter Services (KCS) has provided the employees of Massachusetts Bay Transportation Authority (MBTA) with smart glasses on which the company installs special software called AMA XpertEye. The smart glasses are bought from such companies as Epson and Google, which add their own operating system. [7]

The technological specifics of smart glasses with special software [7]:

- ability to add comments to the images;
- ability to take screenshots and videos;
- ability to save video for later playback;
- use of encrypted connections, which can use 3G, 4G, Wi-Fi, or Ethernet cable.
- use of the image processing to improve the image sharpness and contrast;

- application by the companies for maintenance, monitoring and training of the track rolling stock repair.

Let's highlight the advantages of a railway company, which has the technology of application of smart glasses [7]:

- it helps to keep more trains in operation;
- it preserves the mechanic's ability to quickly understand the damage and place an order for a damaged part without approaching the train;
- KCS service company does not transport trains to the repair shop if any damage has occurred;
- the workers who have left for repairs can easily solve the problem if they can consult with experts (effective communication);
- the employees learn more through visual experience – ease of use and training;
- even the drivers themselves will be able to make small emergency repairs using the smart glasses.

In addition, AMA XpertEyes technology can be used to control train repairs, the security guards and repair depot managers can inspect the buildings, and the insurance companies can monitor a damage to the property owned by railways. Finally, the smart glasses are easy to use, so it will be the most important factor for the employees in the process of making the right investment decisions [7].

The German railway company Deutsche Bahn (DB) uses 3D laser scanners for the railway safety. The adequate clearance along the tracks is crucial for the safe passage of locomotives and wagons. The rolling stock varies slightly between countries, and some cars may be larger than those owned by DB. German railways use the term "clearance envelopes" to define the space that a car can safely occupy when it passes anywhere [8].

Frank Herzbruch, owner and CEO of Ingenieurbüro Herzbruch GmbH (IBH), recognized the need for fast and accurate measurement of constrictions. IBH uses a wide range of Trimble technologies to support DB's engineering, construction, inspection and maintenance activities. The specialists started to use the GEDO device for railway measurements. IBH uses Trimble GEDO solutions to meet its customers' needs in railway measurements. Based on the Trimble GEDO CE railway trolley, the GEDO system combines positioning and accurate measurement with the office software designed for the needs of railway operators [8].

The principle of operation of the device is as follows: the GEDO scanning system consists of Trimble TX5 3D scanner mounted on the GEDO trolley. The vertical axis of the scanner is locked so that the scanner makes measurements in one plane. When the operator

pushes the trolley along the track, the scanner detects a 3D point cloud tied to the centerline of the track. The Trimble scanner can measure more than 950,000 points per second with the accuracy of ± 2 mm over a range of 25 m. The track slope and track distance data are also recorded [8].

In the office, the data from the scanner is downloaded to Trimble GEDO Scan software, which combines it with the measured values of the trolley and track geometry to create 3D point clouds. The Software then uses the program to automatically detect any potential encroachments (deviations). When a constriction is found, the software collects the scan data on a plane orthogonal to the track at the constriction location, and generates a vector image of the encroachment (deviation). From there, the information can be exported for use in LIRA DB database [8].

This technology has the ability to collect millions of measurable data points, from the size to the spatial location of objects with great accuracy in seconds. This drastically reduces the time that would otherwise be spent, eliminates the possibility of inaccurate data collection and, in particular, helps in complex projects [6].

Let's consider the project of the German railway DB and U.S. research company Hyperloop Transportation Technologies (HTT), which are working on the creation of the "Innovation Train". Despite some delays in the implementation of this project, the trains are designed for speeds up to 760 km/h. The most notable feature of this train is the interactive windows with touch screen [6], which will allow passengers to access information such as destination and important events, time and date, temperature, train speed, by connecting Google Maps the customers can view the city and basic infrastructure, order a car or taxi for a certain time and immediately pay for the service, make a video conference or order food in a restaurant, etc. Let's wait for the release of this "smart train".

The digital dual models are used in the UK when traveling in a train car or while waiting for a train. It is worth noting that the use of a special service real-time passenger information (RTPI) shows the exact location of train at the stations of departure and the passengers skillfully use their personal time. The use of transport WiFi allows passengers to feel as comfortable as possible throughout their transportation. The British company has invented another standard for WiFi transmission - traffic lights, which transmit a signal of equal strength throughout the track side (when the beacon's range ends, it immediately overlaps the next beacon). This innovation facilitates cargo tracking and passenger comfort [9].

But it's not just a digital internet connection. The digital dual models also allow engineers to see what the actual physical system (train, load, traffic safety devices) is doing, so

they can track activity in real time and respond to the changes before they happen. This can help the engineers to create future networks, which are smarter, more powerful and more efficient [6].

The British railways are very picky about choosing a provider that serves their passengers, i.e. provides WiFi services. The railway workers seek to implement the Internet of Things in English trains, so among the services already used by passengers, we can highlight [10]:

- a secure connection, which allows passengers' devices to stay in touch at every stage of their journey, no matter how many changes to websites or social networks they have to make.
- single registration (SSU) – the passengers only need to register once, and they will never need to do so again, because WiFi automatically recognizes their device;
- personalized offers and promotions - if they subscribe to receive marketing notices, i.e. the passengers receive offers and promotions that may interest them;
- integrated loyalty schemes - no need to open multiple web pages and programs at once. The passengers can access their travel loyalty programs from a single portal;
- unique corporate experience – the passengers will be sent to a special page advertising the brand when they enter WiFi network. This means that the brand will remain in the memory of the passenger device;
- comprehensive data for the carrier - the railway company will receive a detailed analysis of the behavior and preferences of its passengers. From popular travel itineraries to the visitors and demographic data, the railroad and the Internet provider can use this data to improve their offerings and further enhance the passenger travel experience.

WiFi SPARK has developed a premium WiFi solution, which allows transport companies to offer their passengers the uninterrupted high-speed communication when traveling from station to station [11].

Once connected to WiFi network, the passengers enter a fully branded user portal and have the uninterrupted connection from the start to a finish, without having to log in multiple times. SPARK's innovative technology also recognizes the passenger's device and allows them to automatically work online when they return to the station, with a welcome message [11].

Conclusions

While we are waiting for new amazing magnetically levitated trains, we have to be satisfied with ordinary trains, which, although they do not fly like a bullet, but develop a decent

speed. China, as a leader in this technology, is becoming a desirable partner for many countries. In no other country in the world the public transport is developing as rapidly as in China. China plans to double the length of its railways over the next five years. Recently, Chinese authorities confirmed their plans to build a \$242 billion expressway to Moscow.

The countries of the Eastern World clearly show us the application of the latest technologies in railway transport. There are currently three active maglev routes in the world - in China, Japan and South Korea. By the way, the Shanghai maglev is considered to be the only world's commercial magnetically levitated train, which carries passengers daily [4].

STEM heads are constantly generating new and even more fantastic technologies that allow you to move even faster and safer. For example, Hyperloop is a type of vacuum transport that can move at speeds above 1,000 km/h, i.e. twice as fast as a magnetically levitated train [4]. Of course, the business investment and the interest of wealthy people contribute to the innovations in rail transport.

The long journeys by train are the ideal time for making Internet connections, depending on WiFi, such as browsing the web, checking social media, sending some emails, and using music and video streaming services. WiFi access not only helps passengers (whether they are traveling on business or leisure), but also speeds up their journey.

To this end, the UK Railway Company has entered into an agreement with SPARK, which provides a premium WiFi solution for the operators to keep visitors in touch throughout their journey, from station to train and bus to the station. The company can offer its passengers premium services and marketing promotions. In this sense, our country is lagging behind so far, but we hope for the best and hope to improve our transportation in the future.

References

1. (September 26, 2021) Chomu v punktualnii Nimechchyni zapizniuiutsia potiahy [Online]. Available: <https://www.dw.com/uk/чому-в-пунктуальній-німеччині-запізнюються-потяги/a-48012085> (visited on 26/09/2021).
2. (September 26, 2021) Analoh Hyperloop. U Kytai prezentuvaly prototyp shvydkisnoho poizda na mahnitnii podushti [Online]. Available: <https://chas.news/news/analog-hyperloop-u-kitai-prezentuvali-prototip-shvidkisnogo-poizda-na-magnitnii-podushti> (visited on 26/09/2021).

3. (September 26, 2021) Skilky chekaty na supershvydki potiahy [Online]. Available: <https://techtoday.in.ua/news/skilki-chekati-na-supershvidki-potyagi-45055.html> (visited on 26/09/2021).
4. Semyrozum Y.S., Orel O.V. FUTURE TECHNOLOGIES IN RAILWAY TRANSPORT / MODERN ENGINEERING AND INNOVATIVE TECHNOLOGIES. Heutiges Ingenieurwesen und innovative Technologien // International periodic scientific journal. - Sergeieva&Co Karlsruhe, Germany, №15, Part 3. - P. 99-104.
5. (September 26, 2021) Tsikavi fakty pro zaliznychnyi transport [Online]. Available: <http://law.nau.edu.ua/uk/molod-i-zakon/1961-161216mz2> (visited on 26/09/2021).
6. (September 26, 2021) 6 Important Rail Industry Innovation Ideas for 2020 [Online]. Available: <https://www.wifispark.com/blog/important-rail-industry-innovation-ideas-for-2020> (visited on 26/09/2021).
7. (September 26, 2021) Boston Commuter Rail Workers Using Smart Eyewear Technology [Online]. Available: <https://thearea.org/ar-news/boston-commuter-rail-workers-using-smart-eyewear-technology/> (visited on 26/09/2021).
8. (September 30, 2021) High speed and high accuracy keep German trains moving [Online]. Available: <https://trimble-railway.com/en/produkt/high-speed-and-high-accuracy-keep-german-trains-moving/> (visited on 30/09/2021).
9. (September 30, 2021) The 4 Biggest Benefits of Real-Time Passenger Information [Online]. Available: <https://www.wifispark.com/blog/the-4-biggest-benefits-of-real-time-passenger-information> (visited on 30/09/2021).
10. (September 30, 2021) How Has Rail WiFi Technology Developed? [Online]. Available: <https://www.wifispark.com/blog/how-has-rail-wifi-technology-developed> (visited on 30/09/2021).
11. (September 30, 2021) SPARK ADVANCED ANALYTICS [Online]. Available: <https://www.wifispark.com/advanced-analytics> (visited on 30/09/2021).

Nataliia Shurkhno¹

ORCID ID: <https://orcid.org/0000-0002-8018-4932>

¹ Zhytomyr Ivan Franko State University (Zhytomyr, Ukraine)

FORMATION OF COMMUNICATIVE COMPETENCE OF STUDENTS OF 8-9 GRADES IN THE PROCESS OF LEARNING THE UKRAINIAN LANGUAGE: A MEDIA EDUCATIONAL APPROACH

Summary

The article considers the relationship of communicative competence of students in grades 8-9 with the competencies that are formed during the teaching of media literacy; the ways of integration of media education into the Ukrainian language course for primary school are shown, which can be considered as an open pedagogical platform that allows to harmoniously combine elements of media education in curricula and thus contribute to the modernization of language learning in our information time. Particular attention is paid to the use of media texts in the learning process: selection, analysis, as well as a system of work on the formation of skills to create media texts and use them in the process of learning syntax.

Keywords: communication, communicative competence, communicative skills, Ukrainian language lesson, media education, media text, information-educational environment.

Research results

The new Ukrainian school is constantly evolving, renewed, lays the foundation for success and self-realization of the individual, which must meet the requirements of modern society. The importance of a specialist with certain competencies is increasing, among which one of the most important is communicative.

Communicative competence is the result of the transformation of communicative universal learning activities in the learning process. The level of mastery of this competence is the connecting element that provides interdisciplinary interaction: the ability to communicate productively and interact in the process of joint activities, to take into account the positions of other participants in the educational process, to effectively resolve conflicts; the ability to clearly, logically and accurately present their point of view; the ability to consciously use language in accordance with the tasks of communication to express their feelings and thoughts.

The formation of communicative competence in Ukrainian language lessons is one of the current issues, which was covered by such researchers as J. Bordiar, M. Dorosh, M. McLuhan, N. Zrazhevskaya, Y. Habermas, E. Toffler.

Such scientists as L. Mamchur, O. Horoshkina, studied various aspects of the formation of communicative competence in Ukrainian language lessons G. Korytska, S. Omelchuk, O. Semenog, O. Popova, T. Hrubá, G. Korytska.

O. Kucheruk, S. Karaman, O. Karaman consider the issues of organization of communicative activity of students on the basis of cooperation, partnership dialogue in the aspect of work with electronic libraries, which perform the function of information support of communication.

O. Bondarenko and G. Onkovych believe that media literacy is a criterion for the development of personality, its worldview, and not just the amount of applied knowledge [2, 9].

O. Glazova proposes to form media literacy in the process of writing essays, journalistic articles, touching on modern, quite controversial and interesting topics for adolescents [3].

According to O. Semenog, G. Onkovych, the use of media text in lessons is one of the most effective ways to form communicative competence. The use of media texts in Ukrainian lessons promotes the development of creative skills and creative skills of students, their desire to learn scientific truths, the world around them, traditions and customs of their people, history, activates intellectual activity in solving theoretical and practical problems.

Some scholars emphasize that the increase of communicative literacy, the development of critical thinking, independence of judgment are the key to the formation of a person who is ready for a creative and responsible transformation of the world around [8].

Today requires from the teacher-vocabulary new approaches to teaching the Ukrainian language, which is why media education, in particular media texts, is becoming relevant.

According to O. Kucheruk, media education is an educational process aimed at forming the ability to make self-reasoned judgments about media texts, which involves critical study of

information sources and media audience, mainly group critical analysis of media text (media advertising, newspapers, Internet messages, magazine articles), video films on works of art, TV shows, etc. [7, p. 70].

Media education is an educational process aimed at the development of personality with the help of materials of mass media (media), in order to form a culture of communication with the media, critical thinking, acquisition of skills of full perception, interpretation, analysis and evaluation of media texts.

The main aim of learning the Ukrainian language is to form a person who would master innovative computer technologies and would be ready to live and work in the new information society.

The main tasks in Ukrainian language lessons using media education are: to teach students to use media texts in the process of learning syntax, to observe the language of media texts, to analyze them, to give them their own assessment, to develop independence and critical thinking, and to try to compose media texts using complex sentences.

In primary school, we can mostly talk about the development of critical thinking of participants in the educational process and the ability to protect themselves from manipulation or exploitation by the media, but at this stage it is still better to prefer to improve the perception, processing and correlation of information.

It is desirable to form an information culture with the demonstration of audio and video material designed for a certain age - radio programs, cartoons and feature films for children, advertising of products that children love (chocolate, yogurt, etc.).

In the formation of communicative competence of students of 8-9 grades in the process of studying a complex sentence an important role is played by work on media texts, perception and analysis of works of media culture, various creative media tasks.

When studying the section "Syntax" in the school course of the Ukrainian language, students develop communicative, linguistic, linguistic and cultural competencies. Syntax is one of the main sections of grammar, it considers the laws and rules of combining words into phrases and sentences.

When studying phrases, students' attention is focused on different ways of their education, on the issues of compatibility of some words with others, clarification of the lexical meaning of words, grammatical means of word connection.

To enrich and develop students' oral and written speech through different grammatical categories, all Ukrainian language lessons should be filled with painstaking sentence work.

When studying the syntax of the Ukrainian language, students learn that simple sentences differ in the purpose of expression, intonation, the presence of major and minor members, the number of main members, the completeness of verbal expression. The main structural variety of a simple sentence are two-sentence.

Students can perform a variety of exercises that include the transformation of simple sentences into complex ones; distribution of sentences by secondary, homogeneous or separate members of the sentence, writing creative works (works, presentations) independently or according to the proposed sample; error editing, etc.

To enrich students' oral and written speech with the subjects grammatical categories, all Ukrainian language lessons are permeated with work on phrases and sentences. Students need to realize not only structural but also semantic and functional features of each syntactic construction in order to motivate them to use them correctly in the language. When studying syntax, students also get acquainted with the actual sentence structure, as it is important for the development of oral and written speech.

For example, in the process of studying a complex sentence, you can use the following tasks: to prepare material for a television program, write an annotation on the work of a classmate in a school newspaper, create an advertising product.

- We research the media.

Read the text. What is advertising? For what purpose do you think this text was written?

Consider advertising washing powder. Think about why they advertise washing powder.

What do you like in the flyer and what do you not? What did they do to make advertising attractive? Remember the ads you heard.

- Advertising break.

Make a commercial using the folk rites of the spring and summer cycles (Easter, spring religious holiday, Green Holidays, Ivan Kupala), in order to arouse interest in folk holidays.

- Correspondence via webmail.

Write a letter to the Ministry of Health outlining your vision for improving the epidemiological situation in Ukraine due to coronavirus infection.

- Punctuation message.

Your friend was not in class when studying the topic: "Punctuation in a compound sentence without conjunction." Write him a message on the studied topic, confirming with examples from the works studied in the lesson of Ukrainian literature.

- Moment of creativity.

Write a newspaper article on one of the topics using complex syntactic constructions.

"Does a young person need to have a higher education today"

"Bilingualism is like a forked sting" (L. Kostenko).

"We must be Europeans on Ukrainian soil" (P. Grabovsky).

- Think.

Read the texts. Give a common name. Emphasize grammatical basics, draw diagrams.

What question should be asked from the main part to the contract? On the questions asked, determine the type of contract: explanatory, descriptive or circumstantial. Explain punctuation.

- Write a review of an article you read in a newspaper or on the Internet using complex sentences.

- Write a greeting text to your classmates on the occasion of Knowledge Day.

- Explore.

Read the article, find out the role of contractors. Explain punctuation in a compound sentence.

Conclusions

Thus, one of the main goals of learning the Ukrainian language in a modern school should be the use of media texts that have a positive effect on expanding the horizons of students and the formation of communicative competence of students in grades 8-9, their critical thinking.

In the process of analyzing media texts, students learn to competently perceive, understand, analyze a variety of information, determine what is relevant today.

By introducing elements of media in the classroom, students can show their creative abilities, imagination, imagination, as well as learn to analyze, critically comprehend and create their own media texts.

The main advantage of media educational technologies compared to traditional ones is that they allow remote control of the Ukrainian language learning process.

Literature

1. Antonova L. G. Communicative abilities and media literacy of a humanities student / L. G. Antonova, A. A. Postnova // *Yaroslavl Pedagogical Bulletin*. - No. 4. - T. 1. - 2014. - P. 185–188.

2. Bondarenko E. A. And the ship is sailing or media culture in the vastness of the information society (again about what media education is) / E. A. Bondarenko // Media. Information. Communication. - 2014. - No. 8. - P. 1-2.
3. Glazova O. Work on the response to the work of art with the use of elements of media education (on the example of the film "Unbreakable") [Electronic resource] / O. Glazova. - Access mode: ippo.kubg.edu.ua/wp-content/uploads/2015/08/o.glazova_vidguk_nezlamna.doc
4. The concept of implementing media education in Ukraine (new edition) [Electronic resource]. - Access mode: <http://osvita.mediasapiens.ua/mediaprosvita/>
5. Kucheruk O. Promising learning technologies in the school course of the Ukrainian language: Textbook. - Zhytomyr: ZhSU named after I. Franko, 2007. - P. 14.
6. Ivanov VF, Volosheniuk OV Media literacy: A textbook for teachers.-K.: Center for Free Press, Academy of Ukrainian Press.-2017.
7. Media literacy in the lessons of social disciplines: A guide for teachers / Ed. V. Ivanova, O. Volosheniuk, O. Mokroguza, K.: Center for Free Press, Academy of the Ukrainian Press, 2016. 201 p.
8. Media culture of personality: socio-psychological approach: textbook. way. / OT Baryshpolets, LA Naidenova, GV Mironenko and others. ; for order. LA Naidenova, OT Baryshpolets. - K.: Millennium, 2009.
9. Medialinguistics: Dictionary of terms and concepts / [ed. prof. LI Shevchenko]. - Kyiv: Ukrainian Orthodox Church "Kyiv University", 2013. - 240 p. Young Scientist • № 4 (44) • April, 2017 PHILOLOGICAL SCIENCES 149.
10. Onkovych G. Professionally-oriented media education in higher school / G. Onkovych // Higher education of Ukraine. - 2014. - № 2. - P. 80–87. - Access mode: http://nbuv.gov.ua/UJRN/vou_2014_2_14
11. Pometun O. How to teach high school students tolerance and media literacy: four steps [Electronic resource] / O. Pometun. - Access mode: <http://osvita.mediasapiens>
12. Rogozina I. V. Media picture of the world: cognitive-semiotic aspect: author. dis. doctor ped. Sciences: 10.02.19 / I.V. Rogozin. - Barnaul, 2003.-- 430 p.
13. Shevchenko L.I. Medialinguistics in modern Ukraine: situation analysis / L.I. Shevchenko // Actual problems of Ukrainian linguistics: theory and practice. - 2013. - Vip. 26. - P. 3-12.

Oksana Shut¹ORCID ID: <https://orcid.org/0000-0002-1194-7078>¹ National Pharmaceutical University

ACTUAL ASPECTS OF COMPETENT APPROACH IN HIGHER EDUCATION OF UKRAINE

Summary

The purpose of the article is to study the emergence of a competent approach in higher education. Due to the need to approximate the program requirements to the future specialist requests of society and the needs of practical professional activity.

The problems inherent in the process of development of professional training of specialists in higher education in Ukraine are generalized. In particular, the need for the development of the education system and lack of attention to this field at the state and local levels, the imperfection of the regulatory framework for the professional training of specialists, the lack of consideration of foreign experience in organizing the professional training of specialists in the pharmaceutical industry.

The etymology and interpretation of the concept of «competence». The absence of a unanimous approach to understanding the concept of «competence approach in education» is determined, various author's approaches to the content of this concept are investigated. The reasons for the relevance of higher education development on the basis of competence orientation are determined. Problematic issues of competent approach in the process of development of higher education standards are investigated

Prospects for further research in this direction is the justification of methodological principles and organizational mechanisms for the formation of competent standards as a leading vector in the modernization of higher education.

Keywords: competence, education, competent approach, standards of education.

Introduction

The Ukrainian education system cannot stay away from the processes of modernization of education that are taking place all over the world. Education concerns all world trends and innovations. Namely personally oriented approach, informatization, integration, etc.

These include a competent approach. Its appearance is associated with a crisis in the education system. It consists in the contradiction between the programming requirements for the future specialist, the demands of society and the needs of the individual in education.

Aim, subject and research methods

The aim of the article is to study the emergence of a competency-based approach in higher education. Due to the need to approach the program requirements to the future specialist to the demands of society and the needs of practical professional activity. The subject of the article are the theoretical foundations of the essence, features of the competence approach, its classification. The methods of historical, retrospective, comparative analysis were used in the article.

Research results

For a long time, a knowledgeable approach dominated the domestic education system, the result of which was a set of knowledge accumulated by the future specialist (as information), skills and skills [1]. The leading goal of modernization of higher education in Ukraine is to achieve a fundamentally new level of quality training of a specialist in the pharmaceutical industry [4].

Based on the research, we can identify the main problems of the process of development of professional training in higher education:

- lack of attention to education at the state, regional and local levels;
- imperfection of the legal framework;
- lack of consideration of foreign experience.

Solving these problems requires rethinking the purpose, content and tasks of professional training in high school. To make it competitive in the modern labor market and provide social protection for a person.

One of the ways to solve these problems was the introduction of a competent approach to higher education.

According to the Law of Ukraine «On Higher Education» [11], competence is a dynamic combination of knowledge, skills and practical skills, ways of thinking, professional, worldview and civic qualities, moral and ethical values. It determines the ability of the person to successfully carry out professional and further educational activities. It is the result of training at a certain level of higher education.

Education levels are as follows:

- integral competence is a generalized description of the qualification level. It expresses the basic competence characteristics of the level of training and/or professional activity.
- general competences are universal competencies that do not depend on the subject area. But they are important for successful further professional and social activities.
- special (professional, subject) competence - competence, depending on the subject area. They are important for successful professional activity in a certain specialty.

The dictionary of foreign words reveals the concept of «competent» as having competence - the circle of authority of a particular field, person or circle of affairs: competent (French). - competent, legitimate; competens (lat.) - suitable, capable; competence. In most foreign studies of recent years (Cl. Beelische, M. Linard, B. Rey, L. Turkal, M. Joras et al.), the concept of «competence» is interpreted not as a set of abilities, knowledge and skills, but as the ability or willingness to mobilize all resources (organized into a system of knowledge and skills, skills, abilities and psychological qualities) necessary to perform the task at a high level, adequate to a specific situation, that is, in accordance with the goals and conditions of the process [4].

According to the International Board of Standards for Training, Performances and Instruction, the concept of competence is defined as the ability to perform activities, perform tasks or work [8]. Translated from Latin, the term «competentia» means a range of questions, with which a person is well versed, has some experience. Russian scientists A. Khutorsky and V. Kraevsky interpret «competence» in a certain field as «possession of relevant knowledge and abilities that allow you to thoroughly judge about this field and act effectively in it», that is, competence is the result of gaining competence. In Ukraine, among the key competencies that are now defined as guidelines for identifying the effectiveness of the educational process are: educational, social, competence in information and communication technologies, economic (entrepreneurial), general culture, valueological, health and civic [10].

It should be noted that the concept of Competency-Based Education originated in the United States in the late 80's and early 90's of the twentieth century. Its basis was the requirements of business and entrepreneurship for graduates of higher educational institutions regarding their uncertainty and lack of experience in integrating and applying knowledge in the decision-making process in specific situations. At the same time, it is obvious that the more a company is based on knowledge, the more vulnerable its position becomes, because more and more of the company's values will «go home» at the end of the working day. One of the first publications on this issue was the article D.McClelland «Test competence, not intelligence» [16].

Summarizing the analysis of literary sources, we can conclude that there is no unanimous approach to understanding the concept of «competence approach in education». Different authors put different meanings into this concept:

1. Competence approach means a gradual reorientation of the dominant educational paradigm with a predominant translation of knowledge, the formation of skills, the creation of conditions for mastering the complex of competencies that mean the potential, the ability of the graduate to survive and stable life in a modern multi-aspect socio-political, market-economic, information and communication rich space [1].
2. Peculiarities of competence-based training: learning is focused on outgoing results, not on incoming ones; the ability to perform practical tasks is mainly taken into account, but knowledge is taken into account; training in production conditions (at least part of the training takes place in the workplace under production conditions) [7].
3. Competence approach is a set of general principles for determining the goals of education, selecting the content of education, organizing the educational process and assessing educational results.
4. Competence approach reflects an integral manifestation of professionalism, which combines elements of professional and general culture, experience of professional activity and creativity, which is specified in a certain system of knowledge, skills, readiness for professional solution of tasks and problems [12].
5. Competence approach - attitude to the first place is not the student's awareness, but his ability to solve problems arising in cognitive, technological and mental activities, in the spheres of ethical, social, legal, professional, personal relations. In view of this, this approach provides for this kind of educational content, which is not reduced to a knowledgeable-oriented component, but provides a holistic experience in solving life problems, performing key functions, social roles, competencies [9].

According to L. Koval, in higher education the transition to competently oriented training is considered in two aspects. Firstly, there is a modernization of the content of vocational education, which involves its selection and structuring with the simultaneous definition of an effective component of the educational process - the acquisition of competencies by students. Secondly, there is a need to teach future specialists key and subject competencies [10].

The general idea of a competence approach is competently oriented education, which is aimed at the comprehensive assimilation of knowledge and methods of practical activity, thanks to which a person successfully implements himself in various branches of his life. It provides a priority orientation to the goals-vectors of education: the ability to learn, self-determination (self-determination), self-actualization, socialization and development of individuality. In this case, the introduction of a competence approach in professional education serves as the foundation for the formation of a competent specialist who has a culture of professional activity. It is a competent approach that allows selecting the content of professional education in accordance with the needs of the developing individual and simultaneously focuses it on the innovative experience of successful professional activity in a particular field [5].

Ukraine's entry into the world community of modernization of the international order in the context of the priorities of the future world order requires the organizers (managers) of higher education to step by step implement the components of the existing megasystem of a holistic educational space, where the expressive feature of its content is the development on a competence-oriented basis, due to several reasons [3].

1) the transition of the world community to an information society, where the priority is not a simple accumulation of students knowledge and subject skills (the purpose of the so-called «knowledge pedagogy»), but also the formation of the ability to learn, mastering the skills of finding information, the ability to self-learn throughout life, where these neoplasms become a defining area of human professional activity;

2) implementation of the model of personality-oriented educational process as an updated paradigm of education, which involves the recognition of the student as the subject of this process, the carrier of two groups of qualities through the ability to learn and the desire to learn, which is possible on the one hand, mastering it productive (general) skills and skills and detailed reflection, and on the other - the formation of a positive emotional and value attitude to the process of activity, its result, self-realization of the individual;

3) a special actualization of globalization of all spheres of life of personality and society in the conditions of general civilization trends of the modern world, requiring from higher school [9]

to give a young person basic opportunities to integrate into different societies, to self-determine in life, to actively act, to be competitive in the world labor market;

4) Fourth, the need to master the art of rapid transformational changes in educational systems in both the local (regional, national) environment and the global space.

Problematic questions of competence are largely actualized in the context of differentiation of academic and professional competencies. Professional competences in the higher education standard should be formed on the basis of professional standards if the latter are available. However, so far, the wording of such competences is completely left at the discretion of the developers of educational standards due to the practical lack of professional standards for most professions requiring specialists with higher education.

Professional competences are an element of professional standardization, so their development should be better coordinated with the current demands of the labor market. Such competences are stronger «tied», so to speak, to the field of economy and the type of professional activity. It would be advisable if developers could better distinguish between professional and academic competences in order to clearly understand how they mutually strengthen each other. In practice, however, it is not always possible to achieve such an understanding. This is evidenced by some confusion in the planned competences and results of training, which can be observed in some higher education standards [16].

Despite the fact that a significant proportion of higher education standards have already been approved, it is also advisable to predict the procedure for making changes to them, because it is obvious that the desire to improve standards will arise, that they will be applied more in practice. An important principle of this procedure should be the widest possible involvement of various interested groups and experts. First of all, it is necessary to provide access to improving standards for representatives of the academic community and practitioners working in the relevant field of economic activity or professional activity, as well as for industry organizations of employers, professional associations, foreign experts.

Conclusions

Summing up all the above, we can argue that higher education cannot be separated from the strategic tasks of reforming the content of the educational process in the world.

This relates to the development of state standards for the formation of systems and the volume of knowledge, skills, creative skills, other personality qualities at various educational and qualification levels; providing alternative opportunities for education according to

individual needs and abilities; organic combination in the content of education of its general and professional components in accordance with the educational levels and features of the regions of Ukraine [6].

In addition, Ukraine's higher education in accordance with international standards must meet the priorities of the XXI century [4]: formation and grafting of respectful attitude to professions to members of our society, strengthening the authority of higher education through the training of highly qualified personnel - the elite of society, including for joining the European Union, opening new relevant specialties, continuous improvement of the content of education in the context of the Bologna process, wide introduction of new technologies, forms and methods of education, building scientific potential, ensuring the integration of pharmaceutical science and practice, improvement of postgraduate education, personnel monitoring, creation of a system of certification and certification of personnel at the state level.

In summary, it can be noted that work on the preparation of new educational standards that have a competent approach at their core is an important stage on the way to improving the quality of higher education and improving its content. Despite the difficulties that arise on the way to the formation of competent standards, this is the right vector in the modernization of higher education.

References

1. Bakhrushyn V.Ie. Standarty vyshchoi osvity [High school standards]. URL : <http://education-ua.org/ua/articles/689-standarti-vishchoji-osviti> [in Ukrainian].
2. Havryshchak H. R. (2016). Kompetentnist ta kliuchovi kompetentsii vykladacha VNZ. [Competence and key competencies of a university teacher]. *Profesiini kompetentsii ta kompetentnosti vchytelia : materialy rehionalnoho naukovo-praktychnoho seminaru*, (pp. 31-32). Ternopil [in Ukrainian].
3. Nychkalo N.H. (2012). Derzhavni standarty profesiinoi osvity : teoriia i metodyka. [State standards of vocational education: theory and methodology]. Khmelnytskyi: TUP, (pp. 334) [in Ukrainian].
4. Kremen V.H. (2016). Novi vymohy do yakisnoi osvity. [New requirements for quality education]. *Osvita Ukrainy*, (Vol. 45-46), (pp.6-7) [in Ukrainian].
5. . Nahorna N. V. (2017). Formuvannia u studentiv poniat kompetentnosti y kompetentsii. [Formation of students' concepts of competence and competence]. *Vykhovannia i kultura*, (Vol. 1-2), (pp. 266-268) [in Ukrainian].

6. Ovcharuk O.V. (2014). Kompetentnisnyi pidkhid u suchasni osviti: svitovyi dosvid ta ukrainski perspektyvy. [Competence approach in modern education: world experience and Ukrainian perspectives]. Kyiv: «K.I.S.», (pp. 217) [in Ukrainian].
7. Panych O. Systema pidhotovky standartiv vyshchoi osvity i perspektyvy yii vdoskonalennia. [The system of preparation of standards of higher education and prospects for its improvement]. URL: <http://education-ua.org/ru/component/content/article/12-articles/1324-sistema-pidgotovki-standativ-vishchoji-osviti-i-perspektivi-jiji-vdoskonalennya> [in Ukrainian].
8. Plakhotnyk O., Beznosiuk O. Kompetentnisnyi pidkhid u VNZ : problemy ta perspektyvy. [Competence approach in higher education: problems and prospects]. URL: [http://irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/Nz_p_2013_121\(2\)__49.pdf](http://irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/Nz_p_2013_121(2)__49.pdf) [in Ukrainian].
9. Pometun O.I. (2014). Teoriia ta praktyka poslidovnoi realizatsii kompetentnisnoho pidkhotovky v dosvidi zarubizhnykh krain. [Theory and practice of consistent implementation of the competence approach in the experience of foreign countries]. Kyiv : «K.I.S.», (pp. 547), [in Ukrainian].
10. Priorytetni napriamy zmin u vyshchii osviti na 2018-2019 rr. [Priority areas for change in higher education for 2018-2019]. URL: https://mon.gov.ua/storage/app/media/vishcha-osvita/infographik/MON_prioritety_new.pdf [in Ukrainian].
11. Pro vyshchu osvitu: Zakon Ukrainy vid 01.07.2014 r. № 1556-VII. Data onovlennia: 02.09.2020. [On higher education: Law of Ukraine of 01.07.2014 № 1556-VII. Date of update: 02.09.2020]. URL: <https://zakon.rada.gov.ua/laws/show/1556-18#Text> [in Ukrainian].
12. Selevko H. (2014). Kompetentnosty y ykh klasyfikatsyia. [Competences and their classification.]. *Narodnoe obrazovanye*, (Vol. 4), (pp.138-143) [in Ukrainian].
13. Smahina T.M. Hromadianska kompetentnist u konteksti osobystisnoho vymiru. [Civic competence in the context of personal dimension]. URL: <http://eprints.zu.edu.ua/1504/1/05stmkov.pdf> [in Ukrainian].
14. Sovremennyiy slovar inostrannyih slov (1994). Sankt-Peterburg: Duet, (pp. 752) [in Russian].
15. Khodan O.L. (2017). Kompetentnisnyi pidkhid do pidhotovky maibutnikh fakhivtsiv u VNZ. [Competence approach to the training of future specialists in higher education].

Naukovyi visnyk Uzhhorodskoho natsionalnoho universytetu, (Vol. 29), (pp. 232-235) [in Ukrainian].

16. McClelland D.C. (1973). Testsing for Competence Rather Than for «Intelligence». *American Psychologist*, (Vol. 28), (pp.1-14) [in English].
17. The Framework of Qualifications for the European Higher Education Area. URL: http://www.ehea.info/media.ehea.info/file/2018_Paris/77/8/EHEAParis2018_Communiq ue_AppendixIII_9527 [in English].

Kostyantyn Simakov¹ORCID ID: <https://orcid.org/0000-0003-0094-2930>¹ Donbas State Machine-Building Academy

FEATURES OF TEACHING ANALYTICAL AND ACCOUNTING DISCIPLINES IN HIGHER EDUCATION INSTITUTIONS

Summary

The article describes the main features of curricula of accounting and analytical orientation and aspects of teaching accounting and analytical disciplines: lectures and practical classes using multimedia technologies, applications for accounting and financial analysis, the organization of distance learning, which requires access to modern software products. also contains specific suggestions for improving the perception of accounting disciplines.

Keywords: accounting and analytical disciplines, educational program, quality assurance of higher education, interactive technologies, distance learning.

Introduction

The purpose of educational programs of accounting and analytical orientation - to provide students with general and special competencies related to accounting and taxation, which will enable them to solve complex accounting, analytical, and control tasks in terms of national and international accounting standards during training and professional activities, formation of the personality of a specialist capable of conducting research and making sound management decisions using effective international methods and practices of accounting and taxation.

Aim, subject and research methods

Peculiarities of curricula of accounting-analytical orientation are the emphasis directed on the acquisition of knowledge, analytical, communicative, organizational skills within the formation of general and special competencies of future specialists of acquisition of knowledge, analytical, communicative, organizational skills within the formation of general and special competencies of future masters. namely:

- focus on international standards of accounting and control activities;
- emphasis on the preparation of accounting and analytical justification of management decisions;
- in-depth attention to various forms of financial control (internal, state financial audit, financial monitoring, and compliance);
- focus on in-depth acquaintance with taxation systems;
- implementation in an active research environment.

The student-centred approach to teaching in educational and professional programs is carried out through the following methods:

- problem-oriented learning, self-study,
- combination of lectures, practical classes, independent work,
- consultations with the decision of situational tasks, the performance of course work, research works, testing on a paper / electronic carrier, passing of practice,
- the performance of master's qualification work.
- use of problem-based, interactive, information-computer, collective and integrated, contextual learning technologies,
- active teaching methods that develop professional and communication skills, and the ability to work in a team.

Requirements for the availability of a system of internal quality assurance in higher education are determined by European standards and recommendations for quality assurance in higher education (ESG) and Article 16 of the Law of Ukraine "On Higher Education".

The internal quality assurance system must comply with the principles of:

- compliance with European and national quality standards of higher education;
- autonomy of the institution of higher education, which is responsible for ensuring the quality of educational activities and the quality of higher education;
- quality monitoring;

- a systematic approach that involves quality management at all stages of the educational process;
- constant quality improvement;
- involvement of students, employers, and other stakeholders in the quality assurance process;
- the openness of information at all stages of quality assurance.

The system of internal quality assurance of higher education should provide for the implementation of the following procedures and measures:

- planning of educational activities: development, approval, monitoring, and periodic review of educational programs;
- ensuring the quality of staff;
- ensuring the availability of the necessary resources for the organization of the educational process and support for higher education;
- development of information systems for effective management of educational activities;
- ensuring publicity of information about the activities of higher education institutions;
- prevention and detection of academic plagiarism in scientific and educational works of teachers, articles in scientific periodicals, dissertations of applicants for scientific degrees and qualifying bachelor's and master's theses of students;
- participation in national and international rating surveys of higher education institutions.

The composition of courses in educational programs should be formed taking into account the interdisciplinary approach. A scientifically substantiated sequence of mastering academic disciplines should ensure the development of educational competencies required for a specific qualification. This ensures the existence of unions of specialists (for example, the Federation of Professional Accountants and Auditors of Ukraine), which unite like-minded professionals and have a high potential to raise the content level of educational standards. One of the most important conditions for the successful development of the digital economy is the staffing of processes at all levels. That is why in educational institutions it is necessary to carry out appropriate work to clarify curricula, curricula, basic educational programs, and forms of education. There is a need to focus on the specialization of students in the development of educational programs and especially work programs of disciplines. To develop effective

educational programs, close cooperation of educational institutions with stakeholders (employers) must be established. It is advisable to allocate blocks of general, basic, and selective competencies for accounting and analytical areas, in particular for the training of applicants in the speciality "Accounting and Taxation". In this case, when studying accounting disciplines there is no need for a detailed presentation of all areas of the accounting process, it is necessary to give the concept of the main stages of accounting work: basic and selective competencies for accounting and analytical areas, in particular for the training of applicants in the speciality "Accounting and Taxation". In this case, when studying accounting disciplines there is no need for a detailed presentation of all areas of the accounting process, it is necessary to give the concept of the main stages of accounting work: basic and selective competencies for accounting and analytical areas, in particular for the training of applicants in the speciality "Accounting and Taxation". In this case, when studying accounting disciplines there is no need for a detailed presentation of all areas of the accounting process, it is necessary to give the concept of the main stages of accounting work:

- accounting policy and its role in the formation of accounting and analytical information;
- chart of accounts, primary documents, and accounting registers;
- main forms of reporting and their content.

Therefore, it is necessary to identify the discipline that most fully reveals the features of accounting and reporting about the speciality. This determines which sections of the accounting policy, the objects of accounting must be disclosed in more detail when lecturing, conducting practical classes, and organizing independent work of students. It is in the study of this discipline that it is necessary to show the unity of accounting, analysis, and control of areas typical of specific professionals working in production, construction, trade, budget, etc.

The main task of training is to acquire skills in working with information, including its search, systematization, and processing, which can be obtained only by independent work of the student, which involves the development of cases, creative tasks, discussions, and other situational materials that the student must perform. organizations in direct contact with the future employer, not on abstract materials. A special role is in the use of higher education videos of lectures, educational films, presentations. Recommendations for the use of online resources are related to the simplicity and realism of their use. Online consultations (using video communication technologies) provide an opportunity to provide timely assistance to applicants who are interested in the in-depth study of disciplines and scientific work. The purpose of independent work is to find and acquire new and consolidate, deepen already acquired

knowledge and skills, including skills of independent work not only with educational material but also an independent solution of a new task for him. Independent direction of work becomes especially important in the digitalization of the economy because in this case the independent work of the applicant can be performed based on finding the necessary information using modern technologies, to increase the validity of conclusions, interpretation of information in conjunction with decision making.

Analysis of some educational programs shows a lack of consistency in the study of disciplines. But, as practice shows, it is impossible to start studying the practical part without a thorough study of the theoretical foundations of the discipline.

In addition, the curricula provide for a different combination of the study of accounting disciplines with other related disciplines. For the direction of training "Accounting and Taxation" financial accounting should be taught in combination with accounting theory, management accounting, and for the direction of "Management" - a comprehensive study of financial analysis. When teaching accounting and financial accounting, it is necessary to put different emphasis on students studying in different areas.

It should be borne in mind that the initial knowledge of students differs significantly depending on the level of mathematical and computer training of applicants at the time of study of the discipline. Also, the process of perception of the discipline is significantly complicated by the lack of accounting experience, as well as experience of practical work.

Educational processes of the XXI century - is the transition from active to interactive teaching methods, as evidenced by a sufficient number of modern developments in the field of pedagogy, which reveal the essence of teaching professional disciplines.

Interactive methods, in contrast to active ones, are focused on the wider interaction of students with the teacher, with each other and on the dominance of student activity in the learning process. Interactive ("inter" is a mutual, "act" - to act) method, a method that means interaction, being in a mode of conversation, dialogue with anyone. The lesson plan should include interactive tasks and exercises, performing which students learn new material, and not just consolidate what has already been learned. When training a specialist in any field in a market economy, a certain number of classroom classes should be given to accounting theory, as an understanding of the process of the interconnection of all facts of economic activity and changes in the financial position of the organization and its potential. To do this, it is advisable to develop a course of video lectures by different teachers.

Accounting disciplines are a kind of alphabet in the system of economic disciplines, so the teacher must place different motivational accents for applicants who study in different

educational programs. Sufficient professional training of the teacher allows finding these accents. Intensification of education can be achieved through interactive methods in vocational education, it meets the requirements of quality, competitiveness, continuity, mobility, safety for student health.

The therapeutic potential of interactive methods in terms of their systematic use in the educational process is also obvious. Discussion, analysis of real situations, brainstorming, role-playing or simulation, lead to a favourable psychological atmosphere in the classroom, enhance the language and intellectual activity of students, increase their interest, self-confidence, reduce anxiety and create a meaningful context of communication.

There are several models of constructing an interactive seminar and a practical lesson. One of the ways to organize a discussion of an issue is the so-called "round table". The purpose of the discussion is to generalize opinions on the problem, and all participants of the round table act as proponents (the one who supports and argues the thesis in the debate). All participants in the discussion are equal, no one has the right to dictate their will and decisions. As a rule, the "round table" plays more of an advocacy role than a tool for making concrete decisions. The "round table" can be considered part of the seminar, which is a free discussion of the topic.

In practical classes, you can use the method of brainstorming - an operational method of solving the problem based on stimulating creative activity, in which participants are asked to express as many solutions as possible, including unrealistic. Then, from the total number of expressed ideas, the most successful ones are selected, which can be used in practice. Practical experience shows that students do not care too much about the normative justification of their ideas. But this does not mean that this method cannot be used in the study of accounting disciplines.

A case study is a specially prepared training material that reflects a specific problematic business situation that requires management decisions by the company's management. During classes, the teacher directs students to find such solutions, build situations that are focused and take into account the specifics of a particular area of student learning.

Modern education is characterized by large amounts of information and strict requirements for the knowledge of applicants. Education needs new approaches and methods to the organization of the educational process, based on advanced information technologies. Digital technologies come to the aid of traditional pedagogical methods.

Classes with the use of multimedia presentations are held in computer classrooms with the use of multimedia projectors to increase the pace of information assimilation. Lecture material is provided in presentations made in PowerPoint or others. On the slides of the

presentation are the main provisions of the research topic: definitions, accounting records for the research account, samples of primary documents and accounting registers, examples of solving situational problems. Also, this material is used in distance learning using educational platforms Moodle, Zoom, Microsoft Teams and others. Also, assignments in the disciplines are sent to the group's e-mail and are performed by each student on a separate computer. Modern students actively use automated information technology (personal computer, electronic textbooks, Internet). Students use multimedia technologies in the preparation of reports, abstracts, speaking at conferences, in the defence of term papers and qualifications.

Currently, even in those organizations where accounting is automated, do not do without the use of Microsoft Excel tools. The number of reports that must be provided by all departments of the organization is growing steadily. Microsoft Excel spreadsheets allow you to refine reports, submit information obtained during unloading from 1C, in the required form.

The program allows you to select the necessary information, creating separate tables, organize the available information on the necessary grounds and calculate the results. With the help of Microsoft Excel package, students can keep auxiliary calculations and tables, accounting of inventory, calculation of wages, accounting of settlements with suppliers and buyers (in terms of delivery and shipment of products and goods), accounting of revenues, calculation of taxes to be transferred in the budget, etc.

To consolidate the studied material and to test knowledge, a survey is conducted, both orally and in writing. A written survey is a test in which students are asked to answer questions from the material, to make accounting records on the proposed facts of economic activity or to analyze the main indicators of financial condition and economic activity of the entity.

Within the teaching of disciplines "Modern information technologies in accounting, analysis, auditing and taxation" and "Management accounting and analytical support of the management system" are used configurations of the licensed program "1C: Accounting 8" and others. But the form of education involves a small amount of study time devoted to the study of disciplines.

To provide preferential terms for the purchase of software products and assistance in the development of economic software products "1C", the company "1C" offers a special type of contract - an agreement on the use of software products in the educational process in higher education. According to this agreement for educational purposes in 2018 the product "1C: Accounting of the enterprise 8" was got.

In distance learning, tests and exams are performed in the Moodle system in the form of test tasks and tasks in essay format.

Upon completion of the educational program "Tax Accounting" students must have the amount of theoretical knowledge and practical skills necessary for successful work as an accounting specialist in budgetary and commercial organizations.

There is a certain order of teaching the discipline "Accounting". After studying the technology of accounting for individual areas, students are asked to solve a cross-cutting problem that allows students to imagine themselves in the role of current accountants. The cross-cutting task is a conditional example of the reflection in the accounting of the facts of the economic activity of the organization. The task is based on the example of a small business, which applies a simplified system of taxation, and covers the most typical transactions for the month. Solving a cross-cutting problem allows students to:

1. Gain skills in the preparation of primary documents: when carrying out cash transactions (formation of income cash order and expenditure cash order), current account operations (registration of bank statements in the accounting database), when making payments to accountable persons (advance report), settlements with service providers (rent), settlements with employees of the organization on remuneration;

2. Learn to summarize information in accounting registers (account cards) for the month, quarter;

3. Gain skills in calculating mandatory payments to the budget and extrabudgetary funds, and the formation of regulated reports for transfer to tax and other government agencies.

Thus, there are many features and problems in the teaching of accounting disciplines for non-specialized areas of bachelor's degree, but it is necessary to overcome stereotypes, change the established practice and strive to improve the effectiveness of classroom classes.

Research results

The use of modern multimedia and Internet technologies in the teaching of information accounting systems allows to clearly show the capabilities of the researched software, which allows increasing the productivity and effectiveness of training. Students are allowed to observe the demonstration by the teacher of the technology of work in accounting programs both visually and in remote applications.

Conclusions

Thus, there are many features and problems in the teaching of accounting disciplines for non-specialized areas of bachelor's degree, but it is necessary to overcome stereotypes, change the established practice and strive to improve the effectiveness of classroom classes.

Bibliography

1. The concept of development of the digital economy and society of Ukraine for 2018-2020: Order of the Cabinet of Ministers of Ukraine of January 17, 2018, № 67-r. URL: <http://zakon5.rada.gov.ua/laws/show/67-2018-%D1%80>.
2. Regulations on the procedure for development and implementation of educational programs of the Donbas State Engineering Academy. URL: <http://www.dgma.donetsk.ua/docs/acts>
3. Regulations on advanced training of pedagogical and scientific-pedagogical workers of the Donbas State Machine-Building Academy. URL: <http://www.dgma.donetsk.ua/docs/>
4. The quality of higher education: a competency approach in the training of modern specialists: materials of the XLIII International Scientific and Methodological Conference (Poltava, November 14-15, 2018). - Poltava: PUET, 2019. - 328 p.

Olena Solodovnyk¹ORCID ID: <https://orcid.org/0000-0001-6151-4353>¹ Novograd-Volynskiy Medical Applied College Zhytomyr Regional Council

INFORMATION AND DIGITAL COMPETENCE OF A TEACHER OF NOVOGRAD-VOLYNSKIY MEDICAL APPLIED COLLEGE IN THE CONDITIONS OF BLENDED LEARNING AS A COMPONENT OF PROFESSIONAL GROWTH

Summary

The article considers the theoretical foundations and practical possibilities of forming information and digital competence of a teacher in blended learning using the Learning Cloud "iCloud", which is one of the main aspects of continuous professional growth.

Keywords: information competence, digital competence, blended learning, iCloud, cloud technologies.

Introduction

In today's educational environment, the process of providing educational services cannot take place without the use of tools and capabilities provided by computer technology and the Internet. Any participant in the educational process has the opportunity to receive the latest information, actively communicate with colleagues, students and parents. The progressive development of information technology around the world and, in particular, in Ukraine, leads to awareness of the conveniences and benefits of their use.

Due to the rapid development of information technology in all spheres of modern society and education development of information and digital competence of the teacher. After all, today the organization of the educational process of the institution of professional higher

education is carried out on the basis of a competency-based approach, which contributes to improving its quality and continuous professional growth of teachers.

Ukraine's modern transition to the information society, when almost anyone can connect to the Internet today, requires constant access to cloud technologies. Novograd-Volynskiy Medical Applied College has been actively using the capabilities of the ICloud Training Cloud for over 5 years.

The main task of teaching is traditionally to transfer information from teacher to student. However, from year to year, the amount of data that needs to be mastered by a student of a professional higher education institution is increasing. The question arises: by what means and in what form to provide this information to the student?

Aim, subject and research methods

The purpose of this research is to analyze the level of formation of the studied educational competence; consideration of the peculiarities of the use of new information technologies for the formation of information and digital competencies; study of the impact of information and digital competence on the professional growth of teachers.

The subject of the study is to streamline the theoretical material and practical experience in the development of information and digital competence in the educational process. The research used a general scientific method of empirical (observation, comparison) and theoretical (analysis, synthesis) research.

On the example of the organization of training of Novograd-Volynskiy Medical Applied College we will define some modern information technologies which allow to provide data transfer and exchange between the teacher and students sufficiently, combining text, graphic, video and sound information at the same time.

We will also analyze the impact of cloud technologies on the development of information and digital competence of teachers. and digital media for effective, critical, creative, independent and ethically-oriented learning [1].

Information and digital competence involves the confident and at the same time critical use of information and communication technologies by the individual to create, search, process, exchange information at work, in public space and in private communication; information and media literacy; Internet security skills; understanding the ethics of working with information (copyright, intellectual property, etc.) [4].

The European Commission's Research Center has developed the DigCompEdu Conceptual Reference Model of Digital Teacher Competence, aimed at professionals at all levels of education, and has identified areas of digital teacher competence and its components:

- professional involvement (use of digital technology for communication, cooperation and professional development);
- digital resources (search, creation and distribution of digital resources);
- teaching and learning (management and organization of the use of digital technologies in education);
- evaluation (use of digital technologies and strategies to improve digital evaluation);
- empowerment of learners (introduction of digital technologies to improve inclusive, individual education and active involvement of students);
- promoting digital competence of students (providing opportunities for creative and responsible use of digital technologies to work with information, communication, content creation and problem solving) [3].

Issues related to the formation of information and digital competence were considered by both Ukrainian (O. Kuzminska, N. Morse, O. Spirina, Y. Zaporozhtseva, L. Ilychuk) and foreign scientists (V. Brazdeikis, L. Salganik, T Sabaliuskas, D. Ricken, D. Bucantate, K. Pukelis) [4]. However, the peculiarities of the organization of the modern educational process determine the need to clarify the studied phenomenon of information and digital competence of teachers.

Today, in the context of a global pandemic, it is important to consistently implement the informatization of the education system, the introduction of innovative and information and communication technologies in the educational process. It is cloud technology that allows consumers to use programs without installing and accessing personal files from any computer that has access to the Internet. Convenience and versatility of access is provided by wide availability of services and support of various class of terminal devices (personal computers, mobile phones, tablets, etc.). Such technologies allow not to buy expensive software for installation on the computer, given the chance to deploy a cloud infrastructure and to have access to it from any place, from any equipment connected to the Internet. It should be noted that access to the "cloud" can be simultaneously thousands of people who have been granted access.

Source of research: pedagogical staff of Novograd-Volynskiy Medical Applied College

Research results

Today, in order to effectively form the information and digital competence of the teacher in the organization of the educational process based on blended learning technologies, the College uses a licensed information network system "iCloud" [educational cloud], approved for use in general secondary education (certificate №22.1 / 12-201 from 10.01.2019 according to the protocol №1 from 19.02.2019) and in institutions of professional (vocational) education (certificate №22.1 / 12-G-215 from 18.04.2019 according to the protocol № 5 dated April 2, 2019) [5]. From the moment of employment, the teacher has the opportunity via the Internet (cloud.nvmk.org.ua) to place educational material presented in the form of various information resources (text, video, animation, presentation, electronic textbook, etc.), add tasks and check it, evaluate learning outcomes education seekers through testing, etc. The teacher independently creates electronic materials, can conduct teaching synchronously and asynchronously, send messages to students, keeps electronic journals of grades, etc.

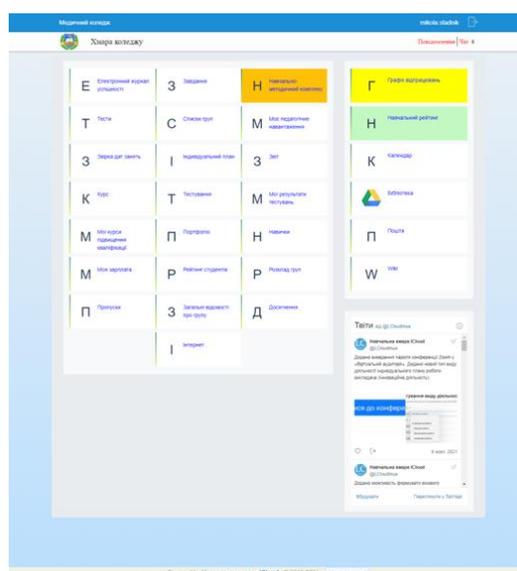


Figure 1. Learning cloud "iCloud"

Access to the resources of the college distance learning system The learning cloud "iCloud" (Fig. 1) is personalized. Teachers receive a login and password to log in when hiring. The first step to the formation of digital competence is the availability and ability to work with the necessary hardware and software (for students and teachers - personal computers, smartphones, tablets, for educational institutions - network equipment, uninterruptible power supplies, servers, etc.), which provides use of educational web resources, management of the

educational process and the necessary types of interaction between the subjects of blended learning in synchronous and asynchronous modes.

Each user has access to only those e-learning materials that he needs to participate in the educational process. The ICloud training cloud allows you to fill, improve, store and archive information, while the college ensures the preservation of personal data of system users in accordance with current legislation.

Infections, because here are:

- documents on planning the educational process (curricula, thematic plans, class schedules of groups and teachers);
- a set of educational and methodological support;
- video and audio recordings of lectures, seminars, etc .; materials;
- testing with automated verification of results;
- call to the electronic library hosted on Google Drive;
- call to other educational resources (Zoom, Gmail, Google Calendar, Google Classroom, Google Form, YouTube, etc.).

It should be noted that each lesson in remote mode is held in a virtual classroom, where the teacher joins students to the Zoom-conference, downloads teaching material in different formats (pptx, docs, pdf), adds tasks (in a text editor, media files, etc.), sets the mode testing, sees the results of completed tasks in real time, has the opportunity to immediately evaluate them and get feedback from the student with feedback on the lesson (Fig. 2).

The screenshot displays a virtual classroom interface. At the top, it shows the institution name 'Медичний коледж' and the user 'nataliya.muharovska'. The course title is 'Культура Середньовіччя. Культура епохи Відродження.' The instructor is 'Мухаровська Н.І.' with a 'Приєднатися до конференції 31' button. A 'Матеріали' section contains a 'Переглянути' button. Below, a quiz question is shown: 'Чи була культура середньовіччя спадкоємицею античності? Чому?' with 14 incorrect and 21 correct answers. A Windows watermark is visible in the bottom right corner.

Figure 2. Virtual audience

The professional growth of a pedagogical worker of Novograd-Volynskiy Medical Applied College is formed automatically for each teacher entered in the database [6]. The portfolio reflects information on the results of the last certification, activities and research and publishing activities, the percentage of filling a single educational and methodological complex, etc. Teachers are obliged to constantly improve their skills in various forms, types, the results of which receive the relevant document, so in the section "Certificate of completion of courses" you can get information about the terms, topic (direction, name), document number of the last training teacher. One of the tabs of the section – "Portfolio", which contains information about the professional achievements of teachers in the intertest period: thanks, diplomas, certificates of participation in professional trainings, workshops, conferences, seminars, etc. (Fig. 3).

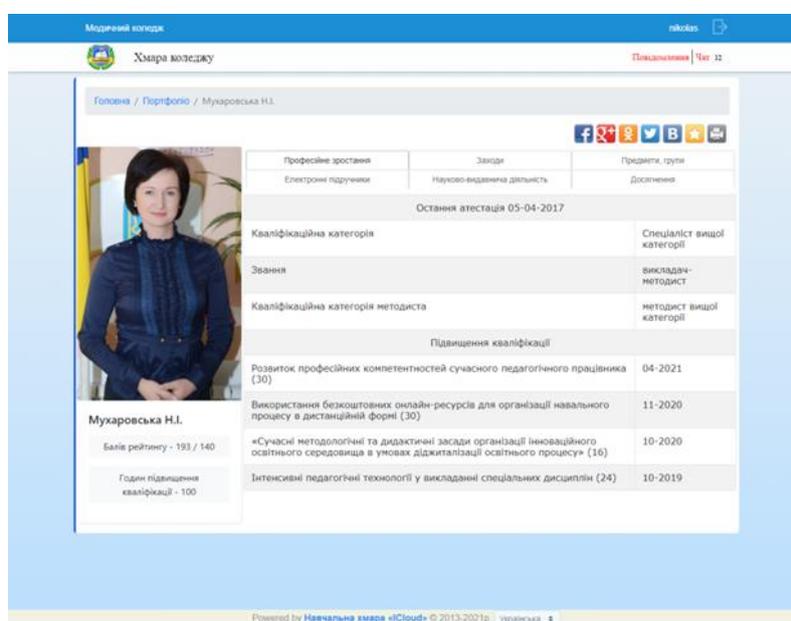


Figure 3. "Portfolio"

To be adequate in the digital world, in digital technologies, an educator must have knowledge of the capabilities of computers (including mobile devices) and technology, understand the role of the digital educational environment, be able to analyze information, design and create their own environment, work in network pedagogical communities, information opportunities, limitations, risks of its use, etc.

Digital literacy is the basis of information and digital competence of a teacher, which means readiness and ability to use digital resources, use computers, mobile devices and cloud technologies in the educational process, as well as create and effectively use digital educational opportunities in the educational process.

In the process of blended learning there is an urgent need - to explore the changing level of information and digital competence of the teacher of Novograd-Volynskiy Medical Applied College over the past four years. The total number of subjects was 60 teachers. With the help of the Google Forms service, an online questionnaire was created, which was sent to college teachers by personal e-mail (Fig. 4).

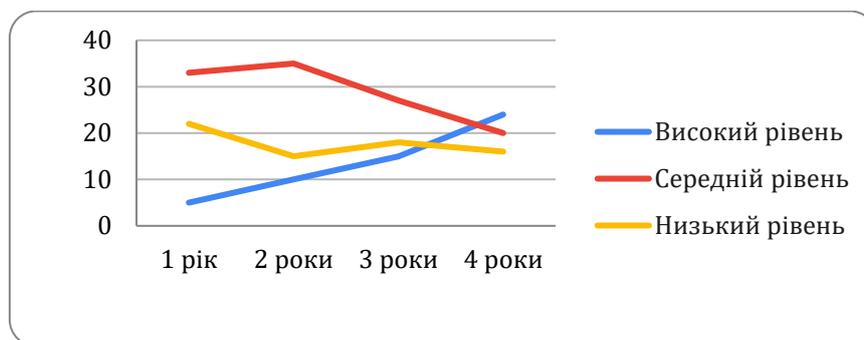


Figure 4. The level of information and digital competence of teachers

Taking into account the results of the study, we concluded that in the second year of the study the number of middle-level teachers decreased due to a decrease in the number of low-level teachers, but in the third and fourth years the number of middle-level decreased due to an increase in high-level teachers. This can be explained by the rapid use of digitalisation of education in the context of the global Covid-19 pandemic, which has forced educational institutions to urgently study and start using available technological tools to create content for distance learning in all fields. At the same time, teachers get new opportunities, learn to do something different and with more flexibility, resulting in the formation and development of information and digital competence.

It is worth noting that the disruption of ordinary life associated with the pandemic may give teachers time to rethink the field of education. Technology has come to the rescue and will continue to play a key role in teaching future generations, in a world where knowledge is at the click of a mouse, the role of the teacher must also change: a teacher who is flexible to change is productive. enjoys his work [7]. Therefore, a study of the level of teacher satisfaction in the Learning Cloud "lCloud" was conducted (Fig. 5).

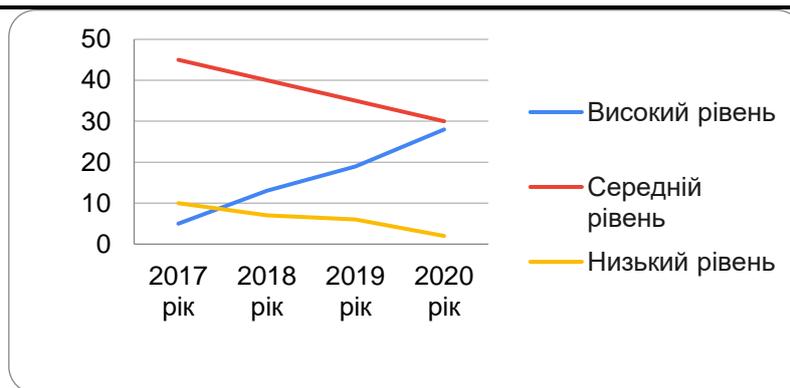


Figure 5. Level of satisfaction with the work of the teacher in the Educational cloud "iCloud"

Based on the obtained data, it was found that during the active implementation of information and network technologies, the level of teacher satisfaction gradually changed from medium to high, while the number of teachers with low satisfaction decreased and is currently minimal.

Conclusions

Thus, due to the appropriate dosage and availability of the proposed information, effective cooperation of all participants in the educational process, the active use of cloud technologies helps to increase the information and digital competence of teachers. Working in the Educational Cloud "iCloud" allows you to best form the information and digital competence of teachers, taking into account the individual abilities of each participant in the educational process, especially in a blended learning environment. Digitizing in its activities, the teacher encourages students to active learning, encourages interaction, cooperation, promotes the formation of skills to solve problems, create new knowledge, thus being in continuous professional growth.

Literature

1. Ferrari A. Digital Competence in Practice: An Analysis of Frameworks. Luxemburg: IPTS-JRC, 2011. URL: <http://ftp.jrc.es/EURdoc/JRC68116.pdf>.
2. The concept of a new Ukrainian school. URL: <http://mon.gov.ua/activity/education/zagalna-serednya/ua-sch-2016/konczepczya.html>.

3. Redecker C. European Framework for the Digital Competence of Educators: DigCompEdu / S. Redecker. - Luxembourg: Publications Office of the European Union, 2017. doi: 10.2760 / 159770.
4. Gurevich RS Formation of information competence of future teachers by means of multimedia technologies. Proceedings. Series: Pedagogy. 2007. S. 38– 41.
5. Mukharovska N.I., Zinchuk I.S. Implementation of the analysis of the volume and quality of scientific and methodological work in higher education institutions / N.I. Mukharovska, I.S. Zinchuk // Humanitarian space of science: experience and prospects: materials of the XX International scientific-practical Internet conference: collection. Science. works (Pereyaslav-Khmelnysky, November 30, 2018). - Pereyaslav-Khmelnysky, 2018. - № 20. - P. 315–318.
6. Mukharovska N.I., Zinchuk I.S., Stadnik M.M. Organization of educational and methodical work of Novograd-Volyn medical professional college of Zhytomyr regional council in information-network system "iCloud" [educational cloud] / N.I. Mukharovska, I.S. Zinchuk, M.M. Stadnik //: Professional advancement and professional education: theory, methods, practice: collection of scientific works (Kyiv, June 18, 2020) .– Kyiv, 2020. - p.317.
7. Solodovnyk O.V. Formation of readiness of future junior specialists with medical education for professional self-improvement in the process of professional training: dissertation: 13.00.04 «Theory and methods of professional education / Solodovnyk Olena Volodymyrivna - Zhytomyr, 2018. - 278 p.

Viacheslav Tsyhanskyi¹ORCID ID: <https://orcid.org/0000-0001-5157-9807>¹ Vinnytsia National Agrarian University

METHODICAL SUBSTANTIATION OF THE ORGANIZATION EUROPEAN CREDIT TRANSFER AND ACCUMULATIVE SYSTEMS IN THE TEACHING OF AGRICULTURAL DISCIPLINES

Summary

This article highlights the procedure and features of the introduction of the European credit transfer system in higher education institutions and its key positions. Types of educational work and control measures. The purpose of introduction of the European credit transfer system and its key documents in universities for ensuring high quality of education and integration of the national system of higher education into the European and world educational community is defined.

Keywords: education, rating, ECTS.

Introduction

The European Credit Transfer System (ECTS) is a system designed to provide a single pan-European approach to assessing and comparing the academic performance of students in different higher education institutions and their academic recognition. In essence, ECTS does not regulate the content, structure or equivalence of educational and professional programs. These issues relate to quality issues and are determined by the educational institutions themselves. ECTS provides transparency and promotes the recognition of education.

The ECTS system is based on the principles of mutual trust of participants and provides for the implementation of rules for all its parts: information (concerning educational programs).

The world educational community envisages the introduction of standards, recommendations and basic tools for the mobility of the European Higher Education Area (EHEA) starting in 2010, which will promote compatibility, comparability, recognition of periods and terms of study in higher education institutions.

To implement ECTS it is necessary to adhere to certain principles: Comparative complexity of credits: achievement by each student of the established ECTS norms which provide academic mobility of students, the state and international recognition of results of education at concrete stages of performance of the individual curriculum; Creditworthiness: decomposition of the content of education and training into relatively uniform and independent segments of students workload, which provide:

- at the level of the individual curriculum - a set (accumulation) of the corresponding complexity of the number of credits, which are consistent with the established rate of student performance of the workload in terms of credit-module organization of the educational process;
- at the level of study of the discipline - a set (accumulation) of the appropriate number of credits for this discipline, which includes the implementation of the necessary activities that are provided by the program of study of the discipline.

Modularities: organization of the process of mastering the content modules by the student, use of methods and techniques, the main content of which is the active independent-creative cognitive activity of the student.

Methodical consulting: scientific and information-methodical support of the participants of the educational process.

Organizational dynamism: providing opportunities to change the content of education, taking into account the dynamics of the social order and the needs of the European labor market. Flexibility and partnership involves building the education system so that the content of education and ways to achieve the goals of education and training meet the individual needs and capabilities of the student.

Priorities of semantic and organizational independence and feedback, which is based on the creation of conditions for the organization of learning and is measured and evaluated by the results of independent cognitive activity of students.

Scientific and predictive: is to build strong links between learning content and research.

Technological and innovative: requires the use of effective pedagogical and information technologies, which contributes to the quality training of specialists with higher education.

Diagnostics: the ability to assess the level of achievement and effectiveness, formulated and implemented in the system, the goals of education and training.

Key documents and main terms and conditions for the introduction of the European credit transfer system, which determine the procedure and features of its implementation in higher education institutions ("Student Application Form", "Training Agreement", "Agreement on practical training and commitment to quality", "Academic Certificate", "European Diploma Supplement") in accordance with the requirements of the European Credit Transfer and Accumulation System (ECTS) Users Guide, approved by the European Commission on 6 February 2009.

Research results

ECTS and its key documents were introduced in Ukraine by the order of the Ministry of Education and Science of Ukraine of October 16, 2009 № 943. ECTS is regulated by the European Credit Transfer System User's Guide, which is used in accordance with legal documents in the field of higher education.

ECTS is considered as a generalization of the credit transfer system of the educational process. The use of ECTS is a mandatory requirement for the accreditation of educational programs and educational institutions. The basis for the implementation of ECTS is the state standards of higher education, industry standards of higher education and the provisions of the University.

ECTS credits characterize the volume of students' academic work on the basis of certain learning outcomes and the corresponding study load. 60 credits are awarded for learning outcomes and related full-time study load during the full academic year or its equivalent, which usually covers a number of educational components for which credits are awarded (based on learning outcomes and workload). ECTS loans are usually expressed in integers.

Learning outcomes are evidence of what a person knows, understands and is able to do after completing the learning process. Learning outcomes should be assessed through procedures based on clear and transparent criteria. Learning outcomes apply to both individual educational components and the program as a whole. They are also used in European and national qualifications frameworks to describe the level of qualifications.

Learning load is an estimate of the time during which a person should normally complete all learning activities, such as lectures, seminars, projects, practical work, internships / internships and individual research, necessary to achieve certain learning outcomes in the formal education system. The compliance of the full-time full-time academic year with 60 credits is often attested by national regulations. For the most part, the workload ranges from

1,500 to 1,800 hours per academic year, ie one credit corresponds to 25-30 hours of student work. This is recognized as a typical workload, and for some students the actual time to achieve learning outcomes will be different.

The distribution of ECTS credits is the process of assigning a certain number of credits to qualifications, educational programs or individual educational components. Credits are allocated to qualifications or programs in general in accordance with national law or practice, where appropriate, and with reference to national and / or European qualifications frameworks. They are assigned to educational components such as disciplines, dissertations, on-the-job training and internships, based on a 60-credit distribution for a full academic year and according to the calculated student workload required to achieve certain learning outcomes for each component.

The assignment of ECTS credits is the act of formally granting loans to students and other higher education seekers for qualifications and / or their components, if they achieve certain learning outcomes. National public authorities must indicate which institutions are entitled to grant ECTS credits. Credits are awarded to students after completing the required learning activities and achieving appropriate learning outcomes, as evidenced by proper assessment. If students and other higher education students have achieved learning outcomes in other formal, non-formal and informal learning contexts or timeframes, credits may be awarded after the evaluation and recognition of those learning outcomes.

Accumulation of credits in ECTS is a process of accumulation of credits received for achievement of results of training of separate educational components in system of formal education, and also for results of educational activity within non-formal and informal education. The student can accumulate credits in order to: obtain a qualification in accordance with the requirements of the institution that awards academic degrees; document personal achievements for lifelong learning.

Credit transfer is the process of obtaining loans awarded in one formal context (educational program, higher education institution) and recognized in another formal context for the purpose of obtaining a qualification. Credits awarded to students within one educational program of a particular institution can be transferred for accumulation in another program offered by the same or another institution. Credit transfer is a key to the success of academic mobility. Higher education institutions, faculties, departments may enter into agreements that guarantee automatic recognition and re-crediting (transfer) of loans.

ECTS documents: the use of ECTS credits is facilitated and the quality is improved through the use of relevant supporting documents (Course Catalog, Learning Agreements,

Academic Reference, Certificate of Practice / Internship). The ECTS system also promotes the transparency of other documents, such as the Diploma Supplement.

Types of educational work and control measures in VNAU. The educational process at the university is carried out by the following types of educational work: classroom classes, independent work of students, practical training and control measures.

Classroom classes are held according to the schedule approved in the prescribed manner. The main types of classroom classes include: lectures, laboratory, practical, seminar, individual classes, consultations.

Independent student work is the main type of learning material in free time from classroom activities.

During VTS, the student processes theoretical material, performs individual tasks, conducts research work, etc. The content of the VTS on a particular discipline is determined by the working curriculum of this discipline, teaching materials, tasks and instructions of the teacher.

Practical training of students is an integral part of the process of training specialists of all educational and qualification levels and is carried out on properly equipped bases of practice of the university, as well as enterprises, organizations and institutions of various sectors of the economy.

The purpose of the practice is to master students' modern methods and forms of organization and tools in the field of their future profession, formation and deepening in them, based on knowledge acquired at the university, professional skills, ability to make independent decisions during specific work in real production conditions.

Quality control measures for the training of specialists at the university are a necessary element of feedback in the educational process. They determine the level of achievement of learning objectives and allow you to adjust, if necessary, the course of the learning process.

The university uses the following types of control: input, current, modular (intermediate), final and others.

Entrance control is carried out in order to determine the level of preparation of students in those disciplines that were studied before the study of a particular discipline, or the general level of preparation of students for the previous period of study.

Current control is carried out in the form of a survey and verification of the results of various individual tasks (calculation and graphic works, abstracts, etc.), laboratory work, speeches at seminars and practical classes, express control, etc. At the same time, the control

of mastering the study material, planned for self-study by the student, must also end with an assessment.

Modular control is carried out in the form of performance by the student of modular control work. Semester control is carried out in the form of a semester exam or differentiated test, ie the student's mastering of educational material in all disciplines ends with an assessment.

The semester exam is a form of final control of mastering by the student of theoretical and practical material from a separate academic discipline for a semester. Passing the exam is carried out during the examination session in the commission headed by the head of the department, according to the schedule approved in the prescribed manner.

In order to ensure the objectivity of assessments and transparency of control of students' knowledge and skills, semester control is carried out at the university in writing or with the use of computer technology.

This norm does not apply to disciplines, the presentation of educational material from which requires from the student mostly oral answers. The list of disciplines with oral (combined) form of semester control is established separately for each area (specialty) of training with the permission of the Vice-Rector for Academic Affairs.

A student has the right not to pass the semester exam and receive a final semester rating with enrollment in the course of the discipline in the semester, if he completed all types of academic work during the semester without violating the deadlines, successfully passed the module control and scored a score corresponding to positive (on a national scale) to the final semester modular rating assessment.

Semester differentiated test is a form of final control, which consists in assessing the student's mastery of educational material in a particular discipline based on the results of all types of planned educational work during the semester: classroom work during lectures, practical, seminar, laboratory classes (etc.) and independent work in the performance of individual tasks (calculation and graphic works, essays, etc.).

The semester differentiated test does not require the presence of a student and is set provided that the student has completed all types of academic work, defined by the working curriculum of the discipline, and received positive (national scale) final modular ratings for each module. But the teacher has the right to conduct an interview with the student, express control, etc. to clarify certain positions.

State certification of students studying in the educational and professional program of bachelors is conducted at the university in the form of a state exam or defense of diploma projects (works).

State certification of students studying in the educational and professional training program is conducted in the form of defense of diploma projects (works). State certification of students studying in the educational and professional program of master's training is conducted in the form of defense of diploma theses.

Execution and defense of the diploma project (work) is the final stage of the student's training according to the relevant training program and aims to systematize, consolidate and expand theoretical knowledge and practical skills in solving professional problems, as well as to determine compliance with the requirements of educational qualification. complete higher education in a particular specialty.

According to the types of control of knowledge and skills acquired by the student, RSO provides for the use of current, control, final, final semester modular ratings, as well as examination (credit) and final semester ratings.

The current module rating consists of points that the student receives for certain educational activities during the mastering of this module - performance and defense of individual tasks (calculation and graphic works, abstracts, etc.), laboratory work, seminar presentations, etc.

Penalty (with a minus sign) points may be provided for untimely performance and defense of individual tasks, absences of practical and seminar classes, etc., which the student must compensate with additional work.

Control module rating is determined (in points and on a national scale) based on the results of modular control work on this module.

The final modular rating is defined (in points and on a national scale) as the sum of the current and control modular ratings from this module.

The final semester modular rating is defined (in points and on a national scale) as the sum of the final modular ratings obtained for mastering all modules.

The examination rating is determined (in points and on a national scale) based on the results of the examination tasks (or without the examination - on the positive results of the current and modular control during the semester). The credit rating is determined (in points and on a national scale) based on the results of all types of educational work during the semester.

The final semester rating is defined as the sum of the final semester module and examination (credit - in the case of differentiated credit) ratings (in points, on a national scale and on the ECTS scale). This grade is included in the appendix to the specialist's diploma, if the discipline is taught within one semester.

The final rating of the discipline, taught over several semesters, is determined from the final semester ratings in points according to the "weight" of each semester in the total volume of the discipline, followed by its translation into grades on the national scale and ECTS scale. The specified final rating assessment in the discipline is entered in the appendix to the specialist's diploma.

The translation of the final semester ratings (final ratings of the discipline), expressed in points on a multi-point scale, in the grades on the national scale and the ECTS scale is carried out in accordance with table. 1.

Table 1. Assessment scale: national and ECTS

The sum of points for all types of educational activities	ECTS assessment	Score on a national scale	
		for exam, course project (work), practice	for offset
90 – 100	A	perfectly	credited
82-89	B	score well	
75-81	C		
66-74	D	satisfactorily	
60-65	E		
35-59	FX	unsatisfactory with the possibility of reassembly	not credited with the possibility of re-assembly
0-34	F	unsatisfactory with compulsory re-study of the discipline	not credited with compulsory re-study of the discipline

The order of current, modular and semester control. Current control. The student, in accordance with the approved working curriculum for the discipline, performs certain types of educational work (laboratory work, abstract, essay, calculation and graphic work, etc.) provided in each module, and defends their results in a timely manner. Moreover, the implementation of the course work or project is carried out within a separate training module.

Assessment of student work is carried out in points on a multi-point and national scale. In this case, both incentive and "penalty" points can be provided (for example, for compliance with the deadlines for various types of educational work, etc.).

The completed type of educational work is credited to the student if he received the required number of points set in the RSO in the discipline.

The sum of rating assessments received by the student for certain types of completed educational work within this module is the current modular rating assessment, which is recorded in the module control.

If the student has successfully completed all types of educational work provided in this module, he is admitted to the module control of this module.

Modular control. Modular control is carried out in the commission headed by the head of the department, by the student performing modular control work lasting up to two academic hours during classroom classes.

Modular control tasks students receive directly at the beginning of the control, their implementation is carried out by each student individually. During their performance, students can use aids, reference materials and tools, if it is provided by the working curriculum of the discipline.

The sum of the current and control modular ratings is the final modular rating, which is expressed in points and on a national scale.

Control and final modular ratings are communicated to students within three days after the module control.

The module is credited to the student if he successfully completed all types of educational work provided in this module and during the module control received a positive (on a national scale) control module rating, and therefore a positive final module rating.

In case of absence of the student on modular control for any reasons (because of not admission, illness, etc.), against his surname in a column "Control modular rating estimation" of the information of modular control the record "Did not appear" is made, and in a column "Final modular rating assessment" - "Not certified".

In this case, a student is considered to have no academic debt if he has access to modular control and did not appear for it for valid reasons, documented. Otherwise, the student is considered to have an academic debt.

The question of further passing by the student of modular control in these cases is solved in accordance with the established procedure.

In case of receiving an unsatisfactory control module rating assessment, the student must re-pass the module control in the prescribed manner.

Reassignment of a positive final modular rating in order to increase it is not allowed.

The sum of the final modular rating scores in points is the final semester modular rating score, which is converted into a score on a national scale.

If the student has a positive (on a national scale) final semester modular rating, then from allowed to semester control in the discipline, which is carried out in the form of a semester exam.

Semester control. The duration of the semester control during the winter and summer examination sessions is one week at the university.

A student has the right not to pass the semester exam and receive a final semester rating with enrollment in the course of the discipline in the semester, if he completed all types of academic work during the semester without violating the deadlines, successfully passed the module control and scored a score corresponding to positive (on a national scale) to the final semester modular rating assessment.

Otherwise, he must pass a semester exam.

Final semester rating assessment of a student who has completed all types of academic work during the semester without violating the deadlines, received a positive (on a national scale) final semester modular rating and decided not to pass the exam, equal to the sum of the final semester modular rating assessment and set for each category of final semester modular ratings.

The semester exam is carried out in the commission headed by the head of the department, according to the schedule approved in the prescribed manner, at the rate of not more than one exam with pre-examination consultation per day, by performing a written examination work lasting up to three academic hours.

If a student during the semester exam received a positive (on a national scale) exam rating, the course of the discipline in this semester is credited to him.

Otherwise, he must retake the semester exam in the prescribed manner.

The sum of the final semester module and examination ratings in points is the final semester rating, which is converted into grades on the national scale and the ECTS scale (Table 1).

Examination and final semester ratings are communicated to students within three days after the semester control.

If a student is absent from the semester exam, which he must pass, for any reason (due to non-admission, illness, etc.), against his name in the columns "Examination rating" credit-examination information is recorded "Not with appeared ", and in the column " Final semester rating "- " Not certified ".

In this case, a student is considered to have no academic debt if he has admission to the semester exam and did not appear for it for valid reasons, documented. Otherwise, the student is considered to have an academic debt.

The question of further passing by the student of semester control in these cases is solved in accordance with the established procedure.

The final semester rating in the semester in which the differentiated credit is provided is equal to the sum of the final semester modular rating and the credit rating set for each category of final semester modular ratings.

Re-translation of a positive final semester rating in order to increase it is not allowed.

The final semester rating in points, on the national scale and on the ECTS scale is entered in the test report, study card and student record book.

Workload planning for research and teaching staff for modular and semester control is carried out in accordance with the current Regulations and is reflected in the individual plans of research and teaching staff.

The results of written and test computer modular and semester control tasks are stored at the department for a specified period and are destroyed by an act approved by the head of the department.

As the study showed, the choice of rating scale, prediction of the types of control of individual actions to be checked, the cost of tests, performance and rating of the student are of fundamental importance for rating assessment. Therefore, these issues were also the subject of our attention during the study of pedagogical experience.

Conclusions

The implementation of the European credit transfer and accumulation system in the educational process eliminates the biased approach to assessing students' knowledge; acts as an effective means of encouraging educational and cognitive activities; increases the student's responsibility for learning outcomes; promotes the implementation of the principle of individualization of education; eliminates the problem of attending classes; frees the student time for classes of interest.

The organization of the educational process according to ECTS is a pedagogical innovation, which aims to stimulate independent learning and cognitive activity of the student, helps to increase his internal and external motivation in acquiring knowledge through various forms of diagnosis, clear organization of the educational process, predictability and, as a result, leads to improving the quality of education in general.

Modern pedagogical psychology among the factors of learning efficiency calls not only its content and the process of learning new knowledge, but also the student's personality, his positive / negative attitude to learning, the motivational principles of his educational activities. If the student's internal motivation stems from his internal interest in studying the subject,

understanding the need for this knowledge or skills in later life, the external motivation is typically stimulated by assessment, reward for significant academic achievements, rating score and more. Thus, the rating is the external motivational stimulus that encourages ambitious students to more significant changes and achievements. Every student with any level of preparation has the opportunity to express themselves, feel their progress, make their gradual step for the better, and a sense of success is also the best incentive for further work and study.

Bibliography

1. Volkova N. Pedahohika. Posibnyk. [Pedagogy. Manual.] K. Akademiia. 2002. 575 s.
2. Kuzminskyi A., Omelianenko V. Pedahohika. Pidruchnyk. [Pedagogy. Textbook.] K. Znannia-Pres, 2003. 418 s.
3. Maksymiuk S. Pedahohika: Navchalnyi posibnyk. [Pedagogy. Manual.] K. Kondor, 2005. 670 s.
4. Moiseiuk N. Pedahohika: Navchalnyi posibnyk. [Pedagogy. Manual.] K. 2003. 615 s.
5. Palchevskyi S. Pedahohika. Navchalnyi posibnyk dlia studentiv vyshchykh navchalnykh zakladiv. [Pedagogy. A textbook for students of higher educational institutions.] K. Karavela. 2007. 575 s.
6. Strelnikov V. Yu., Britchenko I. H. Suchasni tekhnolohii navchannia u vyshchii shkoli: modulnyi posibnyk dlia slukhachiv avtorskykh kursiv pidvyshchennia kvalifikatsii vykladachiv MIPK PUET. [Modern technologies of higher education] Poltava. 2013. 309 s.
7. Fitsula M. Pedahohika: Navchalnyi posibnyk. [Pedagogy. Manual.] K. Akademydav. 2005. 559 s.
8. Yahupov V. Pedahohika. Navchalnyi posibnyk. [Pedagogy. Manual.] K. Lybid. 2002. 559 s.

Tetiana Mishchenko¹

ORCID ID: <https://orcid.org/0000-0001-5690-5552>

¹ V. N. Karazin Kharkiv National University, Private Establishment of Higher Education «Kharkiv Institute of Medicine and Biomedical Sciences»

APPLYING INFORMATION AND COMMUNICATION TECHNOLOGIES FOR PRACTICAL SESSIONS ON MEDICAL AND BIOLOGICAL PHYSICS: EXPERIENCE AND NEW OPPORTUNITIES

Summary

The article presents the application aspects of information and communication technologies in educational process of the higher school on the example of the author's experience in using some services provided by Google Apps for Education (namely, Google Meet, Google Classroom, Google Forms, Google Jamboard) to organize and give practical sessions on "Medical and Biological Physics". In order to supplement the digital technologies tools, which contribute to the achievement of successful learning outcomes and formation the students' necessary general and professional competences, the possibility of using the educational system Moodle, the educational platform "Kahoot!" and the website ImageQuiz in the further teacher's work was considered.

Keywords: information and communication technologies, digital technologies, distance learning, e-learning, Google Apps for Education, Google Meet, Google Classroom, Google Forms, Google Jamboard, Moodle, "Kahoot!", ImageQuiz, Medical and Biological Physics.

Introduction

Nowadays the famous saying of the English banker, businessman and financier Nathan Rothschild: "Whoever owns information owns the world" is becoming more and more relevant for the today's humanity. So, every day each of us has to receive and analyze an extremely large amount of information provided by our personal gadgets (a laptop, a tablet, a phone, an e-book,

etc.). In general, it is safe to say that all areas of modern human activity are related to the achievements in information and communication technologies (ICT) to some extent, i.e. technologies that provide the fixation, processing and transmission of information. The logical consequence of the intensive human interaction with ICT is the fact that today's education, as one of the areas of human activity, is associated with current innovations in the field of digital technologies. Moreover, the modernization of the higher school within the Bologna Process, in order to ensure Ukraine's integration into the European educational space, involves expanding the access to higher education and focusing the educational process not on its content, but on its result, i.e. the formation of general and professional competencies. The latter first of all requires the improvement of forms, methods and means of teaching due to the achievements in the field of ICT [*Pashkov V.*].

During the last decade the higher school in Ukraine has paid considerable attention to the issue of distance learning or e-learning. A significant role in the implementation of e-learning was played by the quarantine introduced in our country in order to Covid-19 mongering in 2019-2020 academic year. Under the conditions of realizing the distance learning, the teacher posted in a new capacity. That was a mentor-consultant who coordinated the process, constantly improved it, increased the teacher's creative activity [*Pochynok T. O. et al., 2020*]. All of that contributed to the formation of the new competencies in both teachers and students, ensured the professional growth of all participants of the educational process [*Sharlovykh Z.P., 2020*]. For this reason the teachers' and students' digital skills acquired under these conditions should not be lost and they should take their place in the educational process in the future. The accumulated experience in using ICT in higher education indicates the perspective for the possibility of blended learning, which would combine the benefits of full-time and distance learning, in particular through introducing modern innovative pedagogical and information technologies, simplification of missed classes rework, reducing paperwork in the form of paper media, facilitating the process of self-study.

Surely, the implementation of distance learning as a new form of learning, characterized by fundamentally new approaches to educational process, is possible only through digital technologies. The latter, being in constant development, lead to the emergence of the innovative technologies and online platforms. In this aspect, it is important to understand that ICT are only a tool in the teacher's hands and provide the opportunities for the educational process organization. Applying the ICT contributes to the successful realization of the educational process only if there is a well-thought-out scenario of the discipline, multimedia support, a set of practical tasks, a bank of tests for monitoring the level of knowledge acquired by students,

etc. Therefore, the professional competencies of the teacher are of the first importance for organization, providing e-learning, and the information competence is only one of them. In this regard, an important aspect of the organization and implementation of the educational process is considered to be the ability of the students to percept a teacher as a teacher by "vocation" who is able to encourage learning [Rozmus A., 2013].

Nowadays the use of ICT in the higher school is provided by different (full-time, distance, blended) forms of education. The implementation of e-learning technologies is provided through a large number of platforms. These platforms play a key role in ensuring communication and interaction between all participants in the educational process and allow to focus the learning process on the problem-based learning, which involves self-study, that develops students' skills of information management and critical thinking. [Biggs J., 2012]. The most common platforms used for distance learning are MOODLE, Google Groups, Microsoft Office 365 and the others.

Aim, subject and research methods

The aim of the study: to determine the features of applying some services provided by Google Apps for Education in practical sessions on the course of "Medical and Biological Physics", as well as to assess the feasibility of using the educational system Moodle, the educational platform "Kahoot!" and the website ImageQuiz with the aim to expand the set of information and communication technology tools used against this background.

Subject of research: functionality of Google Apps for Education services, the educational system Moodle, the educational platform "Kahoot!" and the website ImageQuiz within the course of "Medical and Biological Physics".

Research methods: direct (empirical) analysis and synthesis, induction.

Research results

The services provided by Google Apps for Education, namely, Google Meet, Google Classroom, Google Forms, Google Jamboard were used for holding the practical sessions on the course of "Medical and Biological Physics" at V.N. Karazin Kharkiv National University and Private Establishment of Higher Education «Kharkiv Institute of Medicine and Biomedical Sciences» during the distance learning introduced in the 2nd semester of 2019-2020 academic

year in accordance with the Resolution of the Cabinet of Ministers of Ukraine to prevent the spread of Covid-19 [*Postanova CMU, 2020*].

Google Meet became an effective tool for implementation of synchronous learning under these conditions. Application of the app provided realization of online communication between a teacher and students. So that, each student had the opportunity to ask a question that arose during the session or inform the teacher about any difficulties in an appropriate way, with respect to the fact that the service provided the ability to communicate with all participants of the videoconference not only with their own microphone and webcam, but also a separate current chat. In addition, the user-friendly interface of Google Meet allowed the teacher to carry out monitoring the videoconference participants in order to control the on-line practical sessions attendance by the students.

The functionality of the app Google Meet played a key role in presenting the educational material and constructive discussion of problematic issues on specific topics of the sessions. In particular, the possibility to demonstrate the presentation, ensured by this app, allowed to provide multimedia support for the material presented to students for studying in a real-time mode. In addition, an important Google Meet advantage was its integration with Google Jamboard. It can be said that the function of Google Jamboard during the on-line sessions based on Google Meet service was similar to the function of the marker board that is always used for each off-line session. Using Google Jamboard during a videoconference organized by means of Google Meet allowed the teacher to illustrate quickly and effectively the opinion expressed during the session in the form of instantly created text, diagram or drawing. The integration of Google Jamboard to Google Meet was particularly important for conducting practical sessions on the academic discipline of "Medical and Biological Physics" in order to provide the opportunity to illustrate the issues raised by students during the session, namely, when the teacher explained the solution of some problems, the origin of measurement units of some physical quantities or revised some physical formulae/laws that are necessary for understanding the presented new material.

Applying Google Classroom within the practical sessions on the discipline of "Medical and Biological Physics" was usually usually associated with realization of the following actions:

- 1) providing the students with the access to systematized basic and auxiliary educational materials (multimedia presentations, guidelines for practical sessions, thematic videos of various durations, basic and auxiliary educational literature etc.) in order to create favorable conditions for students' processing, reprocessing and/or revising the content

presented in the practical session due to the individual pace of information perception and assimilation;

- 2) submission, checking and analysis of individual tasks for the control activities stated by the syllabus on this education discipline;
- 3) merging the students into one group within the online class in order to create favorable conditions for self-study on the practical sessions topics stated by the syllabus on the course, as well as realization the initiative self-learning;
- 4) initiating a discussion on problematic issues that students arose during doing self-study on the certain topics of the course.

It should be noted that the realization of all the above mentioned actions on the basis of Google Classroom service for the practical sessions on the subject of "Medical and Biological Physics" was fair only under the condition of the asynchronous distance learning. While only the first two activities among the above (namely, providing students with the access to information sources on the specific topics and carrying out the different control level of acquired knowledge) were successfully implemented in the synchronous mode of e-learning.

The advantage of using the Google Classroom app for holding the practical sessions on the course of "Medical and Biological Physics" is providing economical in terms of time, efficient and mass interaction between teacher and students. The simple and at the same time convenient interface of this service plays an important role for that. Moreover, the Google Classroom integration with Gmail allows the students to connect quickly with this service via a link or code sent to Gmail. In addition, Google Classroom is integrated with the services such as Google Drive, Google Docs, Google Slides, Google Forms, as well as video hosting YouTube that contributes the easy and fast creation of learning materials, tasks for current and final control of the knowledge. Also, an important feature of Google Classroom is providing a convenient opportunity to add a private comment to the task performed by each student both on the part of the teacher and the student. The latter allows to analyze effectively and concisely the errors and inaccuracies in the separately done task. Also it should be noted that the general chat in Google Classroom achieves two-way and fast communication between the teacher and each student during the discussion issues that arise when mastering the material devoted to self-study on the course at the right time for both teachers and students. The above-mentioned integration of Google Classroom with Gmail allows, on the one hand, to provide quick information to students about uploading a new message in the Google Classroom chat or current uploading the materials/tasks in this service. On the other hand, the interaction of Google Classroom with Gmail provides informing the teacher about the task sent for checking by a

student. Thus, setting up Google Classroom on a smartphone or a tablet, allows to monitor each action in a real-time mode (posting new material, tasks, comments on tasks or messages) concerning the organization of the practical sessions on the discipline of "Medical and Biological Physics" and performing the educational process under these conditions.

Google Forms service is also one of the common used Google apps for holding the practical sessions on the course of "Medical and Biological Physics". On the basis of this service one of the control methods of the students' acquired knowledge level (that is machine control) stated by the syllabus on the academic discipline was realized. In this regard, the use of Google Forms for giving this course was related with:

- 1) creating the tasks for the tests of current control of the knowledge level acquired by students on the course "Medical and Biological Physics";
- 2) forming a bank of tests for the final (credit) assessment of the level of students' mastering the discipline.

The machine control, along with the other control methods (oral, written, and laboratory/practical) used in the course of "Medical and Biological Physics", plays an important role in monitoring and assessing students' knowledge. In this regard, the task of ensuring its objectivity and impartiality is extremely important. Due to the fact that the Google Forms service is characterized by its versatility which allows to create both open and closed tests, this app is an important tool for teachers to solve the above mentioned problem and conduct a quick, effective, objective survey of students. The feature of this service lies in the students' inability to upload files with materials when they do not have the correct answer in accordance with the settings for file sharing on Google Drive. An extraordinary advantage of this application is the implementation of automated checking and evaluation of a test done by students. Therefore, the function of creating a report on the test done by each student is appropriate, because each provided answer is automatically converted into a Google Table. This function allows to analyze all done tests quickly.

The technical side of taking the test on the course of "Medical and Biological Physics" created on the basis of Google Forms corresponds to the minimum cost of time and efforts due to the interface functionality of this app. Moreover, the integration of Google Forms with Google Classroom allows to prepare a test for performing the control activity for each student individually. The peculiarity of using this service upon these conditions is only the lack of ability to use the formula editor, so the equations have to be uploaded in the form of images. Despite this fact, the easy use of Google Forms service at all stages (creation, editing and taking the test) makes this app a modern, convenient, time-consuming and at the same time effective

method of checking the level of knowledge acquired by students. The use of Google Forms provides an opportunity to replace paper media with electronic, which is in line with modern advances in information technology.

Thus, the use of a set of Google Apps for Education services in holding the practical sessions on the course of "Medical and Biological Physics" ensures the work of all participants of the educational process at a high academic level, as the use of this set of apps provides the opportunity to organize and carry out the academic work in compliance with its logical sequence in high school. This sequence usually included the following stages: obtaining a basic level of knowledge on a new topic (students listen, watch) → manipulation by objects and knowledge (students independently solve practical problems, tasks) → analysis and memorization of information (students compare new information with previously learned, draw conclusions) [Zaichenko I.V., 2016].

In order to supplement the tools of digital technologies used in the practical sessions on the academic discipline of "Medical and Biological Physics" to achieve successful learning outcomes and formation of the students' necessary general and professional competencies, it is intended to use the open learning management system Moodle (Modular Object-Oriented Dynamic Learning Environment). For the present the author has already developed his own distance course of "Medical and Biological Physics" on the basis of this system (Fig. 1) in the framework of advanced training program "Technologies of Distance Learning at Higher Education and Professional Education Institutions" at the Institute of Advanced, Correspondence and Distant Studies of V. N. Karazin Kharkiv National University [Certificate № 0207-160, 2019].

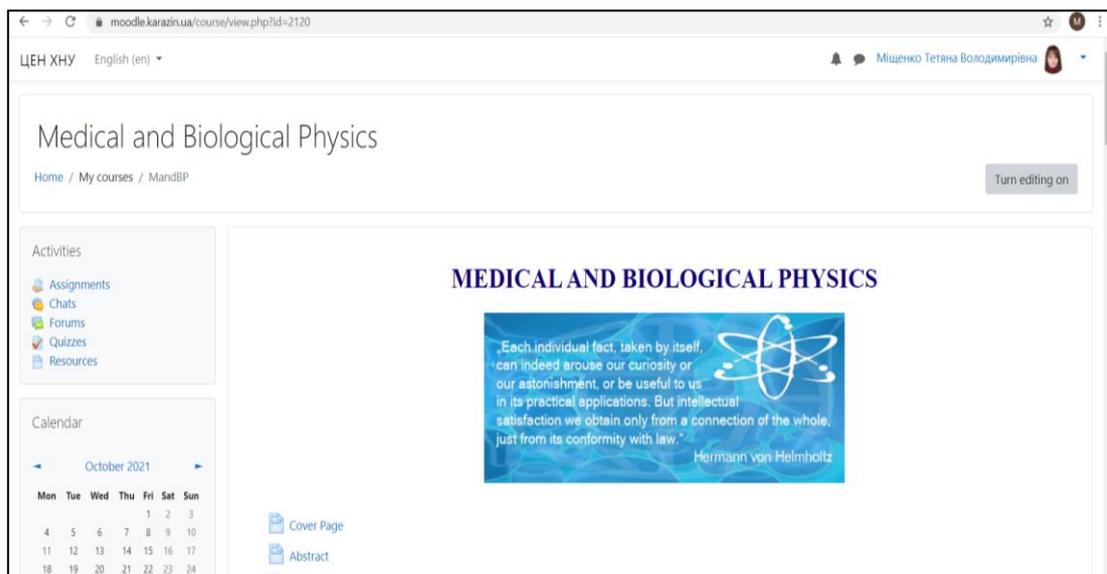


Figure 1. General view of the distance course "Medical and Biological Physics" in the Moodle system

Source: Own development

Currently, this course is undergoing the stage of completing and preparing for the certification in order to be successfully used in practical sessions on the discipline of "Medical and Biological Physics" in the future.

It should be noted that the use of the Moodle system for the development of this distance learning course provided an opportunity to implement a wide range of activities, among which the main ones are:

- 1) introducing the "trajectory" of the course to the students (i.e. detailed plan and the course topics);
- 2) uploading and sharing the documents by all participants of this course at a convenient time for them;
- 3) taking online tests, which have an instant assessment immediately after finishing the control activity due to the possibility of arranging them in the materials of the education course;
- 4) interaction and communication between the students and the teacher outside the practical sessions by using the forums and chat.

On the one hand, it gives the students an opportunity to organize informative and long-lasting discussion for problematic issues of educational material on this discipline at a convenient time for them, and, on the other hand, to ensure a rapid and active communication between the course participants on some organizational issues, the practical sessions announcements, discussions of a specific question, task or practical session.

- 5) students' self-monitoring their own success in mastering this discipline using the function of grades register;

In particular, the teacher organizes students' access to the register in a way to demonstrate only their own assessments.

- 6) use of a built-in glossary that provides interpretation of new and difficult terms used in this distance learning course.

Realizing the above mentioned functions using the Moodle system, as well as using the other educational systems is provided with its basic functionality. In this regard it should be noted that there is a number of additional features related to the pedagogical focus of Moodle on the active students involvement in the educational process, and that is the thing which distinguishes it from the other educational systems. Such opportunities include: self-assessment the students' activity, cross-review (organization of anonymous checking the students' work by each other), student registers.

In general, there is a number of advantages for using distance learning course developed on the basis of Moodle system. In particular, they are the course availability that provides 24/7/365 training; flexible system of educational sessions organization in accordance with which the teacher can pay more attention to difficult issues of the course leaving the study of less difficult material for students' self-study; automated submission, checking and assessment of tasks for control activities stated by the syllabus on the course; formation of the students' information competence by means of their mastering ICT.

In order to diversify the ICT used in practical sessions on the academic discipline of "Medical and Biological Physics" it is planned to use the educational platform "Kahoot!". The functionality of this platform determines its use under given conditions in order to perform the current control of the knowledge level acquired by students. In this regard a special attention is drawn to the opportunity of "Kahoot!" for testing in the way of both a virtual classroom and by self-placed learning. In particular, the virtual classroom involves testing students in a classroom when the question is displayed on a multimedia board and students have to give the answer using their own gadget (a smartphone or a tablet) previously done the registration on the platform and joined the test. The special feature of this type of testing is the need for preparation only one variant of the test on a particular topic by the teacher, that allows to reduce the amount of time required for the control activity preparation. The latter is important for the test preparation including the questions of various difficulty level, that is usually used by the teacher in this course to provide unprecedentedly equal conditions for all test participants. Testing in the self-placed learning method is determined by the students' direct work with the test within the time frame previously set by the teacher, regardless of the location of students. The latter does not bind the student to the classroom and, respectively, requires the preparation of an individual test variant for each student by the teacher in order to prevent students from working in groups on one test.

Moreover the emphasis is focused on the possibility of including the ImageQuiz website in ICT, that are used in practical sessions on the discipline of "Medical and Biological Physics". This website allows to create image quizzes. This quiz involves the presentation of each question based on a separate image. It is assumed that the use of ImageQuiz in this course will allow to create tasks to consolidate students' knowledge, as well as the tests for self-control. In particular, this website may be of particular importance for students to study certain physical laws, formulae and concepts in the sessions on the discipline of "Medical and Biological Physics".

Conclusions

1. The use of Google Apps for Education services, namely, Google Meet, Google Classroom, Google Forms, Google Jamboard, in practical sessions on the discipline of "Medical and Biological Physics" upon the conditions of distance learning provided the opportunity to realize the educational process with observance of key stages of the latter.
2. The functionality of certain services Google Apps for Education provided holding the practical sessions on the course of "Medical and Biological Physics" in both synchronous and asynchronous modes of e-learning.
3. Involvement of the educational system Moodle, the educational platform "Kahoot!" and the website ImageQuiz in the proses of practical sessions on the course of "Medical and Biological Physics" will successfully expand the tools of information and communication technologies used under these conditions.
4. Active use of information and communication technologies in practical sessions on the academic discipline of "Medical and Biological Physics" will allow to creates favorable conditions for formation and improvement students' digital skills.

References

1. Pashkov V. "Modernizatsiia systemy vyshchoi osvity Ukrainy v konteksti stanovlennia informatsiinoho suspilstva ta yevrointehratsiinoho postupu [Elektronnyi resurs]." Rezhym dostupu: http://virtkafedra.ucoz.ua/el_gurnal/pages/vyp2/filosofia/pashkov.pdf Sotsialna robota v Ukraini: teoriia i praktyka.
2. Pochynok T. O. Dystantsiine navchannia – suchasna osvitnia tekhnolohiia pidhotovky maibutnikh likariv / T. O. Pochynok, I. Ya. Hubenko, I. V. Marush // Aktualni problemy metodolohii vyshchoi medychnoi (farmatsevychnoi) osvity: suchasni vyklyky ta novi mozhlyvosti: Vseukr. nauk.-metodychna internet-konf. prysviachena 90-richchiiu Cherkaskoi medychnoi akademii, m. Cherkasy, 15 zhovtnia 2020 r. / Cherkaska medychna akademiia; uklad.: I. Ia. Hubenko, O. T. Shevchenko, P. O. Haidai. – Cherkasy: Vydavets Olha Vovchok, 2020. – S. 192-195.
3. Sharlovykh Z.P. Orhanizatsiia pislidyploumnoi osvity spetsialistiv medsestrynstva v umovakh karantynnykh obmezhen cherez pandemiiu COVID-19 / Z.P.Sharlovykh // Fakhova peredvyshcha i profesiina osvita: teoriia, metodyka, praktyka : zbirnyk tez Vseukrainskoi naukovoii konferentsii, 18 chervnia 2020 r., m. Kyiv. – Kyiv : Naukovo-

- metodychnyi tsentr VFPO, 2020. – S. 66-69. – (317 s.) // [Elektronnyi resurs]. – Rezhym dostupu: <https://nmc-vfpo.com/wp-content/uploads/2020/08/zbirnyk-tez-konferencziyi.pdf>
4. Rozmus A. Indywidualny styl prowadzenia zajęć [w:] Wykładowca doskonały, A. Rozmus (red.), Warszawa 2013.
 5. Biggs J. What the Student Does: Teaching for Enhanced Learning, Higher Education Research and Development, v. 31 n1 p39-55 2012.
 6. Postanova Kabinetu Ministriv Ukrainy «Pro zapobihannia poshyrenniu na terytorii Ukrainy hostroi respiratornoi khvoroby COVID-19, sprychynenoi koronavirusom SARS-CoV-2». – Rezhym dostupu: <https://zakon.rada.gov.ua/laws/show/211-2020-%D0%BF#Text>.
 7. Pedahohika: pidruchnyk / I.V. Zaichenko . – K.: Vydavnytstvo Lira-K,2016, 608 c.
 8. Certificate № 0207-160, 24.05.2019, V.N. Karazin Kharkiv national university, Institute of Advanced, Correspondence and Distant studies, «Technologies of Distant Learning at Higher Education and Professional Education Institutions» (120 academic hours/4 ECTS).

Nataliia Storozhuk¹ORCID ID: <https://orcid.org/0000-0001-7095-1205>¹ Podilsky Special Educational and Rehabilitation Socio-Economic College, Ukraine

ASSESSMENT OF ACADEMIC MOBILITY AS A BASIS FOR ACQUISITION OF MULTICULTURAL SKILLS

Summary

The government of country encourages academic mobility, but it is the European Union that is implement the most ambitious academic mobility policy, in particular to achieve labor market integration. Learning also contributes to the acquisition of multicultural skills, that is why the European Union supports academic mobility, in particular through the Erasmus Program and the Bologna Process.

The program Erasmus + supports the priorities and actions set out in the European Education Area, the Digital Education Action Plan and the European Skills Development Program. Through the Bologna Process and the creation of a European space with comparable higher education systems, the EU wanted to increase academic mobility in order to increase the «productivity of the most highly educated».

Thus, European Public Policy encourages academic mobility and competition between countries and their respective universities in order to improve the quality of education offered.

Keywords: academic mobility, Erasmus Program, Bologna Process, multicultural skills, labor market integration, social integration, European Educational Area.

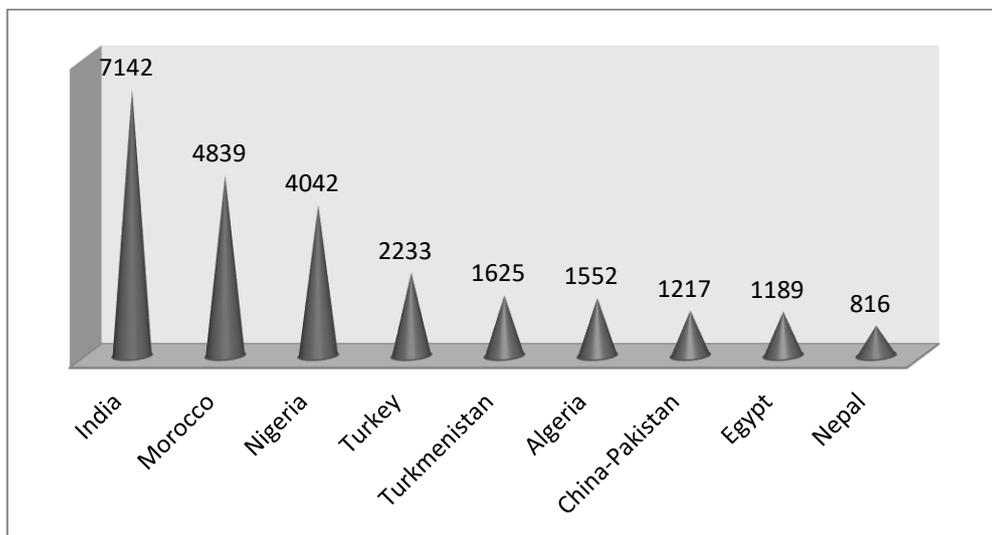
Research results

In a globalized economy a country's competitiveness depends largely on the skills of its workforce. Therefore, one of the goals of higher education is to develop students' skills, so that

they can meet the growing demand for highly qualified workers. The training period also contributes to the acquisition of multicultural skills, that is why the European Union (EU) supports academic mobility in particular through the Erasmus Program and the Bologna Process.

Definitely, can say that student mobility is a growing phenomenon. As of January 1, 2021 were registered 37 thousands 523 invitations for foreign entrants. However, these figures underestimate the scale of this phenomenon, as they do not use certain forms of academic mobility, such as Erasmus exchange Programs.

India is a leader among countries of origin for foreign entrants who have been invited to study. The 10 countries with the largest number of registered invitations were included (Picture 1.)

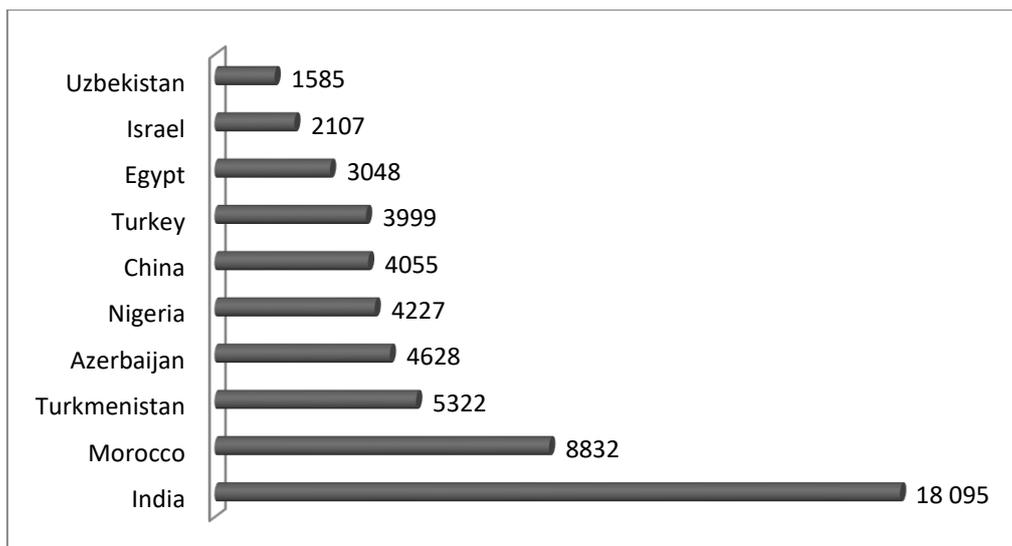


Picture 1. Top 10 countries with the most registered invitations

You can check the authenticity of the invitation on the UCMO website and get an electronic copy.

Compared to 2018, the number of foreign students studying in Ukraine has been constantly growing (75,605 students). As of January 1, 2021, their number was 76,548 students.

The following countries are in the lead in terms of origin and number of foreign students studying in higher education institutions of Ukraine (Picture 2.)



Picture. 2 Leading countries of foreign students studying in higher education institutions of Ukraine

The main factors influencing academic mobility are familiarity with international experience before entering higher education, whether in a family setting or not, as well as the level of education of parents, especially mothers. It can be clearly stated that studying abroad increases international mobility in the labor market.

Along with participation in the Erasmus Program and other exchange or employment programs abroad, they have been found to have the same impact on people's mobility in the international labor market, indicating that these programs deserve public support. The coefficients found for the two forms of experience abroad are very similar, they increase a student's chances of mobility in the international labor market from 9 to 12.5 points. Finally, academic mobility is not just about mobile students' travel the database also includes students who have decided to lead a sedentary lifestyle, both in their studies and in their professional lives.

To study the phenomenon of global competition for talent, one can identify such important concepts as the quality of education, the behavior of freeriders or funding.

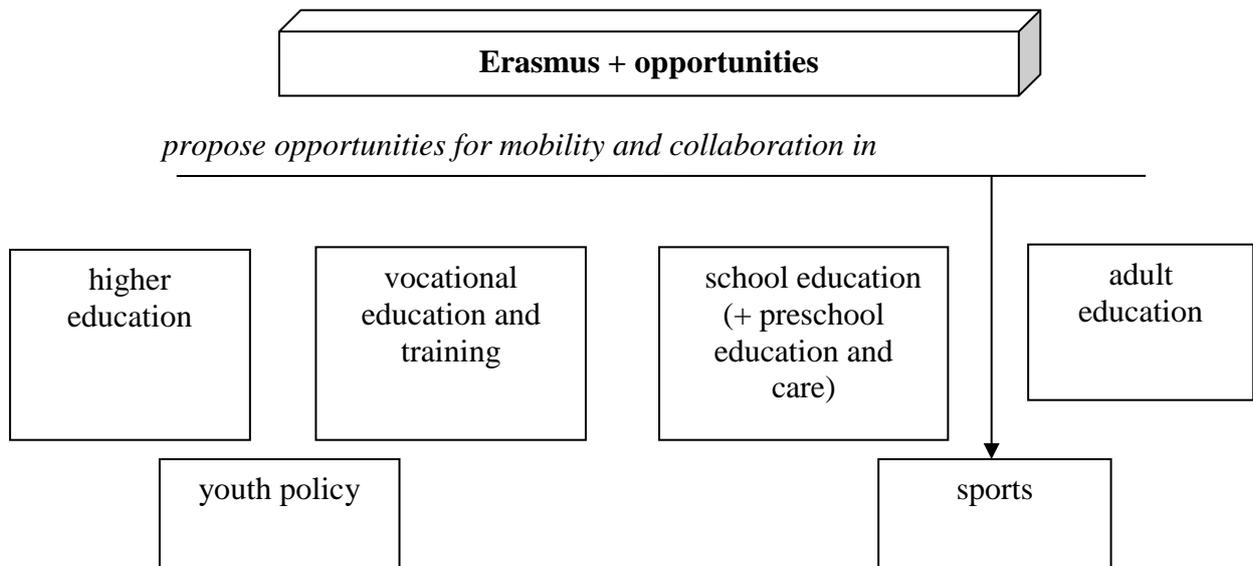
The government of country encourages academic mobility, but it is the European Union, that is pursuing the most ambitious academic mobility policy in particular to integrate its labor market.

Among the four stages of European higher education policy identified by Teichler, the last two are the most important: the Erasmus Program on the one hand and the Bologna Declaration of 1999 on the other to create a common credit transfer and accumulation system called the European Credit Transfer System. ECTS), and a harmonized university system organized around two cycles - the first cycle of 3 years of bachelor's degree, followed by a «2-year cycle» of the master.

This choice in favor of student mobility was influenced by the positive impact of investment in human capital on economic growth, because GDP growth per capita is positively correlated with human capital. These results have been confirmed and supplemented by many researchers who have highlighted the positive impact of education quality on economic growth. The Erasmus + program for 2021-2027 focuses on social inclusion, environmental and digital transition, and promoting youth participation in democratic life.

It supports the priorities and actions set out in the European Education Area, the Digital Education Action Plan and the European Skills Development Program. The program also supports the European Pillar of Social Rights and implements the EU Youth Strategy for 2019-2027, as well as develops the European dimension in sport (Picture 3).

Through the Bologna Process and the creation of a European space with comparable higher education systems, the EU wanted to increase student mobility in order to increase the «productivity of the most highly educated».



Picture. 3 Erasmus + features

Thus, increasing academic mobility can help achieve this goal: «First, academic mobility introduces students directly to different European cultures and helps them develop their multicultural skills. These skills are indispensable in the EU, which seeks full economic integration while preserving the diversity of the cultures that make it up.

Second, increased academic mobility will lead to competition between countries seeking to attract the most talented students. As the university is free almost everywhere in Europe, the

competitive dimension is the quality of teaching. Hence the hope that greater mobility will improve the quality of the university».

Therefore, European public policy encourages academic mobility and competition between countries and their respective universities in order to improve the quality of education offered. However, while achieving this goal may be beneficial to the economy as a whole, policymakers did not anticipate less desirable consequences that could jeopardize the public higher education system by turning it into a commercial model.

If students are mobile, governments tend to cut funding for their higher education systems and send their own students to other countries. Their model shows that a compromise is needed between the two goals of the Bologna System.

On the one hand, if students stay in their home country, governments decide to improve the quality of their universities because they are not afraid of ticketless behavior from other countries, but students do not acquire multicultural skills.

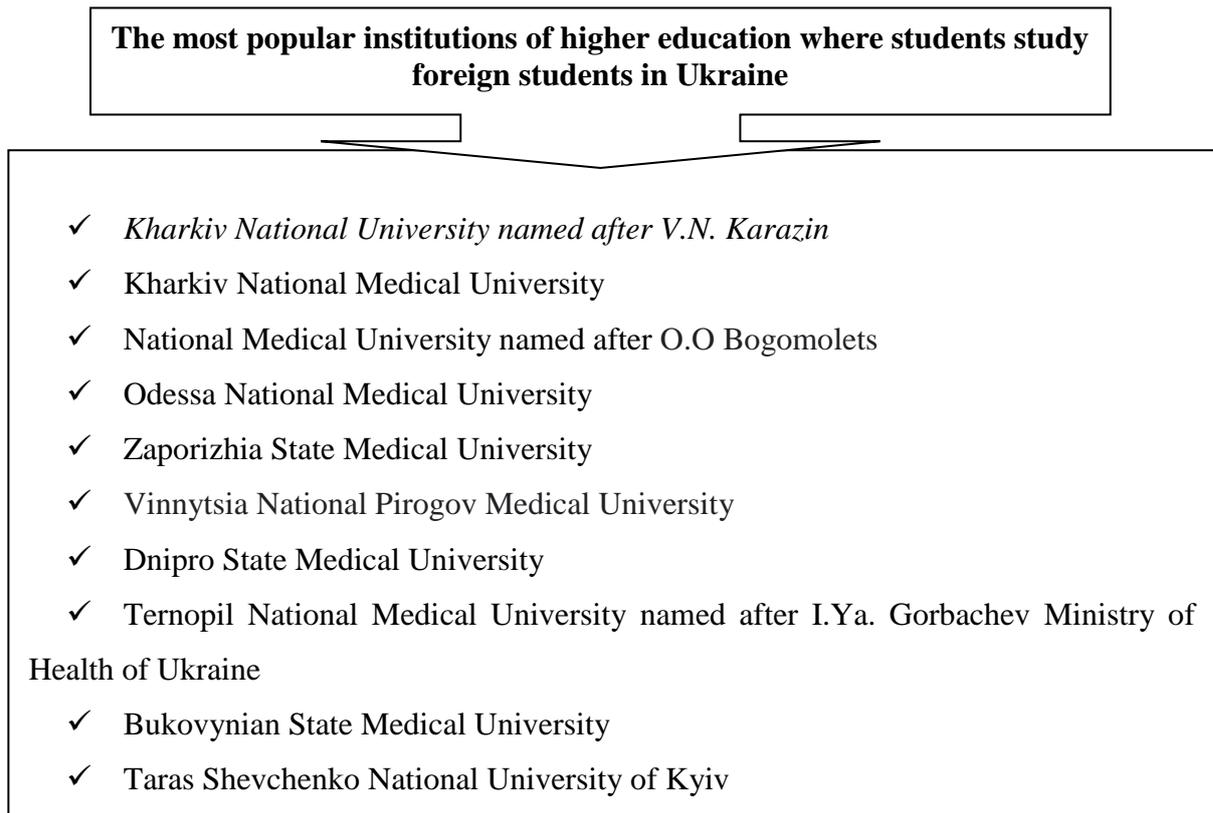
On the other hand, if students are fully mobile, they develop multicultural skills, but the quality of universities will decline as a result of ticketless states' behavior as they reduce their investment in education.

Thus, changing the quality of universities through student mobility depends on the degree of competition and the behavior of freeriders. Therefore, it is difficult to establish a balanced level of student mobility that improves both multicultural skills and the quality of education.

The lack of transparency in higher education and the potential inability of governments to assess its quality contribute to the popularity of international rankings. It is unclear whether competition helps to improve the quality of universities, but there is no doubt that it has changed the supply of higher education.

Many universities depend on public funding and local government decisions. Some see the quality of higher education as a public good (the cost of ensuring a certain level of product quality does not depend on the number of students who consume these goods), while others see it as a private good (costs and quality improvements as students increase). The allocation of resources to different universities also depends on a country's willingness to attract and retain talent or its fear of ticketless behavior by other governments, whose students will benefit from public funding from the host country and then return to their home country after graduation.

There are the most popular institutions of higher education where foreign students study in Ukraine (Picture. 4).



Picture. 4 The most popular institutions of higher education where students study foreign students in Ukraine

More and more countries are cutting their spending on higher education, forcing some to turn to private funding. For many observers, the tendency for university funding to increase the share of private funds and tuition risks affecting the independence of higher education institutions and access to higher education for students with more modest backgrounds.

Studying abroad affects the future professional mobility of graduates; thus, the exchange of Erasmus + university students is used as an assignment. There is a very significant positive relationship: studying abroad increases the likelihood of working abroad by 15 points, as well as the factors that influence the choice of study abroad. Using the Erasmus + binary variable as a proxy and detecting that students studying in Erasmus + have a «probability of studying abroad, which increases by about 2.5 points if their department participates in the Erasmus program». Thus, studying abroad at all levels, not only at the university level, has a positive correlation with labor market mobility.

It is noted that most stays abroad take place in the context of Erasmus exchanges: Erasmus + programs account for an average of 76.8% of study abroad programs for people born after 1969 and therefore not older than 18 in 1987.

If we compare the profile of students who studied abroad with students who continued their studies in their country, we can see that some people are trying to find an opportunity to stay abroad before entering the university.

Expat statistics show several characteristics of this group: almost 75% of them stayed abroad during their studies, and 45.3% participated in the Erasmus + program. In addition, 26.3% were educated abroad and 21% had experience working abroad before college. In comparison, a smaller proportion of people working in their country of origin studied abroad (55%), fewer people used the Erasmus program (34%), only 19.4% studied abroad and only 12.3% used Erasmus + program.

Courses involving stays abroad are broader than those that are purely national, it can be said that expatriates in the database have a higher level of education, a large proportion of expatriates are highly qualified people.

Mobility during a professional career depends on the specialization chosen at the university: graduates in economics or management seem more mobile than graduates in political science.

The potential correlation between the experience of working abroad at university, on the one hand, and the level of education of parents suggests that staying abroad at university is mainly a family affair.

Thus, the importance of family background for deciding to study abroad can be emphasized. If students come from highly educated families, their parents are more likely to know the benefits of a foreign experience for their children and encourage them to do so. In addition, these families are also more likely to have the financial capacity to offer their children a stay abroad (language lessons, repeat high school, etc.) before entering school or university. All these factors acquaint young people with foreign countries, and also often allow them to learn English when entering university, so they are more likely to choose to study abroad.

Statistics show that 75% of people participating in the Erasmus + program received a scholarship. Indeed, the EU offers financial support to students wishing to take part in the program, so that students of more humble backgrounds can also study abroad, despite the cost of transport and accommodation. This policy encourages academic mobility. Also, the decision to study abroad is influenced by personal experience before entering higher education, especially between graduating from high school and starting higher education. Thus, most students have acquired multicultural skills, so policymakers should consider encouraging early-stage mobility.

A student who is part of an Erasmus exchange can receive a scholarship to study at another European university for at least 3 months without having to pay registration fees again. An Erasmus grant may also be awarded to enable selected students to do an internship in Europe.

European students selected to prepare for a master's or doctoral degree under the Erasmus Mundus Community Program may also benefit from grants provided for this purpose. In the field of vocational training and technical education after the bachelor's degree, students preparing for the BTS are offered grants to support employment in a country of the European Union. The internship lasts from 3 to 10 weeks in a foreign language, in an industrial or commercial company.

Thus, the legitimacy of the Erasmus program is confirmed, and public policy should encourage mobility programs, which ultimately.

As a result, they promote integration into the European labor market.

So, in conclusion, international mobility assistance is designed to support the international mobility of students wishing to pursue higher education abroad through an exchange program or an international internship. This training or internship should be part of their course of study.

References

1. Hlybovets' V.L., Stepanets' I.O. Akademichna mobil'nist' yak novyy vyd sezonnoyi mihratsiyi naseleण्या. Heohrafiya ta turyzm. S. 188 – 195
2. Erasmus+ KA2. Proyeckt YES «Natsional'nyy Erasmus+ ofis v Ukrayini». Elektron. tekst. dani. Kyiv, 2014 - 2017. URL: <http://erasmusplus.org.ua/erasmus/ka2-proekty-spivpratsi.html>
3. Z·hurovs'kyy M.Z. Bolons'kyy protses: holovni pryntsypy ta shlyakhy strukturnoho reformuvannya vyshchoyi osvity Ukrayiny. K.: NTUU «KPI», 2006. 544 s.
4. Kalinicheva H.I. Akademichna mobil'nist' yak skladova yevropeys'koho prostoru vyshchoyi osvity. Vyshcha osvita Ukrayiny. Dodatok 4, tom 1(19). 2010. Tematychnyy vypusk Vyshcha osvita Ukrayiny u konteksti intehratsiyi do yevropeys'koho osvith'oho prostoru. 576 s.
5. Lend'el M. Internatsionalizatsiya osvith'oho ta naukovoho protsesiv v Uzhhorods'komu natsional'nomu universyteti yak skladova stratehiyi rozvytku vyshu. Mizhnarodnyy

- naukovyy visnyk: zbirnyk naukovykh prats'. Uzhhorod: DVNZ «UzhNU», 2015. Spetsvyp. 1(10). 440 s.
6. Ivanenko V.V. Z dosvidu realizatsiyi systemy akademichnoyi mobil'nosti u Dnipropetrovs'komu natsional'nomu universyteti imeni Olesya Honchara v konteksti Bolons'koho protsesu. Akademycheskaya mobyl'nost' – vazhnyy faktor obrazovatel'noy evroyntehratsyy Ukrainy: materyaly Mezhdunar. nauch.-prakt. konf., Khar'kov, 16 - 19 noyab. 2010 h. M-vo obrazovanyya y nauky Ukrainy, Khar'k. oblhosadmynstratsyya, Sovet rektorov vuzov Khar'k. rehyona, ar. ukr. Akad. Khar'kov : Yzd-vo NUA, 2010. 364 s.
 7. Pasichnyk N.S. Student's'ka akademichna mobil'nist' yak chynnyk intehratsiyi Ukrainy u svitovyy naukovo-osvitniy prostir. Tezy dopovidey XVI Mizhnarodnoyi naukovo-praktychna konferentsiyi «Udoskonalennya informatsiyno-resursnoho zabezpechennya osvity i nauky v umovakh yevrointehratsiyi» 22-24 travnya 2014 roku. Bila Tserkva. S. 40 – 41
 8. Sichkarenko H.H. Transformatsiya vyshchoyi osvity v nezalezhniy Ukraini: Monohrafiya. K.: Vyd. tsentr KNLU, 2009. 362 s.

Tetiana Turbar¹ORCID ID: <https://orcid.org/0000-0001-7916-7484>¹ Zaporizhzhia National University

THEORETICAL SUBSTANTIATION OF THE PEDAGOGICAL CONDITIONS FOR DEVELOPING ENVIRONMENTAL COMPETENCE OF FUTURE PRIMARY SCHOOL TEACHERS

Summary

The academic paper is devoted to the issue of developing environmental competence of future primary school teachers. It has been established that in order to implement effective work on development of environmental competence of future teachers at the institutions of higher education, it is necessary to create special psychological and pedagogical, organizational, pedagogical and didactic conditions. The pedagogical conditions highlighted by us for the formation of the environmental competence of future teachers are a set of activities in the educational process ensuring the effectiveness of its implementation. Pedagogical conditions include as follows: the development of a holistic system of the educational process, providing methodological and diagnostic support for the gradual formation of environmental competence through the implementation of various pedagogical forms, methods and tools, enrichment of students' knowledge through the development, creation and solution of environmental situations, individualization and support of students' independent activities on gaining experience in environmental protection. An algorithm for the formation of the environmental competence of students has been proposed in the academic paper, including the components as follows: the target (goal, objectives of professional activity from the standpoint of preserving the environment), comprehensive (knowledge of general professional disciplines, the main competencies of a specialist, understanding the importance of spiritual and general cultural development, understanding environmental problems, the essence of environmental

consciousness), organizational and activity (knowledge of methods, means and forms of nature protection, understanding the importance of environmental protection) and evaluative - effective (reflection of the level of ecological consciousness and environmental activity, substantiation of motivation of the actions in relation to the world around, ability to adjust own behaviour).

Keywords: environmental competence, future primary school teacher, pedagogical conditions, nature protection, nature protection activity.

Introduction

At the current stage of the society development, environmental issues are considered as ones of the most important. Solving various issues concerning the comfortable and safe existence, human activity has become the reason of emergence of global ecological problems. Nowadays, it is obvious that humanity can overcome environmental problems only by switching to a new ecological and humanitarian path of development, accompanied by a reorientation of social philosophy and psychology from a technocratic model to an ecological (environmental) one). For this very reason the problem of finding ways and methods of cultivating the ecological direction in people's activities, increasing their environmental awareness, the formation of ecological literacy are of particular relevance.

Ecology is becoming a priority area in modern education; consequently, it should correspond to the social order of the society. In this regard, it is of particular importance to study the essence of the environmental competence of future teachers and the pedagogical conditions for the formation of this socially demanded quality. One of the strategic objectives of modern education is the task of forming a person with global thinking and a high level of environmental culture. Superficial knowledge of modern ecology, their focus on meeting the vital needs of people determine the necessity to involve the younger generation in solving environmental issues, regardless of their specialization.

It should be noted that the formation of environmental competence of the person starts at primary school age. Therefore, an urgent task is to study, develop and implement a set of pedagogical conditions for the formation of environmental competence in the educational process, starting from elementary school to the development of environmental consciousness on the professional path.

Purpose, subject and research methods

The purpose of the research lies in identifying and theoretically substantiating the pedagogical conditions for the development of environmental competence of future primary school teachers. In order to achieve the purpose outlined, the following methods of the theoretical research have been used, namely: analysis, synthesis, analogy, abstraction, and concretization.

Research results

The State Standard of Primary General Education sets new tasks for higher educational institutions concerning improving and enhancing the quality of professional training of future primary school teachers, which lay the fundamentals of students' environmental competence. For this very reason the future primary school teacher should obtain a thorough natural education, the purpose of which is a deep knowledge and understanding of the world around us, ensuring the formation of key life values and awareness of the person's place of in nature. Thus, in the system of professional training of primary school teachers, it is important to obtain a thorough knowledge of environmental protection, which provides a basis for the formation of environmental competence of the future teacher.

The fundamental theoretical and methodological basis for solving the problem of developing environmental competence of future primary school teachers were scientific works, which revealed the issue of harmonization of relations in the "man – nature" system (V. Boreiko, V. Vakhterov, V. Vernadskyi M. Moiseiev, S. Rusova, V. Sukhomlynskyi, etc.); the conceptual theoretical provisions, principles and objectives of environmental education and upbringing have been highlighted (A. Volkova, A. Zakhliebnyi, I. Zvieriev, I. Kostytska, H. Pustovit, S. Sovhira, I. Suravehina, S. Shmaliei, etc.); psychological and pedagogical approaches to the formation of a responsible attitude towards nature have been outlined (S. Deriabo, N. Zhuk, O. Kyrychuk, M. Kiseliiov, O. Leontiev, S. Rubinstein, V. Yasvin, etc.); the issue of developing schoolchildren's value attitude towards nature has been investigated (O. Barlit, O. Kolonkova, K. Mahrlamova, L. Malynivska, V. Marshytska, S. Skrypnyk, T. Yurkova, etc.).

Insufficiently effective environmental training of students at higher educational institutions is connected with the following factors, namely: firstly, with the low level of school environmental education; secondly, with the low level of educational and methodological

support of educational institutions; thirdly, with the inconsistency of theoretical, practical and motivational components of professional training.

Significant factors influencing the formation of environmental competence of students in modern higher educational institutions are as follows: the environmental situation in the region and the country as a whole; interests, needs of students in environmental activities; social - economic conditions of human life support; the level of ecological culture of the society; mass media; students' attitude to environmental education; practical experience of students' environmental activities, etc.

The priority of environmental education and its recognition as comprehensive, universal and continuous determine the necessity of ecologization of the educational system and the organization of special environmental and professional education. Ecologization of the education is a feature of the tendency for penetrating environmental ideas, concepts, principles to other disciplines, as well as training of environmentally competent specialists in various fields.

The environmental competence of future primary school teachers is considered as an important personal quality. It is an integral part of students' professional competence, including a set of environmental knowledge, ideas, views, beliefs, ideals, moral assessments of the natural environment and nature as a whole, which are combined into a personal system of environmental values determining the vectors of life and activities of the future teacher's personality.

We consider the concept of "environmental competence" as follows:

- the ability of a person to make decisions and act ecologically expediently, as a manifestation of the environmental culture of a person;
- the feature that makes it possible for a modern person to responsibly reach decisions in life situations, subordinating the satisfaction of one's needs to the principles of sustainable development;
- the ability of a person to fulfill situational activities in a domestic and natural environment, when obtained environmental knowledge, skills, experience and values are transformed into the ability to make environmentally sound decisions and perform adequate actions, being deeply aware of their consequences for the environment;
- the ability to apply environmental knowledge and experience in professional and life situations, guided by the priority of environmental values and non-pragmatic motivation for interacting with the environment on the basis of an awareness of personal involvement in

environmental issues and responsibility for the environmental consequences of one's own professional and domestic activities.

In order to increase the effectiveness of developing the environmental competence of future primary school teachers, it is necessary to highlight the appropriate conditions, the definition of which is based on the analysis of the goals, objectives and content of modern environmental education, generalization of effective pedagogical experience and the results of one's own work.

Conditions in the scientific literature are usually considered as components on which the existence of a certain object depends, phenomena that are an important factor in the effectiveness of any object of research.

The scientific works contain such terms as "condition" and "pedagogical condition". The identification of conditions in the philosophical understanding makes sense in relation to an object, phenomenon, process or system, forasmuch as in this case the condition is considered in relation to the existence, functioning and development of an object, phenomenon, and state. For instance, according to O. Durmanenko's [1] definition, pedagogical conditions are the features of the organization of the educational process at a higher educational institution, which determine the results of upbringing, education and development of the student's personality, objectively provide the opportunity to achieve them.

The results of the analysis of pedagogical literature draw attention to the fact that the following pedagogical conditions are used in pedagogical activity, namely: organizational-pedagogical, psychological-pedagogical, and didactic.

The first group of conditions includes organizational-pedagogical. This type of conditions is considered by theorists as a set of multidimensional capabilities ensuring the successful implementation of the objectives as follows: a set of objective capabilities ensuring the successful solution of the assigned tasks, a set of possibilities of content, forms, and methods of a comprehensive pedagogical process aimed at achieving the goals of pedagogical activity.

The second group includes psychological-pedagogical conditions. The researchers have characterized this type of conditions as conditions designed to provide certain pedagogical measures of influence on the development of students' personality, resulting in increased efficiency of the educational process.

The investigation of the specified conditions has revealed a number of special features as follows:

- psychological and pedagogical conditions are considered as a set of educational and material- three-dimensional environment;

– the major function of psychological-pedagogical conditions is the organization of activities of pedagogical interaction between a teacher and a student, ensuring the transformation of specific development features, upbringing and training of a person, that is, affecting the personal aspect of the pedagogical system [2].

The next, third group of conditions includes didactic ones. This type of conditions serves as a result of purposeful selection, construction and application of content elements, methods (techniques), as well as organizational forms of training towards achieving didactic goals. The principal function of didactic conditions lies in choosing and implementing the possibilities of content, forms, methods, means of pedagogical interaction in the learning process, which will ensure the effective solution of problems [3].

The pedagogical conditions highlighted by our team for the formation of the ecological competence of future teachers are a set of activities in the educational process ensuring the effectiveness of its implementation. Pedagogical conditions include as follows:

- development of a comprehensive system of the educational process, which allows integrating environmental knowledge and knowledge of professional activities in order to develop the qualities of a specialist who is able to understand responsibility and act in accordance with the preservation of the environment;
- providing methodological and diagnostic support for the formation of environmental competence through the implementation of pedagogical forms, methods and tools on a step-by-step basis as follows: from gaining knowledge about environmental culture through awareness of the meanings of environmental culture and self-expression in activities;
- enrichment of students' knowledge through the development, creation and resolution of environmental situations; individualization and support of students' independent activities on accumulation of experience of environment protection by means of organising nature protection promotional actions; stimulating readiness to act on the basis of environmental experience in the professional sphere.

Analysis and clarification of the content of the “pedagogical conditions” concept makes it possible to consider it as a set of different circumstances ensuring the process of achieving a common goal, namely: the formation of cognitive, emotional-value and professional components of environmental competence of future primary school teachers.

The choice of a particular group of conditions depends primarily on the goal, forasmuch as any condition involves the presence of cause-effect relations, which are implemented in the sequence as follows: purpose, condition, activity, result.

Assessing the dynamics of developing environmental competence, we distinguish its external features (content, methods, organizational forms of training and education, self-fulfilment in the profession) and internal (motives, interests, attitudes, needs, reflective position in relation to environmental knowledge).

In order to ensure positive dynamics in the course of developing environmental competence of future primary school teachers, we distinguish interrelated groups of pedagogical conditions ensuring this growth.

The first condition is the development of a system of the educational process, which allows integrating environmental knowledge and knowledge of professional activities in order to develop the qualities of a specialist who is able to understand responsibility and act with due regard for environmental preservation. The provision of this condition is connected with the creation of an educational environment that promotes the organization of research activities in the field of ecology. This type of conditions refers to the organizational and pedagogical ones.

Integration of disciplines included in the program of professional training of students of higher educational institutions allows providing cohesion of pedagogical process in forming environmental competence and enrichment of the student's personality through development of independence of thinking and ability to transfer this knowledge, ability to generalize the system of knowledge. Integration processes are most easily conducted through project activities, through micro-research, heuristic techniques.

We have proposed an algorithm for the process of developing the environmental competence of a specialist, which includes the components as follows: the target (goal, objectives of professional activity from the standpoint of preserving the environment), comprehensive (knowledge of general professional disciplines, the main competencies of a specialist, understanding the importance of spiritual and general cultural development, understanding environmental problems, the essence of environmental consciousness), organizational and activity (knowledge of methods, means and forms of nature protection, understanding the importance of environmental protection) and evaluative – effective (reflection of the level of ecological consciousness and environmental activity, substantiation of motivation of the actions in relation to the world around, ability to adjust own behaviour).

The appropriate construction of a comprehensive educational space means the choice of such an activity program that most fully meets the needs of students of higher educational institutions. The information flow, putting forward a certain list of obligatory professionally significant and general cultural knowledge to the student, causes the necessity to resist if the

dialogue in education is disturbed and if the student is deprived of conscious choice and creative activity.

It should be noted that cognitive processes taking place during educational activity always have a positive connotation from an emotional point of view if they are accompanied by academic performance. Positive emotions related to the understanding the essence of the subject being studied contribute to the manifestation of cognitive activity, the establishment of trusting interpersonal contacts, and a positive learning climate. From an ecological point of view, this process improves the quality of the student's life and develops a positive attitude towards one's own personality.

As a second pedagogical condition, we note the provision of methodological and diagnostic support for the formation of environmental competence through the implementation of pedagogical forms, methods and means on a step-by-step basis as follows: from gaining knowledge about environmental culture through awareness of the meanings of environmental culture and self-expression in activities.

We connect this condition with age characteristics and difficulties of youth, the specifics of the professional orientation of students of higher educational institutions and with the necessity to take into account the motivation for choosing a profession, individual psychological traits of character and abilities, and the level of understanding the importance of ecology.

As the third pedagogical condition, we have identified the enrichment of students' knowledge through the development, creation and resolution of environmental situations; individualization and support of students' independent activities towards gaining experience in environmental protection through the organization of environmental protection measures; stimulating readiness to act in professional activities based on environmental experience.

The importance of enriching students' knowledge through the development, creation and resolution of environmental situations is beyond doubt. Active forms of work with students in the classroom, which differ from traditional ones, will certainly affect the increase in interest in the academic discipline. This will be facilitated, among other things, by solving situational tasks.

It should be noted that the following concepts are widely introduced in pedagogy, namely: "activity" as a person's activity attitude towards the world around him, his ability to produce socially significant transformations of the material and spiritual environment; "active life position", "social activity" as a social feature of the person, manifested in defending one's

own viewpoint, beliefs, where a person acts as an initiative carrier and leader or destroyer of norms, principles, ideals of this society or a certain class.

Investigating the development of environmental competence of students during the educational process, we define this concept as a comprehensive essential feature of the professional portrait of the future primary school teacher. It is one of the indicators of the level of professional training, characterized by the formation of value orientations and motivation of the ecological attitude towards the environment, the existence of a high level of mastering the system of ecological knowledge, methods of creative ecological activity, allowing the individual to fulfill himself to the fullest extent possible in the chosen profession.

Determining the content and structure of environmental competence makes it possible to highlight the major groups of principles for its formation among future primary school teachers, namely:

1. The principle of selection of educational material aimed at the formation of environmental competence of students (connection of environmentally oriented information with the program of various academic disciplines, reflecting the ideas of interdisciplinary knowledge; the principle of compliance of environmental information with the age and individual characteristics of students; the principle of selection of environmentally oriented information in order to ensure the development of the students' motivational sphere, providing for the provision of information reflecting the cognitive, patriotic, humanistic and aesthetic aspects of environmental issues) [4].

2. Principles of selecting the methods of developing ecological competence (the principle of directing methods of developing ecological competence towards implementing ideas of developmental training; the principle of directing methods of developing ecological competence to a high level of students' independence; the principle of stimulating interest towards studying the material of ecological content).

We have identified and theoretically substantiated the leading pedagogical components of the effective formation of future teachers' environmental competence, which include as follows: ecological education, environmental education and environmental and practical activities.

Therefore, the effectiveness of environmental competence's components of the future primary school teacher as a system is ensured by a set of pedagogical conditions, in particular: implementation of the continuity of environmental education in the process of professional training at the higher educational institution by taking into account the uniqueness and requirements of the educational and professional program; reflection of disciplines on the cycle

of professional training of regional environmental problems in the content of methodological support; ecologization of the educational work of a higher educational institution based on taking into account the ethnopedagogical customs and moral and ethical traditions of the Ukrainian people, views, beliefs, norms and rules of behaviour of future teachers, the introduction of an activity-based approach to the formation of environmental knowledge.

The identification of the conditions outlined, as the research shows, ensures the effective formation of environmental competence through environmental education, the integration of interdisciplinary connections and the expansion of the content and modernization of teaching methods of academic disciplines, the development of environmental activity through a variety of creative educational and extracurricular activities.

The formation of students' competence is a complex, contradictory and multi-stage process, requiring the use of a systematic approach in its organization. We have proposed a structure for developing the environmental competence of a future primary school teacher, which includes the components as follows: purpose, objectives, principles, content, methods and forms of training; pedagogical components and conditions for the formation of ecological competence of future teachers; diagnostics and management of the process of developing ecological competence of students; the result, which lies in achieving high and sufficient levels of environmental competence of students of higher educational institutions. The above mentioned components reflect a well-ordered set and sequence of methods ensuring the implementation of the pedagogical process in higher educational institution and achieving the necessary levels of environmental competence of future primary school teachers.

Conclusions

Therefore, we consider the leading conditions for the formation of environmental competence of future primary school teachers as follows: psychological-pedagogical (cognitive activity, independence, creating a situation of success and positive emotional mood, motivation of personal self-actualization of students in environmental activities, development of reflective attitude, critical attitude to one's own experience, its evaluation and improvement); organizational-pedagogical (introduction of innovative forms and methods of teaching educational material, involvement of students in environmental activities, implementation of ecological and professional training based on a systematic approach); didactic (organization of systematic scientific-methodical and didactic support of developing ecological competence of future primary school teachers, selection of content of educational material aimed at

development of ecological worldview and ecological thinking of future teachers, taking into account integrative approach to ecological education, interconnection of theoretical knowledge with practical skills and abilities).

References

1. Borzyk O. B, Shepel I. M. (2012) Pedagogichni umovy formuvannya ekolohichnoi kultury maibutnikh uchyteliv pochatkovykh klasiv v osvithomu protsesi pedagogichnykh vyshiv [*Spirituality of a personality: methodology, theory and practice*](#). 2012. №6. P. 63-72
2. Buzenko I. L. Orhanizatsiino-pedagogichni umovy formuvannya ekoloho-valeolohichnoi kompetentnosti maibutnikh uchyteliv. [*Professional Education: methodology, theory and technologies*](#). № 7. 2018. P. 43-56.
3. Durmanenko O. Teoretychnyi analiz poniattia «pedagogichni umovy» v konteksti monitorynhu vykhovnoi roboty u vyshchomu navchalnomu zakladi. [*Youth & market*](#). № 7 (90). 2012. P. 135-138.
4. Fenchak L. M Systemne formuvannya ekolohichnoi kultury maibutnikh vchyteliv pochatkovykh klasiv. [*Scientific Bulletin of Uzhhorod University. Series: Pedagogy. Social Work*](#). Vol. 16-17. P. 96-98

Daria Velykzhanina¹ORCID ID: <https://orcid.org/0000-0002-1066-4834>¹ Municipal Institution of Higher Education
«Khortytsia National Educational Rehabilitation Academy»
of Zaporizhzhia Regional Council

DIAGNOSIS OF FUTURE SOCIAL EDUCATORS AND PRIMARY SCHOOL TEACHERS READINESS TO PROFESSIONAL INTERACTION

Summary

Introduction: Nowadays education focuses its attention and efforts on the child's personality comprehensive harmonious development, its successful socialization, the formation of key competencies for life. The realization of these educational goals starts in primary school with the students' involvement in the multifaceted process of learning, development and socialization. In general secondary education institutions, the solution of topical educational tasks is provided by a pedagogical team of professionals, in particular primary school teachers and social educators. The result of achieving the goals of modern education depends on their professional interaction, competence and motivation.

Aim of the study: The identification of the future social educators and primary school teachers readiness levels for professional interaction in general secondary education is the aim of the study.

Research method: The study was conducted among students majoring in 231 Social Work and 013 Primary education, who receive the first (bachelor's) level of higher education at the Municipal Institution of Higher Education «Khortytsia National Educational Rehabilitation Academy» of Zaporizhzhia Regional Council. The study used the method of higher education diagnostic examination.

Research results: The study involved 78 students majoring in 231 Social Work and 013 Primary Education, who receive the first (bachelor's) level of higher education. During the analysis of the essence of future specialists readiness for professional interaction, its indicators were determined, including professionally significant future specialists personal qualities, communicative skills, professional motivation and abilities, knowledge of the teachers' professional activity specifics.

The analysis of the data obtained during the study shows the students' positive professionally significant personal majority qualities' formation, including: neatness, professional literacy, organization, activity, responsibility, friendliness, justice, ability to speak, sensitivity, creativity, cheerfulness, and diligence, initiative, communication. Such future teachers' personal characteristics as energy, balance and outlook breadth need to be developed.

A significant number of students (85,3%) have a high and sufficient communication skills level. There is also a group of students (16,7%) whose communication skills and abilities need to be developed.

Positive attitude to professional activity and the presence of effective professional communication abilities were found in 46,2% of respondents. Unstable and weak motivation to perform professional activities was recorded in 41% of respondents, and passivity in pedagogical interaction in 12,8% of respondents. Many students (44,9%) have knowledge of the peculiarities of the other pedagogical specialists work at a high and sufficient level. But the majority (55,1%) of students have medium and low levels of awareness of the social educators and primary school teachers specific activities.

Conclusions: The presented research results testify there is a need of purposeful pedagogical influence on the future social educators and primary school teachers professional training for productive professional interaction at school.

Keywords: future social educators, future primary school teachers, institution of general secondary education, professional interaction, professional readiness for professional interaction.

Introduction

The priorities of modern education are the education humanization and upbringing of the younger generation, child-centeredness, providing favorable conditions for the comprehensive development of the each child personality, identifying its talents, socialization. Nowadays the school seeks to ensure the students' academic success, his critical thinking and

creativity development, activity and initiative, ability to self-realization, self-improvement and lifelong learning, responsible behavior, willingness to making conscious life choices, which testifies to the school multifunctionality and the actual educational tasks multifaceted nature.

Primary school is the first and fundamental link in the acquiring academic knowledge processes, personal and social child's development in education. At school, primary school students get acquainted with the theoretical knowledge about the world and man in it diversity, with the experience of using knowledge for everyday life, master various social roles, learn the rules of productive interaction in society, form their own life positions and values.

Primary school teachers and social educators take care of the students education and socialization at school together with their parents. They are the bearers of encyclopedic knowledge, social culture and education, mentors of the abilities formation process, personal qualities and children social behavior.

It is important for primary school teachers and social educators to support the younger student in adapting to school life, in successful mastering the norms and rules of social life, in establishing positive relationships with others, in overcoming various difficulties and crises, in developing effective behavioral strategies, and to join forces in creation of comfortable conditions for comprehensive and harmonious development of each child.

Professional communication of these specialists is able to optimize the educational process at school, determine a common strategy for each student development and help to create comfortable conditions for his personal and social growth. Therefore, one of the actual areas of higher pedagogical education development today is the future social educators and primary school teachers preparation for primary school children productive professional cooperation to implement key objectives of modern education and social education.

Professional interaction as a problem has been studied by many scholars. Thus, in defining the essence of the professional interaction concept O. Bratkova turned to its original position «interaction». The scientist considers this definition as a process of direct or indirect communication subjects' influence on each other, which determines their actions and relationships. Research shows that effective interaction is ensured through the partners' cooperation willingness [1].

S. Kozhushko defines professional interaction as a purposeful, socially determined, dynamic process of direct or indirect simultaneous subjects' influence on each other as a result of certain professional activities with the guiding role of the subject with a set of theoretical and practical training aimed at realization of the professional activity content of one and needs satisfaction of another. Professional interaction is the basis and the condition for establishing a

variety of relationships in a professional environment. It is characterized by the presence of purpose, subject, method of implementation, feedback and is manifested in the form of joint activities, communication, empathy [3].

According to A. Kolupaeva, E. Danilovichute, S. Litovchenko the essence of professional cooperation is such interaction, which provides «socially dependent independence», contributes to the each participant individual goals and the joint activities general goals achievement, based on certain norms of professional morality. Professional cooperation makes it possible to achieve a new, qualitatively higher level of activity through the realization of creative employees' abilities, as well as meeting their need to share experiences and ideas [4].

The concept of professional interaction has been studied by scientists also in the context of pedagogical activities. Thus, N. Volkova considers professional-pedagogical communication as a system of direct or indirect connections, interactions of the teacher realized by verbal and nonverbal means, means of computer communication for the purpose of mutual information exchange, modeling and management of communication process, regulation of pedagogical relations [2].

A. Sembrat and N. Samoilenko note that professional interaction involves the cooperation of teachers with colleagues, students, parents and is aimed at establishing a favorable psychological climate, psychological activities optimization, relationships optimization; provides a quick and more rational solution to all educational issues, promotes the formation of value orientations during the views exchange [8].

A related concept of cooperation is interaction. Scientist T. Sila considers professional interaction as a specific type of communicative interaction, determined by the professional activity peculiarities, the specialist's level of professional competence, his value orientations, motivational guidelines, personal goal setting [9].

Given the above, the professional interaction of primary school teacher and social educator can be described as a process of comprehensive cooperation in solving common professional problems, that is built on the principles of partnership. Such cooperation involves the inclusion of professionally significant personal characteristics, specific professional knowledge and abilities in this process.

Therefore, a modern teacher must have both theoretical knowledge and practical skills and professional communication and interaction abilities. So we note the need for a detailed determination of the future primary school teachers and social educators readiness for productive professional interaction.

Aim, subject and research methods

The aim of the study is to identify the future social educators and primary school teachers readiness levels for professional interaction in general secondary education.

The readiness for professional pedagogical interaction is the part of the teacher's professional competence structure and is one of its key aspects, which ensures the complexity and quality of the future teacher's profession. Such readiness presupposes consolidation in practical professional activity of future teachers' professionally significant personal qualities, their communicative skills and abilities, motivation and abilities, as well as awareness of other pedagogical specialists' work specific.

Thus, professionally significant personal qualities that characterize both primary school teachers and social educators are efficiency, organization, activity and initiative, creativity, friendliness, responsibility, future professionals' tolerance etc.

Professional pedagogical interaction belongs to such communication type, that especially requires high human culture, because it demonstrates the teacher's ability to realize his potential in communicating with other people, ability to perceive, understand, assimilate, convey thoughts, feelings, aspirations in learning and education [8]. Therefore, among the communicative skills and abilities that future primary school teachers and social educators should have equally, there can be highlighted the ability to show respect, tolerance for others, the ability to see each person's personality, as well as the ability to establish trusting relationships, subject-subjective interaction with colleagues in the professional activity process on training, education and development of primary school students.

Professional motivation and professional abilities, which are within the competence of future primary school teachers and social educators on interaction and cooperation with each other, are characterized by understanding of pedagogical tasks and the desire to solve them, ability to analyze their own activities, build professional communication.

Awareness of the other teachers' work specifics requires future primary school teachers' knowledge about key professional tasks, functions, methods and tools of social pedagogy in school and, conversely, knowledge of social educators about the peculiarities of pedagogical activities of primary school teachers with younger students.

Thus, based on the above, we outline the indicators that can determine the future primary school teachers and social educators readiness for professional cooperation in general secondary education, including:

- 1) professionally significant future specialists' personal qualities;

- 2) communicative skills and abilities;
- 3) professional motivation and abilities;
- 4) knowledge of the colleagues professional activities specifics.

Each of the indicators is characterized by the appropriate level of formation – high, sufficient, medium and low. The future primary school teachers and social educators levels of readiness for professional interaction at school are specified:

✓ *high level* – students demonstrate positive personal qualities that are important in the primary school teachers and social educators work; have a stable motivation for professional activity at school, for professional growth; express a desire to establish professional, partnership and friendly contacts; have the ability to work in a team and independently organize group work, the ability to express their own opinions and public positions, motivate and encourage the others; have knowledge of the pedagogical specialists work specifics that work in general secondary education;

✓ *sufficient level* – students show a positive attitude to professional activity, sufficiently motivated by the effectiveness on pedagogical problems solving; show positive personal qualities; characterized by the ability to conduct pedagogical communication; have a clear idea of the directions, goals and functions of the primary school teachers and social educators professional activities at school;

✓ *intermediate level* – students show unstable motivation to perform professional activities; demonstrate passivity and lack of interest in pedagogical interaction with other professionals; along with professionally significant personal qualities, those who may hinder the professional functions realization are also identified; identify professional training gaps and have a superficial idea of teachers' professional specializations, roles and tasks;

✓ *low level* – students do not show interest in pedagogical interaction and cooperation with pedagogical specialists; have weakly expressed professionally significant personal qualities and communication skills; have a fragmentary knowledge of the social pedagogues and primary school teachers work in educational institutions.

The students of the Khortytsia National Educational and Rehabilitation Academy of the Zaporizhia Regional Council (Zaporizhzhya) took part in the study to determine the future social educators and primary school teachers' readiness for professional interaction. Totally 78 students majoring in 231 Social Work (Educational Program «Social Pedagogy») and 013 Primary Education (Educational Program «Primary Education»), who receive the first (bachelor's) level of higher education, took part in the study. Number of applicants for higher

education in majoring 231 Social work – 34 people, a group of students studying in majoring 013 Primary education consists of 44 respondents. The study was implemented in 2021 using the method of determining the future teacher personal qualities (*F. Fiedler*) [7], methods of communicative tolerance diagnosing (*V. Boyko*) [6], methods of professional motivation and professional abilities determining (*A. Derkach, A. Markova*) [5] and the author's test-questionnaire.

Research results

Readiness for future social educators and primary school teachers pedagogical interaction was studied on 78 students that are obtaining the first (bachelor's) level of higher education in majorings 231 Social Work and 013 Primary Education.

To determine the levels of the future bachelors of social pedagogy and primary school teachers professional readiness for professional interaction in school on the first indicator – professionally significant future professionals personal qualities – the diagnostic method of determining future teachers personal qualities was used using the technique of determining future teachers personal qualities (*F. Fiedler*) [7]. This technique is aimed at identifying students with a number of professionally important personal qualities, including: diligence, initiative, neatness, professional literacy, organization, sociability, energy, responsibility, thoughtfulness, friendliness, cheerfulness, breadth of view, justice, activity, ability to keep his word, sensitivity, creativity. Future social educators and primary school teachers were offered a scale for personal characteristics self-assessment on a questionnaire.

Thus, the results of the diagnosis indicate that students have such personal qualities as: diligence (73% of respondents) and the same time laziness (27% of respondents); initiative (62,8% of respondents) and lack of initiative (37,2% of respondents); tidiness (87,2% of students) and untidiness (12,8% of students); professional literacy (84,6% of students) and professional illiteracy (15,4% of students); organization (91% of respondents) and disorganization (9% of respondents); activity (84,6% of students) and passivity (15,4% of students); energy (48,7% of students) and lethargy (51,3% of students); responsibility (80,7% of students) and irresponsibility (19,3% of students); friendliness (96,1% of students) and hostility (3,9% of students); justice (87,1% of students) and injustice (12,9% of students); sociability (74,4% of students) and loneliness (25,6% of students); ability to keep the word (76,9% of students) and optional (23,1% of students); sensitivity (92,3% of students) and indifference (7,7% of students); prudence (47,4% of students) and frivolity (52,6% of students);

creativity (79,5% of students) and reproductiveness (20,5% of students); cheerfulness (91% of students) and depression (9% of students); latitude (47,4% of students) and horizons limitedness (52,6% of students). Therefore, we can state a high level of formation and manifestation of such professionally positive future social educators and primary school teachers significant personal qualities as: neatness, professional literacy, organization, activity, responsibility, friendliness, justice, ability to keep one’s word, sensitivity, creativity and cheerfulness. Such professionally significant future teachers personal qualities as: diligence, initiative, sociability are formed at a sufficient level. At the middle level, such future teachers personal qualities as energy, balance and breadth of vision are formed. The low formation level of professionally significant respondents personal qualities was not recorded.

The results of the diagnosis of professionally important future social educators and primary school teachers personal qualities are presented in Table 1.

Table 1. The results of the diagnosis of professionally important future social educators and primary school teachers personal qualities.

Source: own research.

№	Personal qualities	Total students number	Statement research stage	
			Students majoring in 231 Social Work	Students majoring in 013 Primary Education
1.	Hardworkiness	57	26	31
2.	Initiative	49	21	28
3.	Tidiness	68	30	38
4.	Professional literacy	66	29	37
5.	Organization	71	30	41
6.	Activity	66	27	39
7.	Energy	38	18	20
8.	Responsibility	63	25	38
9.	Goodwill	75	32	43
10.	Justice	68	27	41
11.	Communication	58	16	42
12.	Ability to keep the word	60	22	38
13.	Sensitiveness	72	32	40
14.	Balance	37	16	21
15.	Creativity	62	30	32
16.	Buoyancy	71	30	41
17.	Breadth of view	37	18	19
18.	Laziness	21	8	13

19.	Lack of initiative	29	13	16
20.	Untidiness	10	4	6
21.	Professional illiteracy	12	5	7
22.	Disorganization	7	4	3
23.	Passivity	12	7	5
24.	Apathy	40	16	24
25.	Irresponsibility	15	9	6
26.	Hostility	3	2	1
27.	Injustice	10	7	3
28.	Solitude	20	18	2
29.	Optional	18	12	6
30.	Indifference	6	2	4
31.	Frivolity	41	18	23
32.	Reproduction	16	4	12
33.	Depression	7	4	3
34.	Constricted outlook	41	16	25

The generalized results of diagnostics of future readiness of future bachelors of social educators and primary school teachers for professional interaction in school on the indicator characterizing professionally significant personal qualities of future specialists are graphically presented in Figure 1.

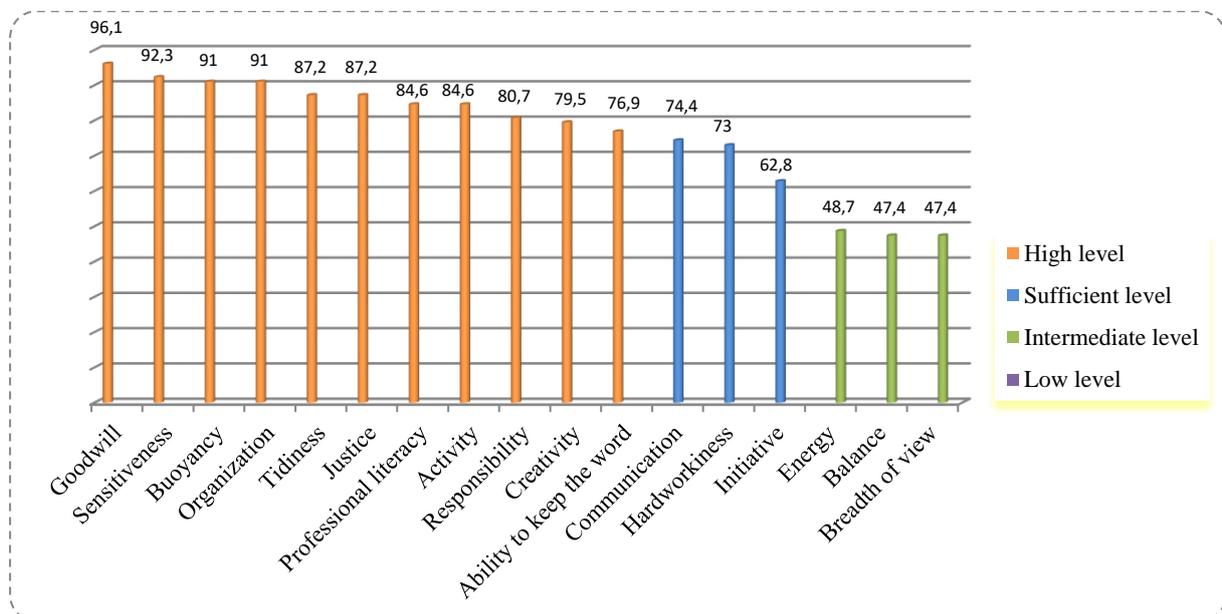


Figure 1. The results of the diagnosis of professionally significant personal qualities of future social educators and primary school teachers (%).

Source: own research.

To determine the levels of future social educators and primary school teachers professional readiness for professional interaction in school on the second indicator –

communicative skills and abilities – a modified diagnostic method of diagnosing communicative tolerance was used (V. Boyko) [6]. The method is aimed at identifying students’ ability to show respect and tolerance in communication, the ability to see each person’s personality, the ability to establish an atmosphere of trust and harmony during communication. Students were asked to choose the most acceptable judgments about communicative tolerance.

Thus, the diagnostic results show a high level of communicative tolerance in 36,6% of respondents, a sufficient level in 48,7% of respondents, an intermediate level in 15,4 respondents and a low level in 1,3% of respondents. The generalized results are presented in Table 2.

Table 2. Diagnostics results of future social educators and primary school teachers communicative tolerance levels.

Source: own research.

№	The communicative tolerance formation level	Total (%)	Students majoring in 231 Social Work		Students majoring in 013 Primary Education	
			persons	(%)	persons	(%)
1.	High level	34,6	12	15,4	15	19,2
2.	Sufficient level	48,7	15	19,2	23	29,5
3.	Intermediate level	15,4	6	7,7	6	7,7
4.	Low level	1,3	1	1,3	-	-

To determine the future teachers professional motivation and abilities to interact in the professional field an adapted to this study interview method was chosen (A. Derkach, A. Markov) [5], which involves detection the personal qualities during individual interviews with students, namely: motivation for professional activities and professional training and professional abilities, that are characterized by the student’s ability to assess their professional development, solve professional problems and build professional communication. During the interview, students answered the proposed questions about important professional qualities and characteristics, their own professional behavior in different pedagogical situations and in the communication process.

Thus, a high level of professional activities interest and the ability to solve pedagogical problems and productive communication showed 14,1% of respondents, a sufficient level of professional motivation and ability showed 32% of respondents, the intermediate level was recorded in 41% of respondents and 12,8% – low level. The generalized results are presented in Table 3.

Table 3. Results of diagnostics of future social educators and primary school teachers professional motivation and professional abilities levels.

Source: own research.

№	The professional motivation and abilities formation level	Total (%)	Students majoring in 231 Social Work		Students majoring in 013 Primary Education	
			persons	(%)	persons	(%)
1.	High level	14,2	5	6,5	6	7,7
2.	Sufficient level	32	10	12,8	15	19,2
3.	Intermediate level	41	15	19,2	17	21,8
4.	Low level	12,8	4	5,1	6	7,7

Identification of levels of future primary school teachers awareness on the work specifics of social educators in school and future social educators awareness on the peculiarities of primary school pedagogical teachers' activities with younger students was carried out using the author's test questionnaire. The questionnaire includes statements about the main aspects of the professional activities of social educators and primary school teachers that students had to agree or disagree with.

Thus, a high level of awareness of the other professionals' professional activities was found by 24,4% of respondents, a sufficient level is recorded in 20,5% of respondents, rather weak knowledge of the social educators and primary school teachers specifics have 55,1% of respondents, intermediate – 26,9% and low – 28,2%. The generalized results are presented in Table 4.

Table 4. The diagnosis results of the awareness levels on the future social educators and primary school teachers professional activities specifics.

Source: own research.

№	Awareness level	Total (%)	Students majoring in 231 Social Work		Students majoring in 013 Primary Education	
			persons	(%)	persons	(%)
1.	High level	24,4	8	10,3	11	14,1
2.	Sufficient level	20,5	4	5,1	12	15,4
3.	Intermediate level	26,9	10	12,8	11	14,1
4.	Low level	28,2	12	15,4	10	12,8

Conclusions

The study of the future social educators and primary school teachers readiness for professional interaction in secondary education was carried out on the basis of studying its indicators such as professionally significant future professionals' personal qualities, communication skills, professional motivation and abilities, and knowledge of the colleagues' professional activities specifics.

Based on the data obtained during the study, there can be stated:

1. According to the first indicator such positive professionally significant students' personal qualities as: neatness, professional literacy, organization, activity, responsibility, friendliness, justice, ability to keep the word, sensitivity, creativity and cheerfulness were formed and revealed at a high level; such professionally significant future teachers' personal qualities as: diligence, initiative, sociability are formed at a sufficient level; weakly formed future teachers' qualities are determined as: energy, balance and breadth of view.

2. Analysis of future teachers' communicative skills and abilities showed a significant number of students (85,3%) who express desire to establish professional, partnership and friendly contacts, can work in a team and organize group work, the ability to express their own opinions and public positions. At the same time, there are students (16,7%) who need attention from teachers to form the necessary communicative competencies in professional and pedagogical work.

3. The study of the indicator of professional motivation and abilities allows to record a positive attitude to professional activity and the presence of abilities for effective professional communication in a significant number of students (46,2%). However, most students have unstable (41%) and low (12,8%) motivation to perform professional activities and show passivity and lack of interest in pedagogical interaction with other professionals. This indicates the need to increase motivation for productive work in the future teachers' profession.

4. Analysis of future primary school teachers awareness on the specifics of the social educators work in school and future social educators awareness about the primary school teachers peculiarities of pedagogical activities with younger students let affirm that 44,9% of students demonstrate knowledge of other pedagogical professionals features of work. At the same time, the majority of respondents have poor knowledge of the subtleties of colleagues professional activity, as 55,1% of students have medium and low levels of this indicator. Such data is expected, as students focus on the professional knowledge they acquire in the specialty.

Therefore, it's considered expedient for students to get acquainted with the various pedagogical specialists specifics of the work.

References

1. Браткова О. І. Проблема професійної взаємодії майбутнього фахівця крізь призму деонтології. Педагогічна освіта: теорія і практика. Психологія. Педагогіка. Збірник наукових праць. № 27. 2017. С. 86–90.
2. Волкова Н. П. Професійно-педагогічна комунікація: навчальний посібник. Київ: Видавничий центр «Академія». 2006. 256 с.
3. Кожушко С. П. Професійна взаємодія та її характеристики. Проблеми інженерно-педагогічної освіти. Українська інженерно-педагогічна академія. Вип. 38–39. 2013. С. 247–252.
4. Колупаєва А. А., Данілавичюте Е. А., Литовченко С. В. Професійне співробітництво в інклюзивному навчальному закладі: навчально-методичний посібник. Київ: Видавнича група «А.С.К.». 2012. 192 с.
5. Новаченко Т. В. Самоорганізація діяльності державного службовця: вітчизняний та європейський досвід: навч.-метод. матеріали / за ред. Т. В. Новаченко; уклад. Н. В. Ясько. Київ: НАДУ, 2013. 96 с.
6. Практическая психодиагностика. Методики и тесты : учеб. пособие / ред.-сост. Д. Я. Райгородский. Самара: Бахрах, 2002. 628 с.
7. Рабочая книга практического психолога : пособие для специалистов, работающих с персоналом / под ред. А. А. Бодалева, А. А. Деркача, Л. Г. Лаптева. 3-е изд. Москва: Издательство института психотерапии. 2001. 640 с.
8. Сембрат А. Л., Самойленко Н. І. Науково-педагогічні засади професійного співробітництва в інклюзивних навчальних закладах. Молодий вчений. № 5 (57). 2018. С. 83–87.
9. Сила Т. І. Професійна інтеракція в соціальній роботі: соціально-психологічні особливості взаємодії соціального працівника і клієнта: монографія / Сила Т. І. Чернігів: Чернігівський державний інститут права, соціальних технологій та праці. 2010. 241 с.

References

1. Bratkova O. I. Problema profesiinoy vzaïemodii maïbutnoho fakhivtsia kriz pryзму deontolohii [The problem of professional interaction of the future specialist through the prism of deontology]. *Pedagogical education: theory and practice. Psychology. Pedagogy. Collection of scientific works. № 27.* 2017. pp. 86–90. [in Ukrainian]
2. Kolupaieva A. A., Danilavichiutie E. A., Lytovchenko S. V. Profesiine spivrobotnytstvo v inkliuzyvnomu navchalnomu zakladi: navchalno-metodychnyi posibnyk [Professional cooperation in an inclusive school: a textbook]. Kyiv: ASK Publishing Group. 2012. 192 p. [in Ukrainian]
3. Kozhushko S. P. Profesiina vzaïemodiia ta yii kharakterystyky [Professional interaction and its characteristics]. *Problems of engineering and pedagogical education.* Ukrainian Engineering and Pedagogical Academy. Vol. 38–39. 2013. pp. 247–252. [in Ukrainian]
4. Novachenko T. V. Samoorhanizatsiia diïalnosti derzhavnoho sluzhbovtstva: vitchyznianskyi ta yevropeïskyi dosvid: navch.-metod. materialy [Self-organization of the civil servant's activity: domestic and European experience: teaching method. materials]. / za red. T. V. Novachenko; uklad. N. V. Yasko. Kyiv: NADU. 2013. 96 p. [in Ukrainian]
5. Praktycheskaia psikhodyahnostyka. Metodyky y testy. [Practical psychodiagnostics. Methods and tests]: ucheb. posobyie / red.-sost. D. Ya. Raihorodskyi Samara: Bahrah, 2002. 628 p. [in Russian]
6. Rabochaia knyha praktycheskoho psikholoha. 3-e yzd.: posobyie dlia spetsyalystov, rabotaiushchykh s personalom. [Practicing psychologist working book. 3rd ed.: manual for specialists working with personnel] / pod red. A. A. Bodaleva, A. A. Derkacha, L. H. Lapteva. Moscow: Publishing House of the Institute of Psychotherapy. 2001. 640 p. [in Russian]
7. Sembrat A. L., Samoïlenko N. I. Naukovo-pedahohichni zasady profesiinoho spivrobotnytstva v inkliuzyvnykh navchalnykh zakladakh [Scientific and pedagogical principles of professional cooperation in inclusive schools]. *A young scientist.* № 5 (57). 2018. pp. 83–87. [in Ukrainian]
8. Syl'a T. I. Profesiina interaktsiia v sotsialnii roboti: sotsialno-psikhologhichni osoblyvosti vzaïemodii sotsialnoho pratsivnyka i kliienta: monohrafiia [Professional interaction in social work: socio-psychological features of the social worker and client interaction: monograph] / Syl'a T. I. Chernihiv : Chernihiv State Institute of Law, Social Technologies and Labor. 2010. 241 p. [in Ukrainian]

9. Volkova N. P. Profesiino-pedahohichna komunikatsiia: navchalnyi posibnyk [Professional pedagogical communication: textbook]. Publishing center «Academy». 2006. 256 p. [in Ukrainian]

Viktoriia Vertegel¹ORCID: <https://orcid.org/0000-0002-5100-3784>¹ Zaporizhzhia National University

ISSUES OF INTERNATIONALIZATION AND ACADEMIC MOBILITY IN UKRAINE

Summary

Internationalization and active international activity is one of the indicators of the integration of a higher education institution into the global space, which is most realized through academic mobility programs. The intensive internationalization of institutions of higher learning and the development of academic mobility of university students and staff are important theoretical and practical problems. One aspect of the solution is to find the means to make the process effective. This article aims to outline the issues of internationalization of Ukrainian universities and academic mobility of their students and staff.

Keywords: internationalization, academic mobility, institutions of higher learning, educational area, competitive specialists.

Introduction

Our modern world is intensively developing and therefore this affects the educational sphere. With the development of globalization and internationalization processes of the economy and business, higher education faced new goals, we mean, there is strong need for training professional personnel who will be able to work effectively in constantly changing conditions of the global market. Reforming Ukrainian educational system and the process of its integration into the world community requires a significant update of the long-present order and studying the best foreign practices of organizing educational process. The academic

mobility is not only a means of internationalization of universities, but it also plays a significant role as a factor that contributes to the formation of competitive specialists.

The internationalization of education pursues various goals: diversification and growth of financial revenues by attracting foreign students to paid education; expansion of curricula and training of their students in foreign partner universities; expansion of the regional network of the university for the effective use of its resources; improving the quality of education and research through the participation of students and teachers in the international process of knowledge exchange.

The development of international interuniversity cooperation enables organizing joint research projects, exchange programs for students and teaching staff, special programs for foreign students. Most modern universities are involved in international activities, but this is usually the simplest, most common level of internationalization. We can consider the internationalization of higher education as a process of systematic integration of the international component into education, research and social activities of higher education institutions.

Internationalization and academic mobility: opportunities and issues

Many scientific researchers study the phenomenon of internationalization of the institutions of higher learning and the processes of academic mobility. It has long been the subject of research by foreign scientists J. Knight, H. de Wit, P. Altbach, U. Teichler, M. van der Wende.

J. Knight who has been exploring the international dimension of higher education at the institutional, national, regional and international levels states that “internationalization has come of age”, and now it is not “an ad hoc or marginalized part of the higher education landscape”. The contents of strategic plans of institutions of higher learning, national policy statements, international declarations, and academic articles instantiate the importance of internationalization in education sphere [7].

H. de Wit and Ph. G. Altbach also confirm that “during the past half-century, internationalization has evolved from a marginal activity to a key aspect of the reform agenda”[2]. They studied internationalization in its historic perspective from medieval times to our days, and mentioned that the “mobility, also known as ‘internationalization abroad’, is the most referred to activity in internationalization and takes in itself a great variety of forms. Curriculum and global professional and citizenship development, also referred to as

'internationalization at home', is the other key component of internationalization. It receives increased attention, but still less than mobility [2].

A take on term "internationalization" is varied a lot, and may depend on a specific country or a researcher. U. Teichler points out that "although "internationalization" ought to be international by definition, the discussions on internationalization vary strikingly by country. Finally, the actors and experts discussing issues of internationalization of higher education have an uneven information base, whereby many of them obviously know the issues at stake only superficially. He also states that the views change over time as regards most salient issues of internationalization"[12].

Hans de Witt presumes that we should consider internationalization in the broader context of the changing role and position of tertiary education in the world; he esteems as a common misconception the tendency of considering internationalization as a goal in itself, instead of as a means to an end: enhancing the quality of education, research, and service to society [3].

Each university should define its individual approach to internationalization based on its purposes and expected outcomes; having assessed our needs or priorities we can build our process of internationalization. J. Knight insists that "there is no one size fits all' model of internationalization"[6]

In disregard for numerous doubts about the benefits of so-called physical academic mobility for nationalized academic labor markets, the intensity of academic mobility flows still remains one of the most obvious indicators of successful university internationalization. "Mobility of students and faculty members is considered to be the aspect of primary importance for all the survey respondents who identified mobility as the number one reason why internationalization is a priority in their institutions. It is also revealing that respondents ranked the movement of people (students and faculty) as more important than the movement of programs through twinning arrangements, commercial export/import or the establishment of branch campuses"[13].

H. de Wit outlines that the main focus in internationalization in tertiary education is still on mobility, and it is a result of unmet demand for higher education (degree mobility), mainly from lower-middle and middle income societies to the higher-income countries; the growth of short-term credit mobility of students, in particular in Europe as a result of the Erasmus program; an increase in short-term faculty mobility, primarily for research; and a gradual growth in franchise operations, branch campuses, and other forms of transnational education. The researcher defines some of the main trends in internationalization in the past 30 years:

“higher education institutions are more focused on internationalization abroad than on internationalization at home; there are more ad hoc, fragmented, and marginal than strategic, comprehensive, and central in internationalization policies; more in the interest of a small, elite subset of students and faculty than focused on global and intercultural outcomes for all; directed by a constantly shifting range of political, economic, social/cultural, and educational rationales, with increasing focus on economic motivations; increasingly driven by national, regional, and global rankings; little alignment between the international dimensions of the three core functions of higher education: education, research, and service to society; primarily a strategic choice and focus of institutions of higher education, and less a priority of national governments; less important in emerging and developing economies, and more of a particular strategic concern among developed economies”[1].

Dispelling the myths about internalization of higher education institutions, J. Knight notes that a great number of international agreements or network memberships of a university does not mean that it automatically becomes more prestigious and attractive it is to other institutions and students; and practice shows that most institutions cannot manage or even benefit from a hundred plus agreements. To maintain active and fruitful relationships requires a major investment of human and financial resources from individual faculty members, departments, and international offices.

M. Van der Wende states that the goals of the internationalization of higher education and academic mobility include networking for mutual understanding and intercultural learning, for achieving academic excellence, and for providing assistance to build capacity in other countries. She also emphasizes that internationalization has become more market oriented, aiming to attract talented students and highly skilled workers as key resources for the knowledge economy [14].

U. Teichler outlines that internationalization of higher education has so many implications that all participants and experts share only a few elements: border crossing is a key element and an upward trend is implied. International student mobility is a traditional key feature, with knowledge transfer receiving more emphasis than other characteristics. It is important to define the type of mobility to study – short-term or long-term, vertical or horizontal. That’s why statistics varies widely. The analysis of vertical mobility is mostly thematic and difficult to summarize. Short-term mobility, especially in Europe, is being analyzed more thoroughly, allowing comparisons between mobile and non-mobile students and between countries. They suggest that mobility only leads to slightly higher academic and general skills, but impressive international skills. This is reflected in small career advantages,

but a significantly higher proportion of visible international assignments, as well as frequent international career mobility. In addition, former mobile students rate highly the impact on international understanding and overall personality development [12].

What are the concerns while internationalizing? Institutions developing internationalization strategies face considerable issues: generating income; branding and reputation; the need to focus on international research and publications; recruiting foreign students and scientists; and the use of English as a language for research and teaching. There is an external pressure, such as national funding policies. These challenges run counter to a more inclusive, less elitist approach that caters to the needs of local students and staff and creates opportunities for these groups. In other words, there is a tension between the short-term neoliberal approach to internationalization, focused primarily on mobility and research, and the long-term integrated approach, focused on global learning for all. All these institutional policies should relate to national policies and plans in their countries [2].

Ukrainian practice of internationalization and academic mobility

Contemporary Ukrainian researchers also take a strong interest in the issues of internationalization and academic mobility. Many aspects of internationalization of higher education have been thoroughly explored by M. Debych. N. Avshenyuk investigates the tendencies of transnational higher education. S. Verbytska studies stages of development and organization of international student academic mobility in Ukraine. O. Bolotska examines the development of international academic mobility of students as the implementation of the principles of the Bologna process in higher education in Ukraine. M. Gulovych researches the formation of foreign language competence of students as a required factor of academic mobility. I. Myhovych examines the qualitative aspect of internationalization process in Ukrainian higher education. She views internationalization as a reaction to the global transformation processes, as well as a unique possibility for Ukrainian higher education to ensure its integrated transformation according to European and world trends [8]. I. Sikorskaya outlines the concerns of internationalization of Ukrainian education.

The current development of the world economy is characterized by the intensification of the processes of internationalization and integration, which is the basis for the formation of a common economic integrity. At the same time, there is a dynamic development of national economies, increased competition, labor restrictions, significant structural transformations, which require the availability of appropriate labor resources. One of the most important

strategic tasks at the present stage of modernization of the higher education system in Ukraine is to ensure the competitiveness of training specialists at the level of international standards. Implementing main provisions of the Bologna process involves taking into account national approaches to the organization of training, the content of education, traditions in the training of future specialists with higher education.

As far as it is known, the creation of a single European area for higher education began back in the 1980s of the XX century with the signing of the Magna Carta of Universities, and further, of the Bologna Declaration. The main idea of reforming higher education was the need to provide residents of each European country with the access to educational resources of other states and the harmonization of national systems of higher education.

Ensuring the competitiveness of graduates of higher educational institutions occurs primarily due to changes in the content of education, its adaptation to the conditions of a market economy. It can be achieved due to the content scope of the variable component of education, so that it is possible to influence (to a certain extent), the formation of a competitive qualified specialist.

Promoting the development of academic mobility is one of the conditions for creating a common European education area and achieving the goals proclaimed by the Bologna Declaration.

Development of academic mobility for students, professors and administrative staff became especially important after the principles of the Bologna process have been accepted. The goal is integration into European and international educational environment. The Bologna documentation always includes postulates concerning the importance of internationalization and academic mobility. The Bologna Declaration of 19 June 1999 proclaims “promotion of mobility by overcoming obstacles to the effective exercise of free movement with particular attention to: for students, access to study and training opportunities and to related services; for teachers, researchers and administrative staff, recognition and valorisation of periods spent in a European context researching, teaching and training, without prejudicing their statutory rights”[10]. The Magna Charta Universitatum (1988) states: “as in the earliest years of their history, they [universities] encourage mobility among teachers and students”[11]. This principle was developed in the Sorbonne Joint Declaration signed by the four Ministers in charge for France, Germany, Italy and the United Kingdom (Sorbonne, 1998): “An open European area for higher learning carries a wealth of positive perspectives, of course respecting our diversities, but requires on the other hand continuous efforts to remove barriers and to develop a framework for teaching and learning, which would enhance mobility and an ever

closer cooperation”. It also emphasizes that “At both undergraduate and graduate level, students would be encouraged to spend at least one semester in universities outside their own country. At the same time, more teaching and research staff should be working in European countries other than their own. The fast growing support of the European Union, for the mobility of students and teachers should be employed to the full”[4].

Ukrainian universities in their development strategies point out that, the academic mobility of students, graduate students and scientific and pedagogical staff as one of the priority directions of their international and educational activities. Academic mobility is meant to be the tool of enhancing the quality of education; it should help to increase the efficiency of scientific research, improve the management system and increase the competitiveness of graduates in the domestic and international markets of educational services and work; and to contribute to the study and implementation of the best practices of foreign universities. The forms of academic mobility are training in student exchange programs at a partner university, language and scientific internships, educational (research and on-the-job) training.

The academic mobility should be promoted by overcoming obstacles to the effective implementation of free movement, for which students should be provided with access to educational opportunities and practical training, as well as educational services. Also, university students should be guaranteed the enrollment of credits of academic disciplines, which they will master during their studies at another educational institution. This is, of course, related to issues of compliance with curricula and programs, as well as with the assessment system. One of the means to address these issues was the introduction of the European Credit Transfer and Accumulating System, or the European Credit Transfer System (ECTS), developed in a pilot project within the framework of the ERASMUS program, as a means of simplifying the recognition of educational level for study abroad or in another institution through the use of a generally understood assessment system, credits and grades, as well as the means to interpret national higher education systems. ECTS is a tool for ensuring transparency, communication between educational institutions and increased choice for students.

However, in many Ukrainian universities, internationalization is seen as an optional addition to educational services and research. The percentage of programs with an international focus and an internationalized curriculum is still very low; as such programs are difficult to develop in accordance with all the national educational system requirements [13]. It should be also stated that for several years academic mobility has remained a spontaneous, sporadic phenomenon either.

I. Sikorskaya outlines the concerns of internationalization of Ukrainian education and states that despite “the progress made in international student admissions, mobility is still out of reach for the majority of Ukrainian students. Most nonmobile young people can learn about cultural diversity through interaction with international students and scholars on campus. Here, educators with teaching and research involvement abroad can help mitigate the problem of the students’ lack of international experience”. The researcher states that “in the majority of HEIs, the principal focus is on recruiting international students ... seek to attract international students in order to earn income and gain recognition”[9]. I. Sikorskaya also specifies the main barriers to the admission of foreigners, among those there are language proficiency, visa requirements, and bureaucracy, finding suitable accommodation, credit recognition, and diploma validation problems. Another area of concern is the limited amount of research collaboration of Ukrainian scholars with international partners.

Nevertheless, so far there have been positive changes regarding the internationalization of higher education in Ukraine. Today, most Ukrainian institutions of higher learning show a positive shift toward increasing student mobility abroad, and faculty are increasingly willing to engage in activities that promote internationalization. More efforts are made to reinforce the international culture on campus by attracting foreign students and lecturers. The participation of Ukrainian academics in joint international projects has increased significantly. Thus, despite many obstacles and the socioeconomic reality, Ukrainian universities expect that their internationalization efforts will soon pay off.

The organization of academic mobility of the university, of course, needs support at the state level. In order to develop international cooperation in the field of higher education and the integration of the higher education system into the global educational space, the new Law of Ukraine “On Higher Education” 2014 provides for the assistance of the state in resolving issues of harmonizing the national qualifications framework with the qualifications framework of the European Higher Education Area to ensure academic and higher education, professional mobility and lifelong learning (Part 2, Article 74) [5]. Financial support of academic mobility involves an increase in state financial support for the participation of talented and socially unprotected students in foreign educational programs; development of programs for public and private loans and subsidies for academic mobility; search for grants; solution of financial aspects of academic exchanges in the framework of partnerships of higher educational institutions of different countries. Today, one of the most realistic models for the implementation of academic mobility is the educational program of the European Union ERASMUS+. This program is aimed at enhancing international cooperation and increasing

mobility among students, teachers, scientists from European universities and universities of third countries on all continents. The fund for this program is one of the main sources of funding for European mobility. In addition, a number of national organizations, in particular the German Academic Exchange Service (DAAD, Germany), provide targeted support for the mobility of students and teachers through joint programs. In the process of training highly qualified specialists, a higher educational institution must take into account the necessary imperative of the present, we mean, the ability to compete not only in the domestic, but also in the European and world labor markets, and therefore pay great attention to the development of mobility.

The academic mobility at Zaporizhzhia National University has been promoted and organized within bilateral agreements with partner institutions since 1996, the participation in TEMPUS TACIS project. Since then, the intensification of international academic mobility is one of the priority areas of international activity of Zaporizhzhia National University. Several constant mobility channels have been established with partner universities in Poland, France, Italy, Romania, Czech Republic, Germany, Bulgaria, including European Master Programs, distant education program and joint degree programs.

The considerable leap forward to the international educational area was the participation of the university in the projects of the ERASMUS MUNDUS program – ELECTRA and HUMERIA. The ELECTRA project provided training and internships for students, teachers and scientists in EU partner universities in such priority areas as energy efficient technologies, clean technologies, green energy, ecology and environmental protection, sustainable development, etc. According to the established quotas, the full scholarship for participation in academic mobility programs under the project in such countries as Germany, Finland, Ireland, Bulgaria, Poland, Belgium, Portugal. A significant achievement on the way to strengthening institutional cooperation and implementing strategies for internationalization of education was the membership of Zaporizhzhia National University in the consortium of another large-scale project ERASMUS MUNDUS – HUMERIA, which allowed students, graduate students, scientists and faculty to receive full scholarships and internships in the fields of humanities in the leading European universities of Estonia, Italy, Slovakia, Romania, the Netherlands, the Czech Republic and Sweden. In general, the involvement of Zaporizhzhia National University in such a unique project as ERASMUS MUNDUS provided an opportunity for students and specialists of all faculties and specialties, which is in line with the announced national strategy for higher education reform in the context of internationalization.

Today Zaporizhzhia National University is a permanent participant of the ERASMUS + (Key Action 1) academic mobility programs, agreements have already been signed with many

European partner universities in Romania, Poland, Slovenia, Estonia, Czech Republic, Italy and France. The university staff takes an active part in the projects ERASMUS + Key Action 2, ERASMUS + Jean Monnet Actions.

However, there are some of weak points, despite the constant informing about current international projects and programs of students and scientific and pedagogical staff of the university through the website of Zaporizhzhia National University (section “International Activities”), the page of the International Office in Facebook, as well as through deputy deans of faculties for international activities, participation in academic programs mobility is not a permanent effective phenomenon. The main obstacles remain language barrier or lack of sufficient level of foreign language (B1 or B2), while the knowledge of English is a prerequisite for participation in Erasmus + projects; academic workload of scientific and pedagogical workers; lack of motivation, despite the fact that the passage of foreign internships is a prerequisite for obtaining a scientific title and the requirement of contracts of research and teaching staff.

Our analysis, based on the results of participation in the ERASMUS+ programs indicates that the level of interest in competitive internships that provide an opportunity to receive funding is higher among students than among scientific and pedagogical workers. The rate of student participation in these academic mobility programs is also higher. Despite the fact that the individual scientific mobility of specialists remains at a fairly high-quality level, overseas business trips are mostly sporadic and non-systematic and have almost no effect on the development of the international direction of the university activities. In most cases, foreign business trips of specialists are focused primarily on the presentation of individual achievements. Particular attention should be paid to the introduction of foreign business trips and internships of specialists in the educational process and their practical significance for the development of the university life. Another issue of academic mobility realization is students who participate in these programs do not always know how to benefit from it in their further professional life.

In order to ensure the relevant processes at the university, the administration and staff have taken action, a complex infrastructure has been created, which now includes the department of international relations and work with foreign students, the Regional Consulting Center for the European Credit Transfer System (ECTS) and the Center for the Study of Foreign Languages, which prepares students for exams and provide them with international certificates. Indeed, in the context of an international orientation towards mobility in a single European educational area, knowledge of a foreign language is a necessary factor within the framework

of the concept of European citizenship, creates a reliable foundation for students to study and provides access to the implementation of international professional opportunities, and therefore competitiveness in the international labor market.

The development of student academic mobility channels now is a mandatory clause of international agreements of Zaporizhzhia National University. The university regularly hosts presentations of international academic programs with the participation of representatives of the Fulbright, Academic Exchange Council IREX, German Association for Academic Programs DAAD, educational organizations Alliance Française and EduFrance and others.

Conclusions and Discussion

Thus, guarantee and ensuring a high level of competitiveness of higher education in accordance with the requirements of the labor market is the main direction of the implementation of the provisions of the Bologna Convention. In the context of enhancing the level of economic development, increasing the rate of economic growth, the requirements for the preparation of highly qualified graduates of universities will grow. Both employers and the state and future specialists are interested in the competitiveness of training university specialists aware of international cooperation and having international experience.

The academic mobility can be developed where there is a motivated need for it. So the guarantee of the established academic mobility is the active position of the university regarding its own internationalization, the content of the mobility process, which is a necessary condition not only for finding financial support for student exchanges, but also for the formation of appropriate motivation among students.

Due to the implementation of the principles of academic mobility, students of Ukrainian universities can explore best European practices, examine different educational systems. So the adoption by Ukrainian universities of the European principles of the competitiveness of training specialists reflects the interconnection of important factors of the European higher education area: quality, education regarding the needs of the labor market, openness to the external environment.

Bibliography

1. De Wit H., Internationalization of Higher Education, The Need for a More Ethical and Qualitative Approach, "Journal of International Students" 2020, Vol. 10, Issue 1.

2. De Wit H., Altbach P. G., Internationalization in higher education: global trends and recommendations for its future, "Policy Reviews in Higher Education" 2021, No. 5:1.
3. De Wit H., Deca L., Internationalization of Higher Education, "European Higher Education Area: Challenges for a New Decade" 2020.
4. Joint Declaration on Harmonisation of the Architecture of the European higher education system, Sorbonne, Paris 1998.
5. Law of Ukraine "On Higher Education", The Verkhovna Rada of Ukraine 2014.
6. Knight J., Internationalization of education, "Butlletí", Agència per a la Qualitat del Sistema Universitari de Catalunya 2003.
7. Knight J., Student Mobility and Internationalization: Trends and Tribulations, "Research in Comparative and International Education" 2012, No. 7 (1).
8. Myhovyeh I., Qualitative aspect of internationalization in Ukrainian higher education, "Journal of Vasyl Stefanyk Precarpathian National University" 2019, Vol. 6, No. 1.
9. Sikorskaya I., Higher Education Internationalization in Ukraine: Concerns and Hope, "International Education" 2017, No. 91.
10. The Bologna Declaration, "The European Higher Education Area" 1999.
11. The Magna Charta Universitatum 1988.
12. Teichler U., Internationalization Trends in Higher Education and the Changing Role of International Student Mobility, "Journal of International Mobility" 2017, No. 5.
13. Tupakhina O., Priymenko O., Improving academic mobility management: case study of Zaporizhzhya National University, "Quality Assurance Tools for the Management of Internationalization", Mohyliv-Podilskyi-Kyiv 2011.
14. Van der Wende M., Internationalization of Higher Education, "International Encyclopedia of Education", Elsevier, Oxford 2010. Vol. 4.

Svitlana Vitvytska¹ORCID ID: <https://orcid.org/0000-0002-9541-2635>¹ Zhytomyr Ivan Franko State University

PEDAGOGICAL MASTERY OF AN EDUCATOR OF A HIGHER EDUCATION INSTITUTION IN THE CONTEXT OF THE IDEAS OF OUTSTANDING UKRAINIAN TEACHERS

Summary

The article is based on the analysis of pedagogical works of outstanding Ukrainian educators (A. S. Makarenko, V. O. Sukhomlynskyi, K. D. Ushynskyi, I. A. Ziaziun and other) reviewing the problem of development of pedagogical skills and mastery of the teachers of higher education institutions as a perspective direction of enrichment and further development of the theory and practice of higher education. Emphasis is placed on the historical experience of understanding the essence of the concept of "pedagogical skill" and the main ways of its formation in the context of ideas expressed in various pedagogical works of domestic scientists, teachers and historians.

The main scientific approach to the study is a system, which involves not only analytical but also synthetic assessment of phenomena and processes.

The specifics of pedagogical activity of an educator in a higher education institution (HEI) are characterized; a categorical analysis of the concept of "pedagogical skills of a teacher of higher education" in the context of pedagogical views of A. S. Makarenko, V. O. Sukhomlynskyi, K. D. Ushynskyi, I. A. Ziaziun and other scientists and historians of Ukraine.

The main ideas of Ukrainian educators on understanding of the concept of pedagogical skills are highlighted.

A comparative analysis of the main components of pedagogical skills, conditions, means of its formation has been conducted. The concept of "pedagogical creativity" as a component of pedagogical skills and abilities, as well as its formation in the context of modern pedagogical research are characterized.

Theoretical conclusions concerning the semantic characteristics of pedagogical skill, competence, competency, readiness of teachers of higher education institutions for pedagogical activity are generalized. The author's interpretation of the concepts of "pedagogical skill", "pedagogical competence", "competency", "readiness of a teacher for pedagogical activity in higher education institutions" is presented. The prognostic directions of studying, analysis and development of the actualized problem (pedagogical skill of teachers) in modern institutions of higher education are given.

Keywords: pedagogical skills, pedagogical mastery, pedagogical activity, higher education, competence, competency, pedagogical creativity, teacher; pedagogical heritage.

Introduction

At the beginning of the XXI century and the third millennium, the problem of teacher training acquires extreme significance due to new changes taking place in the context of globalization and integration at the global, international, national and regional levels.

In the progressive development of modern Ukrainian society, its integration into the world educational processes, including the undergoing reform of higher education, all these highlight the relevance of the problem of pedagogical skills (their formation and development) of educators of higher education institutions.

The "National Doctrine of the Development of Education in Ukraine in the XXI Century" states that "the training of pedagogical and scientific-pedagogical workers, their professional self-improvement is an important condition for the modernization of education" [22].

Solving complex problems facing the domestic system of higher and general secondary education is impossible without a proper study of the pedagogical heritage of prominent theorists and practitioners who were at the origins of substantiation of the basic provisions of pedagogical skills, their essence, which created and established technologies for their formation.

Thus, first of all, it's necessary for substantiation of theoretical-methodological, organizational-methodical concepts, systems and technologies of teaching, the leading place

among which in modern realities is occupied by pedagogical technologies that should ensure personal and professional development and self-development, mobility and competitiveness of educators, including the teachers of HEIs. Pedagogical skills and mastery of modern technologies are closely linked. Therefore, the concept of "pedagogical skill", which is reflected in many works of Ukrainian scientists and practitioners, has come a long and difficult way of evolution. Thus, at the origins of the development of this problem were well-known domestic scientists, theorists and practitioners of education, prominent philosophers, artists and statesmen: O. Dukhnovych, M. Korf, M. Kotsiubynskyi, T. Lubenets, A. Makarenko, I. Ohienko, M. Pyrohov, I. Sikorskyi, H. Skovoroda, V. Sukhomlynskyi, K. Ushunskyi, I. Franko, Ya. Chepiha and other. The historical approach to the essence and content of pedagogical skills in the system of pedagogical training gives an opportunity to explore the ways of its renewal and creative implementation in the practice of modern HEIs.

Theoretical and methodological principles of pedagogical skills are represented in the works of modern Ukrainian scientists, including Ye. Babinova, I. Ziaziun, A. Kapska, V. Lozova, N. Kinchuk, N. Nychkalo, M. Paltysheva, S. Sysoieva, O. Sukhomlynskyi and other. However, this problem is insufficiently covered in the context of pedagogical ideas, pedagogical heritage of prominent Ukrainian teachers in relation to the pedagogical activity of modern educators of higher education institutions.

Aim, subject and research methods

The aim of this article is to highlight some ideas, aspects of pedagogical heritage of A. S. Makarenko, V. O. Sukhomlynskyi, I. A. Ziaziun and other, which are relevant today and, in some way, relate to the pedagogical activities of a teacher of higher education. Our task is to analyze the work of outstanding domestic educators, which reveals the basic requirements for a teacher as a master of pedagogical work; components of pedagogical skills, the role of the teaching staff as a creative center for the growth of pedagogical skills of an educator.

In this context, the subject of the research is the pedagogical ideas of prominent scientists and educators of Ukraine on the problem of pedagogical skills and a categorical analysis of this issue.

In order to conduct a categorical analysis of the actualized problem, highlight and compare the main ideas of prominent Ukrainian educators on the essence, content, formation of pedagogical skills, we used a number of theoretical methods of scientific research, including:

analysis, synthesis, generalization, comparison, systematization; historical and pedagogical methods (data search and bibliographic analysis, historical and genetic analysis).

Research results

The activity of a higher school teacher has a high social significance and occupies one of the central places in the process of formation of national consciousness and spiritual culture of Ukrainian society. It is bilateral and includes special and social-educational.

Both of these prerequisites must be considered in harmonic unity, thus, the special characteristics of teaching reflect the connection with the social division of labor. The socio-educational aspect of teaching is related to the ideological principles of society.

Democratization of society, as well as humanization of education needs a change in the activities of higher education professionals and require every teacher of higher education, regardless of specialty, to have pedagogical skills.

The category of "pedagogical skill" was introduced into the thesaurus of Ukrainian pedagogy by A. S. Makarenko, who, for the first time, characterized the concept of "skill of the educator" and "pedagogical technique" in his article "Some conclusions from my pedagogical experience".

The central idea of A. S. Makarenko's pedagogical activity was the desire to comprehend the essence of pedagogical talent, combination and interdependence of personal talents and methodical armament in the training of future teachers. In his study he praised the role of an educator in society, calling him/her an "engineer of children's souls" and emphasizing that "responsibility to children is responsibility to history, and today's children are tomorrow's history, tomorrow's future of humanity." In his books and articles, the outstanding educator points out the ways of forming pedagogical skills and culture of pedagogical communication, focusing on pedagogical techniques: on the teacher's skills - "reading on the face" of the inner state of personality; communicative and emotional-volitional qualities, acting culture of verbal and nonverbal professional communication.

A. S. Makarenko argued that "it is impossible to build a pedagogical process based on talent, we need to talk only about skill, i.e. real knowledge, emphasizing that skill is based on abilities, qualifications."

A. S. Makarenko believed that "the skill of the educator is a specialty that must be taught, how to teach a doctor his skills, how the musician must be taught his/her craft" [10, p.

260]; "Can we rely on a random distribution of talent?" (A. S. Makarenko. Some conclusions from my pedagogical experience [10, p. 236].

As for A. S. Makarenko, the problem of skill is the problem of rationalizing the work of a teacher. Anton Semenovich's words sound optimistic for every educator today: skill is what can be achieved, and as long as a master turner can exist, a great master doctor can also be known, so a great master teacher should and can be [10, p. 243].

A. S. Makarenko did not consider himself talented. An outstanding teacher wrote the following: "I have no pedagogical talent, I came to pedagogy by accident, without any vocation but I learned. I became a master of this craft. And everyone can become a master, if he/she is helped and works him/herself." [10, p. 294].

A. S. Makarenko was convinced that pedagogical skills can be brought to a high level of perfection, almost to the level of technology [10, p. 368]; "I am sure that in future pedagogical universities teaching and voice acting would be taught, as well as keeping posture techniques and rules of body language, together with art of face mimics, for without such training I can't imagine the work of an educator. Our pedagogical universities must resolutely restructure their programs. They must train well-prepared, competent technical teachers." [11, p. 399].

The eminent educator believed that more educated people should leave higher education institutions, regardless of the range of subjects chosen for teaching, and that students should receive not only professional education, but also special education during their stay in the educational institution.

A. S. Makarenko vowed for dialectical pedagogy, pedagogy of active education, and insisted that "a person should not be sculpted, but forged" [12, p. 243].

Makarenko's ideas were applied and developed by V. O. Sukhomlynskyi, who continued the development of the theory of pedagogical skills. The literary and pedagogical heritage of the most famous pedagogue-humanist of the XX century, honored teacher of the USSR, pedagogue-innovator and children's writer Vasyl Sukhomlynskyi attracts more and more attention of the scientific and pedagogical community every year. The legacy of this famous educator includes 48 monographs, more than 600 articles, 1500 works for children, which relate to various aspects of the development of formation and education of a man and his/her pedagogical skills. In his works "Unique man", "One hundred tips for teachers", "Pavlivska secondary school", "How to raise a real person", "Conversation with a young school principal" and many others, much attention is paid to the responsibility of a teacher to form a real person, citizen, patriot of the Motherland: "We are dealing with the most difficult, invaluable, most expensive thing in life – a person. From us, from our skills, mastery, art,

wisdom depends on his/her civic and intellectual face, his/her place and role in life, achieved happiness" [28, p. 420].

According to prominent educators, the concept of "pedagogical skills/pedagogical mastery" is closely related to the concept of "pedagogical art". There is a dialectical relationship between these two concepts. In the Ukrainian encyclopedia the following definition of "art" is found: "Art is one of the forms of social consciousness, an integral part of the spiritual culture of mankind, a specific practical and spiritual development of the world" [5]. Art is attributed to all forms of practical activity, when it is carried out skillfully, properly, appropriately not only in a technological but also in an aesthetic sense.

Art is always associated with human creativity in any field of activity, moreover, it especially concerns teaching.

Thus, K. D. Ushynskiy repeatedly emphasized that the educational activity of a teacher is, first of all, a creative process, an expression of art. He asserted: "Any practical activity that seeks to satisfy the highest moral and spiritual needs of a man in general, that is, those needs that belong exclusively to man and constitute only the features of his/her nature, is art. In this sense, pedagogy will, of course, be the first, highest of the arts, because it seeks to meet the greatest of the needs of man and humanity, his/her soul and body; and the eternally preceding ideal of this art is a perfect man" [34, p. 193].

The development of pedagogical theory as well as the design of pedagogical systems and the content of education of young generation can be successful due to a clear idea of the basis on which the future generations will be educated.

The pedagogical views and practical experience of the outstanding educator-humanist of the XX century V. Sukhomlynskyi deserve special attention in this aspect, for his ideas influenced and inspired the establishment of the principles of humanistic pedagogy.

From today's point of view, it is obvious that V. O. Sukhomlynskyi was able to rise to the level of world philosophy and pedagogical thought. Based on the ideas of the great humanist thinkers of the past and the sources of public education, he formulated a concept that has a universal character, based on objective laws and patterns. V. O. Sukhomlynskyi placed the individual at the center of the educational process. The basis of his concept is respect and trust in the individual, recognition of his/her uniqueness and personal choice. One of the most important concepts of his approach to teaching indicated a human being as a unique biosocial complex with his/her specific properties and traits.

V. O. Sukhomlynskyi saw the humanism of teaching and education in personal orientation, in creating conditions aimed at developing the creative individuality of each

student; moreover, he considered the man the highest value, thus education was not just the means of overcoming all kinds of alienation in the absence of contempt for differences in biophysiological and mental capabilities of an individual.

In the same humanistic and moral direction V. O. Sukhomlynskyi considered the activities of the teacher. Also, the mission of the teacher, from his point of view, is to be the creator of children's happiness, the doctor and the healer of children's souls.

The great humanist calls the feeling of love for a child the flesh and blood of an educator as a force capable of influencing the spiritual world of another person, which is why he states the following: a teacher without love for a child is like a singer without a voice, a musician without hearing, a colorblind painter.

V. O. Sukhomlynskyi considered the absence of anthropology as the main subject in the curricula of higher education institutions a great flaw of the entire educational system. He argued that all the time spent in schools and institutions of higher education, knowledge of the world around him/her (student) must consist of the knowledge of a man. He played an important role in pedagogical communication, thus, in his opinion, the communicative culture of the teacher is extremely important. It is manifested in the teacher's compliance with the norms of language, as well as the ability to logically, clearly, appropriately and aesthetically express his/her opinion depending on the style of speech and situation. He considered the word to be the most important tool of a teacher: "Rich language is a rich spiritual world, a developed sense of the beauty of the word – a high moral culture" [28, p. 96]. V. O. Sukhomlynskyi emphasized that the word of a teacher should be accurate, precise, meaningful and emotional.

Professional speech of an educator is an indicator of his/her level of education, general culture, intelligence. The teacher's words should carry the energy of his/her feelings and experiences.

V. O. Sukhomlynskyi made high demands on the personality of the teacher, as well as on his/her personal traits, knowledge and life experience. Thus, according to his beliefs, a teacher should be an authority for a child, and by authority he meant the constant spiritual communication of the teacher and child, the interpenetration of the world of thoughts, feelings, experiences of each other. In this regard, he wrote: "The most important source of educating the feelings of the teacher is a multifaceted emotional relationship with children in a friendly team, where the teacher is not only a mentor but also a friend, comrade." Harmonious fusion of two functions of pedagogical work, the ability to think about different things and analyze the complex learning process from different angles – this is one of the most difficult areas of

pedagogical skills, diving into which, in his deep conviction, brings the happiness of creativity. [31, p. 419].

Pedagogical creativity is specific phenomenon, for its object and result comprise the creation of personality, its spirituality, the transformation of scientific truths into a living experience of creative work. Therefore, according to V. O. Sukhomlynskyi, it's considered to be the most difficult sphere of contact between science and practice. The discovery made by scientists, when it comes to life in human relationships, in a living burst of thoughts and emotions, the movement of thoughts appears to the teacher as a difficult task that can be solved in many ways, and in choosing a way to embody theoretical truths in living human thoughts and emotions lies the creative work of the teacher [31, p. 402]. The most complicated thing in pedagogical activity is diving into the complex spiritual world of man. Thus, creativity in pedagogical work is, first of all, a person's knowledge, his/her enthusiasm for both versatility and inexhaustibility.

There is neither constant pedagogical pattern for a creative educator, nor single method, which would be applied equally to all students.

The ideas of pedagogical skills and mastery, which for many centuries were nurtured by leading scientists, were implemented in Poltava V. H. Korolenko Pedagogical Institute. Here, for the first time in the history of higher education in Ukraine, pedagogical skills and mastery were introduced as a separate subject. The founder and inspirer of master teacher training was Ivan Andriiovych Ziaziun – a creative, talented person, who in 1975-1990 held the position of rector of this institute. The results of I. A. Ziaziun's research are reflected in his work "Pedagogy of good: ideals and realities: scientific and pedagogical manual".

The Ukrainian Scientific School of Pedagogical Skills is another example of the devotion of the scientific leader, academician I. Ziaziun to this gracious and vital idea, which manifested itself in the creation and introduction of pedagogical skills and mastery in training courses, as well as the opening of departments of pedagogical skills in all pedagogical institutes. In his textbook "Pedagogical mastery" gives a definition of pedagogical skills. Pedagogical mastery is a set of personality traits that provides self-organization of a high level of professional activity on a reflective basis [24, p. 25].

Elements of pedagogical mastery

Humanistic orientation:	Professional competence:	Pedagogical abilities	Pedagogical technique
Dominant on development of a student	Complex knowledge (subject of pedagogy, psychology, methods)	Communicativeness	External

*Pedagogical mastery of an educator of a higher education institution in the context of the 231
ideas of outstanding Ukrainian teachers*

See the personality, feel and help	Personal coloring of knowledge	Perceptiveness	Internal
To see a big goal in every small matter	Constant update of knowledge	Dynamic nature	
Growing personality via exploration, not forcing		Emotional stability	
Responsibility for own influence		Optimistic forecasting	
Feel the moral satisfaction of student development		Creativeness	

In our opinion, these ideas of outstanding educators can be applied in pedagogical activity of teachers of higher educational institutions. Certain components of pedagogical skills and mastery should be inherent in the modern educator.

Humanistic orientation is the most important characteristic of mastery (ideals, interests, value orientations). Humanistic orientation is identified as the focus on the personality of another person, the affirmation of the word and work of the highest spiritual values, moral norms of behavior and relationships. This is a manifestation of the teacher's worldview, his/her value attitude to pedagogical reality, its purpose, content, means, subjects of activity.

The pedagogical orientation of the personality of each teacher is multifaceted, thus it consists of value orientations: *for oneself* – self-affirmation (in order to see in oneself a qualified, demanding, real educator); *for the means of pedagogical influence* (when the most important thing for the teacher is the program, which includes activities, ways of presenting them); *for the applicant of higher education* (students' community in current conditions – adaptation); *for the purpose of pedagogical activity* (to help the student in development – humanistic strategy). For the highly qualified teacher, the leading focus is on the main goal with the harmonious coherence of all others: the humanization of activities, decent self-affirmation, the appropriateness of means, taking into account the needs of students. Humanistic orientation as an overriding task in the daily work of the master always determines his/her specific tasks. The basis of a teacher's pedagogical skills is *professional competence*. The educator's knowledge is directed, on the one hand, to the subject he/she teaches, and, on the other one - to students, whose psychology he/she must know well enough. During the pre-lesson preparatory stage, the teacher considers its content, methodology, takes into account the peculiarities of students' perception, their capabilities. Thus, the content of professional competence is the knowledge of the subject, methods of teaching, pedagogy and psychology. An important feature of professional pedagogical knowledge is its complexity, which requires teacher's ability to

synthesize material for successful solving of pedagogical problems, analysis of pedagogical situations that necessitate understanding of the psychological essence of phenomena, the choice of means of interaction. The solution of each pedagogical problem actualizes the whole system of pedagogical knowledge of the educator, which is manifested as a whole. The teacher's knowledge is not a sum, but a personally colored conscious system of knowledge, skills and abilities where there is a place for one's own assessments and critical views. The main thing in life is not the knowledge itself, but the harmony that determines a person, his worldview and ability to apply them.

On the basis of professional knowledge, pedagogical consciousness is formed, which contains the principles and rules that are the foundation of the actions of an educator. Each teacher develops these principles and rules while processing his/her own experience, but it is possible to comprehend and understand them only with the help of scientific knowledge that needs to be systematically supplemented. It should be noted that the difficulty of acquiring professional competence by a teacher is that it must be formed simultaneously at all levels: methodological, theoretical, practical, technological, thus it requires a developed professional thinking, the ability to select, analyze and synthesize the acquired knowledge in achieving the pedagogical goal, as well as to imagine the technology of their application.

However, the speed of acquiring skills and mastery is not regulated only by the accumulation of professional knowledge. Individual prerequisites for successful activity, stimulators of professional growth (the ability to teach) must be taken into account, for they depend on the peculiarities of the mental processes that contribute to successful pedagogical activities. The analysis of pedagogical abilities has been carried out within the basic research. In our opinion, the general ability that unites all the major ones is most precisely defined by V. O. Sukhomlynskyi: it is a sensitivity to the person who is growing, his/her personality that is being formed. Based on research, we can identify the following major groups of prerequisite abilities of successful teaching: communicative, perceptual, organizational, constructive, gnostic, emotional, optimistic forecasting, creative.

An important element of the teacher's pedagogical mastery is pedagogical technique. Pedagogical technique is identified as the ability to use the psychophysical apparatus as a tool of educational influence; these are methods of self-control (their body, mood, speech, attention and imagination) and methods of influencing others (verbal and nonverbal means).

A high level of pedagogical skills and mastery brings a new quality to the work of the teacher: a professional position is formed, which accumulates the highest level of focus, knowledge and willingness to act; developed knowledge becomes a tool for self-analysis and

identification of reserves for self-enhancement; a high level of abilities stimulates self-disclosure of personality, and the improvement of pedagogical techniques – the search for a desired result, which matches the plan. According to scientists (A. S. Makarenko, I. A. Ziaziun, etc.), the criteria of a teacher's mastery are: expediency (by orientation), productivity (by results), dialogicity (by the nature of relations with students), optimality in the choice of means, creativity (according to the content of activity).

On April 20, 2011, the Presidium of the National Academy of Pedagogy of Ukraine approved the Concept of multilevel pedagogical education in Ukraine by V. P. Andrushchenko and I. A. Ziaziun, which featured five substantiated key provisions as well as the ways of their realization:

1. Improvement of the content of education and the organization of the educational process in order to develop personal pedagogical skills as a system of pedagogical competencies and creativity of the main subject of pedagogical action – the educator;
2. Strengthening the connection between pedagogical education and basic applied science;
3. Improvement of the structure and quality of training and retraining educators;
4. Introduction of multilevel system of sustainable pedagogical education, optimization of pedagogical education institutions;
5. Provision of social and pedagogical support for students, increase in the prestige of pedagogical work.

In modern education, a competency-based approach to assessing the professional growth of a teacher is implemented. The competency approach is a focus on uniform requirements for educational standards in Europe. If until recently the concepts of "competence" and "competency" in domestic pedagogy were sometimes used as synonyms, now the meaning of these concepts is differentiated. In our opinion, the relationship between the concepts of "competence", "competency", "readiness", "skill", "professionalism" in relation to the teacher is as follows: competence → competency → readiness → skill → professionalism. [6]. Competence can be considered as a range of issues in which a person should be aware; as a range of spheres and areas of activity; as experience gained and applied; information resource; particular field of knowledge; a social requirement to prepare a person for a specific field of activity. The concept of competency is narrower than the competence, thus key competence includes a number of competencies. Readiness for pedagogical activity includes pedagogical orientation, pedagogical abilities and a number of competencies (pedagogical, professional, methodical, life, etc.). Pedagogical mastery is the result of

experience and intensive work of each teacher. This is the highest level of pedagogical activity. Pedagogical ideas of prominent Ukrainian scientists and teachers are a big step forward in the development of national education, upbringing and education of the younger generations.

Conclusions

The analysis of the pedagogical heritage of outstanding Ukrainian educators is the basis for further research of professional growth of teachers of higher education institutions in the following areas:

1. Study and analysis of the history of formation of scientific pedagogical schools of outstanding Ukrainian educators;
2. Scientific substantiation of systematic study of pedagogical heritage as a modern resource for improving the professional training of teachers;
3. Development of modern forms and methods of pedagogical activity of teachers of higher education;
4. Improving curricula for studying the history of pedagogy in institutions of higher education.

References

1. Bull H. O. About psychological bases of formation of readiness for professional work // Psychological and pedagogical problems of professional education. – K., 1994. – P. 98-100.
2. Barbyna Ye. S. Formation of teacher pedagogical skills in the system of continuous pedagogical education. – K., 1997. – 153 p.
3. Butenko V. H. Aesthetic guidelines of pedagogical work // Ethnoaesthetics of teacher's work. – K., 1995. – P.7-12.
4. Butenko V. H. Formation of pedagogical skills of the teacher. – K., 1991. – 72 p.
5. Large explanatory dictionary of the modern Ukrainian language / Edit. by V. T. Busel. - K .: Perun, 2009. - 1736 p.
6. Vitvytska S. S. Theoretical and methodological principles of pedagogical training of masters in terms of higher education. Monograph - Zhytomyr: "Polissia", 2015. - 416 p.
7. State National Program "Education" (Ukraine XX1 century). - K., 1994. - 61 p.
8. Ziaziun I. A. Pedagogy of good: ideals and realities: Sien.-method, manual. - K .: JAPS, 2000. - 312 p.

9. Maiboroda V. K. Creative personality of a teacher in the pedagogical heritage of V. O. Sukhomlynskyi // Native school. - 1993. - № 9. - P. 33-34.
10. Makarenko A. S. Some conclusions from my pedagogical experience / Makarenko A. S. Pedagogical works: in 8 vols. Vol. 4. - M.: Pedagogy, 1984. - P. 236-369.
11. Makarenko A. S. About education. - M.: Publishing house polit. Literature, 1990. - 415 p.
12. Makarenko A. S. Pedagogical works: in 8 volumes. T. 3. - M.: Pedagogy, 1984. - P. 196-243.
13. Makarenko A. S. Pedagogical works: in 8 volumes - M.: Pedagogy, T. 4. - 1984. - P. 236-369.
14. Makarenko A. S. Pedagogical works: in 8 volumes. T. 4. - Moscow: Pedagogy, 1984. - P. 236-369.
15. Makarenko A. S. Essays in 7 volumes, Vol. 7., M.: Publishing House of the Academy of Pedagogical Sciences of the RSFSR. - 1960. - 575 p.
16. Makarenko AS Essays in 7 volumes, Vol. 5., M.: Publishing House of the Academy of Pedagogical Sciences of the RSFSR. - 1960. - 558 p.
17. Makarenko A. S. Pedagogical works: in 8 volumes - M.: Pedagogy, T. 4. - 1984. - P. 236-369.
18. Makarenko A. S. Essays in 7 volumes. - Moscow: Publishing House of the Academy of Pedagogical Sciences of the RSFSR, Vol. 7. - 1960. - 575 p.
19. Makarenko A. S. Pedagogical works: in 8 volumes - M.: Pedagogy, Vol. 3. - 1984, -P. 196-243.
20. Makarenko A. S. Essays in 7 volumes. - Moscow: Publishing House of the Academy of Pedagogical Sciences of the RSFSR, Vol. 5. - 1960. - 558 p.
21. National doctrine of education development of Ukraine in the XXI century // Education of Ukraine - 2000. - № 33. - P. 4-6.
22. Fundamentals of pedagogical skills / I. A. Ziaziun et al. - Moscow: Education, 1989. - Ch. 1-3. - P. 126-134.
23. Pedagogical skill of the teacher: textbook / ed. by prof. V. M. Hryniova, S. T. Zolotukhina. - View. 2nd, ed. and ext. - Kharkiv: "OVS", 2006. - 224 p.
24. Pedagogical skills: textbook // I. Ziaziun, L. V. Kramushchenko, I. F. Kryvonos, etc.; for order. I. A. Ziaziun. - 3rd edition ext. and rework. - K.; SPD Bogdanova A. M., 2008. - 376 p.

25. Pylypchuk V. V. Development of pedagogical skills of teachers in subject teaching methods. - K. 2007. - P. 127-140.
26. The problem of the teacher's personality and his/her professional training: coll. Science. works / Ed. M. B. Yevtukha. - K., 1994. - 116 p.
27. Stelmakhovych M. H. Pedagogy of life. - K.: Knowledge, 1980. - 48 p.
28. Sukhomlynskyi V. O. Selected works. - Vol. 2. – K.: Soviet school, 1976. – 657 p.
29. Sukhomlynskyi V. O. One hundred tips for teachers / V. O. Sukhomlynskyi. - K.: Ed. school, 1988. - 304 p.
30. Sukhomlynskyi V. O. Conversation with a young school principal. Conversation 1. The main problems of creative work of the teacher // Selected. works in 5 volumes - K., 1976. - T. 4. – P. 414-446.
31. Sukhomlynskyi V. O. Selected works in 5 volumes. Glad. School, 1977. - Vol. 4. - P. 400-443.
32. Sukhomlynskyi V. O. Unique man // Select. works in 5 volumes - K., 1976. – Vol. 5. - P. 85-102.
33. Tyschuk L. I Creativity as a condition for personal development and improving the professional skills of teachers // Gifted child. - 2008. - № 6 - P. 19-25.
34. Ushynskyi K. D. Man as a subject of education. Attempt of pedagogical anthropology [Text] / KD Ushynskyi // Selected pedagogical works: in 2 volumes - K.: Rad. School, 1983. - Vol. 1: Theoretical problems of pedagogy. - P. 192–471.

Lesia Yashchuk¹

ORCID ID: <https://orcid.org/0000-0003-4314-0807>

¹ Zhytomyr Ivan Franko State University

MALE NAMES IN VOLYN LITERATURE HERITAGE SITES OF THE 16TH CENTURY

Summary

The article is devoted to the study of word-formative variants of male Christian names of the subjects of the 16th century. Yampil, Volyn Voivodeship and adjacent villages. The source of the research is one of the documents of the collection "Ukrainian everyday life of the early modern era" (2014). It was found that the analyzed masculine names consists generally of Christian full, truncated, truncated suffixal and suffixal variants. Among the noun word-formative variants, most suffix derivatives with the formant *-k(o)*. The researched document records the names of *Hakhno* and *Horpysh*, not certified by researchers of Ukrainian historical anthroponymy of the 16th –17th centuries.

Keywords: anthroponym, name, derivative, word-formative variant.

Introduction

Ukrainian historical anthroponymy has been the object of scientific interests of many linguists: L. Humetska, M. Demchuk, I. Yefymenko, R. Kersta, O. Nedilko, R. Ostash, S. Pakhomova, I. Sukhomlyn, I. Farion, V. Shevtsova, P. Chuchka, M. Khudash and others. Polish scholars also made a significant contribution to its development, in particular, I. Mytnik thoroughly studied the anthroponymy of Volhynia in the 16th-18th centuries, analyzing 20,000 names of gentry, burghers and peasants, including 234 Ukrainian and 130 Polish male Christian and Slavic personalities names [7, p. 19–131].

Aim, subject and research methods

The purpose of our research is to analyze the word-formative variants of male Christian names of the subjects of the 16th century. Yampil, Volyn Voivodeship and adjacent villages. The source of the study is one of the documents of the collection "Ukrainian everyday life of the early modern period" (2014), which contains inventory of the city of Yampil and adjacent villages with a register of their subjects (Yampil, 1586) [4, p. 492–496].

For the period of the sixteenth and eighteenth centuries. calendar names of Byzantine origin in various phonetic, morphological and word-formative variants are more than 90% [6, p. 607]. The analyzed noun has the same statistics: in the composition of 194 two-lexeme anthroponymic formulas in the position of the first component there are only 5 Slavic names and their derivatives: *Bohdan* Soky(r)ka (UPRD, p. 495); *Bory(s)* Stary(y) (UPRD, p. 496); *Vo(y)tko* Skry(p)ka (UPRD, p. 494); *Zhda(n)* Muslenia (UPRD, p. 496), *Zhda(n)ko* (UPRD, p. 495).

Among Christian names, a significant part of the full variants, which have undergone phonetic adaptation on the basis of Ukrainian language: *Vakula* Kunashevy(ch), *Ha(v)rylo* Ty(n)chy(k) (UPRD, p. 494), *Dymy(d)* So(ts)ky(y) (UPRD, p. 495), *Ka(r)pb* Yvanovy(ch) (UPRD, p. 494), *Kono(n)* (UPRD, p. 495), *Maksy(m)* Re(z)nyk (UPRD, p. 494), *Mykyta* Soke(r)ka (UPRD, p. 495), *Nyko(n)* (UPRD, p. 496), *Omelian* (UPRD, p. 494), *O(kh)rem* (UPRD, p. 496), *Pa(n)krat* (UPRD, p. 495), *Pry(s)* Stary(y) (UPRD, p. 496) < *Fyrs* (Kersta, p. 130), *Roma(n)* Zhy(d)chenia, *Severy(n)* boiary(n) (UPRD, p. 496), *Si(rhiev)* (UPRD, p. 495), *Khoma* Re(z)nyk (UPRD, p. 494). It is known that the asemantics and individualization of Christian names contributed to the transfer of all ways of East Slavic word formation, so almost every basic name (and popular ones in particular) quickly "overgrown" with many derivatives [6, p. 597, 607]. In the analyzed anthroponyms there are truncations: apocopy *-yi*: *A(n)to(n)* pastu(kh) (UPRD, p. 495), *Pa(r)khom* Svytlo (UPRD, p. 494), *Prota(s)* (UPRD, p. 495), according to R. Kersta, of the 86 names on it, only 34 do not have this suffix [2, p. 71]; *Fe(d)* *Shut*, *Ma(n)* Ko(r)zhenia (UPRD, p. 495) < *Manuil*, *Toman* (Chuchka I, p. 362) or < *Manislaw* (Demchuk, p. 59, 77; Farion, p. 236); syncopation: *Ko(r)ny(y)* Ku(sh)ny(r) (UPRD, p. 494) < *Kornylyi* (Kersta, p. 117), *Ma(r)ty(n)* (UPRD, p. 495) < *Martynian* (Kersta, p. 119); apheresis: *Sy(d)or* (UPRD, p. 496) < *Isydor* (Kersta, p. 115); combination of different types of truncation: *Pana(s)* Shashchenia (UPRD, p. 495) < *Afanasyi* (Kersta, p. 105). Anthroponyms *Eremy(y)* Lytvyn (UPRD, p. 495) < *Yeremyia* (Kersta, p. 113), *Malafe(y)* (UPRD, p. 495) < *Malakhyia* (Kersta, p. 119) formed by converting the suffix *-yi(a)* на *-yi*.

Truncated suffix noun variants are represented by single examples: *Ha(kh)no* Yushchnia (UPRD, p. 495) – a derivative of *Hapon* < *Ahafon* or some name on *Ha-*; this variant is not recorded among male names of the 16th century, in the noun Volyn of the 16th–18th centuries. and in the "Register of the Zaporozhian Army of 1649" [2, p. 107; 7, p. 34–35; 3, p. 513]; *Mykhno* Otamanenia (UPRD, p. 495); *Sa(kh)no* Rude(b)chenia (UPRD, p. 494) < *Safonii*, *Sofonii* or some other name on *Sa-* (Chuchka I, p. 504) or < *Oleksandr* (Mytnik, p. 75); *My(ts)* (UPRD, p. 496) correlated with *Mykhailo* (Chuchka II, p. 387), *Mykola* (Mytnik, p. 59); *Sta(s)* Lia(kh) (UPRD, p. 496) – Slavic suffix formation from a calendar name *Євсmaxiū* through the stage of options *Ostap*, *Stakh*, rapprochement with the name *Stanislav* came later (Chuchka II, p. 331).

Research results

Most nouns have suffixal variants of their own personal Christian names. Suffixation of proper names, as well as their truncation, has its own peculiarities: a) along with the suffixes used to create appellations, specific noun suffixes are often used; b) suffixes can be attached to full names and their truncated variants; c) the emotional load of suffixes is quickly "weathered" [5, p. 59].

Most of the word-formative variants of the Christian names studied have a name *Mykhailo*: *My(s)ko* Shve(ts) (UPRD, p. 494), *Mykhno* Otamanenia, *Myshu(y)ko* (UPRD, p. 495), *My(ts)*, *Mytsy(k)* (UPRD, p. 496). Three variants are attested in the names *Hryhoryi*, *Yvan*, *Lavryn*, *Petro*, *Fedor*, *Yan* / *Yvan*, *Yarmola*: *Hryne(ts)* Velyky(y) (UPRD, p. 495), *Hrytsko* Smelchenia (UPRD, p. 494), *Hry(sh)ko* boiary(n) (UPRD, p. 496); *Iva(n)* Tanchy(k) (UPRD, p. 494), *Ivashko* Pry(s)tralenia (UPRD, p. 494–495), *Ivaniu(k)* Zale(n)sky(y) (UPRD, p. 496); *Lavry(n)* Kova(l), *La(v)ry(k)* (UPRD, p. 495), *La(v)rosh* Koshy(ch) (UPRD, p. 494); *Pe(t)r* Brasymenia (UPRD, p. 495), *Pe(t)ra(sh)* Borysenia (UPRD, p. 496), *Pe(t)ro(sh)* Ho(n)cha(r) (UPRD, p. 495); *Fedo(r)* Kryvokhyzhy(ch) (UPRD, p. 496), *Fedo(r)ko* Ra(st), *Fe(d)* Shut (UPRD, p. 495); *Ya(n)* Lia(kh) (UPRD, p. 494), *Ya(n)ko* Ho(r)dohacha (UPRD, p. 495), *Ya(s)ko* Bo(n)da(r) (UPRD, p. 494); *Ya(r)mola* Elets (UPRD, p. 494), *Ya(r)mak*, *Ya(r)mo(sh)* Kudryk (UPRD, p. 495).

The suffix **-k(o)** is noted to be the most productive among the formants. The specified formant is occasionally joined to full names: *Fedo(r)ko* Ra(st), *Ya(n)ko* Ho(r)dohacha (UPRD, p. 495). The most common creative bases of derivative variants on **-k(o)** are truncated names: *Bla(zh)ko* (UPRD, p. 494); *Yhmatko* Mo(s)ka(l); *Kly(m)ko* Shele(st); *Kuzko* Stary(y) (UPRD,

p. 495); *La(z)ko* (UPRD, p. 496) < *Laz* < *Lazar* (Farion, p. 225); *Ony(s)ko* Skalenia; *Pa(n)ko* Ko(r)zh (UPRD, p. 495) < *Pa(n)* < *Panteleimon* (Mytnik, p. 66–67); *O(s)tapko* Nalu(zh)ny(y) (UPRD, p. 494); *Senko* Ko(r)zhenia (UPRD, p. 495); *Kha(r)ko* Mo(s)ka(l) (UPRD, p. 494) < *Kharyton* or *Zakharyia* (Kersta, p. 137; Chuchka I, p. 584); *Khy(l)ko* Kryvokhyzhenia (UPRD, p. 495) < *Khy(l)*, which can be a truncated variant of names with an initial *Fyl-* (*Fylymon*, *Fylypp*, *Fylofei*) or, according to P. Chuchka, < *Rakhyl*, *Fil* (Chuchka I, p. 585); *Yu(r)ko* (UPRD, p. 495); *Yu(s)ko* Pa(r)pury(ch) (UPRD, p. 496) < *Yosyf* (Kersta, p. 76–77, 115) abo < *Yukhym*, *Yefym* (Mytnik, p. 45) and other.

This formant is combined with truncated suffix variants: *Ma(s)ko* Pro(s)ku(r)ka (UPRD, p. 495) < *Mas* < *Maksym*, *Manuil* (Triiniak, p. 206, 209); *Ya(s)ko* Bo(n)da(r) (UPRD, p. 494), compare *Yas* (Reiestr, p. 516) < *Ivan* (Kersta, p. 114) or < *Yakov* (Farion, p. 322) or < *Ivan*, *Yakov*, *Yan* (Triiniak, p. 416); *Da(ts)ko* (UPRD, p. 495) < *Dasyi*, which from the eighteenth century begins to correlate with *Danylo*, *Bohdan*, *Yordan*, *Davyd* (Chuchka I, p. 187); *Ste(ts)ko* Kotsapy(r)ka (UPRD, p. 495); *Ya(ts)ko* My(sh)chenia (UPRD, p. 496), compare *Yats*, 1569 < *Yakov*, *Yakym* (Mytnik, p. 41); *Yvashko* Pry(s)tralenia (UPRD, p. 494–495); *La(sh)ko* Shve(ts) (UPRD, p. 495) – derivative of Christian names *Vlas*, *Yevlasyi*, *Yevlampyi* (Mytnik, p. 83) or < *Lash* < *Lazar*, *Blazhko* or truncate names [*Vasy*]lashko, [*Iev*]lashko, [*Mykhai*]lashko and other (Chuchka I, p. 328); *Le(sh)ko* E(r)moshenia, *Oleshko* (UPRD, p. 495) < *Oleksandr*, *Oleksei*, *Yelysei* (Kersta, p. 104, 101); *Pa(sh)ko* Pro(s)kurka (UPRD, p. 495) < *Pash* < *Pavlo* or *Pakhomii*, *Pafnutii* (Chuchka I, p. 434). The base is also suffixed nominal derivatives: *A(n)dru(sh)ko* Ho(n)cha(r); *A(r)tyshko* Svytlo (UPRD, p. 494); *Kury(sh)ko* Tyrakalo (UPRD, p. 495); *Mele(sh)ko* Ha(y)duk (UPRD, p. 495), compare *Melekh*, 1570 < *Meletyi*, *Omelian* (Mytnik, p. 57); *Tereshko* (UPRD, p. 495), compare *terech*, 1570 < *Terentyi* (Mytnik, p. 79); *Yaroshko* Mytsyk (UPRD, p. 495), *Jarosz-* < *Yarofei*, *Yarema*, *Yaroslav* (Mytnik, p. 44). The suffix **-k(o)** can be attached to different variants of the same name: *Hrytsko* Smelchenia (UPRD, p. 494), *Hry(sh)ko* boiary(n) (UPRD, p. 496); *My(s)ko* Shve(ts) (UPRD, p. 494), *Myshu(y)ko* (UPRD, p. 495).

Other suffixes are less productive, in particular, available variants with formants **-ets**, **yk**, **-uk**: *Avdiee(ts)* (UPRD, p. 495), *Hane(ts)* Kryvokhyzhy(ch) (UPRD, p. 496), *Hryne(ts)* Velyky(y), *Yakove(ts)* Ha(y)du(k) (UPRD, p. 495); *Dmytryk* Ko(r)nyenia (UPRD, p. 494), *La(v)ry(k)* (UPRD, p. 495), *Mytsy(k)* (UPRD, p. 496), *Protsyk* (UPRD, p. 495), *Trushy(k)* Vorozhy(n)ko (UPRD, p. 494) < *Trush* < *Tryfon* (Kersta, p. 128) or < *Trufan*, *Trukhan* < *Mytrofan* (Triiniak, p. 365–366; Chuchka I, p. 560); *Ivaniu(k)* Zale(n)sky(y) (UPRD, p. 496). Among the suffixes with the component **-sh-** the suffix **-osh** is most often used in combination

with full and truncated bases of names: *La(v)rosh* Koshy(ch) (UPRD, p. 494), *Pe(t)ro(sh)* Ho(n)cha(r), *Tymo(sh)*, *Ya(r)mo(sh)* Kudryk (UPRD, p. 495); occasionally **-ush**, **-ash**, **-ysh**: *Bartush* Kravets (UPRD, p. 494), compare *Bartosz*, 1563 < *Bartłomiej* (Mytnik, p. 107–108); *Tymush* Liesota (UPRD, p. 495); *Pe(t)ra(sh)* Borysenia (UPRD, p. 496); *Ho(r)pysh* Mytsevy(ch) (UPRD, p. 495), compare male name *Ahrypa* (Triiniak, p. 22), in Volyn female name *Horpina* 1759, 1762 < *Ahrypyna*, *Horpyna* (Mytnik, p. 132); *Horpysh* variant is not recorded in the studies of R. Kersta, I. Mytnik, R. Ostash [2, p. 132; 7, p. 22–23; 3, p. 513].

Single examples of names with suffixes **-ak**, **-k(a)**, **-yn(a)**, **-ys**, **-ut(a)**: *Ya(r)mak*, *Lu(ch)ka* Zamrybo(r)shch, *Manyna* Kova(l) (UPRD, p. 495), *Matys* Svydersky(y) (UPRD, p. 494), *Vasuta* Mo(s)ka(l) (UPRD, p. 495).

Conclusions

Thus, the analyzed masculine noun consists generally of Christian full, truncated, truncated suffixal and suffixal variants. Among the noun word-formative variants, most suffix derivatives with the formant **-k(o)**. The researched document records the names *Hakhno* and *Horpysh*, which are not certified by researchers of Ukrainian historical anthroponymy of the 16th–17th centuries.

Literature

1. Гумецька Л. Л. Нарис словотворчої системи української актової мови XIV–XV ст. Київ : Вид-во АН УРСР, 1958. 298 с.
2. Керста Р. Й. Українська антропонімія XVI ст.: Чоловічі іменування. Київ : Наукова думка, 1984. 152 с.
3. Осташ Р. І., Осташ Н. Л. Індекс власних особових імен. *Реєстр Війська Запорозького 1649 року: Транслітерація тексту / підгот. до друку: О. В. Тодійчук (голов. упоряд.), В. В. Страшко, Р. І. Осташ, Р. В. Майборода*. Київ : Наукова думка, 1995. С. 513–516.
4. Українське повсякдення ранньомодерної доби : збірник документів. Вип. 1: Волинь XVI ст. / упоряд.: В. В. Безпалько, М. Б. Висотін, І. О. Ворончук, М. М. Кучерук, Ю. І. Чубик. Київ : «Фенікс», 2014. 776 с.
5. Чучка П. П. Антропонімія Закарпаття (Вступ та імена) : конспект лекцій. Ужгород, 1970. 103 с.

6. Чучка П. П. Розвиток імен і прізвищ. *Історія української мови: Лексика і фразеологія* / редкол.: В. М. Русанівський та ін. Київ : Наукова думка, 1983. С. 592–620.
7. Мутник І. *Antroponimia Wołunia w XVI–XVIII wieku*. Warszawa, 2010. 412 s.

List of abbreviations

Demchuk – Демчук М. О. Слов'янські автохтонні особові власні імена в побуті українців XIV–XVII ст. Київ : Наукова думка, 1988. 172 с.

Kersta – Керста Р. Й. Українська антропонімія XVI ст.: Чоловічі іменування. Київ : Наукова думка, 1984. 152 с.

Reiestr – Осташ Р. І., Осташ Н. Л. Індекс власних особових імен. *Реєстр Війська Запорозького 1649 року: Транслітерація тексту* / підгот. до друку: О. В. Тодійчук (голов. упоряд.), В. В. Страшко, Р. І. Осташ, Р. В. Майборода. Київ : Наукова думка, 1995. С. 513–516.

Triiniak – Трійняк І. І. Словник українських імен / відп. ред. І. М. Желєзняк. Київ : «Довіра», 2005. 509 с.

UPRD – Українське повсякдення ранньомодерної доби : збірник документів. Вип. 1: Волинь XVI ст. / упоряд.: В. В. Безпалько, М. Б. Висотін, І. О. Ворончук, М. М. Кучерук, Ю. І. Чубик. Київ : «Фенікс», 2014. 76 с.

Farion – Фаріон І. Д. Українські прізвищеві назви Прикарпатської Львівщини наприкінці XVIII – початку XIX століття (з етимологічним словинком). Львів : Літопис, 2001. 371 с.

Chuchka I – Чучка П. П. Прізвища закарпатських українців: історико-етимологічний словник. Львів : Світ, 2005. 704 + XLVIII с.

Chuchka II – Чучка П. П. Слов'янські особові імена українців: історико-етимологічний словник. Ужгород : Ліра, 2011. 432 с.

Mytnik – Мутник І. *Antroponimia Wołunia w XVI–XVIII wieku*. Warszawa, 2010. 412 s.

Wiesław Zawadzki¹, Mariusz Kozikowski²

¹ ORCID ID: <https://orcid.org/0000-0003-3849-642X>

¹ Wyższa Szkoła Agrobiznesu w Łomży

² IPA Sekcja w Łomży

TASKS OF THE MILITARY POLICE IN THE AREA OF STATE SECURITY AND PUBLIC ORDER

ZADANIA ŻANDARMERII WOJSKOWEJ W OBSZARZE BEZPIECZEŃSTWA PAŃSTWA I PORZĄDKU PUBLICZNEGO

Summary

The military police is part of the armed forces of the Republic of Poland, it is not a kind of armed force, it is an independent, specialized formation. In fact, it is a police-military formation. Unlike some military police in the world, the Polish Military Police focuses on the military, not the civilian part of society. Participation of the Military Police of the Armed Forces of the Republic of Poland in the state security system as a military police formation, it constitutes an important link in its overall functioning.

Keywords: gendarme, Military Police, military discipline, military sphere, non-military sphere.

Streszczenie

Żandarmeria wojskowa jest częścią sił zbrojnych Rzeczypospolitej Polskiej, nie stanowi rodzaju sił zbrojnych, jest samodzielną, wyspecjalizowaną formacją. W istocie jest to formacja o charakterze policyjno-wojskowym. W odróżnieniu od niektórych policji wojskowych w świecie, polska Żandarmeria Wojskowa koncentruje się na wojsku, a nie cywilnej części społeczeństwa. Udział Żandarmerii Wojskowej Sił Zbrojnych Rzeczypospolitej Polskiej w

systemie bezpieczeństwa państwa jako formacji o znamionach policji wojskowej stanowi istotne ogniwo w jego całościowym funkcjonowaniu.

Słowa kluczowe: żandarm, Żandarmeria Wojskowa, dyscyplina wojskowa, sfera militarna, sfera pozamilitarna.

Geneza powstania i zarys historyczny

Początki policyjnych formacji w armiach państw europejskich zauważalne są już w wiekach średnich. Od średniowiecza żandarmi stanowili na ogół straż przyboczną króla. Nie inaczej było w dziejach naszego kraju. Jednak na dobre służba ta wkroczyła na karty historii Polski dwa wieki temu, podczas wojen napoleońskich. Mimo epizodycznych form pojawiania się w Polsce formacji przypominających późniejszą żandarmerię (np. z okresu panowania Jana III Sobieskiego) żandarmerię z prawdziwego zdarzenia zawdzięczamy Napoleonowi, który wprowadził ją wraz z organizacją polskich oddziałów wojskowych na wzór francuski [5].

W związku z nierzadkim wówczas rozprężeniem w szeregach armii, spowodowanym zawieruchą wojenną, dochodziło często do naruszeń wojskowej dyscypliny. Ówczesnym władzom państwowym i dowódcom armii zależało zatem, aby odpowiednie służby czuwały nad praworządnością i zapobiegały pokusom destabilizacji i rozprężenia w szeregach wojska. Pierwsze, profesjonalnie zorganizowane pułki polskiej żandarmerii powstały na Litwie w 1812 r. W tym czasie Polska nie była obecna na mapie Europy, ale żołnierze polscy walczyli o niepodległość swojej ojczyzny u boku Napoleona. Od Francuzów polska policja wojskowa przejęła nie tylko model organizacyjny, ale również samą nazwę „żandarmeria”. Do zadań ówczesnej żandarmerii należało m.in. aresztowanie zbiegów, maruderów i włóczęgów, eskortowanie transportów, a nawet egzekwowanie podatków [6]. Władze Królestwa Polskiego – tworu państwowego powstałego po kongresie wiedeńskim i podporządkowanego Rosji, ale posiadającego znaczną autonomię, w tym armię- mimo niechęci do Napoleona, postanowiły formację utrzymać i organizować na wzór francuski. Dlatego też podczas powstania listopadowego żandarmi mogli dać dowód swego patriotyzmu i bohaterstwa w czynnej służbie w polu. To m.in. dzięki szarzy żandarmów pod dowództwem ppłk. Franciszka Sznajdego Polacy wślawnili się heroicznym działaniem w jednej z najbardziej znanych bitew powstania – 31 marca 1831 r. pod Dębem Wielkim. Tak narodził się etos żandarma, który strzeże dyscypliny i porządku, zwalcza nieprawidłowości i łamanie prawa wśród żołnierzy, a gdy zachodzi potrzeba, wspiera wojsko w czasie walk w polu.

Po upadku powstania represje rosyjskiego zaborcy dotknęły nie tylko polską ludność, ale także uderzyły w dotychczasowe przywileje ustrojowe, jakimi cieszyło się Królestwo Polskie. Wówczas zlikwidowano polskie wojsko, co spowodowało, że z ówczesnego życia publicznego zniknęła także polska żandarmeria. Pozostało jedynie słowo „żandarm”, które na długie lata kojarzone było z powszechnie znieawidzonymi przedstawicielami carskiej policji politycznej. Tak jak całe wojsko polskie żandarmeria zawsze odradzała się podczas zrywów niepodległościowych. Potwierdzają to działania żandarmów także z czasów powstania styczniowego, kiedy to żandarmeria zwalczała zdrajców i przedstawicieli rosyjskiej administracji.

Formacji nie mogło zabraknąć także w procesie powstawania II Rzeczypospolitej – najpierw u boku Legionów Polskich, a następnie podczas wojny z Rosją Radziecką. Wtedy to żandarmeria zapobiegała dezercji w szeregach polskich wojsk, uniemożliwiała prowadzenia propagandy bolszewickiej. Często tworzyła swe struktury spontanicznie – tak było np. w Wielkopolsce, gdzie podczas powstania żandarmi czuwali nad sprawnym przejmowaniem władzy wojskowej z rąk pruskich i strzegli prawidłowego przebiegu procesu plebiscytowego. To w służbie żandarmerii powstańczej swoją karierę wojskową rozpoczynał późniejszy podróżnik i znany reportażysta, piewca polskich lotników z bitwy o Anglię – Arkady Fiedler. Bardzo chlubny rozdział żandarmeria zapisała w okresie II Rzeczypospolitej, kiedy to uchodziła za jedną z najbardziej prestiżowych i elitarnych formacji w przedwojennym wojsku. W jej szeregi przyjmowano wyłącznie osoby wywodzące się z rodzin o nienagannej opinii moralnej i propaństwowej postawie oraz – jak na warunki przedwojenne – gruntownie wykształcone [15].

Swoją renomę żandarmeria zawdzięczała też wysokiemu poziomowi kształcenia kadr wojskowych. Powstało wówczas w Grudziądzu Centrum Wyszukolenia Żandarmerii, gdzie gruntownie przerabiano nie tylko materiał ogólnowojskowy i specjalistyczny, w tym kodeks karny, kodeks postępowania karnego, kryminalistykę, ale też dbano o rozwój fizyczny i kulturalny żołnierzy.

Szkoleniu kadr żandarmerii poświęcano dużo uwagi i prowadzono je w sposób bardzo intensywny. Zasadniczym zadaniem wojska w okresie pokoju było szkolenie żołnierzy i przygotowanie armii do działań wojennych. Żandarmeria natomiast była powołana do spełniania roli organu bezpieczeństwa wykonującego swoje zadania również w czasie pokoju. Mimo specjalnego doboru kadry zawodowej i żołnierzy służby zasadniczej właściwe przygotowanie fachowe i polityczne odbywało się w okresie służby w żandarmerii. Tym

właśnie podyktowana była konieczność bardziej dokładnego i intensywnego szkolenia żołnierzy żandarmerii [13].

W czasie II wojny światowej żandarmi brali aktywny udział w kampanii wrześniowej 1939 r., gdzie obok standardowych zadań czasu pokoju, dbali o bezpieczeństwo ludności cywilnej, ratowali rannych, zapobiegali panice, konwojowali niemieckich jeńców. Czynnicy uczestniczyli w obronie Warszawy, aż do jej kapitulacji, ale także zapobiegali m.in. rozbojom oraz grabieżom sklepów i mieszkań. Wojenne losy żandarmów nie różniły się od losów żołnierzy innych formacji. Jednak to żandarmi szczególnie narażeni byli na niebezpieczeństwo na terenach zajętych we wrześniu 1939 r. przez Związek Radziecki. Żandarmi, obok policjantów, pracowników wywiadu i kontrwywiadu oraz strażników więziennych, figurowali na listach NKWD jako główni wrogowie Związku Radzieckiego [10]. W ręce sowieckiego aparatu terroru trafiali albo podczas wzięcia do niewoli po walce, albo po zarejestrowaniu się w sowieckich urzędach. Tę grupę kierowano na ogół do obozu w Ostaszkowie, a stamtąd do miejsca masowej kaźni w Miednoje. Ponadto ginęli w bezpośrednich starciach z wojskami sowieckimi lub byli rozstrzelani bez sądu zaraz po wzięciu do niewoli. Losy wielu wciąż są nieznanne. Szczególnie dramatyczne były dzieje przedwojennego Centrum Wyszkożenia Żandarmerii z Grudziądza. Jego kadra wraz z komendantem ppłk. Stanisławem Sitkiem wywieziona na wschód zginęła w Katyniu [13]. Liczba żandarmskich ofiar nie jest dokładnie znana. Statystyki radzieckie bowiem ujmowały ich wspólnie z policjantami. Z opublikowanych dotychczas „list katyńskich” wynika, że w tamtych okolicznościach zmordowano być może nawet 1/5 stanu korpusu oficerskiego przedwojennej żandarmerii [10].

Po klęsce wrześniowej żandarmi walczyli na wszystkich frontach II wojny światowej, a w ramach Polskich Sił Zbrojnych na Zachodzie, pod Tobrukiem i Monte Cassino. Cztery ordery *Virtutti Militari*, które przyznano żołnierzom żandarmerii tylko po bitwie pod Monte Cassino, niewątpliwie świadczą o męstwie i oddaniu żandarmów.

Żandarmeria była także obecna w okupowanym kraju – w strukturach Armii Krajowej. Miała swój udział w powstaniu warszawskim [7]. Wraz z zakończeniem II wojny światowej większość żandarmów podzieliło dramat Polskich Sił Zbrojnych na Zachodzie i los emigracji. W 1946 r. żandarmeria weszła w skład powołanego przez rząd brytyjski Polskiego Korpusu Przysposobienia i Rozmieszczenia, którego zadaniem była demobilizacja polskich wojsk w Anglii. Po jego rozwiązaniu w marcu 1949 r., na przeszło 40 lat żandarmeria zniknęła z życia publicznego. Po II wojnie światowej żandarmeria nie miała prawa istnieć na terenie Polski. Była to formacja, która w oczach ówczesnych władz stanowiła jedno z najbardziej jaskrawych wcieleń niepodległościowego wojska przedwojennej Rzeczypospolitej. Funkcje policyjne

wobec żołnierzy Wojska Polskiego w czasach stalinowskich sprawowali sami dowódcy oraz prokuratura wojskowa. Zaś zadania kontrwywiadowcze wypełniała zniechęcona z uwagi na swoją brutalność i łamanie prawa, Informacja Wojskowa. Po odwilży w 1956 r. i stopniowym oczyszczaniu korpusu oficerskiego armii PRL z żołnierzy radzieckich funkcje policji wojskowej aż do przełomu demokratycznego w 1990 r. przejęła powstała w 1957 r. Wojskowa Służba Wewnętrzna [8], odpowiedzialna przede wszystkim za bezpieczeństwo i dyscyplinę w wojsku. Wojskowej Służbie Wewnętrznej pierwotnie nadano bardzo ograniczone kompetencje. Formalnie miała odgrywać jedynie rolę prewencyjną i informacyjną. Szybko jednak różnorodne uwarunkowania doprowadziły do rozwinięcia jej działalności, w tym dodania pionu kontrwywiadowczego [7]. Przemiany organizacyjne w Wojskowej Służbie Wewnętrznej motywowano koniecznością zapewnienia skutecznej osłony kontrwywiadowczej sił zbrojnych, które były wyposażane w coraz bardziej nowoczesny sprzęt, owiany przez wiele lat tajemnicą. Wojskowa Służba Wewnętrzna składała się z następujących pionów tj. prewencji, dochodzeniowo-śledczego, kontrwywiadowczego oraz pionu tzw. Doboru, zajmującego się kwalifikowaniem żołnierzy do jednostek specjalnego przeznaczenia. Kierownictwo WSW wpływało również, poprzez wiedzę zdobytą metodami operacyjnymi, na kształtowanie polityki kadrowej i pośrednio na kierunki rozwoju Sił Zbrojnych. W pracy operacyjnej Wojskowej Służby Wewnętrznej posługiwało się metodami sprawdzonymi i stosowanymi w SB. Głównym źródłem informacji byli tajni współpracownicy (TW) oraz informatorzy (głównie żołnierze służby zasadniczej i pracownicy cywilni wojska) [8].

Przemiany demokratyczne po 1989 r., zapoczątkowały również lawinowe zmiany w Siłach Zbrojnych RP, włącznie z rozformowaniem aparatu partyjno-politycznego i Wojskowej Służby Wewnętrznej. Zaistniałe przeobrażenia w armii spowodowały również przywrócenie funkcjonowania Żandarmerii Wojskowej. Żandarmeria Wojskowa [18] w realizacji zadań sił zbrojnych RP uczestniczy jako wyodrębniona i wyspecjalizowana służba, podlegająca bezpośrednio Ministrowi Obrony Narodowej. Jest wojskowym organem porządkowym i wykonuje zadania należące do jej zakresu - zarówno na terytorium Rzeczypospolitej Polskiej, jak też poza granicami kraju. Oznacza to, że jest ona właściwa wobec: żołnierzy polskich, pracowników zatrudnianych w polskich jednostkach wojskowych i polskich przedstawicielstwach wojskowych, żołnierzy sił zbrojnych państw obcych przebywających na terytorium RP oraz członków ich personelu cywilnego, o ile umowa międzynarodowa, której stroną jest Polska, nie stanowi inaczej [18].

Funkcjonowanie Żandarmerii Wojskowej reguluje ustawa z 24 sierpnia 2001 roku o żandarmerii wojskowej i wojskowych organach porządkowych, w której określa się ją jako

wyodrębnioną i wyspecjalizowaną służbę, wchodząca w skład sił zbrojnych RP. Zgodnie z przytoczoną ustawą o żandarmerii wojskowej, formację tę tworzą:

- Komenda Główna Żandarmerii Wojskowej;
- terenowe jednostki organizacyjne ŻW (oddziały ŻW wraz z pododdziałami zamiejscowymi - OŻW, czyli placówkami ŻW, wydziały ŻW - WŻW);
- specjalistyczne jednostki organizacyjne ŻW:
 - oddziały specjalne ŻW (OS ŻW),
 - oddziały zabezpieczenia ŻW (OZ ŻW),
 - Centrum Szkolenia ŻW (CSŻW) [4].

Ustawowa identyfikacja zagrożeń przestępczością w obszarze wojskowości pozwala określić podstawowe zadania dla Żandarmerii Wojskowej, do których należą przede wszystkim: zapewnianie przestrzegania dyscypliny wojskowej;

- ochrona porządku publicznego na terenach i obiektach jednostek wojskowych oraz w miejscach publicznych;
- ochrona życia i zdrowia ludzi oraz mienia wojskowego przed zamachami naruszającymi te dobra;
- prowadzenie działań o charakterze antyterrorystycznych (na podstawie ustawy z dnia 10 czerwca 2016 r. o działaniach antyterrorystycznych dotyczy obszarów/obiektów należących do komórek/jednostek organizacyjnych podległych Ministrowi Obrony Narodowej lub przez niego nadzorowanych/administrowanych) [19],
- ochrona placówek zagranicznych Rzeczypospolitej Polskiej w miejscach stacjonowania Polskich Kontyngentów Wojskowych,
- wykrywanie przestępstw i wykroczeń, w tym skarbowych, popełnionych przez osoby, wobec których ŻW jest właściwa (żołnierzy pełniących czynną służbę wojskową lub żołnierzy niebędących w czynnej służbie wojskowej w czasie noszenia przez nich mundurów oraz odznak wojskowych); ujawnianie/ściganie ich sprawców oraz ujawnianie/zabezpieczanie dowodów tych przestępstw/wykroczeń,
- dokonywanie analizy oświadczeń o stanie majątkowym żołnierzy zawodowych,
- zapobieganie popełnianiu przestępstw i wykroczeń przez osoby, wobec których ŻW jest właściwa oraz innym zjawiskom patologicznym tj. alkoholiz i narkomania,
- współdziałanie z polskimi/zagranicznymi organami/służbami właściwymi w sprawach bezpieczeństwa i porządku publicznego oraz policjami wojskowymi,

- zwalczanie klęsk żywiołowych, nadzwyczajnych zagrożeń środowiska, likwidowanie ich skutków, uczestniczenie w akcjach poszukiwawczych, ratowniczych i humanitarnych,
- implikacja sił ŻW w Narodowym Systemie Pogotowia Kryzysowego (NSPK),
- optymalizacja bezpieczeństwa i ochrony obiektów o szczególnym przeznaczeniu dla bezpieczeństwa i obronności państwa,
- wykonywanie obowiązków sojuszniczych i ratyfikowanie uwarunkowań normatywnych (sojuszniczych) [9].

Jak zauważa J. Stelmach wśród ustawowych zadań nie jest wymieniona bezpośrednio walka z terroryzmem. Jednakże wiele z nich, poprzez na swój charakter i specyfikę, wpisuje się w ten zakres działania. Szczególnie istotne w tym zakresie są czynności zmierzające do ochrony życia i zdrowia ludzi, mienia wojskowego czy też zapobieganie i wykrywanie przestępstw, w tym o charakterze terrorystycznym [12].

Żandarmeria Wojskowa realizuje powyższe czynności służbowe poprzez:

- kontrolowanie przestrzegania dyscypliny wojskowej oraz porządku publicznego:
 - podejmowanie interwencji w przypadkach naruszenia tejże dyscypliny lub porządku,
 - opracowywanie dla odpowiednich podmiotów informacji dotyczących stanu dyscypliny wojskowej i przestępczości w Siłach Zbrojnych, właściwych organów informacji o stanie dyscypliny wojskowej i przestępczości w Siłach Zbrojnych,
 - występowanie do tych podmiotów z wnioskami ograniczającymi popełnianiu przestępstw, wykroczeń i przewinień dyscyplinarnych;
- wykonywanie czynności operacyjno-rozpoznawczych;
- wykonywanie czynności procesowych:
 - zabezpieczenie śladów/dowodów popełniania przestępstw/wykroczeń,
 - sporządzanie ekspertyz i opinii kryminalistycznych,
- poszukiwanie sprawców przestępstw i wykroczeń oraz zaginionych żołnierzy,
 - poszukiwanie utraconego mienia wojskowego: broni, amunicji, materiałów wybuchowych lub innego mienia wojskowego oraz materiałów zawierających informacje niejawne;
- prowadzenie kontroli ruchu drogowego wobec kierujących,
 - pilotowanie kolumn wojskowych,
 - kierowanie ruchem drogowym,

- kontrolowanie uprawnień żołnierzy do noszenia munduru oraz odznak oraz odznak wojskowych, a także wyposażenia służbowego oraz przebywania poza terenami i obiektami jednostek wojskowych [18],
- kontrolowanie posiadania uprawnień do używania munduru oraz odznak i oznak wojskowych, w zakresie i na zasadach przewidzianych w przepisach o odznakach i mundurach;
- konwojowanie osób, dokumentów i mienia wojskowego,
- doprowadzanie osób o charakterze przymusowym (w zakresie i na zasadach przewidzianych w przepisach o postępowaniu karnym, karnym skarbowym, karnym wykonawczym i cywilnym),
- asystowanie przy czynnościach egzekucyjnych,
- współuczestniczenie w zapewnianiu porządku podczas trwania imprez masowych (przeprowadzanych na terenach i w obiektach jednostek wojskowych),
- wykonywanie zadań policji sądowej w sądach wojskowych i powszechnych jednostkach organizacyjnych prokuratury,
- kontrolowanie ochrony mienia wojskowego oraz przechowywania uzbrojenia i środków bojowych,
- kontrolowanie przestrzegania przepisów o wychowaniu w trzeźwości i przeciwdziałaniu alkoholizmowi oraz o narkomanii, w tym przyjmowanie i zwalnianie z izby zatrzymań osób:
 - zatrzymanych w przypadkach i w trybie określonym w przepisach o postępowaniu karnym,
 - stwarzających w sposób oczywisty bezpośrednie zagrożenie dla życia/zdrowia ludzkiego/mienia,
 - wobec których istnieje uzasadnione przypuszczenie, że popełnili oni wykroczeni, a zachodzi obawa co do jego ucieczki/ukrycia się/zatarcia śladów,
 - wobec których nie można ustalić tożsamości,
 - ujętych na gorącym uczynku popełnienia wykroczenia albo w pościgu podjętym bezpośrednio po popełnieniu czynu,
 - który rażąco narusza dyscyplinę wojskową lub porządek publiczny, jeżeli obawa co do jego ucieczki/ukrycia się,
 - będących pozbawionymi wolności, samowolnie opuścili izbę zatrzymań, areszt śledczy, zakład karny/wojskowy, areszt dyscyplinarny albo opuścili je na

- podstawie zezwolenia właściwego organu i w wyznaczonym terminie nie powrócił do nich [9],
- pełniących niezawodową służbę wojskową, którzy samowolnie przebywają poza jednostką wojskową/wyznaczonym miejscem przebywania,
 - którzy w umundurowaniu wojskowym znajdują się w miejscu publicznym pod wpływem alkoholu/substancji psychotropowej/środka zastępczego,
 - noszących mundur wojskowy albo posiadających uzbrojenie lub wyekwipowanie wojskowe, niezgodne z obowiązującymi przepisami,
 - prowadzenie ewidencji wyżej wymienionych osób, przechowywanie dokumentów dotyczących pobytu tych osób w izbach zatrzymań oraz ich rzeczy osobistych, złożonych do depozytu, a także nadzorowanie osób przebywających w izbach zatrzymań,
- wykonywanie czynności ochronnych w stosunku do uprawnionych podmiotów, a także zabezpieczanie pobytu w jednostkach wojskowych osób zajmujących kierownicze stanowiska państwowe i delegacje zagraniczne w formie:
- osobistej ochrony (podmiotu uprawnionego – VIP),
 - ochrony miejsca pracy i miejsca czasowego pobytu,
 - pilotowanie kolumn pojazdów,
 - realizacji czynności o charakterze rozpoznania pirotechniczno-radiologicznego,
 - ochrona sanitarna żywności,
 - czynności służbowych (rozpoznawczych, prewencyjnych) w stosunku do podmiotów (obsługi) prasowych i radio-telewizyjnych [9].

Działania Żandarmerii Wojskowej w czasie pokoju

Od 1 lipca 2015 r. Żandarmeria Wojskowa jest właściwa do prowadzenia postępowań przygotowawczych w sprawach o przestępstwa zgodnie z właściwością określoną w art. 3 ust. 2 ustawy z dnia 24 sierpnia 2001 r. o Żandarmerii Wojskowej i wojskowych organach porządkowych [16]. Jest to powrót, a nawet rozszerzenie właściwości procesowej, jaką Żandarmeria Wojskowa miała przed 1 stycznia 2009 r. Do tego dnia zarówno Żandarmeria Wojskowa, jak i prokuratury wojskowe prowadziły postępowania przygotowawcze o wszystkie czyny, jakich dopuszczali się żołnierze.

W tym stanie rzeczy w Komendzie Głównej ŻW została opracowana koncepcja, zgodnie z którą Żandarmeria Wojskowa, jako specjalistyczna służba wojskowa wchodząca w

skład Sił Zbrojnych, zajmująca się między innymi wykrywaniem w ramach Sił Zbrojnych przestępstw i wykroczeń, w tym skarbowych, ujawnianiem i ściganiem ich sprawców oraz zabezpieczaniem dowodów ich popełnienia, stała się organem postępowania przygotowawczego, który prowadziłby wszystkie sprawy wobec żołnierzy służby, niezależnie od właściwości sądu oraz wobec osób cywilnych zatrudnionych w jednostkach i instytucjach wojskowych w sprawach związanych z zatrudnieniem. Przyjęcie takiego rozwiązania zapewniło właściwą ochronę interesów Sił Zbrojnych poprzez zabezpieczenie skutecznego i szybkiego prowadzenia postępowań karnych, rozpoznania operacyjnego, zapewnienie komplementarnego i szybkiego dopływu informacji do MON oraz umocnienie dyscypliny wojskowej. Podstawą do stworzenia tej koncepcji stały się uwagi Najwyższej Izby Kontroli, która w 2011 r. przeprowadziła kontrolę funkcjonowania Żandarmerii Wojskowej. W informacji pokontrolnej NIK-u znalazł się zapis „Skala przestępstw z udziałem żołnierzy SZ RP była trudna do oszacowania w szczególności z uwagi na ograniczoną komunikację jednostek ŻW z jednostkami wojskowymi, Policją, prokuratorami i sądami. W tym stanie rzeczy koncepcja ta została zaakceptowana przez MON i skierowana na drogę procesu legislacyjnego, którego zwieńczeniem było wpisanie propozycji Żandarmerii Wojskowej do rządowego projektu ustawy o zmianie Kodeksu postępowania karnego i niektórych innych ustaw, która ostatecznie została uchwalona 27 września 2013 r., Dz.U. z dnia 25 października 2013r. [3]. Stanowisko MON w tej sprawie uzasadniane było między innymi tym, w dobie restrukturyzacji i modernizacji armii bardzo ważnym zagadnieniem jest ochrona interesów majątkowych Sił Zbrojnych RP. Zmiany związane z uzawodowieniem armii spowodowały, że wiele decyzji o charakterze finansowym podejmują cywilni pracownicy wojska. Tymczasem ta grupa zawodowa podlegała jurysdykcji wojskowej w bardzo wąskim zakresie. Aby ochrona interesów była skuteczna, należało poszerzyć właściwość Żandarmerii Wojskowej o zachowania przestępcze pracowników cywilnych dokonywane w związku z ich zatrudnieniem [3].

Wprowadzenie nowych rozwiązań niewątpliwie przyczyniło się do umacniania dyscypliny wojskowej poprzez:

- szybsze prowadzenie postępowań przygotowawczych,
- skuteczniejsze wykrywanie wojskowych sprawców przestępstw i okoliczności sprzyjających popełnianiu przestępstw i wykroczeń w wojsku, poprzez priorytetowe traktowanie spraw, przez organ wojskowy (ŻW),
- skuteczną ochronę interesów finansowych SZ oraz szybkie odzyskiwanie utraconych korzyści,

- zapewnienie ministrowi obrony narodowej oraz dowódcom rodzajów Sił Zbrojnych informacji na temat faktycznego poziomu przestępczości wśród wojskowych.

Przyjęcie przedmiotowych zmian pozwoliło także ujednoczyć właściwość operacyjną Żandarmerii Wojskowej z właściwością procesową. Żandarmeria Wojskowa jest uprawniona do stosowania kontroli operacyjnej polegającej na niejawnym kontrolowaniu treści korespondencji, kontrolowaniu zawartości przesyłek, stosowaniu środków technicznych umożliwiających uzyskiwanie w sposób niejawny informacji i dowodów oraz ich utrwalanie a w szczególności obrazu, treści rozmów telefonicznych i innych informacji przekazywanych za pomocą sieci telekomunikacyjnych. Czynności te może realizować po uzyskaniu zgody właściwego sądu wobec żołnierzy i w ograniczonym zakresie wobec pracowników wojska o czyny enumeratywnie wymienione w art. 31 ustawy o Żandarmerii Wojskowej i wojskowych organach porządkowych [3].

Działania w sferze militarnej

Działania Żandarmerii Wojskowej w sferze militarnej ukierunkowane są na utrzymanie, demonstrowanie wszechstronnej gotowości formacji do skutecznego reagowania na militarne zagrożenia dla niepodległości i integralności terytorium Polski, a także dla bezpieczeństwa i zdolności bojowej wojsk operacyjnych biorących udział w działaniach zbrojnych. Predyspozycje intelektualno-motoryczne żołnierzy, ich doświadczenie bojowe, odpowiedni dobór sprzętu specjalistycznego oraz nieustanne szkolenie wojskowe wzmacniają profesjonalizm oraz zapewniają optymalne wykonanie zadań służbowych o przeznaczeniu operacyjnym. Żandarmeria Wojskowa wspiera działania wojsk w operacjach, których celem jest umożliwienie (wojskom operacyjnym) efektywnego wykonania zadań, zapewnienie pożądanego poziomu porządku i dyscypliny wojskowej oraz przeciwdziałanie i zapobieganie występowaniu przestępstw.

Celem działań ŻW w operacyjnym wsparciu wojsk jest wzmocnienie efektywności jego potencjału bojowego. Żandarmeria Wojskowa wspiera siły policyjne, zabezpiecza pobyt sił zbrojnych państw obcych na terytorium RP, a także uczestniczy we wsparciu SZ RP w zwalczaniu skutków klęsk żywiołowych lub zagrożeń terrorystycznych. Realizuje zadania w ramach wielonarodowych pododdziałów pod auspicjami NATO, UE, OBWE, ONZ i zobowiązań sojusznicznych czy międzynarodowych (cele Sił Zbrojnych NATO, UE) [9].

Działalność ŻW jako podmiotu wspierającego wojska operacyjne odnosi się do aktywności formacji w mobilizacyjnym rozwinięciu wojsk, zabezpieczeniu przebywania wojsk

w rejonach, zabezpieczeniu zmiany lokalizacji przebywania wojsk, działaniach obronnych, zaczepnych i nieregularnych, co uwidacznia się w udziale żołnierzy Żandarmerii Wojskowej w misjach o charakterze pokojowym i stabilizacyjnym [1].

Kompetencje Żandarmerii Wojskowej w systemie HNS w odniesieniu do państw – wysyłających, wynikające z obowiązujących dokumentów normatywnych, dotyczą zakresu negocjacji i Porozumień Ogólnych Komendanta Głównego ŻW z dowódcą NATO, w zakresie potrzeb zgłaszanych przez dowódcę Sojuszu, dotyczących kwestii bezpieczeństwa, porządku wojskowego, negocjacji Porozumień Ogólnych, określenia podmiotów HNS. Powyższy zakres kompetencyjny dotyczy także doradztwa, informowania podmiotów właściwych Ministerstwu Obrony Narodowej (Pełnomocnik ds. HNS) o zmianach realizacyjnych zadań w zakresie HNS, optymalizacji wykorzystania zasobów HNS oraz efektywności współpracy cywilno-wojskowej. Żandarmeria Wojskowa wykonuje zadania poprzez czynności operacyjno-rozpoznawcze, dochodzeniowo-śledcze i administracyjno-porządkowe. Powyższy zakres odwołuje się do realizacji zabezpieczeń przemieszczania wojsk NATO, zapewnienie bezpieczeństwa przy przyjęciu sił Sojuszniczych w obszarach granicznych Rzeczypospolitej Polskiej oraz w czasie pobytu sił NATO na terenie Polski [16].

Działania w sferze pozamilitarnej

Zagrożenia o charakterze niemilitarnym, dotyczą kwestii z dziedziny bezpieczeństwa gospodarczego (energetycznego), które są często determinantem wywierania nacisków politycznych w celu osiągnięcia korzyści i celów polityki danego państwa. Występujące kryzysy ekonomiczne destabilizacje rynków finansowych, zmiany klimatyczne, niekontrolowane migracje lub epidemie chorób zakaźnych to aspekty tychże zagrożeń, mogących stanowić wpływ na bezpieczeństwo i destabilizację bezpieczeństwa wewnętrznego państwa. Najpoważniejszymi zagrożeniami pozostają te o charakterze asymetrycznym, terroryzm międzynarodowy, cyberterroryzm, często przy użyciu materiałów niekonwencjonalnych, proliferacja broni masowego rażenia, przestępczość międzynarodowa, działalność piractwa morskiego. To nadal poważne wyzwania dla systemu bezpieczeństwa narodowego i międzynarodowego [14].

Działania Żandarmerii Wojskowej w odniesieniu do przeciwdziałania zagrożeniom niemilitarnym mają rozbudowany zakres dotyczący kwestii współpracy formacji z innymi służbami odpowiedzialnymi za zapewnienie bezpieczeństwa publicznego, organami czy instytucjami. Szeroko rozumianym celem współpracy Żandarmerii Wojskowej z Policją jest

utrzymanie oraz zapewnienie bezpieczeństwa i porządku publicznego, przy zachowaniu pełnej autonomiczności służb. Obejmują one działania prewencyjne, zapobieganie przestępstw i przeciwdziałanie występowaniu zjawisk patologicznych, wykrywanie sprawców, zabezpieczenie miejsc przestępstw, korzystanie z opinii biegłych i specjalistów, realizacja czynności dochodzeniowo-śledczych, poszukiwania i zatrzymania osób [11]. Jak zauważa L. Dyduch prowadzone połączone „(...) działania prewencyjne są najczęstszą formą współdziałania, pozwalają na bieżącą wymianę doświadczeń, a uzyskane i posiadane informacje przyczyniają się do osiągnięcia wspólnego celu. W kategorii tych działań mieści się zarówno wspólna służba patrolowa, ochrona obiektów ważnych dla bezpieczeństwa i obronności państwa, jak i szeroko rozumiane działania profilaktyczne” [2].

Komponent ŻW wspierający działania w systemie reagowania kryzysowego stanowią Oddziały specjalne Żandarmerii Wojskowej, których działalność ukierunkowana jest także na zapobieganie lub minimalizację skutków zagrożeń bezpieczeństwa lub porządku publicznego w tym także zamachów o charakterze terrorystycznym. Zadaniem dla wyszczególnionych podmiotów Żandarmerii Wojskowej będzie wydzielenie odpowiednich jednostek (komórek) pododdziałów do niesienia wsparcia Policji i Sił Zbrojnych RP, natomiast Minister Obrony Narodowej może przekazać część Żandarmerii Wojskowej pod kontrolę operacyjną Policji. W przypadkach wystąpienia klęsk o charakterze naturalnym lub katastrof technicznych, Żandarmeria Wojskowa stanowić będzie wsparcie dla podmiotów Państwowej Straży Pożarnej z zaznaczeniem pozostania w strukturach Sił zbrojnych RP [17].

Podsumowując opisywaną problematykę należy stwierdzić, że Żandarmeria Wojskowa stanowi istotny element całokształtu Sił Zbrojnych Rzeczypospolitej Polskiej, który poprawia dyscyplinę w wojsku, egzekwując od żołnierzy zachowania zgodne z prawem. Wzmacnia również podsystemy militarny i niemilitarny państwa co wpływa na optymalizację całościowego systemu bezpieczeństwa państwa a żołnierze Żandarmerii Wojskowej są specjalistami, doświadczonymi w działaniach wojennych poza granicami, jak też w realizacji zadań na terenie Rzeczypospolitej Polskiej.

Bibliografia

1. Chiniewicz T., Korzeniowski S., Płonka P., Żandarmeria Wojskowa w działaniach operacyjnych, Wydawnictwo Centrum Szkolenia Policji, Mińsk Mazowiecki 2011.
2. Dyduch L., Współdziałanie ŻW i Policji w zwalczaniu zagrożeń niemilitarnych, Kwartalnik Policyjny nr 2, wyd. Centrum Szkolenia Policji, Legionowo 2008.

3. Jędrychowski R., Żandarmeria Wojskowa w reagowaniu kryzysowym, AON, Warszawa 2013, na prawach rękopisu.
4. Kotowski W, Kurzępa B., Żandarmeria Wojskowe i wojskowe organy porządkowe, Komentarz praktyczny, Dom Wydawniczy ABC, Warszawa 2005.
5. Kukiel M., Zarys historii wojskowości w Polsce, wyd. Orbis, Londyn 1949.
6. Kukiel M., Dzieje Wojska Polskiego w dobie napoleońskiej 1795-1815, t.2, E. Wende i Spółka, Warszawa 1938.
7. Pacek B., Suliński J., Od Napoleona do III RP. Szkice z dziejów 200 lat żandarmerii Wojska Polskiego, wyd. BELLONA, Warszawa 2013.
8. Piotrowski P., Wojskowa Służba Wewnętrzna 1957-1989, [w:] Polak B., Lewczuk E., Mazek D., Bułhak W., Machcewicz P. (red.) Biuletyn IPN nr 6 (17), Zakład Wydawniczo - Poligraficzny MPiPS, Warszawa 2002.
9. Prowadzenie działań przez Żandarmerię Wojskową DD/3.2.3.3, Żand. 46/2009, Ministerstwo Obrony Narodowej, Warszawa 2009.
10. Roman W. K., Żandarmi polscy zamordowani na Wschodzie wrzesień 1939 – maj 1940, [w:] Wojskowy Przegląd Historyczny nr 3, MON, Warszawa 1996.
11. Rozmus M., Współdziałanie Żandarmerii wojskowej i policji w obszarze działań prewencyjnych, Kwartalnik Policyjny nr 1, wyd. Centrum Szkolenia Policji, Legionowo 2014.
12. Stelmach J., Żandarmeria Wojskowa w narodowym systemie przeciwdziałania zagrożeniu terroryzmem, Zeszyty Naukowe nr 3 (169) WSOWL, Wrocław 2013.
13. Suliński J., Żandarmeria Wojskowa w latach 1918-1947. Szkic organizacyjno-historyczny, Drukarnia Warszawskiego Okręgu Wojskowego, Warszawa 1994.
14. Strategia Obronności Rzeczypospolitej Polskiej – Strategia sektorowa do Strategii Bezpieczeństwa Narodowego Rzeczypospolitej Polskiej, MON, Warszawa 2009.
15. Wierzbicki W., Przyczynki do historii odrodzonego Wojska Polskiego, Koło Oddziałowe SPK nr 106 "Żandarm", Londyn 1990.
16. Komenda Główna Żandarmerii Wojskowej, Realizacja zadań Żandarmerii Wojskowej w systemie HNS.
17. Komenda Główna Żandarmerii Wojskowej, Możliwości operacyjne i użycie oddziałów specjalnych Żandarmerii Wojskowej- podręcznik, Warszawa 2000.
18. Ustawa z dnia 24 sierpnia 2001 roku o żandarmerii wojskowej i wojskowych organach porządkowych (t. j. Dz. U. z 2021 r. poz. 1214 z późn. zm.).

19. Ustawa z dnia 10 czerwca 2016 r. o działaniach antyterrorystycznych (t. j. Dz. U. z 2021 r. poz. 2234 z późn. zm.).

Regulamin nadsyłania i publikowania prac w Zeszytach Naukowych WSA

1. Zeszyty Naukowe Wyższej Szkoły Agrobiznesu, zwane dalej Zeszytami, są periodykiem naukowym wydawanym w nieregularnym cyklu wydawniczym.
2. Treść każdego Zeszytu odpowiada zakresowi tematycznemu jednego z odpowiednich wydziałów w Wyższej Szkole Agrobiznesu t. Wydziałowi Rolniczo-Ekonomicznemu, Wydziałowi Technicznemu, bądź Wydziałowi Medycznemu.
3. Redakcja Zeszytów mieści się w sekretariacie Wydawnictwa Wyższej Szkoły Agrobiznesu. Pracą redakcji kieruje redaktor naczelny.
4. W celu zapewnienia poziomu naukowego Zeszytów oraz zachowania właściwego cyklu wydawniczego redakcja współpracuje z krajowymi i zagranicznymi jednostkami naukowymi, stowarzyszeniami oraz innymi instytucjami.
5. Do oceny przyjmowane są dotychczas niepublikowane oryginalne prace redakcyjne, monograficzne, pogładowe, historyczne, teksty źródłowe, sprawozdania z posiedzeń naukowych, oceny książek, komunikaty naukowe, wspomnienia oraz wiadomości jubileuszowe. Opracowania przyjmowane są przez redakcję do końca czerwca każdego roku. Redakcja nie zwraca Autorom nadesłanych materiałów.
6. Do publikacji należy dołączyć oświadczenie o oryginalności pracy oraz o tym, że nie została zgłoszona do innej redakcji (wzór oświadczenia jest możliwy do pobrania na stronie internetowej WSA – załącznik nr 1 do Regulaminu). Oświadczenie powinno zawierać adres pierwszego autora pracy, numer telefonu oraz e-mail. W oświadczeniu powinna być zawarta zgoda (podpis) wszystkich współautorów pracy.
7. Prace są publikowane w języku polskim lub angielskim z uwzględnieniem opinii redaktora językowego.
8. W oświadczeniu dołączonym do tekstu należy opisać wkład poszczególnych autorów w powstanie pracy oraz podać źródło finansowania publikacji. „*Ghostwriting*” oraz „*guest authorship*” są przejawem nierzetelności naukowej, a wszelkie wykryte przypadki będą demaskowane i dokumentowane, włącznie z powiadomieniem odpowiednich podmiotów (instytucje zatrudniające autorów, towarzystwa naukowe, stowarzyszenia edytorów naukowych itp.).

-
9. Przekazane do redakcji opracowania są wstępnie oceniane i kwalifikowane do druku przez Naukową Radę Redakcyjną, zwaną dalej Radą. Skład Rady określany jest przez Senat WSA.
 10. Publikacje wstępnie zakwalifikowane przez Radę są oceniane przez recenzentów, zgodnie z procedurą recenzowania opublikowaną na stronie internetowej WSA w zakładce Zeszyty naukowe WSA. Łącznie z opinią recenzent wypełnia deklarację konfliktu interesów, stanowiącą załącznik nr 2 do regulaminu. Redakcja powiadamia Autorów o wyniku oceny, zastrzegając sobie prawo do zachowania poufności recenzji.
 11. Za proces wydawniczy Zeszytów jest odpowiedzialny sekretarz naukowy redakcji, który zatwierdza układ treści Zeszytów, określa wymagania wydawnicze dla publikowanych materiałów, współpracuje z recenzentami, przedstawia do zatwierdzenia całość materiałów przed drukiem Naukowej Radzie Redakcyjnej, współpracuje z Radą i innymi instytucjami w zakresie niezbędnym do zapewnienia poziomu naukowego Zeszytów oraz zachowania cyklu wydawniczego.
 12. Redakcja zastrzega sobie możliwość odmowy przyjęcia artykułu bez podania przyczyn.
 13. Nadesłane materiały, niespełniające wymagań wydawniczych określonych przez redakcję, są zwracane Autorowi/Autorom.
 14. Wydawnictwo Wyższej Szkoły Agrobiznesu nie wypłaca wynagrodzenia za nadesłane publikacje zakwalifikowane do druku w Zeszytach.
 15. Wersją pierwotną (referencyjną) czasopisma jest wydanie papierowe. „Zeszyty Naukowe WSA” są dostępne także na stronie internetowej Wyższej Szkoły Agrobiznesu – www.wsa.edu.pl, w zakładce Wydawnictwa.

Wymagania wydawnicze - Zeszyty Naukowe WSA

1. Artykuły powinny być przygotowane w formie wydruku komputerowego oraz w wersji elektronicznej, w języku polskim lub angielskim. W celu usprawnienia procesu wydawniczego prosimy o rygorystyczne przestrzeganie poniższych zasad:

- przesłany artykuł powinien być opatrzony dokładną afiliacją Autora/Autorów,
- objętość artykułu nie może przekraczać 15 stron formatu A4,
- imię i nazwisko Autora/ów – czcionka 12 pkt,
- nazwa instytucji/jednostki naukowej – czcionka 12 pkt,
- tytuł artykułu w języku polskim i angielskim – czcionka 14 pkt (bold); podtytuły – czcionka 12 pkt (bold),
- do publikacji należy dołączyć słowa kluczowe (3–5) oraz streszczenie nieprzekraczające 15 wierszy napisane w językach polskim i angielskim – czcionka 11 pkt,
- tekst zasadniczy referatu pisany czcionką Times New Roman CE – 12 pkt,
- odstęp między wierszami – 1,5,
- jeżeli referat zawiera tabele (najlepiej wykonane w edytorze Word albo Excel) lub rysunki (preferowany format CorelDraw, Excel, Word), należy dołączyć pliki źródłowe,
- tabele i rysunki powinny być zaopatrzone w kolejne numery, tytuły i źródło,
- przy pisaniu wzorów należy korzystać wyłącznie z edytora równań dla MS WORD,
- preferowane formaty zdjęć: TIFF, JPG (o rozdzielczości minimum 300 dpi),
- w przypadku publikowania prac badawczych układ treści artykułu powinien odpowiadać schematowi: wprowadzenie (ewentualnie cel opracowania), opis wykorzystanych materiałów czy metod, opis badań własnych (omówienie wyników badań), wnioski (podsumowanie), wykaz piśmiennictwa.

2. Odsyłaczami do literatury zamieszczonymi w tekście publikacji są przypisy dolne, które muszą mieć numerację ciągłą w obrębie całego artykułu. Odsyłaczami przypisów dolnych są cyfry arabskie złożone w indeksie górnym, np. (2).

3. Zapis cytowanej pozycji bibliograficznej powinien zawierać: inicjał imienia i nazwisko autora, tytuł dzieła, miejsce i rok wydania, numer strony, której dotyczy przypis; w przypadku pracy zbiorowej: tytuł dzieła, inicjał imienia i nazwisko redaktora, miejsce i rok wydania; w przypadku pracy będącej częścią większej całości – także jej tytuł, inicjał imienia

i nazwisko redaktora. Źródła internetowe oraz akty prawne należy podawać także jako przypis dolny.

4. W wykazie piśmiennictwa zamieszczonym w kolejności alfabetycznej na końcu publikacji należy podać kolejno: nazwisko autora/ów i pierwszą literę imienia, rok wydania, tytuł pracy (czcionka italic), wydawnictwo oraz miejsce wydania. Przykłady:

- **wydawnictwa książkowe:** Janowiec A., *Ziemniaki skrobiowe – rola w województwie podlaskim*. Wydawnictwo WSA, Łomża 2010.

- **prace zbiorowe:** Górczewski R., (red.) *Przemieszczenie trawieńca*. Wydawnictwo PWN, Warszawa 2007.

- **czasopisma:** Staszewski M., Getek I. *Specyfika żywienia krów o wysokiej wydajności.*, Zeszyty Naukowe WSA, Wydawnictwo WSA nr 37, Łomża 2007.

- **strony internetowe:** www.4lomza.pl. 1.12.2009 r.

- **akty prawne:** Ustawa z dnia 27 lipca 2002 r. o zmianie ustawy o szkolnictwie wyższym oraz ustawy o wyższych szkołach zawodowych. Dz.U. z 2002 r. Nr 150, poz. 1239.

UWAGA: teksty niespełniające powyższych wymagań zostaną zwrócone Autorowi

Procedura recenzowania prac naukowych nadsyłanych do publikacji w Zeszytach Naukowych Wyższej Szkoły Agrobiznesu

Procedura recenzowania artykułów w Zeszytach Naukowych WSA jest zgodna z zaleceniami Ministerstwa Nauki i Szkolnictwa Wyższego oraz dobrymi praktykami w procedurach recenzyjnych w nauce *.

Przekazanie publikacji do Redakcji Wydawnictwa WSA jest jednoznaczne z wyrażeniem przez Autora/Autorów zgody na wszczęcie procedury recenzji artykułu. Autor/Autorzy przesyłają utwór wraz z wypełnionym oświadczeniem, którego wzór znajduje się na stronie internetowej WSA. Nadesłane materiały są poddawane wstępnej ocenie formalnej przez Naukową Radę Redakcyjną WSA, zwaną dalej Radą, zwłaszcza pod kątem ich zgodności z wymaganiami wydawniczymi opracowanymi i publikowanymi przez Wyższą Szkołę Agrobiznesu, jak również obszarami tematycznymi ZN. Następnie artykuły są recenzowane przez dwóch niezależnych recenzentów, którzy nie są członkami Rady, posiadających co najmniej stopień naukowy doktora. Nadesłane artykuły nie są nigdy wysyłane do recenzentów z tej samej placówki, w której zatrudniony jest Autor/Autorzy. Prace recenzowane są anonimowo. Autorzy nie znają nazwisk recenzentów. Artykułowi nadawany jest numer redakcyjny, identyfikujący go na dalszych etapach procesu wydawniczego. W innych przypadkach recenzent podpisuje deklarację o niewystępowaniu konfliktu interesów – formularz jest publikowany na stronie Internetowej WSA. Autor każdorazowo jest informowany z zachowaniem zasady poufności recenzji o wyniku procedury recenzenckiej, zakończonej kategorię wnioskiem o dopuszczeniu bądź odrzuceniu publikacji do druku. W sytuacjach spornych powoływany jest kolejny recenzent.

Lista recenzentów współpracujących z wydawnictwem publikowana jest w każdym numerze czasopisma oraz na stronie Internetowej WSA.

* Dobre Praktyki w procedurach recenzyjnych w nauce. Zespół do Spraw Etyki w Nauce. Ministerstwo Nauki i Szkolnictwa Wyższego. Warszawa 2011.

Załącznik nr 1

miejsowość, data.....,

Oświadczenie Autora/Autorów

Zwracam się z uprzejmą prośbą o przyjęcie do Redakcji Wydawnictwa WSA i ogłoszenie drukiem publikacji/pracy pt.

.....

autorstwa:

Równocześnie oświadczam(y), że publikacja nie została wydana w przeszłości drukiem i/lub w wersji elektronicznej w innym czasopiśmie, nie została zgłoszona do innego czasopisma, nie znajduje się w recenzji innej Redakcji, nie narusza patentów, praw autorskich i praw pokrewnych oraz innych zastrzeżonych praw osób trzecich, a także że wszyscy wymienieni Autorzy pracy przeczytali ją i zaakceptowali skierowanie jej do druku.

Przeciwdziałanie nierzetelności naukowej - „ghostwriting” oraz „guest authorship”;

· źródło finansowania publikacji:.....

· podmioty, które przyczyniły się do powstania publikacji i ich udział:

· wkład Autora/Autorów w powstanie publikacji (szczegółowy opis z określeniem ich afiliacji):

Imię i nazwisko**podpis****data**

1.....

.....

.....

2.....

.....

.....

3.....

.....

.....

4.....

.....

.....

Imię, nazwisko, adres, telefon, e-mail, osoby odpowiedzialnej za wysłanie niniejszego oświadczenia (głównego Autora pracy):

Załącznik nr 2.

DEKLARACJA KONFLIKTU INTERESÓW

Konflikt interesów* ma miejsce wtedy, gdy recenzent ma powiązania, relacje lub zależności przynajmniej z jednym z autorów pracy, takie jak na przykład zależności finansowe (poprzez zatrudnienie czy honoraria), bezpośrednio lub za pośrednictwem najbliższej rodziny.

Tytuł pracy.....

Data.....

Konflikt nie występuje

Recenzent oświadcza, że nie ma powiązań ani innych finansowych zależności wobec Autora/Autorów:

.....

Podpis recenzenta

*** Recenzent oświadcza, że występuje następujący konflikt interesów**

.....
.....
.....
.....
.....
.....
.....
.....

Podpis recenzenta:

.....