

was formed in conditions of school education, in accordance with the externally prescribed new model of university education; there is a transformation of the usual methods and means of educational activity and their realization in the new organizational forms of training (lecture, seminar, practical classes, independent work, etc.); new interpersonal relationships are established in the system of "student-teacher", "student-student" on the basis of professional-oriented convergence of social-role positions between them, desirable mutual trust, business cooperation, creativity and independence; social-pedagogical adaptation is characterized by dynamism and its effectiveness depends on the state of the educational environment, as well as on the individual personal-psychological qualities of the student; a significant proportion of freshmen need help in overcoming the difficulties of adapting to the new conditions of study at the university by the psychologist, tutor, teachers; understanding of the theoretical fundamentals of social-psychological adaptation of students will enable faster and more effective overcoming of the difficulties of this adaptation.

Key words: *social-pedagogical adaptation, psychological adaptation, social adaptation, didactic adaptation, adaptation structure, adaptation levels, stages of adaptation, concept of systemic consideration of adaptation.*

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FUTURE GEOLOGISTS' PROFESSIONAL TRAINING AS A PEDAGOGICAL PROBLEM

Мінеральні ресурси є важливим сегментом вітчизняної економіки, що обґрунтовує важливість якісної підготовки фахівців для даної галузі. Метою статті було визначити ступінь дослідженості вітчизняними та іноземними науковцями проблеми професійної підготовки майбутніх геологів та окреслити наявні шляхи її модернізації. Серед методів дослідження – аналіз та узагальнення літературних джерел та навчальних планів. Результати дослідження виявили тенденцію до визначення науковцями імплементації сучасних педагогічних технологій та методів у процес професійної підготовки майбутніх геологів як найбільш доречного способу її модернізації, чому плануємо приділити увагу більш детально в подальших дослідженнях.

Ключові слова: *майбутні геологи, професійна підготовка, геологічна освіта, професійна підготовка геологів.*

Introduction. In the terms of economy of knowledge vocational education is a priority case for state policy [8]. According to P. Anisimov, vocational education is responsible for "mastering innovative knowledge and the formation of competitive specialists and labor cadres, which ensure the country's competitiveness" [1, 79]. At the same time there is a tendency among national scientists to equal such concepts as "vocational education" and "professional training". So let's identify the main concept of this research – which is "professional training". V. Stasiuk [17] emphasizes that professional

training is a pedagogical process, the results of which is the formation and development specialist's professional readiness.

The entry of Ukraine into the European educational area made national scientists to search some modern technologies and methods of the future specialists' professional training, to which also belong future geologists. It is necessary to add that mineral resources are the important segment of the Ukrainian economy, which proves the importance of the modernization of the process of personnel training for the industry. But before the implementation of some new ways of the future geologists' professional training we should investigate available ways which are described by national and foreign scientists. Such approach let us choose the best methods and combine national traditions of the future geologists' professional training and modern pedagogical technologies.

Analysis of relevant research. The process of the future geologists' professional training has been already researched by scientists. For example E. Nesterov studied the system of geological education at the pedagogical university, V. Hulii, L. Kyselevych, V. Maniuk, V. Mikhailov, N. Pavlun, A. Plotnikov and others have studied the process of professional training in mining and geological higher education institutions. At the same time all literature sources can't be compared in this paragraph because this is the aim of the research and it will be done below.

So **the aim of the study** is to find out the state of development of the problem of the future geologists training in the pedagogical literature and to identify the main trends and ways of its modernization.

As **research methods** the analysis of materials and periodicals on the problem and the method of generalization were used. Curricula of various universities with the aim to figure out the current state of professional training of the future geologists at the Bachelor level were studied.

Results. Professional training of specialists at the Bachelor level (which is the object of our study) is aimed at mastering students' theoretical knowledge, forming their practical skills and abilities that will be sufficient for successful further professional activity within the chosen specialty. Unlike the entry level, as a result of which a future specialist will be able to perform typical tasks that are relevant to the duties of primary positions in the relevant field of professional activity, the bachelor's level will allow the applicant to accomplish more complex work successfully at higher positions.

The first step of research is to figure out main features of geology as occupation:

1) dependence on working conditions: significant physical activity and adverse working conditions (work in mines, conducting routes), a significant proportion of "outdoor" work in the total amount of professional activity;

2) the need for deep fundamental knowledge in natural sciences (physical and chemical laws, properties of rocks and minerals), the ability to work with

topographical and thematic profile maps, lay the route, knowledge of normative and environmental documentation (to control the process of subsoil use);

3) processing large amounts of information (laboratory data, technical recommendations, drafting and estimates, rationalization of subsoil schemes, etc.);

4) special personal qualities such as patience, concentration of attention, self-discipline, technical thinking, purposefulness, responsibility, etc.;

5) direct dependence on the technical development of society, and, as a consequence, the need to raise their own qualifications throughout life.

Nowadays there are two ways of the future geologists' professional training at the Bachelor level. All applicants who have entered university before 1.09.2016 have got their education within the framework of direction 6.040103 – "Geology". But after changes in the list of branches of knowledge and specialties applicants who have entered the university after 1.09.2016 get their education within the framework of specialty 103 – "Earth sciences".

According to the previous edition of the list of specialties from 2006 [15], within the sphere of knowledge "Natural sciences", professional training of applicants was conducted in the areas of geology, geography, hydrometeorology, chemistry, biology, ecology, environmental protection and sustainable use of nature. Such a division made it possible to identify clearly that the preparation of future geologists at the Bachelor level took place only within the direction of geology [15].

After the changes in the list of specialties [14] within the field of knowledge "Natural sciences" it has been identified such specialties as "Ecology", "Chemistry", "Earth sciences", "Physics and astronomy", "Applied physics and nanomaterials" and "Geography". At present professional training of the future geologists at the Bachelor level takes place only within the specialty "Earth Sciences". However, the specialty "involves studying the composition and structure of the Earth, including the hydrosphere and atmosphere, geology, geophysics, mineralogy, geochemistry, volcanology, seismology, geomorphology, physical geography and other Earth sciences, meteorology and other atmospheric sciences (including climate research), hydrology, oceanography, paleoecology" [14].

Such uniting of previously separate specialties in one (for example, meteorology and physical geography, which don't have much in common with geology) caused some complications with the process of the future specialists training, because creation of a unified educational and professional program for training, for example, geologists and oceanologists, without loss the quality of professional training, is a difficult task.

That is why, using their right of autonomy, the higher education institutions in Ukraine within the specialty "Earth Sciences" conduct professional training of education applicants in a number of specializations. Within our research, we have focused on geological specializations, among which: hydrogeology, geology, oil

and gas geology, geophysics, geoinformatics, mineralogy, geochemistry and petrography, ecological geology and nature management, etc.

Thus, having analyzed the curricula of different universities, we can conclude that professional training of the future geologists consists of a “standard” list of disciplines and a sample part of content of which depends on the specialization of a future specialist.

For example, since 2017 at the V. N. Karazin Kharkiv National University professional training of the future geologists has taken place within the specialty of “Earth science”, specialization “Geology” [12]. In accordance with the curriculum within the “Geology” specialization in the section “Discipline of choice” there are blocks: 2.2 “Basic training cycle (A)” and 2.3 “The cycle of practical and vocational training (A)” which are connected to the training program of the future geologists, and blocks 2.2 “The cycle of fundamental training (B)” and 2.3. “Cycle of practical and professional training (B)”, which are connected to the program of future hydrogeologists’ training.

This additional division within the specialty takes place organically and systematically, starting from the second year of study. The total number of credits for a sample part for geologists and hydrogeologists coincides that does not violate the educational process.

At the same time, professional training of Bachelors within the framework of one educational program “Geology” at the Taras Shevchenko Kiev National University has differences in accordance with the the future specialists’ specialization. There is in the curriculum section 3 – “Discipline of student’s free choice” – which is presented by six blocks of academic disciplines accordingly for each specialization [11].

Also in the context of this study it is necessary to pay attention to the foreign experience of the future geologists’ training.

According to the curriculum, Irkutsk State University (Russia) conducts a four-year training of the future geologists at the bachelor level in the direction “Geology” (profiles “Geology” and “Geology and Geochemistry of combustible minerals”) [5]. The curriculum does not contain data on the number of credits which are allocated for studying each individual discipline; therefore we cannot make a quantitative comparison with national higher education institutions. At the same time, it should be noted that the list of professional (geological) disciplines given in the background of this higher education institution is similar to those presented in the national curricula for the training of the future geologists [11; 12].

For example, at Kyiv National Taras Shevchenko University and V. N. Karazin Kharkiv National University during the first year the future geologists will be taught the discipline “Mineralogy with the basics of crystallography”, which also can be found in the curriculum of the Irkutsk National University, but in the form of separate courses “Crystallography” and

“Mineralogy”, which are taught during the first and second semesters, respectively. Also such similarity exists between disciplines «Geotectonics», “Structural geology and geomapping”, “Geology of mineral deposits”, “Petrography”, “Lithology”, etc., which are also taught at these universities.

There is a certain similarity in educational practices. Thus, at Kharkiv National University, first-year students have a course of “Natural science practice”, one of whose block is “Practice of general geology”. Similarly, students of Irkutsk State University after the first year have such training as “Practice on obtaining initial professional skills”, the block of whose is “General geology practice”.

The second-year training practice in V. N. Karazin KhNU is “Professional-oriented practice” which consists of blocks “Geophysical practice”, “Drilling practice” and “Geocaching practice”. At the same time in the Irkutsk State University, the practice of second-year is represented by the “Practice for obtaining primary professional skills” and has units “Wells drilling” and “Geological mapping” [5; 11; 12].

The process of bachelor’s professional training in the direction of “Geology” at the Moscow State University of Lomonosov (Russia) also has a significant similarity with the national one. Thus, in the list of profile disciplines, which is given in the curriculum of this university [2], there are “Geophysics”, “Geology of mineral deposits”, “Lithology”, “Petrography”, “Structural geology and geomapping”, “Ecological geology”, “Geotectonics”, “Mineralogy with the basics of crystallography” etc. Professional training lasts for four years and students receive a bachelor’s degree in geology based on the results of state examinations and writing of bachelor research work. The total amount of study load at this university (excluding training and production practices), according to the curriculum, is 6264 hours, which is approximately equal to 209 credits. At the same time, if (by the analogy with Karazin Kharkiv National University) one week of practice is equal to 30 hours of study load, the total amount of credits for professional training of Bachelor of Geology at Moscow State University takes 237 credits, which is almost fully consistent with the national practice of the future geologists’ training.

The process of the future geologists professional training at Oxford University lasts 4 years, during which students are introduced to such geological disciplines as “Stratigraphy”, “Petrology”, “Paleontology”, “Tectonics and earthquakes”, “Oceanology”, “Geology of the environment”, “Volcanology”, etc. During the entire period of study, students also have “outdoor practice” and field visits (in other countries) [4]. The above mentioned data is summarized in Table 1.

Table 1

Comparative table of semesters in which the normative geological disciplines are taught in national and foreign higher education institutions

№	Subjects	Educational institution			
		Irkutsk State University (Russia)	Taras Shevchenko National University	V. N. Karazin Kharkiv National University	Moscow State University of Lomonosov (Russia)
1.	General geology (geology)	1,2	1,2	1*	1,2
2.	Mineralogy (with the basics of crystallography)	1,2	1,2	1,2	2
3.	Structural geology and geomapping	3,4	3	3,4	3,4
4.	Petrography	3	3	4	3
5.	Hydrogeology (general hydrogeology)	6	3	1	6
6.	Geoinformatics	6	3	8	4
7.	Geophysical methods of research	4	3	3	3
8.	Geological prospecting	3	4	3	8
9.	Geomorphology (with the basics of quaternary geology)	7	4	3	-
10.	Lithology (foundations of lithology)	4	4	5	4
11.	Geotectonics	8	5	5	8
12.	Fundamentals of Geochemistry	5	5	5,6	4
13.	Historical geology	5	6	2*	3*
14.	Regional geology	7,8	7	5	7
15.	Geology of mineral deposits	5	7,8	6,7	6
16.	Economic geology	-	8	7	-
17.	Paleontology	3	5*	3	3*
18.	Stratigraphy (general stratigraphy)	7	5*	4	-
19.	Geology of oil and gas	-	5	6	6

* – is taught at the university as a single discipline

The conducted analysis does not exhaust all available in practice approaches to organizing training of the future geologists. So, the next step will be the analysis scientific and methodological literature with a purpose of determining the state of research on the issues of the future geologists'

professional training by national and foreign scientists and outline possible ways of its modernization.

Taking into account the purpose of research, the analysis of periodicals was conducted. It let us determine how much national professors (who commit the professional training of the future geologists) are interested in the finding ways of its modernization.

For the study such periodicals as “Visnyk” (Bulletin) of those Ukrainian universities which carry out training of the future geologists have been chosen. All issues of periodicals for the last 10 years (from 2005 to 2016) were taken into account. The issues of the “Higher Education of Ukraine” journal, as one of the most important editions in the area of pedagogy (for 2011–2016) were also analyzed. The total amount of analyzed issues is 247 units.

The analysis revealed that the issues of modernization of the content of geological education, the implementation of the competence approach and the modernization of training of the future geologists have not been described by national researchers for the last 10 years.

Instead the results of the analysis of the “News of higher education institutions. Geology and Intelligence” (Russia) during the same period revealed a much greater interest of Russian scientists in the problem of modernizing the process of the future geologists training.

Let’s describe the most significant articles of national and foreign researchers.

Among the key problems of the future geologists training at the present stage V. Hulii identified the imperfection of the material and methodological basis of the educational process and the lack of state’s interest in the search for ways to modernize educational process [3]. M. Kurilov and A. Plotnikov emphasized the necessity of committing professional training of the future geologists with specialization “Economic geology”, which is relevant and justified in the terms of Ukrainian mineral complex [13].

Methodological approaches to the process of developing standards for the future geologists’ training are summarized in the work of N. Poliakova and V. Prihodchenko. The authors insist on the need to take into account the demands of the labor market and future employers during the future geologists’ training [16].

V. Mikhailov considers the problems of geological education and criticizes the existing system of the future geologists training and argues that the main problem of geological education in Ukraine is connected with the issue of graduates unemployment caused by the difficult economical conditions of geological industry in our country (significant reductions of employers for the last ten years) [9]. The researcher concentrates attention on the actuality of finding ways to modernize training of the future geologists according to the purpose to train competitive specialists not only in Ukrainian but also in the

European and world labor markets, justifying this increase in the requirements of employers to the quality of training of young professionals.

Problems of modern geological education are highlighted in the works of V. Lisov, who sees the integration education and business in Russia among the perspective ways of development of the future geologists' professional training. It can be possible by involving geological organizations and subsoil users in the educational process organization and taking into account their requests to young professionals in the formation of curricula. The researcher also emphasizes the necessity for the future geologists to be acquainted with the world realities of geological work and to supplement their professional training with in-depth study of foreign languages [7].

The biggest value for this research has M. Karazhanova with her article about modernization of oil and gas specialists professional training, which she proposes to conduct through increasing the number of students scientific and project activities and using modern pedagogical technologies in the process of professional training, including information technologies. Especially the author notes the important role of business games and exercises simulation during training of the future specialists in the oil and gas industry [6].

This idea was also supported by N. Moles, R. Mortimore and A. Thrower [10] who considered the implementation of such method as "case-study" or "situational learning method" as the one that is the most perspective and improving the quality of the professional training process. This approach will form the main result of vocational training – readiness for professional activity.

S. Yates, N. Williams and A. Dujardin [18] examined the problem of the lack of communication skills of geology students. The skills to make qualitative reports, to write geological reports and other texts should be formed within the educational process for whole study period, as an addition to the formation of scientific thinking and high-quality professional training, because "being a good author of scientific articles" means not only to have good communicative skills, but also to be a qualified scientist.

Conclusions. The problem of the future geologists' modern professional training has a great value for Ukraine. Comparison of Ukrainian and foreign traditions of the future geologists' professional training revealed common features of this process. At the same time conducted research of literature sources revealed the lack of methodological works about this problem among national scientists. The majority of articles were connected with only some aspects of vocational training, and the common feature of all scientists conclusions is determining the convergence of the educational process with the real production life and taking into account the requirements of employers for the future geologists' qualification during their training.

Scientists determine the problems of geological education, but do not offer concrete ways of its solving. That is why (agreeing with some authors) the

searching of modern pedagogical methods and technologies which could be used during the future geologists' training is a practical way of a mentioned problem solving. So the further research will be connected with the search for appropriate pedagogical techniques and technologies that will be the most effective and will influence positively to the quality of the future geologists' professional training.

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РЕЗЮМЕ

Кузько Марианна. Профессиональная подготовка будущих геологов как педагогическая проблема.

Минеральные ресурсы являются важным сегментом отечественной экономики, что обосновывает важность качественной подготовки специалистов для данной отрасли. Цель статьи заключается в определении степени изученности отечественными и иностранными учеными проблемы профессиональной подготовки будущих геологов и способов ее модернизации. Среди методов исследования – анализ и обобщение литературных источников и учебных планов. Результаты исследования выявили тенденцию к определению учеными имплементации современных педагогических технологий и методов в процесс профессиональной подготовки будущих геологов как наиболее верного способа ее модернизации, чему планируем уделить внимание в последующих исследованиях.

Ключевые слова: будущие геологи, профессиональная подготовка, геологическое образование, профессиональная подготовка геологов.

SUMMARY

Kuzko Marianna. Future geologists' professional training as a pedagogical problem.

Mineral resources are the important segment of the Ukrainian economy, which proves the importance of the modernization of the process of personnel training for the industry. So the aim of the study is to find out the state of development of the problem of the future geologists' training in the pedagogical literature and to identify the main trends and ways of its modernization. As research methods analysis of materials and periodicals on the problem and the method of generalization were used. Curricula of various universities with the aim to figure out the current state of professional training of the future geologists at the Bachelor level were studied. The first step of research was to figure out the main treats of geology as occupation, which have a significant influence on the competences and qualities which future geologists should have. After investigation of curricula it was found out that geological training is conducted within the framework of direction 6.040103 – "Geology" within the framework of specialty 103 – "Earth sciences". Using their right of autonomy higher education institutions in Ukraine within the specialty "Earth Sciences" conduct professional training of applicants in a number of specializations. Thus, having analyzed the curricula of different universities, we can conclude that professional training of the future geologists consists of a "standard" list of disciplines and a sample part of content of which depends on the specialization of a future specialist. Comparison of Ukrainian and foreign traditions of the future geologists' professional training revealed common features of this process. Taking into account the purpose of research, the analysis of periodicals was conducted. It let us determine how much national professors (who commit the professional training of the future geologists) are interested in finding ways of its modernization. Conducted research of literature sources revealed the lack of methodological works about this problem among national scientists. Scientists determine the problems of geological

education, but do not offer concrete ways of its solving. That is why (agreeing with some authors) the searching of modern pedagogical methods and technologies which could be used during the future geologists' training is a practical way of mentioned problem solving. So the further research will be connected with the search for appropriate pedagogical techniques and technologies that will be the most effective and will influence positively the quality of the future geologists' professional training.

Key words: *future geologists, professional training, vocational education, geological education.*

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FORMATION OF SPEECH CULTURE IN THE HIGHER EDUCATION INSTITUTION

Метою статті є визначення педагогічних умов формування мовленнєвої культури студентів у ВНЗ. Використано комплекс таких методів дослідження: порівняльно-зіставний та поняттєво-термінологічний аналіз; систематизація та узагальнення результатів дослідження. У результаті дослідження з'ясовано, що завдяки створенню певних педагогічних умов у ВНЗ має поліпшитися мовленнєва культура студентів. Матеріал статті може стати підґрунтям для подальших педагогічних досліджень, написання навчально-методичної літератури, їм можуть послуговуватися викладачі і студенти педагогічних спеціальностей. Набули подальшого розвитку ідеї про методи й форми формування мовленнєвої культури студентів.

Ключові слова: *мовленнєва культура, педагогічні умови, середовище, мовленнєве середовище, культурне мовленнєве середовище, норми мовлення, нормативні мовленнєві засоби, інтерактивні методи навчання.*

Introduction. The European integration processes taking place in Ukraine nowadays have exacerbated the issue of education of highly educated cultural citizens capable of effective communicative interaction. The need to strengthen the language training of students has been repeatedly emphasized in several normative legal acts, in particular in the laws of Ukraine "On Education", "National Strategy for the Development of Education in Ukraine until 2021", etc. In these fundamental documents, it is stressed that the current need for the present is to ensure the development and functioning of the Ukrainian language as a state language, to satisfy the lingual and educational needs of national minorities, and to create conditions for the study of foreign languages. Accordingly, the linguistic training of a modern student assumes the fluency in oral and written language, the ability to conduct various types of speech activity, understandably and adequately express their thoughts.

Analysis of relevant research. The relevance of the problem is also highlighted by a large number of studies. In particular, the scholars have