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## **SECTION: PEDAGOGY**

**Hryshko Svitlana**  
Candidate of Geographical Sciences, Associate Professor,  
Levada Olga  
Candidate of Geographical Sciences, Associate Professor,  
Prokhorova Larysa  
Candidate of Geological Sciences, Associate Professor,  
Nepsha Oleksandr  
Senior Lecturer,  
Zavyalova Tetyana  
Senior Lecturer  
Bogdan Khmelnytsky Melitopol State Pedagogical University  
(Zaporizhzhia, Ukraine)

### **FORMATION OF FUTURE GEOGRAPHY TEACHER'S PROFESSIONAL AND PEDAGOGICAL COMPETENCE IN A PEDAGOGICAL INSTITUTION OF HIGHER EDUCATION**

**Annotation.** *The article is devoted to the problem of forming the professional and pedagogical competence of future geography teachers in a pedagogical institution of higher education. The structure of the professional and pedagogical competence of the teacher includes four components: emotional and value, subject and theoretical, operational and technological, professional and personal.*

**Key words:** *professional and pedagogical competence, future geography teacher, emotional and value component, theoretical and theoretical component, operational and technological component, professional and personal component.*

Taking into account the strategic tasks of pedagogical education not only in transferring to the student a set of knowledge, skills and abilities in the professional and pedagogical sphere, but also in the development of pedagogical intuition, creativity, diversity of interests, outlook, ability to self-learn, as well as in the formation of universal values, the teacher's professional and pedagogical competence can be understood as an integral professional and personal characteristic of the teacher, which includes practical readiness to perform professional and pedagogical functions of the teacher [14].

The analysis of scientific and pedagogical literature [1-14] allowed us to identify four components in the structure of the future geography teacher's professional and pedagogical competence: emotional and value, subject and theoretical, operational and technological, and professional and personal.

The emotional-value component focuses on the subjective value position of the individual in the educational process, which is associated with the value perceptions of the

future teacher, the ability to understand the essence and show interest in pedagogical activity, understand their role and purpose, be able to choose a target and meaningful attitude to actions and facts, and make responsible decisions. Thus, it allows to provide a mechanism of moral self-determination of the future teacher in situations of educational and extracurricular activities.

The subject-theoretical component of the geography teacher's professional competence involves adequate perception and understanding of natural and social processes of reality. It determines the availability of knowledge (geographical, general humanitarian, natural science, psychological and pedagogical, information and computer science, etc.), which represent a certain integral formation and are characterised by such qualities as flexibility, dynamism, variability, adaptability, prognosticity, continuity, interdisciplinarity, integrity, depth, generalisation, dialectic.

The operational and technological component is represented by the formation of pedagogical competences during the period of students' study in a higher pedagogical educational institution. There are six main groups of competences: general educational, design, organisational, communicative, reflective, and creative.

General educational competences are ways of obtaining information about the world, studying students in the context of personality development (i.e. the ability to work with geographical, psychological, pedagogical and methodological literature).

Design and diagnostic skills provide the strategy and tactics of their own professional and pedagogical activities: the ability to formulate final and intermediate learning objectives; select the content of educational material in accordance with the learning objectives, age and individual characteristics of students; choose effective methods, forms and means of teaching; design lesson and topic plans; apply new pedagogical technologies, etc. Of particular importance are the teacher's diagnostic skills: the use of various methods of diagnosis and objective assessment of students' geography skills based on differentiated and personality-oriented approaches.

In addition, the project competencies are aimed at acquiring a number of special, specific skills necessary for teaching geography in schools, namely

– measure, observe, identify, define, describe, characterise, compare, evaluate, predict, etc.

– connect geographical knowledge with life and practice in general;

– independently study topical issues of geographical science.

One of the priority skills for a geography teacher is organisational skills related to the specifics of the subject - organising excursions, field practices, hikes, practical work, ecological trails, etc.

Awareness of the reasons for one's own activity, adequacy of self-assessment, professional self-awareness of oneself as a subject of pedagogical activity allow us to speak about a special group of skills – reflective skills that arise when a teacher performs self-assessment activities.

Creative skills are the ability to go beyond the normative work, to implement innovative approaches, creative projects, the ability to infect children with creativity and develop their creative potential.

Communication competences are the ability of a teacher to control his or her emotional state, facial expressions, gestures, and speech culture.

And finally, the professional and personal component is understood as the subject's abilities that affect the effectiveness of professional activity, such as the teacher's awareness of the norms, rules, model of the teaching profession, correlation of oneself with a certain professional standard, formation of a positive psychological position that affects not only one's own activity but also the general climate of interaction with the subjects of the educational process (students, parents, colleagues), the ability to set tasks and make decisions, to rely on the teacher's work, and the ability to make decisions. Among the personal qualities, it is necessary to note the development of empathy, tolerance, and creativity of students through the implementation of socially significant functions inherent in the content of geographical sciences.

All of the above makes it possible to define the professional competence of a future geography teacher as an integrative indicator that characterises the overall quality of professional and personal development. It is important to note that the effectiveness of a particular training model should be judged not only by the degree of development of individual components of professionally significant personality qualities, but also by the links between them.

#### REFERENCES

1. Адобовська М. В., Ю Тригуб В.І. Роль педагогічної практики у формуванні професійної компетентності майбутнього вчителя географії. *Вісник Черкаського національного університету імені Богдана Хмельницького. Серія Педагогічні науки*. 2019. № 2. С. 57-61.
2. Брюховецька Є.В. Сутність і структура професійної компетентності. *Духовність особистості: методологія, теорія і практика*. 2013. № 3(56). С. 12–19.
3. Гаврищак Г. Р. Компетентність та ключові компетенції викладача ВНЗ. *Професійні компетенції та компетентності вчителя* (Матеріали регіонального науково-практичного семінару). Тернопіль: Вид-во ТНПУ ім. В. Гнатюка, 2006. С. 31-33.
4. Гришко С., Прохорова Л., Непша О., Зав'ялова Т. Особистісно-орієнтоване навчання як умова формування їх професійної компетентності. *Вісник освіти і науки. Серія «Педагогіка»*. 2023. №11(17). С. 639-650.
5. Непша О.В., Гришко С.В., Блищик М.В., Передерій Д.М. Формування професійно-педагогічної компетентності майбутнього вчителя географії в процесі виробничої практики *Актуальні наукові дослідження в сучасному світі*. Переяслав, 2020. Вип. 11(67). Ч. 8. С.134-139.
6. Демченко С.О. Розвиток професійно-педагогічної компетентності викладачів спеціальних дисциплін вищих технічних закладів освіти: автореф. дис. ... канд. пед. наук: 13.00.04. Кіровоград, 2005. 20 с.
7. Донченко Л. М., Непша О.В., Зав'ялова Т.В., Іванова В.М. Особливості формування професійно важливих компетенцій майбутніх учителів географії в процесі практичної підготовки. *Педагогіка формування творчої особистості у вищій і загальноосвітній школах: зб. наук. пр.* 2020. Вип. 2(69). С. 112-117.

8. Калінін В.О. Професійна педагогічна освіта: компетентнісний підхід: монографія / за ред. О. А. Дубасенюк. Житомир: Видво ЖДУ ім. І. Франка, 2011. С. 131-149.
9. Кара С. І. Структура процесу формування професійної компетентності в майбутніх учителів. *Педагогіка, психологія та медико-біологічні проблеми фізичного виховання і спорту: наукова монографія* / за ред. проф.С. С. Єрмакова. Харків: ХДАДМ, 2007. № 10. С. 56-62
10. Карпова Л. Г. Формування професійної компетентності вчителя загальноосвітньої школи: автореф. дис.... канд. пед. наук; 13.00.04. Х., 2004. 19 с.
11. Онаць О. М. Управління розвитком професійної компетентності молодого вчителя загальноосвітнього навчального закладу: автореф. дис. ... канд. пед. наук: 13.00.0. К., 2006. 22 с.
12. Саяк В. І. Розвиток професійної компетентності вчителів географії у системі післядипломної педагогічної освіти: автореф. дис. ... канд. пед. наук: 13.00.04. К., 2007. 22 с.
13. Черноус В.П. Сутність поняття «професійно-педагогічна компетентність» майбутнього вчителя початкової школи. *Наукові записки Міжнародного гуманітарного університету: зб. наук. пр.* Одеса: Видавничий дім «Гельветика», 2020. Вип. 33. С. 179-182.
14. Чубрей О.С. Система підготовки майбутніх учителів географії до професійної діяльності на засадах компетентнісного підходу: монографія. Чернівці: Технодрук, 2020. 376 с.



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