

UDC 502/504-047.22

Hanna Chyrva,
PhD in Pedagogical Sciences, Associate Professor;
Svitlana Sovhira,
Doctor of Pedagogical Sciences, Full Professor
Pavlo Tychyna Uman State Pedagogical University

THE HIERARCHY OF SUCH CONCEPTS AS SPECIALIST'S PROFESSIONAL COMPETENCY AND PERSONAL ENVIRONMENTAL COMPETENCY

The article deals with the hierarchy of such concepts as professional competency of a specialist and personal environmental competency in order to justify the goals, objectives and psychological-pedagogical conditions of their global integration in the context of the education process. Such concepts as professional competency of a specialist and personal environmental competency have been analyzed, their content has been defined, the need to recognize environmental competency as a component of professional competency has been emphasized. The authors' interpretation of the outlined concepts has been given. The structural components of competency that generally interpret both environmental and professional competencies have been revealed. It has been proved that environmental competency is the main factor of successful professional performance and a component of professional competency.

Key words: *competency, professional competency, specialist's professional competency, personal environmental competency.*

У статті на основі аналізу наукових джерел обґрунтовано необхідність впроваджувати на заняттях курсів практичного спрямування у ВНЗ такі методи і прийоми, які б допомагали майбутньому спеціалісту навчатися спілкуванню з аудиторією: формуванню комунікативних умінь, створенню доброзичливої атмосфери у спілкуванні. Доведено, що цьому сприяє методика тренінгу на практично-семінарському занятті або тренінг як форма навчання у ВНЗ. На засадах інноваційного підходу схарактеризовано тренінг як спеціальну форму заняття, як багатофункціональне педагогічне явище, зміст та структура якого визначають його дидактичне спрямування у процесі фахової підготовки у ВНЗ. Визначено мету застосування тренінгів.

Ключові слова: *інноваційний підхід; навчальний тренінг; форма навчання; тренінг; класифікація тренінгів; заняття у ВНЗ.*

В статье на основе анализа научных источников обоснована необходимость внедрять на занятиях курсов практического направления в вузах такие методы и приемы, которые помогли будущему специалисту

учиться общению с аудиторией: формированию коммуникативных умений, созданию доброжелательной атмосферы в общении. Доказано, что этому способствует методика тренинга на практически-семинарском занятии или тренинг как форма обучения в вузе. На основе инновационного подхода охарактеризован тренинг как специальную форму занятия, как многофункциональное педагогическое явление, содержание и структура которого определяют его дидактическое направление в процессе профессиональной подготовки в вузе. Определены цели применения тренингов.

Ключевые слова: *инновационный подход; обучающий тренинг; форма обучения; тренинг; классификация тренингов; занятия в вузе.*

In view of modernizing the education system of Ukraine, its entering into the European educational space, introducing various innovations into the higher education practice, the idea of a competent approach to professional training of a specialist as well as forming their professional competency as an important component of this training has been actualized. However, both society and environment also experience transformational changes. Man, nature and culture, as the factors of sociohistorical and socioenvironmental changes, cause the scientific interest of culturologists, public figures, politicians, philosophers, ecologists, psychologists and educators.

In modern studies, some attempts are being made to combine these two globalization processes, and, consequently, the processes of designing and approving competency-based models of professional education, forming students' professional competency, models of environmental education, personal environmental competency are of scientific significance.

Globalization processes as a modern phenomenon and transformational processes in the environment have been studied by foreign and native scholars, namely, D. Bell, O. Bilorus, F. Fukuyama, P. Hnathenko, S. Krymskyi, P. Lukashevych, D. Lukianenko, D. Meadows, M. Mykhalchenko, Yu. Pakhomov, K. Popper, R. Robertson, Ye. Sulima, A. Toffler, M. Waters et al. The scholars have paid their attention to the study of globalization in the context of post-industrial reality, present civilization models in the new global social order, the problems of Ukraine's active inclusion in European globalization and integration processes, etc. The authors believe that this transformation does not provide for a vector of changes that can be both progressive and regressive. According to Yu. Shargorodskyi, transformation is a process of altering the essential components of society and all aspects of the social life, which influence the change in the state, form, nature or character of a society or a single structure [12].

Simultaneously, the issues of forming professional competency of a specialist and personal environmental competency as qualities contributing to solving these problems are on the agenda.

The scholars aim to study the essence and content of professional

competency, implementation of ways and means of its formation and development (V. Adolf, T. Dobudko, B. Hershunskyi, Yu. Kuliutkin, N. Lobanova, A. Markova, L. Mitina, N. Ostapchuk, A. Pometun, V. Slastonin, H. Sukhobska, Yu. Vardanian et al.). Professional competency as literacy, education, erudition of a specialist, which is mainly achieved due to special academic training, distinguishes professional pedagogical activity from unprofessional, so-called «amateur», which can be widely and successfully conducted by adults based on empirical knowledge and one's own experience without special training and systematized knowledge (for instance, pedagogical activities within a family, a work team, etc.). Therefore, a considerable interest of researchers in the issue of professional competency is quite natural.

Yet, the analysis of works on the issue of professional competency of a specialist shows that now there is no single approach to its understanding, there is a heterogeneity of definitions used by the authors to refer to this formation. We believe that these concepts are synonymous and can be used as equivalent, since they serve as a kind of profession.

Currently, the education system has an interest in environmental competency, which is due to the changes in the content of education and its outcomes. The interest in clarifying the essence of environmental competency has increased in connection with the understanding that solving global environmental problems is impossible without qualitative changes in environmental competency of all citizens and civil servants as the most responsible content.

To analyze the peculiarities of personal environmental competency, we have referred to the analysis of psychological, acmeological and pedagogical works on the aforementioned subject, first of all, those dealing with the categories of «competence» and «competency» (V. Baidenko, N. Bibik, V. Bolotov, A. Khutorskyi, O. Ovcharuk, J. Raven, Yu. Tatura, A. Verbitskiy, I. Yermakov, I. Zymnia et al.); psychological and acmeological, as well as specific types of professional competency, including environmental (O. Hurenkova, A. Khrypunova, O. Kolonkov, L. Lukianova, O. Maksymovych, A. Nestorova, O. Prutsakova, N. Pustovit, O. Rohova, L. Rudenko, L. Tytarenko, S. Shmaliei, D. Yermakov, et al.).

Their researches highlight that competency-based approach involves forming the experience in solving life problems, implementing social roles. However, as a result of education they consider an individual's ability to act in specific situations rather than the amount of knowledge acquired.

The aim consists in considering such concepts as professional competency of a specialist and personal environmental competency to justify the goals, objecties, content and conditions of their global integration in the education process.

Objectives are to analyze such concepts as professional competency of a specialist and personal environmental competency, to define their content; to characterize the structural components of competency that generally reveal the essence of environmental and professional competencies; to specify the hierarchy of these concepts.

The Council of Europe considers the concept of competency to be general or key abilities, basic skills, fundamental learning paths, key qualifications, cross-curricular skills, key perceptions, supports or background knowledge. European experts interpret the concept of competency as an ability to successfully meet individual and social needs, be active and solve given tasks. Each competency is based on the combination of mutually relevant cognitive attitudes and practical skills, values, emotions, behavioural components, knowledge and abilities, all that can be mobilized for active actions.

Nowadays, there are many interpretations of the term «competency», for instance, a certain characteristic of a new quality of preparedness that allows the child to use the acquired knowledge and skills in a non-standard situation at the interdisciplinary level, and, most importantly, to achieve further changes and successes on the basis of the knowledge acquired (M. Chelyshkova, 2002); a quality, acting as a criterion for the development of individual intelligence, a special type of organization of subject-specific knowledge, which allows taking effective decisions in a relevant field of activity; competency implies a high level of understanding of an issue in a particular subject area, experience in dealing with complex actions, effectiveness of judgments and evaluations (M. Kholodna, 2002); a set of knowledge, skills and abilities that allow the subject to adapt to changing conditions, in fact, it is their ability to act and survive in these conditions; they all relate to human experience and activities. Outside situations and activities, competencies are not detected (N. Yefremova, 2003), etc. Consequently, a direct interest in the study of the category of competency is dictated by the need to “adjust” to modern native pedagogical reality the new basic units of professional sphere, under which, in the world educational practice are understood the key competences as the originally given requirements (norms) for educational training, and competency is composed of a set of qualities and the minimum experience in dealing with activities in a certain field.

The analysis of the leading trends in the world educational strategy states that competency in modern society can serve as a criterion that allows evaluating the resource components of human potential. Simultaneously, there are a number of contradictions, namely, between the accumulated potential of knowledge about the laws of nature development and ecodiviant actions in realizing this knowledge in practice; between the attempt to reflect the socionatural activity and the difficulties in society’s mastering environmental culture as an internal determinant of activity, which harmonizes the relationship between man and nature; between the original conceptual scheme of the eco-humanitarian educational paradigm and its full-fledged implementation in the field of designing technologies for forming an environmentally competent personality of a specialist; between the allocation of a new socioecological function of the teacher and the lack of a mechanism for correcting environmental and pedagogical activities from the standpoint of competency-based approach to the system of professional orientation and training of future specialists [8, p. 56].

The current situation calls for recognizing environmental competency as a

component of professional competency.

The necessary stage in justifying the essence of environmental and professional education integration is separation of structural components of competency, which generally reveal the essence of both environmental and professional competencies.

In this regard, the position of A. Verbitskiy and M. Illiazova presented in the paper, titled «Invalidities of Professionalism: Issues in Formation» [13], where the invariant structure of competency of the subject of professional activity is revealed, deserves special attention. Under the invariant of professional competency, the authors understand the structural and functional system, which consists of the following components: axiological and notional, motivational, individual psychological, instrumental, conative. An axiological and semantic component is considered as an integral formation of personality, which plays a leading role in the structure of the invariant of professional competency. A motivational component is a set of needs, motives, orientation of personality, ensuring their aspiration to work productively. An individual and psychological component is represented in this work as a set of professionally important qualities of personality necessary for performing professional activity at the standardized level. An instrumental component implies general cultural knowledge, abilities, skills and experience in a relevant professional field. A conative component is the mechanism of regulation (process management and results evaluation) by the subject of its activity. It is important to emphasize the positions of the authors who believe that the conative component «gathers» all the above-mentioned components-competences into a single invariant of professional competency.

In his thesis, A. Raitsev considers professional competency to be an integrative set of professional and personal qualities, availability of scientific knowledge, skills that contribute to obtaining the culture of social and economic activity, cultural and moral values, world outlook [9].

Under professional competency, A. Verbitskiy understands «the integral content and procedural characteristic of an individual, which determines success of professional activity and responsibility for its results» [13, p. 237]. The author interprets the phenomenon of professional competency in the context of two aspects, namely, general professional competency and specific professional competency. In his opinion, general professional competency means knowledge, abilities, skills, capabilities, as well as readiness to update them in the field of a certain group of professions (a graduate's competencies in the research, design and constructive, administrative and managerial, production and pedagogical activities). However, specific professional competency (qualification) is defined as «a degree and type of a graduate's professional training, their professional competencies necessary for certain professional activity» [13, p. 237].

As the main signs of professional competency, N. Sergeev and V. Serikov understand the special role of this activity in the self-realization of the individual; comprehending a notional, movable and variational aspect of the activity (an

indicative basis of the activity); availability of experience in performing the activity under the conditions different from those in which it was assimilated, as well as formation of the criterial mechanism of self-regulation and self-control [11].

In the acmeological context, A. Derkach and V. Zazykin believe professional competency to be «the main cognitive component of the sub-systems of professionalism of personality and the activity, the range of issues to be solved, a constantly expanding system of knowledge enabling highly productivity professional performance» [1, p. 55].

According to Yu. Grishayeva, professional competency is seen as the ability and readiness for professional activity, which implies possessing general cultural, general professional, professional competences at the necessary level, as well as the minimum experience in professional field. Thus, the components of professional competency of a specialist are the groups of competences (general cultural competences, general professional competences, professional competences), which cover the potential needed for forming professional qualities of the individual, professional experience and professional knowledge (personally-, practice- and subject-oriented levels of the education process)) [6, p. 89].

In relation to the current reasoning, it is important to define the meaning of the concept of environmental competency. Therefore, we have considered the works by S. Glazachov, A. Gaharin, who justify environmental competency as «the ability, readiness and experience in preserving the environment, solving environmental problems» [4, p. 50]. The authors understand environmental competency as a personal characteristic, which implies availability of ecological knowledge; views on the essence and norms of human interaction with the environment, nature as the most important value; readiness and the ability to solve environmental problems; practical experience in preserving and improving the state of the environment; possession of ecologically significant personal qualities (humanity, empathy, thrift, responsibility for the results of ecology- oriented activity).

In the context of the above-mentioned approaches, O. Perfilova showed the role and importance of social aspects of environmental competency and justified the meaning of the concept of socioenvironmental competency, the essence of which she sees «in people's readiness while taking decisions to subjectively perceive the environment in the unity of natural and sociocultural components and comprehend social responsibility for their professional activities» [7, p. 34].

Of particular interest is the position of D. Yermakov, who developed the pedagogical concept of forming environmental competency of schoolchildren. He considered theoretical and methodological foundations of applying competency-based approach in environmental education (relative to the level of general secondary education) based on the ontological approach: the individual becomes the subject of development of nature and themselves as one of its forms (natural forms of being). As the conceptual basis for forming schoolchildren's environmental competency, the author formulated the following provisions:

«1) the essential, ontological basis of learning is development of a common «man-nature» subject as the process and the result of pupils' mastering socially and environmentally relevant activities in identifying, preventing and solving environmental problems; 2) development of environmental competency should be consistent with the general context of forming an integral cultural personality; 3) quite important is an active appeal to life experience of pupils, its assessment. A pedagogical model of forming environmental competency of pupils is didactically based on teaching how to solve environmental problems» [14, p. 22].

M. Argunova studied the concept of environmental competency, interpreting it as the individual's ability to systematically apply environmental knowledge and skills to independent and collective activities in solving socioenvironmental problems in accordance with the ideas of sustainable development [2, p. 15]. A. Novikov considers environmental competency as a basic qualification, a general ability to simultaneously work with a computer, to use databases, knowledge and understanding of economics and business, financial knowledge, commercial intelligence, the ability to apply technology transfer, etc. [10]. In the context of the studies on ecodesign, A. Glazacheva interprets environmental competency as an inherent component of a specialist's high professionalism, regardless of their professional orientation, which includes knowledge that allows dealing with the issues of professional activity taking into account the environmental aspect, as well as the qualities of the individual that enable them to carry out professional activity from the standpoint of its environmental feasibility (ecology-oriented professional activities) [5, p. 61].

According to O. Rogovaya, environmental competency of a modern specialist is considered as one of the most important conditions for implementing a humanistic strategy for solving global environmental problems and sustainable development of civilization. The author understands environmental competency as the ability and readiness to build a harmonious relationship between the natural, artificial and social environment, which involves the attitude towards oneself as a part of nature. Adhering to the idea of superstructure, universality of personal environmental competency, the need to include the imperatives of systematic environmental thinking in the content of general professional and professional unit of a specialist's training, the author notes that «any professional activity is now considered from the point of view of the impact on nature and ecosystems of different levels, changes in the environment and requirements of rational nature management, utilization and recycling. Thus, there is a basis needed to determine a general environmental component of professional activity and justify a basic professional environmental competency» [10, p. 15].

Based on the views of K. Erdyneeva and E. Kadashnikova, we may assume that the construct of environmental competency represents an integrational combination of abilities, affirmations and experience of creative activity. Their component-based relationship allows us to establish ecological relations in the Society-Nature-Man system. A specific combination of different abilities of the subject of activity forms the basis of professional conduct aimed at solving

environmental problems [3, p. 60].

In the context of competency-based approach, the content of its environmental education components is revealed:

- «learn to know», i.e. to know nature (forming ecological knowledge and skills);
- «learn to do», i.e. to create one's own products, to realize educational environmental projects;
- «learn to live», i.e. to preserve the environment;
- «to learn to be», i.e. to choose a life path, to realize oneself in the process of ecological activity.

According to D. Yermakov, environmental competency is the potential and experience of the types of pupils' environmental actions. It is always personality-oriented and activity-based [7, p. 44].

Thus, both professional and environmental competencies are determined by mental states, which used to be functionally limited in time and space mental entities and turned out to be permanent structures of the individual characterizing them and anticipating their actions and behaviour.

Consequently, environmental competency is a fundamental element of successful professional performance.

While analyzing the concepts of professional competency of a specialist and personal environmental competency and determining their content, we have established the need to recognize environmental competency as a component of professional competency.

Under professional competency, we understand practical experience of a specialist, their skills and abilities, preparedness, knowledge and erudition, as well as the ability to determine ways and means of ensuring their acquisition and functioning through consciousness and thinking. Professional competency is characterized by the ability to solve various issues and tasks arising in life situations, based on the formed values and motives, knowledge, educational and life experience, individual characteristics, inclinations, needs.

In our opinion, environmental competency is seen as a set of interrelated requirements (knowledge, skills, abilities, ways of activity) for the educational level of the individual, allowing them to carry out effective environment-oriented activities in the Man-Society-Nature system. These structural components of competency generally characterize both environmental and professional competencies. Consequently, environmental competency is a fundamental element of successful professional performance and a component of professional competency.

The prospect for further studies are seen in using the above-mentioned concepts to reveal their component-based structure, functions in the process of training future specialists in higher education institutions.

REFERENCES

1. Acmeology: textbook / A. Derkach, V. Zazykin. – Saint-Peterburg: Piter, 2003. – 256 p.

2. Argunova M. V. Ecological education for sustainable development as a meta-subject direction in school education modernization: abstract of doctoral thesis: 13.00.01 «General pedagogy, history of pedagogy and education / M. V. Argunova. – M., 2009. – 44 p.
3. Erdyneeva K. G. Environmental competency as a phenomenon of pedagogical reality / K. G. Erdyneeva. E. B. Kadashnikova // Success of modern natural history. – 2009. – No 1. – P. 59–62.
4. Gagarin A. V. Ecological acmeology: pedagogical adaptation: textbook / A. V. Gagarin, C. N. Glazachev. – M. : MSMU, 2012. – 240 p.
5. Glazacheva A. O. Environmental competency of a future specialist in the context of design education: textbook / A. O. Glazacheva, A. V. Gaharin, C. N. Glazachev. – M., 2011. – 180 p.
6. Grishayeva Yu. M. The concept of forming environmental professional competency of humanities students: doctoral thesis: 13.00.08 / Grishaieva Yuliia Michailovna. – M., 2014 – 374 p.
7. Perfilova O. E. Development of socioenvironmental competency of a teacher in professional education: PhD thesis: 13.00.08. / Perfilova Olga Evgenievna. – M., 2007. – 186 p.
8. Professional pedagogy: a textbook for pedagogy students / ed. by S. Ya. Batyshev, A. M. Novikov. 3rd edition, reworked. – M.: Publishing house EGVES, 2009. – 456 p.
9. Raitsev A. V. Development of students' competency in the education system of a modern higher education institutions: doctoral thesis: 13.00.08 / Raitsev Anatoliy Vasilevich. – Saint Peterburg, 2004. – 309 p.
10. Rogovaya O. G. Forming environmental pedagogical competency of specialists in education: abstract of doctoral thesis: 13.00.04 «Theory and methods of professional education» / O. G. Rogovaya. – Saint Peterburg, 2008. – 40 p.
11. Sergeev N. K. Pedagogical activity and pedagogical education in an innovative society: monography / N. K. Sergeev, V. V. Serikov. – M.: Logos, 2013. – 364 p.
12. Shaihorodskiy Yu. The concept of transformation as a tool of social changes analysis / Yu. Shaihorodskiy / Regional education. Politology, psychology, communication: [Ukrainian scientific journal]. – 2010. – No 4. – Mode of access: <http://social-science.com.ua/article/323>.
13. Verbitskiy A. A. Invariants of professionalism: problems in formation / A. A. Verbitskiy, M. D. Iliazova. – M. : Logos, 2011. – 288 p.
14. Yermakov D. S. Forming environmental competency of students: theory and practice. – M. : MIOE, 2009. – 180 p.
15. Yermakov D. S. Pedagogical conception of forming environmental competency of students: abstract of PhD thesis: 13.00.01 «General pedagogy, history of pedagogy and education / D. S. Yermakov. – M., 2009. – 39 p.