MODELING THE TRAINING SYSTEM OF FUTURE PHDS TO THE REALIZATION OF THE ACADEMIC INTEGRITY IDEAS

Kuzmenko A. O.
Candidate of Philological Sciences,
Associate Professor at the Department of Language Training and Humanities
Dnipro State Medical University
Volodymyra Vernadskoho str., 9, Dnipro, Ukraine
orcid.org/0000-0003-1189-1438
anastasiiakuzmenko90@gmail.com

The research paper presents modeling of the system of formation of future PhD's readiness to implement the ideas of academic integrity in professional activity. It has been determined that the system of formation of readiness to implement the ideas of academic integrity by future PhDs belongs to a variety of social systems, since its subjects are people, their contact, various social institutions.

The pedagogical system is presented as a kind of social systems, where the main thing is intersubjective interaction, with a harmoniously ordered set of interdependent elements integrated into an axiologically favorable environment. It is included in the system of a more complex order - the general professional training of future PhD. A full description of the pedagogical system model is possible by identifying its necessary components. The system of theory and practice of training future PhDs to implement the ideas of academic integrity culture in professional activity is defined as a coherent, ordered, interdependent set of components (motivational-goal, subject-subject, content, environmental, technological, evaluation-resultative) that interact with each other and the social environment, enable the functioning of the axiological-semantic educational environment of higher education institutions as a leading factor in the formation of the readiness of future PhD to implement the ideas of academic integrity. The motivational and goal component has a system-forming function, specifies and its leading goal, interests, aspirations and beliefs, needs, approaches, principles and regulatory framework, tasks; subject-subject – assimilation of the system to the personalized requests and abilities of future PhD, activation of their creative flair for the formation of academic integrity culture in a correspondingly formed environment; environmental – creation of appropriate conditions and opportunities for future PhD; substantive – directs work with system subjects; technological – completion of a set of technologies in harmony with their forms and methods to achieve the main goal of the system; evaluation-resultative – monitoring of acquired knowledge, abilities and skills, determining the level of readiness of future doctors of philosophy to implement the ideas of academic integrity culture in professional activity.

МОДЕЛЮВАННЯ СИСТЕМИ ПІДГОТОВКИ МАЙБУТНІХ ДОКТОРІВ ФІЛОСОФІЇ ДО РЕАЛІЗАЦІЇ ІДЕЙ КУЛЬТУРИ АКАДЕМІЧНОЇ ДОБРОЧЕСНОСТІ

Кузьменко А. О.
кандидат філологічних наук,
доцент кафедри мовної підготовки та гуманітарних наук
Дніпровський державний медичний університет
вул. Володимира Вернадського, 9, Дніпро, Україна
orcid.org/0000-0003-1189-1438
anastasiiakuzmenko90@gmail.com

Ключові слова: академічна доброчесність, доктор філософії, педагогічна система, мотиваційно-цільовий компонент, суб'єкт-суб'єктний компонент, змістовий компонент, середовищний компонент, технологічний компонент, оцінно-результативний компонент.

У науковому доробку представлено моделювання системи формування готовності майбутніх докторів філософії до реалізації ідей академічної доброчесності у професійній діяльності. Визначено, що система формування готовності до реалізації ідей академічної доброчесності майбутніми докторами філософії належить до різновиду соціальних систем, оскільки її суб'єктами є люди, їхній контакт, різні соціальні інститути і т. ін.

Педагогічну систему представлено як вид соціальних систем, де основною є міжсуб'єктна взаємодія з гармонійно впорядкованою сукупністю взаємозалежних елементів, інтегрованих у аксіологічно сприятливе середовище, та входить до системи більш комплексного порядку – загальнопрофесійної підготовки майбутніх докторів філософії. Повноцінний опис моделі педагогічної системи уможливлюється за ідентифікації необхідних її компонентів. Система теорії та практики підготовки майбутніх докторів філософії до реалізації ідей культури академічної доброчесності у професійній діяльності визначається як цілісна, упорядкована, взаємозумовлена сукупність компонентів (мотиваційно-цільового, суб'єкт-суб'єктного, змістового, середовищного, технологічного, оцінно-результативного), що взаємодіють між собою та соціальним оточенням, уможливлюють функціонування аксіологічно-смисловогоосвітньогосередовищаЗВОякпровідногочинникаформування готовності майбутніх докторів філософії до реалізації ідей академічної доброчесності. Мотиваційно-цільовий компонент має системоформуючу функцію, конкретизує її провідну мету, інтереси, прагнення та переконання, потреби, підходи, принципи і нормативну базу, завдання; суб'єкт-суб'єктний – уподібнення системи до персоналізованих запитів і здібностей майбутніх докторів філософії, активізація їхнього творчого хисту для формування культури академічної доброчесності у відповідно сформованому середовищі; середовищний – створення належних умов та можливостей для майбутніх докторів філософії; змістовий – скеровує роботу із суб'єктами системи; технологічний – довершення комплексу технологій у суголосності їхніх форм та методів для досягнення головної мети системи; оцінно-результативний – проведення моніторингу набутих знань, умінь та навичок, визначення рівня сформованості готовності майбутніх докторів філософії до реалізації ідей культури академічної доброчесності у професійній діяльності.

Formulation of the problem. Nowadays the labor market and demand are rapidly changing, and the level of requirements for a competitive specialist is increasing. There is an urgent need to

improve his knowledge, skills and abilities. In order to satisfy such a request, there is a need to rethink and reform education and science as key factors in the development of the economy and society, to strengthen the image of the Ukrainian state at the world level, and to improve the quality of life and well-being of its citizens. The driving force behind the restructuring of higher education and the formation of a new perspective were the provisions of the Lisbon Agreement (2007) on the principles of the functioning of the European Union with the aim of creating a single European research area and the Belgian Communiqué (2009) of the Ministers of Education of the European Union countries "Bologna Process 2020 – The European Higher Education Area in the New decade", which refers to the promotion of the formation of research competence and the ability to produce the latest developments / innovative research. The Law of Ukraine "On Education" emphasizes that the leading goal of modern education is "...comprehensive development of a person as an individual and the highest value of society, his talents, intellectual, creative and physical abilities, formation of values and competencies necessary for successful self-realization, education of responsible citizens who are capable of making a conscious social choice and directing their activities to the benefit of other people and society, enriching on this basis the intellectual, economic, creative, and cultural potential of the Ukrainian people, raising the educational level of citizens in order to ensure the sustainable development of Ukraine and its European choice" [9]. The adoption of the Code of Ethics of a scientist of Ukraine in April 2009 is also significant. It emphasizes that "a scientist bears moral responsibility for the consequences of his activities that may affect the development of humanity, the preservation of nature and spiritual and cultural heritage..." [7]. This is manifested by the formation of a powerful intellectual resource in the educational and scientific sphere, training of innovative specialists.

Thus, the culture of the participants in the educational and scientific process requires considerable attention today. The implementation of the practice of observing the values, norms and rules of academic integrity, initiated by the Law of Ukraine "On Higher Education", is an important component of the restructuring of the interaction of scientists and education workers. Therefore, the training of scientific personnel in Ukraine, related to the introduction of the European model of Doctor of Philosophy (PhD) in 2016, in accordance with the Procedure for the Training of Higher Education Holders of Doctor of Philosophy and Doctor of Science Degrees approved by the CMU of Ukraine, was also influenced by significant changes in Ukrainian education. in institutions of higher education and scientific institutions (2016).

Analysis of recent research and publications. O. Antonova [1], T. Zhizhko [8], O. Karaman [11], V. Proshkin [17] and others have been engaged in the study of pedagogical systems and models; reflection of the prevailing principles of professional training of Doctors of philosophy are available in the works of V. Menyailo [16]; value-meaning aspects are studied in the works of S. Bader [2].

The purpose of the article. The purpose of the article is to define and substantiate the components of the system of formation of the academic integrity culture of future Doctors of philosophy in the process of professional training. The object of the research is the process of professional training of future Doctors of philosophy. The subject of the research is the system of formation of the academic integrity culture of future Doctors of philosophy in the process of professional training.

Presenting main material. First of all, we outline the traditional views on the essence and content of systems and the systemic approach in pedagogical science, which allow us to consider the process of theory and practice of training future PhDs to implement the ideas of academic integrity in professional activity as a complex phenomenon. Therefore, terminological sources interpret the system (from the ancient Greek σύστημα "system" means combination, formation) as: a set of certain elements between which there is a regular connection or interaction, coordination, which form a whole unit [22]; a defined order in the location and connection of actions; a form of organization of something; something, which is a unity of regularly arranged and interconnected parts [21]. I. Kovalenko, P. Bidyuk and O. Gozhy detail the system as a set of elements connected and interacting with each other in a certain way to perform the specified target functions; an object that is characterized by the composition of elements, the structure of their connections, parameters and has at least one input and one output, which provide communication with the external environment, is characterized by the laws of behavior and changes behavior upon the arrival of controlling influences; totality, formation from a finite set of elements, among which there are defined ones [12, p. 11–12].

In our research, we understand the system as a unity of elements, their interaction and integration into the socio-academic environment, where the dominant function is the achievement of a certain goal, which outlines and characterizes these elements and the type of their connection. The system of forming the academic integrity culture of future PhDs belongs to a variety of social systems, since its subjects are people (students and teaching staff), their contact, various social institutions (higher educational institutions, scientific institutions, international projects, etc.). Considering the process of formation of readiness

to implement the academic integrity ideas by future Doctors of philosophy, which takes place in the process of professional training, we specify the study of such a system as actually pedagogical, which is a subtype of social.

The theory of pedagogical systems attracted the attention of many scientists, including O. Dysa (2019) [4], V. Proshkin (2015) [17], T. Zhizhko (2005) [8] etc.

T. Zhizhko understands the pedagogical system as "a dynamically functional complex of dialectically interconnected components and elements that create optimal conditions for solving the tasks of learning, education and educating people" [8, p. 148].

In today's pedagogical science, the pedagogical system is interpreted as a system that is characterized by functioning aimed at the development of the student, a specific structure, connections and interdependence of its elements.

Researcher V. Proshkin is of the opinion that the goal forms a pedagogical system. The goal itself requires means and ways to achieve it. Traditionally, the goal is not independently formed, but determined by the social order of society and the requests of participants in the educational process [17]. The goal correlates with the results and closes the whole cycle. The effectiveness of the pedagogical process is determined by the extent of the coincidence of the goal with the results.

O. Antonova developed a holistic system that combines an interrelated set of such elements as purpose, content, a complex of the latest forms, methods and means of theoretical and practical training, necessary conditions in order to ensure the quality of educational and scientific components in the training of future Doctors of philosophy, [1, p. 98].

A. Lygotsky noted that the pedagogical system should be a complex of interconnected elements, form a unity with the environment, be an element of a higher-order system and a lower-order system [15, p. 111–112]. V. Strelnikov noted such components of the pedagogical system as the purpose, content, technologies, teaching tools, methods of monitoring and correcting learning results and teaching activities, learning activities, forms and technologies of teaching and learning organization, didactic principles and conditions, educational environment [19].

Thus, in this work, we consider the pedagogical system as a type of social systems, where intersubjective interaction is dominant, with a harmoniously ordered set of interdependent elements integrated into an axiologically favorable environment, and is part of a system of a more complex order – general professional training of future Doctors of philosophy.

We see the study of objects, phenomena, processes as pedagogical systems as possible taking into account the systemic approach, which is one of the main ones in our work, taking into account the subject of research.

The definition of a systemic approach has remained debatable for many years. It is understood as: wide opportunities for receiving various statements and assessments, which involve the search for different options for performing certain work with the subsequent selection of the best option [14, p. 5]; a unit formed by a set of interconnected elements, which are complex, hierarchically organized structures that are connected to the surrounding environment [20]; a comprehensive consideration of social objects and phenomena as a single unit, taking into account all the interrelationships of objects, their properties and imposed restrictions [13, p. 24].

I. Tkachenko, Yu. Krasnoboky and O. Pidgorny see the fundamentality of the system approach in its interdisciplinary nature and the maximum achievement of knowledge thanks to its unity, based on the possibility of a hierarchical view of the problem, which is solved as a system as a whole with external and internal connections and interconnections [20].

The latest pedagogical science tends to represent the author's systems in the habitus of the model, which implies the regularity of the application of modeling as a scientific method. Scientific and terminological sources offer an understanding of modeling as the study of any objects, systems, phenomena, processes by building and studying their models [21]. In this scientific study, we adhere to the opinion of L. Zdanevich: modeling is a method of cognition that includes the creation, research and use of models, with different principles of modeling, among which clarity, certainty and objectivity are the leading ones [10, p. 139]. Modeling the professional and pedagogical situation allows taking into account the peculiarities of students, their interests, expands the context of their activities, and also acts as a means of creating a motive for such activities.

Since modeling as a research method is based on the formation of a model, its terminological and conceptual definition and its understanding are necessary for relevance in its formation. The term "model" comes from the Latin "modulus", that means a measure. A model is customary called a sample or standard of something, as well as a reduced or increased similarity of something. S.V. Stebluk and V.I. Starosta understands the "model" as a scheme or system that includes a complex of interrelated elements of the educational process and a description of educational activities [18, p. 87].

S. Bader defines a model as a graphic description of the object under study, reflecting the structure and relationships between its components [2]. Agreeing with the scientist, in this work we understand the model as a visual representation of the object of intelligence, which is the system of forming the academic integrity

culture of future Doctors of philosophy in the process of professional training. It reflects its structural organization and the interdependence of structural components, which are determined by the system-forming factor – the goal of the system.

Thus, a complete description of the model of the pedagogical system is made possible by identifying its necessary components. Therefore, there is an urgent need to find out the meaning of the component of the pedagogical system and to determine the fundamental components of the pedagogical system of the theory and practice of training future Doctors of philosophy to implement the academic integrity ideas in professional activity.

O. Dubasenyuk highlights such basis of the conceptual model of professional training as the goal-motivational, structural, functional, praxeological and technological blocks [6, p. 107]. R. Druzhenenko tends to the purpose, content, principles, methods, techniques, means, forms and results of educational activities as components of the pedagogical system. [5, p. 20]. V. Menyailo singles out the target, methodological, substantive, operational and effective blocks in the system of professional training research and innovation activities of future Doctors of philosophy [4, p. 251]. At the same time, O. Karaman, V. Proshkin consider the fundamental components of pedagogical systems to be target, subject-object, content, technological, and resultative [11; 19].

Based on such an understanding of pedagogical systems, its leading features, principles of functioning and structural components, we have the opportunity to define a system of theory and practice of training future Doctors of philosophy to implement the ideas of the academic integrity culture in professional activity as a complete, ordered, interdependent set of components (motivational-targeted, subject-subject, content, environmental, technological, evaluation-resultative) that interact with each other and the social environment, enable the functioning of the axiological-semantic educational environment of higher education institutions as a leading factor in the formation of the readiness of future Doctors of philosophy to implement the ideas of academic integrity. There are the specified components characterized:

* *The motivational-target component* defines the leading goal, aspirations, values, interests, beliefs, needs and tasks. We note that the system-forming factor of the system is precisely its purpose, to which the interrelationships of all components obey. The leading goal here is the implementation of the ideas of academic integrity by future PhDs in the process of their professional training.

* *The subject-subject component* of the system illustrates the main subjects involved in the process of theory and practice of training future Doctors

of philosophy to implement the ideas of academic integrity in professional activity, interaction between them based on dialogic communication. The leading subjects include: future Doctors of philosophy, the scientific supervisor, the scientific and pedagogical staff of the graduation departments, and those who have obtained the first and second levels of education. In addition, subjects such as the third-level education students and a scientific and pedagogical worker can be partially integrated, since teachers can simultaneously be graduate students.

* *The content component* illustrates specific actions with various subjects of the system for the implementation of academic integrity ideas during various activities (pedagogical, scientific, methodical, organizational) of future PhDs.

* *The environmental component* of the system modeled by us demonstrates the unity of conditions in the educational and scientific environment of higher education institutions, which stimulate the implementation of academic integrity ideas by future Doctors of philosophy in their professional activities by involving them in various types of activities, which is ensured through the interaction of the environment with various social institutions (institutions of education, science, public organizations, international projects).

* *The technological component* of the system presents a set of meaningful technologies in the unity of their forms, methods, and means, which will be implemented at various stages of the system of theory and practice of training future Doctors of philosophy to implement the academic integrity ideas in professional activity.

* *The assessment-resultative component* of the system reflects the components, criteria and levels of formation of the implementation of Academic integrity ideas by future Doctors of philosophy in their professional activities.

Conclusions and suggestions. The motivational-target component performs a system-forming function, specifies and its leading goal, interests, aspirations and beliefs, needs, approaches, principles and regulatory framework, as well as relevant to this task. The main function of the subject-subject component is to adapt the system to the personalized requests and abilities of future PhDs, to activate their creative flair for the formation of the academic integrity culture in an appropriately formed environment. The function of the environmental component of the system is to create appropriate conditions and opportunities for students of the III level of education. The dominant function of the content component directs the work with the subjects of the system, the technological one means to complete the complex of technologies in harmony with their forms and methods to achieve

the main goal of the system. The main function of the assessment-resultative component is to monitor the acquired knowledge, abilities and skills, to determine the level of readiness of future Doctors of philosophy to implement the ideas of the academic integrity culture in professional activity.

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