УДК 378.046-021.68
DOI 10.11603/m.2414-5998.2023.1.13818

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EUROPEAN TRADITIONS OF DOCTORS OF PHILOSOPHY TRAINING

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ЄВРОПЕЙСЬКІ ТРАДИЦІЇ У ПІДГОТОВЦІ ДОКТОРІВ ФІЛОСОФІЇ

Abstract. The article analyzes the peculiarities of scientific personnel training during the integration of national educational system into European educational space. It has been found that there is no single mechanism for PhD or Doctors of Science preparation in European countries, however there are certain traditions with similar or different characteristics. The article shows that the planned time is a significant aspect in the preparation of scientific work. In European countries, there is an uneven distribution of the achievements in the fields that have been awarded scientific degrees, namely, in these countries the number of natural sciences doctors is higher than social sciences doctors. It has been established that in various European countries a significant role is assigned to the policy of systematic definition of criteria for evaluating universities and quality of doctoral programs, when selection of candidates is carried out not only on the basis of examinations, but also taking into account recommendation letters, results of academic activity, topics of dissertation researches. Due to independent scientific activity, PhD students acquire a wide range of skills and knowledge. An important aspect is the application of reform approaches in the structured training of PhD students.

Key words: PhD preparation; Doctor of Science; scientific research; dissertation defense; scientific research work.

Анотація. У статті проаналізовано особливості підготовки наукових кадрів у часи інтеграції вітчизняної освітньої системи у європейський простір. Встановлено, що в європейських країнах не існує єдиного механізму підготовки PhD, чи докторів наук, але є певні традиції з подібними чи відмінними характеристиками. У статті обґрунтовано, що суттєвим аспектом у підготовці наукової роботи є запланований час. В країнах Європи спостерігається нерівномірний розподіл здобувачів по галузях, у яких були присуджені наукові ступені, а саме в цих країнах кількість докторів із природничих наук є вищою, аніж докторів гуманітарних. Встановлено, що у підготовці наукових кадрів вагома роль відводиться політиці системного визначення критеріїв щодо оцінювання університетів, розробці стандартів якості для покращення їх дослідницького потенціалу, створенню аспірантських центрів, якості докторських програм, коли відбір здобувачів проводиться не лише на основі іспитів, але й врахування рекомендаційних листів, результатів академічної діяльності, тем дисертаційних досліджень. З'ясовано, що завдяки самостійній науковій діяльності докторанти здобувають широкий спектр навичок і знань. Важливим аспектом є застосування реформаторських підходів у структурованому навчанні докторантів.

Ключові слова: підготовка PhD; доктор наук; наукове дослідження; захист дисертації; науково-дослідна робота.

Introduction. The training of scientific personnel is definitely an integral component of the general education system. This is especially important for integrating the domestic personnel training system into the European educational space. Therefore, the adaptation of

the national system of training of scientific personnel acquires special importance and represents an actual scientific and applied task.

Moreover, the training of scientific personnel consists of several important components, which mainly include theoretical and experimental research, and sometimes the creation of experimental samples, if it concerns the medical direction. Of course, at each stage of scientific work in the preparation of materials for dissertations, in addition to research itself, the applicant formalizes and publishes current and final results in the form of scientific papers [1, 2, 6, 9]. Consequently, it is the abilityto perform full or partial research of a scientific and applied task or problem that is one of the main factors in the successful completion of a dissertation research by a degree holder. The ability and willingness to carry out scientific work is formed already in the educational process at the university, namely, when mastering academic disciplines related to the development of research skills.

The aim – to reveal the peculiarities, the main trends in education in the preparation of doctors of philosophy in European countries.

Theoretical framework. There is no single mechanism for training doctors of science in the world, but in each country there are certain traditions that are similar and different. Let us take Germany and Poland as an example.

Germany is a participant in the Bologna Process, the attitude towards which is ambiguous in the German academic environment. It is widely believed that the Bologna process has a bad effect on the quality of education in Germany due to the unification of programs and the limitation of university autonomy. In the practice of German universities, two scientific degrees are preserved i.e. doctor of science by field (PhD level, our candidate of science) and doctor of habilitation (in Ukraine, doctor of science).The educational program for training a doctor of sciences by field does not involve significant classroom training, but rather concentrates on conducting research. Depending on their own traditions, universities offer separate practicums for doctoral students and require them to be involved in teaching as well. Meanwhile, writing the dissertation itself usually takes at least 4 years, and sometimes up to 8 years [3]. The requirements for the quality of the research are set by the university itself, and before the applicant brings his work to full satisfaction of the established requirements, he is not allowed to defend.The defense takes place in the presence of at least three professors (including a research supervisor, one professor from the university and one external) and a secretary who can be appointed from among young scientists. The defense is public, other professors and doctors of science, graduate students may be present. The questions relate to the applicant not only from the topic of research, but also from the basic knowledge of the specialty. Defense has the form of a kind of exam.After the defense, the text of the dissertation is published on the website of the university, which is a mandatory requirement. The recipient himself is responsible for this, and without this, the diploma will not be issued to him [13]. The diploma on awarding the scientific degree of Doctor of Philosophy is signed by the president of the university and the dean of the faculty; such an institution as a special council, in the status that Ukrainians get used to understand it, does not exist.

Germany also has a habilitation institute; it is an analogue of our doctoral dissertation. In order to receive the title of habilitated doctor, one must go through the appropriate procedure for the protection of scientific achievements. They are usually monographs, but in some fields, such as medicine, it is often a collection of articles in world-class professional journals.The monograph submitted for habilitation must be on a completely different topic than the doctoral dissertation. The defense takes place on the basis of the university in the presence of a special commission. In addition to the defense of the monograph, the applicant must also give a lecture in his specialty for a successful habilitation. The habilitated doctor receives the title of professor, which guarantees him lifelong employment at the university [4, p. 35].

Poland is also a participant in the Bologna Process. Meanwhile, the system of organizing the training of degree holders here is the closest to ours, taking into account the role of the state in regulating the process of awarding degrees. There is a state organization - the Central Commission for Degrees and Ranks, which reports directly to the Prime Minister.It grants academic councils of university departments a license to award scientific degrees of doctors of philosophy (PhD), and also forms special commissions of reviewers for habilitation. Polish doctoral studies (PhD) are similar to Ukrainian post-graduate studies, there are permanent and part-time forms of study, a competitive basis for admission to study, an admission procedure (research project, interview), takinginto account the grades of bachelor's and master's degrees.A doctoral student works on a dissertation under the guidance of a supervisor (*promotor*). The dissertation must be an

original research that connects the scientific problem, demonstrates the candidate's high level of theoretical training in a certain discipline and his ability to conduct independent scientific work.The dissertation can be a project design, technological or creative (artistic) work, can be part of a collective research. The term of writing is an average of 4 years, but can be extended if necessary.

Doctorate (PhD program) essentially works as an individual scientific and educational program. The applicant's acceptance to this program is approved on a case-by-case basis by the relevant faculties that have the right to open such programs. Procedural stages of realization of a doctorate on the basis of a university or scientific institution: approval (opening) of a doctorate and appointment of a supervisor; dissertation preparation, identification of reviewers; acceptance of the dissertation and admission to its defense; public defense and awarding of the doctor's degree.The doctor's degree is awarded by the relevant academic council, the decision of such a council is not subject to approval by a higher authority and takes effect from the moment of approval. There are cases of appeals against such decisions and annulment of doctoral diplomas, but such annulment is carried out by the universities themselves [8].

The granting of habilitation in Poland is regulated, controlled and approved by the Central Commission for Degrees and Ranks. For habilitation, you should have publications in recognized international publications (mainly English-language) and a large scientific work. The habilitation procedure involves the following steps: submission of a monograph or a series of articles united by a common theme with a proposal to be selected as a candidate of the university, where the defense will take place.

The Central Commission for Degrees and Titles forms a professional commission of 7 reviewers - scientists with an international reputation (4 reviewers of whom are appointed by the Central Commission, and three - by the institution where the defense is held). The composition of the commission is formed not by qualifications, but by actual achievements, professional and scientific reputation of specialists. Members of this commission study monographs or articles and prepare reviews for six months. Based on the results of the review, the commission makes a decision on awarding the degree of habilitated doctor. Public defense is not compulsory; it is conducted only if necessary, at the request of commission members. The habilitation diploma is signed by the chairman of the commission, the rector and the dean. The degree is also approved by the Central Commission for Degrees and Ranks.

Doctor habilitated (Dr. Hab.) is the highest scientific degree and gives the right to be awarded the title of professor, which is the highest in the scientific career. Habilitation in Poland should be completed within 10 years from the time of defense of the doctorate, because otherwise there is a high chance of dismissal. It should be noted that the degree of Doctor of Philosophy is usually awarded at the institutional level by higher education institutions or scientific institutions, without significant regulation by ministries or departments. The defense of the Doctor of Philosophy thesis always takes place at the institution or scientific institution where the applicant studied at the doctoral program. The awarding of the degree of doctor of philosophy and habilitation (where it exists) is carried out by various collegial bodies. The evaluation of the achievements of the acquirer takes place taking into account the branch approach. The responsibility for the quality of the acquired education and diploma is primarily the responsibility of the university itself, and not the state authorities.

One of the essential aspects is the planned preparation time. The educational and scientific program for preparing a doctor of philosophy should be such that the applicant has enough time to conduct research and write a meaningful work. In our conditions, it is worth paying attention to the fact that higher education institutions sometimes require that a graduate student must comply with the deadline for postgraduate studies and submit a dissertation within the deadline, because then the higher education institution is not responsible for the allegedly inappropriate use of funds for its preparation. This also leads to the fact that texts of the theses are prepared in a hurry, for reporting only [14].

The mass of doctoral education has led to an increase in the academic mobility of students. Meanwhile, against the background of the increase in the level of education of the workforce in the countries of the world due to the rapid increase in the number of those who received a doctor's degree, there is an uneven distribution of the recipients in the fields in which they received scientific degrees. In European countries, there are more doctors of natural sciences than doctors of humanities. Moreover, in the fields of education, humanities, and medical sciences, the majority of winners are women, while men dominate in the traditionally "male" fields: mathematics, engineering, and construction.

Considering the increase in the number of PhD holders, it must be recognized that not everyone has

the desire and ability to pursue an academic career. Doctorates in the natural sciences are more likely to engage in research, while PhDs in the social sciences find work that does not involve further research.Taking into account that the ability to perform scientific research work is now considered by a potential employer as a valuable skill for any company, therefore there is a need to prepare PhD holders for work outside the academic activity by cultivating "transferable (universal) skills". It is believed that PhDs make a significant contribution to the country's economic growth and solving social problems [11]. The result of conducting research in the field of engineering and medicine is the creation of innovations, patenting of inventions that increase national competitiveness on the world market. Thus, education of the entrepreneurial culture necessary for innovative enterprises is the main component of the competence of the researcher of the 21st century.

In documents such as the Berlin Communiqué (2003) and the Bucharest Communiqué (2012), one can find statements about the need to professionalize doctoral education by providing graduates with generally professional "transferable" skills. Another feature of the training of doctors of philosophy in European countries is the use of mechanisms for ensuring the quality of education.This is explained by the fact that in knowledge-based economies, the production of knowledge has turned into a commodity and a strategic resource of the country. Increasing global competition has forced educational theorists and practitioners to pay more attention to evaluating the quality of research. Evaluation is considered as an effective tool for ensuring greater transparency of educational activities and reporting of research organizations to society [1, 10].

Many Western countries implement policies in the field of higher education based on the systematic definition of criteria and evaluation of universities, including doctoral programs, as the main means of ensuring the quality of educational services [7]. The selection of applicants is carried out by conducting regional and centralized examinations, which are developed by the bodies responsible for conducting doctoral programs, taking into account letters of recommendation, the results of academic activities, and dissertation research topics.In Germany, admission to the programs differs in different countries, but the general procedure is similar to the procedure of the Humboldt University of Berlin, which consists in the applicant's proposals on the research topic, which is discussed by the scientific committee in agreement with the professor.

Special attention in training programs for doctors of philosophy is paid to interdisciplinary research and teamwork skills. The main reasons for such changes are the need to increase the international mobility of students and academic staff to create a pan-European educational space. According to researchers, the effectiveness of doctoral programs depends mainly on the acquisition of basic interdisciplinary knowledge, skills in the effective use of research methods, and skills in creating new models and approaches [5].

Thus, at the Humboldt University of Berlin (Germany), applicants can participate in inter-departmental colloquiums for the purpose of scientific exchange, independently choose courses, etc. Courses vary in different departments; joint courses are focused on research, development of scientific methods [12].

Research also indicates the need to provide various forms of knowledge acquisition (lectures, seminars, colloquiums, symposia, congresses, etc.). In addition to imparting information or developing skills, the assistant professor must prepare grantees for effective career planning.

Studying the problem of training doctors of science, it is impossible not to raise the question of the forms and methods of training used by managers and which combine classroom and non-classroom forms. The most frequently used classroom methods include case studies, role-playing games, problem-based learning, exercises using web technologies, simulations, constructivist learning, cooperative learning. Methods of extracurricular activities include online activities, conducting active research projects, community activities, cross-cultural discussions, researching the cultural history of communities, developing a portfolio, reflective writing about the types of work performed [1, p. 209].

Future doctors of philosophy are taught practical methods of conducting research. Such activity involves observation, collection and analysis of information, verification of results, performance of the duties of the management of educational institutions, as part of observation. Management activities are aimed at developing professional skills.

The conducted research shows that a lot of attention is paid to creating an "organic learning environment" for future PhDs and involves ensuring a caring attitude on the part of the manager, as well as openness, psychological safety, trust, flexibility, critical reflection, creativity. It is useful to structure a group of acquirers to provide an opportunity for critical discussion, to establish trust in the relationship between students

and the professor. When the leader creates an organic learning environment, it opens up space for growing interest and leads to cooperative learning [4, p. 35].

Conclusions and Prospects for Research. So, the conducted research allows us to draw a conclusion about the existence of certain trends in the development of education at the third educational and qualification level in the world, namely, professionalization, quality assurance. The study of the content of training programs for doctors of philosophy convinces of the importance of practically directed training, and provides, in addition to the assimilation of professional knowledge, the acquisition of teamwork skills. We plan to direct further scientific research to the study of the conditions for creating a favorable educational environment for the training of doctors of philosophy in foreign countries.

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Received 23.02.23
Recommended 07.03.23

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