PEDAGOGY

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TRAINING OF HIGHLY QUALIFIED SPECIALIST IN UKRAINE CURRENT APPROACHES AND PERSPECTIVES

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Abstract

In the article the current state of training of highly qualified specialists in Ukraine, the problems of providing the educational process in higher education institutions by pedagogical and scientific-pedagogical staff are outlined.

To solve aforementioned problems the recommendations of changes in education and training of highly qualified specialists in Ukraine through substantial analysis of situation of the existing staffing of educational process; estimation of perspectives of scientific-pedagogical staff replenishment by new talented generation; development of system of formation, selection and implementation of leading, pedagogical, scientific and pedagogical staff; the involvement in research and pedagogical activities in higher education institutions the leading scientists of scientific institutions of NAPS of Ukraine and specialized academies of Ukraine; development and organization of international researches involving scientists, teachers; realization of innovative environment designing of highly qualified specialists training under conditions of cloud-based environment were formulated.

Perspectives of providing of innovative approaches in highly qualified specialists training under conditions of cloud-based environment in universities are defined: deviating from knowledge educational environment; intensification

of practice-activity orientation of training; tracking of requirements of modern society to highly qualified specialist; mastering of self-presentation technology of personal achievements.

Keywords: postgraduate studies, doctoral studies, international studies, innovative approaches, cloud oriented environment of highly qualified specialists training.

Problem setting. The formation of socially oriented economy of Ukraine causes the search of new trends of development of education, science, manufacturing, information technologies (IT), training of highly qualified specialists, capable to integrate Ukraine into the international community of highly developed countries. Improvement of training of highly research qualified specialists is one of the central tasks, the joint venture of high education, academic and industry science is directed to solve the tasks. In recent years, the number of negative trends in training system of qualified staff for high education and research institutions is considered in many publications, devoted to the analysis of educational problems and task of staffing keeping of scientific and technological complex of country. Today, Ukraine is in process of finding ways to improve the training system [1].

In particular, "implementation of Ukraine's strategic course toward the integration into the European Union and cooperation with NATO are possible only if state and local government body has specialists who have knowledge and skills necessary to perform tasks of state policy in this field, including preparation and implementation of the Association Agreement between Ukraine and the EU and the relevant annual national programs of NATO - Ukraine and other activities ... The solution of the task is seen in improving the system of advanced training of specialists dealing with European integration and Euro-Atlantic cooperation, its forms and types in accordance with conformity of curriculum to the needs and quality of educational services in order to ensure consistency and continuity of the process ... "[7].

It "requires a high level of professional competence of government employee and local officials, their active participation at national, regional and local level in implementing priorities arising from European partnership, implementation of the Association Agreement, harmonization of legislation of Ukraine with acquis communautaire, their ability quickly adapt to new rules and procedures, to implement new standards of service, to make dialogue with citizens as well as with the European Community "[6].

In recent years there is the introduction of new approaches to manage of integral pedagogical process, ensuring of purposeful psychological and pedagogical support of scientific-pedagogical staff. Higher education institutions make perspective plans of scientific-pedagogical staff training in

magistracy, postgraduate and doctoral studies. The planning is implemented through drafting of staff passports of chairs.

In general, it contributes to increase the responsibility of universities' leaders on the situation in educational institutions, involve young doctors, professors to system of institutions' management. Advanced training of leading and scientific-pedagogical staff in higher education is a means of acquiring teaching experience, writing scientific monographs, textbooks, manuals, development of methodical innovation by teachers.

Scientists at all times paid due attention to the problems of highly qualified specialists training: A. M. Aleksyuk, S. I. Archangelskiy, G. O. Ball, V. P. Bespalko, V. I. Bondar, S. U. Goncharenko, N. V. Guziy, O. I. Gura, B. A. Dyachenko, I. A. Zyazyun, L. A. Kartashova, V. G. Kremen, N. V. Kuzmina, V. I. Lugovoy, A. A. Markov, N. G. Nychkalo, O. V. Plakhotnik, O. I. Pometun, I. Yu. Regeylo, O. Ya. Savchenko and others.

The study of the educational process providing in higher education institutions by teaching and scientific-pedagogical staff showed there are some shortcomings and unsolved problems in providing of higher education institutions of I-IV levels of accreditation by pedagogical and scientific-pedagogical staff.

Scientists in the research studies point out to the "growing old of staffing of science, deterioration of the quality of specialists' training and the formation of the dynamic trend of reducing the number of highly qualified scientific staff in research field ... Incompetent attention of country's leadership to keeping and restoring of research staffing of Ukraine caused to reduction of number of scientists of middle age by 50% and number of junior research staff and staff who serves the science was reduced by 60% ... In 1995-2010 the number of doctors employed in the economy was increased by 47.7%, but their number in research and scientific-technological activity was increased only by 9.8%. The great number of doctors who are engaged in research and scientific-technical activity is decreasing every year, in 1995 it was 42.0% in 2000 - 39,7 %, in 2005 – 35,0 %, in 2010 – 31,2 %.

The number of PhDs, employed in economy was increased in 1995-2010 by 45,.8%, but the number of researches engaged in scientific work was decreased by 34,7% ... "[3, p. 397-398].

One reason of keeping the tendency to increase the average age of scientific-pedagogical staff in higher education institutions is a low efficiency of postgraduate and doctoral studies. In recent years there was a small number of PhD and doctoral theses were defensed in some universities. Thus, in the first half of 2016 3980 PhD theses were defended (in 2015 - 6920), 655 doctoral dissertations were defended (in 2015 - 1036) [4].

To outline the identified problems it should be revealed the question of providing of pedagogical and scientific-pedagogical staff in higher educational institutions, formulated recommendations for changes in learning and highly qualified specialists training in Ukraine, defined the perspectives of designing of innovative cloud-based environment of highly qualified specialists training.

Main material. One of trend of higher education reforming is its active inclusion in the global education system. As science, the education is international; it reflects not only the spiritual and cultural level of society, but also the adequacy of reacting to progressive changes taking place in education.

The participants of International Workshop in Salzburg 3-5 February 2005, adopted ten basic principles of the third level programs, related to doctoral programs (development of knowledge through research as the main component of highly qualified specialists training with accordance of new challenges of society; the responsibility of universities of ensuring doctoral program (PhD study) and researches meet the new challenges; the wide variety of programs, and combined doctoral studies etc.). These principles formed the basis of a single approach to organization of doctoral programs and research training in the European High Education [2, p. 34].

Partially, the solving of this problem is seen in wide-ranging study and implementation of foreign experience and the experience of international cooperation. This process is facilitated by the rapid events taking place recently in the world. It is necessary to review the current models of inter-university cooperation in higher education. In fact, a lot of teachers had the international training.

Higher education institutions should create conditions that will contribute to the development of international, intercultural and interdisciplinary competences through the introduction of innovative curricula, development of partnerships, scientific research, creative activity and community activity.

Collegium of the Ministry of Education and Science of Ukraine investigated the state of providing the educational process in higher education institutions by pedagogical and scientific-pedagogical staff. As a result, it was decided "the leadership of majority of state educational institutions paid due attention to the formation of quality of pedagogical and scientific-pedagogical staff.

There is a positive trend that characterizes processes in staffing forming of higher education. State higher educational institutions of III-IV level of accreditation are provided by members of scientific-pedagogical staff by 93-97%, higher educational institutions of I-II levels of accreditation by 90-95%. In most examined universities of III-IV levels of accreditation the proportion of pedagogical staff with scientific degrees and academic status is from 43% in the

Nikopol economic university till 81% in the Ternopil Volodymir Hnatiuk National Pedagogical University. In examined higher educational institutions of I-II levels of accreditation the proportion of pedagogical staff with higher category is from 16% in the Agricultural College of Poltava State Agrarian Academy till 78% in Pryluky Pedagogical College "[8].

The indicators of providing of highly qualified scientific and pedagogical staff don't meet the state requirements. Thus, the lowest indicator of scientific-pedagogical staff with scientific degrees and academic status in examined classic and pedagogical universities is 3,2% doctors, professors (Krivoy Rog State Pedagogical University), 33,6% PhDs, associate professors (Dnipropetrovsk National University Oles Honchar); in technical and technological education institutions is 4,8% and 40,6% (Kerch Maritime Technological Institute, Ukrainian State University of Chemical Technology); in economic and juridical - 2% and 33% (Krivoy Rog Economic Institute of Kyiv National Economic University, Uzhgorod Institute of Computer Science, Economics and Law). In private higher educational institutions of III-IV levels of accreditation the lowest indicator of scientific-pedagogical staff is 3 and 36% (Ternopil Institute of Economy and Enterprise, Khmelnitsky Business Institute). In most higher education institutions of III-IV levels of accreditation the specialties "Physical Education", "Computer Systems and Networks", "Language and Literature (English, German, French)" are not provided by teachers with academic status. Thus, in 70% examined higher educational institutions there are not doctors, professors at chairs of Computer Science, Foreign languages [8].

In higher education institutions teachers without scientific degree and academic status often conduct training activity. For example, according to the rating of higher educational institutions "Top 200 Ukraine" (2015/2016 year) in KPI there are 44 academicians, 2500 professors, associate professors and teachers. There are 41700 students and in percentage it is 0,06% professors, doctors, associate professors, PhDs per student. There are 27 500 students and 57 doctors, 439 PHd in Taras Shevchenko National University of Kyiv, it is 0,02% of teaching staff [9].

In National University of "Kyiv-Mohyla Academy" there are 3360 students and 120 professors, doctors and 294 assistant professors, PhD. In percentage it is 0,12% of professors, doctors, professors, PhD per student [5].

We consider the one of reasons of this situation is the insufficient work in selection of candidates for postgraduate study among graduates. For many educational institutions there is a need to develop measures for radically improvement of staff assistance of educational process.

Ukraine's integration into European and global environment requires a certain unification of national education to the one used in developed countries.

It is known that flexible and multi-level training of specialists in Europe provides needs of labor market. Despite the fact the each national education system has its own specificity; at present international integration in this field is applied. Gradually the international global law is established, it defines the status of educational institutions, standards of mutual recognition of diplomas etc.

To solve the mentioned problems, defined changes in education and training of highly qualified specialists in Ukraine, it is necessary:

1. Thoroughly analyze the situation of existing staffing of educational process, the prospect of reinforcement of teaching staff by new generation of talented young people, graduates who have master degree and capable to do scientific, educational activity.
2. Develop the system of formation, selection and implementation of leading, educational, scientific and scientific-pedagogical staff.
3. Involve the leading researches of scientific institutions NAPS of Ukraine and specialized academies of Ukraine to scientific-pedagogical activities in higher education.
4. Reinforce efforts of academic and university science to update the content of psycho-pedagogical training of specialists.
5. Organize and develop international study involving researchers, teachers and students, it foresees active use of the scientific potential of universities, attracting the leading experts from foreign educational institutions for implementation of current research topics, it requires the significant concentration of intellectual potential, diverse resources and organizational activity.
6. Make the necessary elements of advanced training of pedagogical and scientific-pedagogical staff the mastering of modern pedagogical technologies, forming skills of ICT use.
7. Realize the design of innovative environment (system) of highly qualified training, based on IT innovation; it is cloud technologies - a cloud-based environment in highly qualified specialists training (CBE HQST).

Evidently, there is a theoretical and practical actuality of introduction of new information technologies in activity of postgraduate and doctoral studies as the main forms of scientific and scientific-pedagogical staff. The main purpose of education on the information stage of society's development is the formation of intellectual and human ethical standards, skills to use knowledge, improvement of the way of thinking, analyze problems in any field, to find the most accurate and economical solution [7].

Modern scientific researches show the growth of self-training, extracurricular activity lead to appropriate increasing of portion of information

technologies in educational process. One of the promising trends in modern education based on IT use is introduction of CBE HQST, which may be a promising innovative solution of problems, arising in highly qualified specialists training, particularly in recent years, with methodical guidelines for teachers of universities and post-graduate students, doctoral students, teaching and learning means (e-books, manuals, reference books, dictionaries, etc.). Concept of designing CBE HQST generates the requirements for features of building the system, based on: the globalization of modern educational paradigm and its basic fundamental trends: humanistic, humanitarian, and personal; continuous professional pedagogical ideas and personality oriented education; active use of the system, competence, personality-oriented and acmeological and axiological approaches.

CBE HQST designing is step by step process that provides a gradual introduction of cloud technologies to educational process of university with consecutive, rational substitution or addition of traditional ineffective methods, forms and means of education. The result is improving of learning outcomes and increasing the quality of future specialists of high qualification.

Experience of IT introduction in education confirms that the most effective form of its use is the inclusion in complex of methodical guidelines of disciplines (CMGD), i.e. the use of IT means among accompanied materials for scientific-pedagogical employees and for future highly qualified specialists – post graduate degree seekers.

Designing of as an innovative component of the educational environment of university, creating conditions for this process, testing and introduction of CBE HQST, search of logical combination of new with traditional is a very difficult task that requires solving of technical, methodological, organizational, psychological and pedagogical, administrative and other problems. Schematically, we can identify the following trends: developing of logic, dynamic and effective scientific and methodological routes of solving the informatization problem of highly qualified specialists training; material supports of university; level of preparedness of scientific-pedagogical staff to use IT and its implementation in production and research and creative activity; training of post graduate degree seekers to IT use and acquire knowledge in process of highly qualified specialists training; developing of methodical guidelines of learning organization under conditions of CBE HQST etc.

In order to design and effectively implement CBE HQST it is necessary to introduce a special system of measures at the level of each individual university and at the national level. We offer the author's algorithm of its implementation with tasks solution of theoretical and practical plan: determining of methodical purposes of IT use in highly qualified specialists

training; determination of methodical purposes of certain cloud technologies in scientific-pedagogical staff training; developing ways, forms and methods of cloud technologies use, aimed at enhancing the cognitive and creative activity of post graduate degree seekers; formation ways to use of cloud technologies with orientation to continuous development of their independence; implementation of continuous monitoring of specialists for high education training; organization of productive management of training process; logical combination of IT-aimed and traditional forms of highly qualified specialists training; reviewing and synthesizing of scientific achievements post graduate degree seekers etc.

Conclusions. Under conditions of development and reform of market economy, the global expansion of theoretical researches and practice in the field of IT, technical regulations, the training of qualified staff has the particular actuality.

Specialist of higher qualification should master the skills of scientific work independently and in a research group, get the experience of results' presentation of researches and investigations with IT using and by their use, it will help him to socialization in the scientific community. Without these elements of highly qualified specialists training, the ensuring of his future productive professional activity is seen complicated.

The proposed creation of an innovative cloud-based environment of highly qualified specialists training as an element of informatization of education in a whole, it will provide creation of new, replication and introduction of IT in the continual training. The expanding of participation of universities in international educational environment is provided by universities' internationalization.

Perspectives of providing of innovative approaches under conditions of CBE HQST in universities are: deporting beyond knowledge educational environment; intensification of practical and activity orientation training; tracking of requirements of modern society to specialist of high qualification; mastering technology of self-presentation of personal achievements etc.

So, the specialists of higher qualification training is a purposeful controlled process that ensures the formation of professional and pedagogical competences, personal qualities needed for successful and efficient professional activity. Like any other process, training has its goals, objectives, structure, functions and it is effectively carried out at certain organizational and pedagogical conditions - formed an innovative integrated CBE HQST and it foresees mastering of the future scientific-pedagogical staff extensive knowledge of pedagogy of high education and modern methods and teaching technologies of professional disciplines in universities, formation of

professional and pedagogical competences based on the principles of didactics, regulations and requirements, ability to perform reflection of personal activity.

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