

Features of formation of pedagogical competence of a university teacher in the leading countries of the world

Características da formação da competência pedagógica de um professor universitário nos principais países do mundo

Características de la formación de la competencia pedagógica de un profesor universitario en los principales países del mundo

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ABSTRACT

The main purpose of the article is to study the main aspects of the formation of the pedagogical competence of a university teacher in leading countries. The idea of forming a unified educational space as an integrative system in an information society has caused a change in the cognitive situation in science, which begins to acquire excessive subject diversity associated with an immense number of information flows and with the fact that knowledge acquires a new meaning in a post-industrial society. Modern information and telecommunication technologies have led to the emergence of new methods of cognition and communication, have significantly updated the research arsenal aimed at studying nature, culture, and society. In these conditions, the issue of professional development of scientific and pedagogical workers becomes especially acute. Taking this into account, an urgent need arose in universities to create conditions for professional competence, increase the requirements for the responsibility of teachers for the results of professional activities and improve the procedures for assessing the level of professional competence of scientific and pedagogical workers. As a result of the research, the most successful foreign experience of the process of forming the pedagogical competence of a university teacher was analyzed.

Keywords: Pedagogical competence. Pedagogy. Post-industrial society. Universities. University teacher.

RESUMO

O objetivo principal do artigo é estudar os principais aspectos da formação da competência pedagógica de um professor universitário em países líderes. A ideia de formar um espaço educacional unificado como um sistema integrador em uma sociedade da informação provocou uma mudança na situação cognitiva da ciência, que começa a adquirir uma excessiva diversidade de assuntos associada a um imenso número de fluxos de informação e ao fato de o conhecimento adquirir um novo significado em uma sociedade pós-industrial. As modernas tecnologias de informação e telecomunicações levaram ao surgimento de novos métodos de cognição e comunicação, atualizaram significativamente o arsenal de pesquisas voltadas ao estudo da natureza, cultura e sociedade. Nestas condições, a questão do desenvolvimento profissional dos trabalhadores científicos e pedagógicos torna-se especialmente aguda. Tendo isto em conta, surgiu nas universidades a necessidade urgente de criar condições para a competência profissional, aumentar os requisitos de responsabilidade dos docentes pelos resultados das atividades profissionais e melhorar os procedimentos de avaliação do nível de competência profissional dos trabalhadores científicos e pedagógicos. Como resultado da pesquisa, foi analisada a experiência estrangeira mais bem-sucedida do processo de formação da competência pedagógica de um professor universitário.

Palavras-chave: Competência pedagógica. Pedagogia. Professor universitário. Sociedade pós-industrial. Universidades.

RESUMEN

El objetivo principal del artículo es estudiar los principales aspectos de la formación de la competencia pedagógica de un docente universitario en países líderes. La idea de conformar un espacio educativo unificado como sistema integrador en una sociedad de la información ha provocado un cambio en la situación cognitiva de la ciencia, que comienza a adquirir una excesiva diversidad temática asociada a una inmensa cantidad de flujos de información y a que el conocimiento adquiere un nuevo significado en una sociedad post-industrial. Las modernas tecnologías de la información y las telecomunicaciones han dado lugar a la aparición de nuevos métodos de cognición y comunicación, han actualizado significativamente el arsenal de investigación destinado al estudio de la naturaleza, la cultura y la sociedad. En estas condiciones, la cuestión del desarrollo profesional de los trabajadores científicos y pedagógicos se vuelve especialmente aguda. Teniendo esto en cuenta, surgió una necesidad urgente en las universidades de crear condiciones para la competencia profesional, aumentar los requisitos para la responsabilidad de los docentes por los resultados de las actividades profesionales y mejorar los procedimientos para evaluar el nivel de competencia profesional de los trabajadores científicos y pedagógicos. Como resultado de la investigación se analizó la experiencia extranjera más exitosa del proceso de formación de la competencia pedagógica de un docente universitario.

Palabras clave: Competencia pedagógica. Docente universitario. Pedagogía. Sociedad postindustrial. Universidades.

INTRODUCTION

The modern period of the development of society is characterized by cardinal socio-economic changes, the strengthening of the processes of globalization and integration, the constant introduction of innovations in all spheres of human life. These processes require the modernization of education, which leads to increased requirements for the professional activity of the teacher. It is professional development that is the factor that is able to create a stable supply of qualified teachers and allows you to quickly respond to the rapid changes taking place in society. In this regard, the issues of content, types, stages, specifics, factors and the mechanism of professional

development of teachers are now acquiring practical significance (Orchard, Heilbronn, Winstanley, 2016).

The starting point in the formation of a system of professional development of teachers should be the awareness of the goal of creating such a system, which consists in substantiating the theoretical and methodological basis and organizational and functional structure of management of professional development of teachers, an empirical description of its components and determining a place in lifelong education, in the development of content and methodological support. the process of managing the professional development of teachers, which will give a highly developed, competently formed modern scientific and pedagogical worker.

The main objectives of the professional development of teachers are (Bernarto, Bachtiar, Sudibjo, Suryawan, Purwanto, Asbari, 2020):

- ensuring the effective performance of functional duties;
- increasing the flexibility of management and suitability for innovation;
- promotion and growth of career growth;
- increasing professional growth, adaptation of employees to new technologies;
- expansion of competencies, knowledge, skills and abilities.

The professional development of scientific and pedagogical workers is decisive for the effective operation of universities, since the ability of universities to train specialists of the appropriate level depends on the professional level of teachers, who, in turn, are able to meet the needs of both national and regional labor markets, which results in effective functioning of both the system of higher education, and the economy of the state as a whole (Ochirov, 2016).

Purposeful work to develop the professional and pedagogical level and professional competence of teachers in universities provides certain positive changes (Table 1):

Table 1. The main positive changes of development the professional and pedagogical level and professional competence of teachers in universities.

No	The main positive changes
1	General pedagogical and special knowledge and skills increase, their actualization takes place
2	There are shifts in the personal component - motivation for vocational education and self-education
3	There is an adequate self-assessment of their professional competence and personal qualities
4	Creative opportunities are revealed, which is reflected in their practical activities
5	The general culture is expanding

The development of the personality of a specialist takes place in conditions of constant transformation, which presupposes internal activity, which allows one to go beyond the established standards of personal and social necessity, to realize one's understanding of the content, the purpose of one's own activity.

The challenges for modern teachers are the constant complication of the content of education, the achievement of a high level of educational standards; continuous mastery of progressive learning technologies; solving complex professional and pedagogical problems requiring the integration of knowledge, practical skills and abilities; in a single information environment, which implies its rational use of information technologies in the educational process.

A feature of modern professional development is the humanistic component in those processes that occur in almost all spheres of activity and depend on social and economic influences. In the formation of the content of the concept of "professional development" there are certain factors that influence the personal decision of a specialist and stimulate him to develop, there is a constant dynamic process of mastering new professional competencies, through the desire for a higher level of professionalism.

In the scientific literature in the field of pedagogy and psychology, the following groups belong to the external factors of sustainable development of the professional and pedagogical competence of scientific and pedagogical workers (Crawford et al, 2020):

- innovative and technological;
- organizational and managerial;
- social and psychological;
- financial and economic;
- political and legal;
- economic; innovative;
- globalization and integration.

Of great importance in the process of professional development of scientific and pedagogical workers of universities are internal factors that induce self-development, self-esteem, self-education, and therefore, self-improvement of the individual. Taking this into account, most scientists identify the following areas of professional and pedagogical self-improvement: improvement of professionally significant traits and qualities, self-education, study and generalization of advanced pedagogical experience, scientific and methodological work (Roth et al, 2020).

The combination of scientific and pedagogical activities increases the level of the teacher's professional competence, thereby guiding his professional development. Scientific activity is the basis of educational and methodological work, which in turn predetermines and determines the effectiveness of scientific and pedagogical theories. Awareness of the professional role, comprehension of possible pedagogical decisions and their consequences, generalization of one's professional activity and forecasting its prospects, the ability to self-control and self-improvement form the initial basis for the development of a professional teacher.

METHODOLOGY

The main purpose of the article is to study the main aspects of the formation of the pedagogical competence of a university teacher in leading countries. For this, a number of methods were applied, which form the research methodology. The study was carried out using the following theoretical methods: systems analysis and synthesis, induction and deduction, comparison, classification, generalization and systematization, idealization and abstraction.

RESULTS AND DISCUSSION

Scientists in the field of pedagogy distinguish the following structural components of the content of development and improvement of the pedagogical competence of university teachers: motivational (needs, interests, beliefs, attitudes, values and ideals); cognitive (accumulation and cumulation of professionally significant knowledge); axiological (humanistic values, social and personal qualities, acquiring new knowledge, mastering the skills and abilities of obtaining, working out and using professionally necessary information); communicative (having the ability to broadcast knowledge in the professional sphere and self-improvement, all forms of communication that contribute to professional development and improvement of professional activity, improvement of forms and methods of teaching in the postgraduate education system, the introduction of modern technologies for adult learning, a variety of forms of postgraduate education, mastery of information technologies); praxeological (mastering the content of higher education; knowledge of modern approaches and requirements for the organization of the educational process with adults; mastering modern technologies of teaching, upbringing and development; the ability to develop their own and use existing teaching aids; the ability to design the educational process with adults and implement it in a specific lesson; the ability to manage independent cognitive activity, etc.).

Vocational training is the main way of professional development of university teachers, however, we note that vocational training will not always result in professional development, because even after receiving a certain qualification, an employee does not necessarily achieve professional growth. In this aspect, the question immediately arises regarding the professional suitability of the employee, since the level of competitiveness in the labor market depends on the degree of mastery by workers (in accordance with their abilities, health, inclinations and interests) of the profession that is in demand in the labor market and is necessary for organizations to implement their goals, profit making, etc.

The main goal of the professional development process for university teachers is to acquire new or improve existing professional knowledge, skills and abilities that he uses or will use in his professional activities (Kryshtanovych, Kryshtanovych, Stechkevych, Ivanytska, Huzii, 2020)..

The content of the professional development of scientific and pedagogical workers of the university is based on the systematization of the idea of the professional development of a teacher of higher education. The development is based on the professional competence of a scientific and pedagogical worker, based on the principles, methods and understanding of the goals of students at the end of the course of study and taking into account the introduction of constant changes that occur in scientific and pedagogical practice. Taking this into account, it is necessary to highlight the components of the content of the professional development of the pedagogical competence of university teachers on a competence-based basis in the areas of scientific and pedagogical activity: scientific-subject, scientific-pedagogical and cultural and educational.

Scientific-subject activity contains the teacher's scientific and educational work (conducting classes: open, including checking the formation of basic, general-professional and special-professional competencies; micro-classes, where concentrated attention is paid to the types of tasks, teaching methods, types of interaction between the teacher and the student (ordinary occupations.) Scientific activity in the context of higher education takes an important place in the professional development of a scientific and pedagogical worker and is its integral and priority component.

The second direction - scientific and pedagogical activity includes the formation of general professional competencies of a scientific and pedagogical worker (educational and methodological, professional psychological, organizational, etc.). Organizational activities are important (work in scientific and methodological commissions, councils, etc., organization of various events: conferences, seminars, etc., leadership of student circles, educational work with students, etc.).

The third direction contains the cultural and educational activities of the teacher and is based on social and personal competence (social and communicative competence, the ability to create and maintain a favorable socio-psychological climate in the team; general personal qualities: moral, civic; health-preserving competence, general communication, the ability to self-development etc.) (Iqbal, 2020)

Let's consider some of the features of the organization of professional development of teachers in the USA, England, Germany, France and Japan.

1. Experience in training and advanced training of university teachers in the postgraduate education system in the United States.

The normative basis for the professional development of university teachers is the national standards that determine its content, types and forms. They were developed by the US National Staff Development Council in 2001. An analysis of the professional development standards of university teachers makes it possible to determine the content of this process. It has been found to cover teaching quality issues; transparency of education; objectivity of the assessment; close cooperation of participants in the educational process; development of knowledge of the social environment in the educational process; creating opportunities for studying the main mechanisms

for involving the public in the work of an educational institution in order to improve the educational process (Shevchenko, Moskalyova, Kanarova, Poznanska, 2019).

In the United States, there are different types of professional development for university teachers: traditional and standardized. Traditional professional development is about on-the-job development. Standardized professional development assumes its implementation on the basis of established standards and takes into account the real needs of everyday teaching activities. Professional development of university teachers is carried out through various forms. The most common forms of professional development are: scientific and practical research, drawing up written reports on pedagogical activities, keeping a pedagogical diary, which is a means of professional self-analysis.

The peculiarities of the professional development of American teachers is the active introduction of alternative forms and programs of education, which provide for the flexibility of the conditions for their professional growth, ensure their individual needs, contribute to continuous professional development and meet the realities of the teaching practice of higher education (Oonk, Beers, Wesselink, Mulder, 2011).

In the United States, there are various forms of professional development for teachers: daytime, evening, correspondence; Saturday and Sunday courses hosted by consulting firms and research centers. Training programs can be both theoretical and practical. Many American universities coordinate the activities of the so-called summer schools of intensive training lasting from 1-2 weeks to 3 months. In the United States, the analytical form of professional development of university teachers is widely used, which involves the analysis by the teacher of his daily teaching activities, understanding the changes, experiments and innovations that can be implemented in it.

The analytical form contributes to the development of the professional thinking of teachers, the improvement of teaching methods and activities in general. With the development of new technologies, American scientists J. Eisenman and H. Thornton proposed a new form of mentoring - telemetry, carried out using the network. In the United States, an innovative collegial form of professional development for university teachers - supervision - is of particular interest. Supervision tasks: to help teachers master a new position or place of work; to carry out intensive monitoring of the activities of university professors who have shortcomings in the performance of their duties; evaluate the effectiveness of the teaching activities of colleagues.

Among the innovative collegial forms of development of professional and pedagogical competence of teachers, of particular interest is the cascade form, the essence of which is the passage of a large-scale professional development program by several experienced teachers, in the process of which they receive professional training in a specific academic discipline or topic. The practical orientation of the system of training and advanced training of university teachers in the United States is quite obvious.

The most obvious example is the organization of short-term (weekly or bi-weekly) courses before the start of the semester (USA). Their main idea is to immediately test what was learned in the courses in practical work. Also, forms of individual counseling on the activities of young teachers are actively used; trainings and practical exercises Kryshtanovych, S., Bilyk, O., Shayner, H., Barabash, O., & Bondarenko, V. (2021):

- How to teach adults;
- Applying effective teaching methods;
- Giving lectures;
- Planning the course and preparing the timetable;
- Conducting discussions in various forms;
- "Conflict-free teaching;
- Problems of students;
- Resolution of conflicts with the administration;

- Young teacher in the adult education system;
- Problem learning methods.

With the help of such forms, specific practical skills and abilities that students will need in their work as teachers are being worked out.

Experience in improving the professional competence of scientific and scientific-pedagogical workers in England.

In the context of a decentralized education management system in England, improving the professional competence of university teachers is involved at all levels: national, regional and local.

Distinguish between internal and external sources of advanced training and professional competence of university teachers. Internal sources include activities that are planned and organized in universities and directly by teachers, while external sources include a variety of courses in training centers under city and regional education departments, universities, higher teacher training institutions, as well as consultations.

A purely national treasure of the English experience should be considered the so-called training system, which includes various non-governmental organizations, local administrations, professional associations, publishing houses that support and contribute to the development of teacher education in the country, in particular, the improvement of pedagogical competence.

In England, the postgraduate education system for working university teachers concentrates on two areas (Kryshtanovych, Bilyk, Shayner, Barabash, Bondarenko, 2021):

- a) improvement of the acquired skills and abilities of teachers;
- b) mastering new knowledge, the formation of new skills and abilities.

The choice of teaching methods depends on the purpose of a specific postgraduate or retraining course, their typology includes both accepted pedagogical techniques (for example, lectures, group discussions and distance learning) and special methods that can be attributed to a separate methodology.

2. Experience in training and professional development and improvement of pedagogical competence in Germany.

In Germany, teacher training for universities takes place in the postgraduate education system, which is independent and built on the basis of a dual vocational education system. In Germany, there is no postgraduate study in the same form as in other countries. Persons who are preparing for a doctorate degree work in university departments as assistant professors, while simultaneously performing a large amount of research and educational work. Young PhDs continuing to work at universities are usually preparing a second dissertation, which entitles them to teach in higher education. A dissertation for the right to teach at universities is called a habilitation work. High demands are made on a habilitation work.

The training of scientific personnel in Germany is carried out at universities with university status and the right to award an academic degree approved by the Ministry of Education and Science. It was not until the 1960s that universities became eligible to award degrees. XX century. Thus, they were formally brought closer to universities and universities of a similar status, that is, they began to be classified as scientific higher schools. However, despite obtaining this right, the training of specialists in most pedagogical universities still differs from the general university in quality, learning objectives, scientific level of the teaching staff and material and technical security (Noroozi, Weinberger, Biemans, Mulder, Chizari, 2012).

In Germany, considerable attention is paid to the professional development of university teachers. According to the Basic Law (Constitution) of this country, the federal states have the right of supremacy in the sphere of cultural policy, which includes education. Therefore, the development of legislation, the creation of educational systems and their management are, in the main, the sphere of competence and responsibility of the individual federal states. This also applies to the

professional development system for university teachers. The modern system of professional development of university teachers in all states of Germany is multi-level.

In the system of advanced training and professional development of teachers in this country, four levels of organization are clearly traced: inter-land, land, regional and intra-university. The inter-land level is the most global level of professional development of teachers, covering by its measures university teachers in many federal states, and sometimes the whole country.

At this level, programs for the international exchange of experience of university teachers are carried out, joint events of the Land Institutes are organized: study trips in Germany and other countries, distance learning, and more. The holding of these events at the inter-state level is carried out by various institutions, for example, independent academies, consulates of the respective states in Germany, the German Correspondence Institute and others. The system of professional development of university teachers at the land level usually includes a system of work aimed at improving the professional level of teachers on the territory of one of the federal states and is often identified with the work of the Land Institute for Advanced Training of Teachers, although the content of the activities of these institutions is not limited to measures of professional development on the land. level The system of professional development of university teachers at the regional level includes refresher courses in higher educational institutions, a variety of courses, seminars, conferences.

Before they are held in Germany, there is a system of requirements (Kruszewska, Nazaruk, Szewczyk, 2020):

- classes should be short-term;
- they should be held near the place of residence and work of university teachers;
- they should consider the problems, especially relevant for the teachers of the university of this region;
- the content of the lessons should be planned taking into account the wishes of the students themselves and help them solve specific problems and difficulties that occur in their practical activities.

At the fourth level, the object of organizing the system of professional development of university teachers and the immediate place of its implementation is the university and its teachers. In modern Germany, this level of professional development of university teachers is most common. Land ministries see this form of professional development for educators as an opportunity to transform them from a tool into a driving force for education reforms in this country.

At the intra-university level, the following forms of professional development of teachers are most widespread: meetings; meetings devoted to the analysis of issues of a certain academic discipline; sessions dealing with pedagogical problems; attending classes; Scientific research; mugs; forums and pedagogical meetings Each of the above forms of work has its own characteristics and advantages. For example, meetings in German universities as a form of professional development at the internal level are held when it becomes necessary to familiarize teachers with state documents in the field of education, with directives on changes in curricula, and discuss new teaching technologies.

Attending classes by members of the teaching staff is most often used when it becomes necessary to assess innovations in the field of teaching methods or to provide specific assistance in a problematic or conflict situation that a teacher has.

The circle is a form of improving professional competence by German teachers in informal associations of interests. The content of the work, their subject matter, the date and location are determined by the participants themselves or by the specific needs of the university. Forum refers to the work of bringing together teachers of a certain degree of learning or parallel streams.

In the forum, they receive the necessary information, exchange work experience, deliver messages and reports. Closed-door pedagogical meetings differ from other forms of professional

development of the teaching staff of the school, firstly, by the global nature and significance of the issues brought up for discussion and, secondly, by funding. To hold a meeting behind closed doors, the university management allows all teachers to be completely laid off for two days over two academic years, while maintaining salaries. Actually, such meetings of the entire teaching staff are the most significant and effective measures for improving the qualifications and professional development of university teachers at the internal level, although in different states they are called differently: in Lower Saxony - a Pedagogical meeting behind closed doors, in Berlin - a Pedagogical conference, in Baden –Württemberg - Pedagogical Day (Arora, Srinivansan, 2020).

Features of the development of the system of advanced training and improvement of the pedagogical competence of university teachers in modern Germany in the context of lifelong education:

- pedagogical supervision as an innovative form of professional development of teaching staff (personification, that is, taking into account the individual characteristics of professional and personal development;
- counseling for teachers; creating psychologically comfortable conditions for subjects of professional activity, diagnosing and resolving professional conflicts;
- assistance in the development and self-development of both the organization itself and its individual employees;
- the formation of additional competencies within the framework of compensatory education and the remote form of professional development of teaching staff.

In modern conditions, the system of professional development of university teachers is aimed at mastering the modern cutting-edge technologies of the educational process, which is largely due to the total computerization of modern Germany.

At the same time, the emphasis is on the compulsory mastery of interactive technologies by each teacher and their use in the educational process. In Germany, although the postgraduate education system has so far included the training of university teachers, many experts recognize the complete organizational dependence of teacher training on universities, which becomes an obstacle to its full development. Therefore, the main trend in the German system of training university teachers is to transfer this training outside the universities while maintaining its belonging to the system of postgraduate education.

3. Experience in the formation of centers of advanced pedagogical technologies in France.

France has an extensive network of universities, in contrast to many other Western countries, where research is focused primarily on university departments. In France, they are carried out, as a rule, in public research institutions. These include: the International Center for Pedagogical Research, the French Center for Technical Teaching Aids, the Center for Audiovisual Means at the Graduate School, as well as the scientific and pedagogical divisions of universities called "Research Associations of Pedagogical Science, as well as pedagogical, sociological, psychological laboratories, institutes at universities carrying out fundamental developments in the field of education.

In addition to these centers, there are a number of government agencies that are, to one degree or another, involved in education problems, in particular, the Center for Sociological Research, and the National Institute for Demographic Research. The main scientific and pedagogical center in France is the National Institute for Pedagogical Research, subordinate to the Ministry of National Education. France has a Committee for the Scientific Evaluation of Research in Education, Academic Postgraduate Training Institutions and University Training Institutes (Ambra, Ferraro, Girardi, Iavarone, 2020).

You can get acquainted with advanced teaching methods and information and communication technologies in France at the Pedagogical Documentation Centers - institutions with information, technological and methodological resources that quickly respond to changes in society

and the pedagogical sphere. The main task of such centers is to provide users with information and technological resources, disseminate effective pedagogical technologies, and publish.

The experience of forming an integral system of professional competence of teachers in the land of the rising sun.

The Japanese government and local authorities are making a lot of efforts to implement measures to create and develop a coherent system of pedagogical competence of teachers. These activities are aimed at uniting educational institutions of different types related to the system of lifelong education. On the one hand, the government ensures the interaction and coordination of public programs and programs in the field of education, vocational training with other programs related to continuing education, on the other hand, it creates a mechanism for obtaining information about training opportunities, as well as providing consulting services through the use of computer programs. information network (Eliyana, Ma'arif, Muzakki, 2019).

In Japan, the concept of qualification is understood as the amount of knowledge, practical skills and abilities necessary primarily to solve the production problems that accumulate with experience. The Japanese worker is well aware that he was hired not for his ability to perform a specific job, but precisely if he is willing and ready to learn, to increase his competence.

CONCLUSION

In connection with the variety of approaches to organizing professional development and pedagogical competence of university teachers, improving professional competence, creating centers of excellence, additional training for university teachers, forming an integral system of professional competence of university teachers, experience and conclusions are presented, which below should be considered as trends in the development prospects of the development system. and improving the level of pedagogical competence of university teachers.

1. There is growing variability in the organization, content and process of teacher training, which meets the requirements of specializations, the needs and capabilities of teachers, the interests of universities, etc.

2. The training of teachers at the postgraduate level is constantly being transformed based on the growth of their role in modern social development.

3. There is a tendency to diversify the system of subjects that train university teachers: different structures are organized inside and outside the education system (horizontal diversification) and at different levels of the education system (vertical diversification).

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