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TECHNOLOGIES OF FORMATION OF TEACHERS ' READINESS FOR INNOVATIVE ACTIVITY

The new requirements put the professional training of teachers with modern high professional qualifications in the first place. In the system of pedagogical Sciences, innovative activity is defined as purposeful pedagogical activity based on understanding one's own pedagogical experience through changing and developing the educational process in order to analyze and study, achieve high results, gain new knowledge, and introduce a qualitatively different pedagogical experience. Preparation for teaching activities is a crucial aspect of the formation and self-development of a teacher throughout his life. Moreover, the formation of innovative teacher training is an increase in the contribution of a new paradigm to the development of society, implementing world competitive education; acceleration of the implementation of innovative reforms in educational institutions; widespread use of innovative changes in the education system, new information and communication technologies in the educational process.

The article considers the scientific directions on the formation of the teacher's readiness for innovation, and also suggests ways to improve and form the readiness of the lecturers for innovation. The authors suggest the nature of teachers ' readiness for innovation, focusing on the scientific conclusions of well-known teachers. They also present the results of a small research work.

Key words: innovation, activity, psychological and pedagogical training, innovative activity.

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Педагогтардың инновациялық іс-әрекетке дайындығын қалыптастыру технологиялары

Жаңа талаптар заманауи жоғары кәсіби біліктілікті иемденетін педагогикалық кадрларды кәсіби даярлауды бірінші орынға шығарып отыр. Педагогикалық ғылымдар жүйесінде инновациялық іс-әрекетті талдау және зерделеу, жоғары нәтижелерге қол жеткізу, жаңа білім алу, сапалы өзге педагогикалық тәжірибені енгізу мақсатында оқу-тәрбие үдерісін өзгерту және дамыту арқылы өзінің педагогикалық тәжірибесін ұғынуға негізделген мақсатты педагогикалық қызмет ретінде анықтайды. Педагогикалық іс-әрекетке дайындық педагогтың өмір бойы қалыптасуы мен өзін-өзі дамытуының маңызды аспектісі болып табылады. Ал педагогтың инновациялық дайындығын қалыптастыру дегеніміз – әлемдік бәсекеге қабілетті білім беруді жүзеге асыратын жаңа парадигманың қоғамды дамытудағы үлесін арттыру; білім беретін оқу орындарындағы инновациялық реформаларды жүзеге асыруды жеделдету; білім беру жүйесінде инновациялық өзгерістерді, оқу-тәрбие үрдісінде жаңа ақпараттық, коммуникациялық технологияларды кеңінен пайдалану.

Мақалада оқытушының инновациялық іс-әрекетке даярлығын қалыптастыру бойынша ғылыми бағыттарға тоқталып, сонымен қатар, жоғары мектеп оқытушысының инновациялық іс-әрекетке даярлығын жетілдіру мен қалыптастыру жолдары ұсынылған. Авторлар танымал педагогтардың ғылыми тұжырымдарына назар аудара отырып, педагогтардың инновациялық іс-әрекетке даярлығының сипатын ұсынады. Сондай-ақ өзіндік зерттеу жұмыстарының қорытындысын ұсынады.

Түйін сөздер: инновация, іс-әрекет, педагогикалық-психологиялық даярлық, инновациялық іс-әрекет.

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Технологии формирования готовности педагогов к инновационной деятельности

Новые требования ставят на первое место профессиональную подготовку педагогических кадров, обладающих современной высокой профессиональной квалификацией. В педагогике инновационная деятельность определяется как целенаправленная педагогическая деятельность, основанная на осмыслении собственного педагогического опыта через изменение и развитие учебно-воспитательного процесса с целью анализа и изучения, достижения высоких результатов, получения новых знаний, внедрения качественно иного педагогического опыта. Подготовка к педагогической деятельности является важным аспектом становления и саморазвития педагога на протяжении всей его жизни. А формирование инновационной подготовки педагога – это повышение вклада новой парадигмы в развитие общества, реализующей мировое конкурентоспособное образование; ускорение реализации инновационных реформ в образовательных учебных заведениях; широкое использование инновационных изменений в системе образования, новых информационных, коммуникационных технологий в учебно-воспитательном процессе.

В статье рассмотрены научные направления по формированию готовности преподавателя к инновационной деятельности, а также предложены пути совершенствования и формирования готовности преподавателя Высшей школы к инновационной деятельности. Авторы обобщают труды о готовности педагогов к инновационной деятельности, ориентируясь на научные выводы известных педагогов. Также представляют итоги небольшой исследовательской работы.

Ключевые слова: инновация, деятельность, психолого-педагогическая подготовка, инновационная деятельность.

Introduction

It is known that the economic and social achievements of the state are determined primarily by their education system, the level of education of citizens. In 2006, the head of state gave a lecture on “the economy of knowledge through innovation and improvement of education”, noting the need to pay great attention to the education of students at a high level, the quality of education in the training of specialists, and recommended the modern characteristics of a teacher. This is evidenced by the reforms aimed at the development of education at the international level at the turn of the century, including the rapid development of the Bologna Process (Nazarbayev N.A., 2006).

Furthermore, the modernization of education carried out in the country has several directions, the most important of which is to change the purpose, content and technology of education. In this case, one of the main tasks of modern education is the development of new technologies.

The relevance of our research is to create an opportunity to systematically direct new and necessary actions and technologies in the field of modern education in one direction. That is, the contradictions between the readiness of a modern teacher for innovative pedagogical activity and the need for practice and the insufficient development of theoretical and

organizational bases for its improvement. The latter requires a solution by determining the structure, content of the components of readiness for innovative activity and determining the levels of readiness as conditions for professional development using psychological and pedagogical diagnostics on this basis.

The activity of a modern teacher is based on an active, creative position who is able to develop and implement new technologies. The new educational paradigm focuses on the search for ways to develop the University, and the development of teacher readiness for innovative activities is particularly relevant. We believe that preparation for the implementation of innovative activities is a necessary condition for the successful work of a modern educational institution. Therefore, today one of the most important components of the professional competence of teachers is their inclusion in innovation activities.

The purpose of the article is to analyze scientific works, suggest ways to form pedagogical and psychological readiness of future teachers for innovative activities.

Research methods. The article is of an overview nature, methods of analysis of psychological and pedagogical literature, comparison and generalization of the experience of researching the innovative activity of teachers are used.

Literature Review

In recent years, the term "innovation" has firmly entered our society. We understood that innovations are inherent not only in pedagogical terms, but also in any professional activity of a person. They arise as a result of scientific research and introduce stable elements of innovation into the educational environment.

The teacher's readiness for innovation activity is defined as skills and abilities, such as awareness of the value of innovative activity, knowledge of the methodology, theory and practice of pedagogical innovation, building a model of professional behavior in the context of innovative activity, determining the optimal approaches to pedagogical activity, evaluating their capabilities in dealing with the upcoming difficulties associated with the introduction of pedagogical innovation and the need to achieve high results of professional activity, etc.

In this regard, there are several scientific directions on the formation of a general teacher's readiness for innovative activities. In particular:

- formation of general pedagogical qualifications and professional qualities of the teacher;
- improving the psychological and pedagogical training of a teacher;
- Organization and implementation of creative research of university teachers in scientific practice;
- improving the scientific and methodological training of teachers;
- pedagogical innovation and preparation for its development;
- preparation of teachers for the use of information and pedagogical technologies;
- individual directions of formation of teachers' readiness for innovative activities;
- preparation of the future teacher for the use of innovative technologies in the educational process in the process of postgraduate education.

Innovative activity is the process of creating new models and methods of teaching and upbringing that qualitatively change the productivity of pedagogical work. The formation of innovative activity of a teacher is characterized by: the ability to change, improve, perceive the innovative experience of others, taking into account their personal qualities; the need to understand the results of their work, being aware of new scientific ideas and the experience of others; continuous implementation of new scientific research, their methodological implementation in practice; independent development of new methods and methods of pedagogical innovation; active struggle with pedagogical ri-

gidity, backwardness. (Dyachenko, Kandybovich, 1976)

It is obvious that today a number of shortcomings are reflected in the educational process of the University. For example, some teachers face difficulties in choosing and using pedagogical technologies that are suitable for them; lack of provision of information channels of the University and incomplete regulation of the exchange of experience; lack of forecasting and expertise of the innovation process, etc.

Consideration of the issue of innovative activities from different perspectives was carried out in the late 80's. First of all, its essence, dimensions and experience were considered (V.I. Bondar, V.A. Kan-Kalik, T.V. Kudryavtsev, Yu.N. Kulyutkin, V.P. Parkhomenko, N.V. Kukharev, Ya.S. Turbovskaya, F.Sh. Teregulov, L.M. Fridman, etc.). Its types have been identified:

1. **rationalization practice** (integration and replenishment of forms and methods of working with students);
2. **innovative experience** (creation of new types and methods of work that significantly increase the effectiveness of pedagogical work);
3. **innovative experience** implementation of the content relationship of new ideas, new content, new forms and methods in science.

Taking into account the above, we can name the following as indicators of productive innovative activity of a teacher:

- effectiveness of pedagogical work (significantly less time and Labor spent by the teacher in achieving the result, significantly higher self-activity of students, ensuring cooperation between the University and parents, the public and the University);
- unity of pedagogical requirements and directions of participants in the educational process (unity of pedagogical requirements and directions) creates prerequisites for constant pedagogical control, in which useful methods, skills and abilities, and a useful life image are effectively formed);
- formation of creative qualities of the individual;
- effective development of students' ability to work through inspiration, constant desire, passion, love for the search for new things, opening the way to their abilities and abilities;
- increasing the authority of the teacher (showing respect and interest and love for the subject on the part of students, readiness for the Commonwealth);
- students are used to the approach of analyzing a particular problem, dialectical thinking, that is, first of all, the development of creative thinking;

- discoveries of the research approach in teaching and upbringing in the form of pedagogical activity.

At the same time, the problem of innovation processes and management is the main link in the structure of pedagogical innovation. This problem has been studied in the fundamental works of many scientists. For example, we can note the works of such teachers as K. Ajibekov, B.R. Aitmambetova, K.Zh. Buzaubakova, K. Kudaibergenova, S.N. Laktionova, A.K. Mynbayeva, T.A. Lynchevskaya, Sh.T. Taubayeva, M.A. Shkutina, who studied the theoretical and methodological foundations of pedagogical innovation in the Republic.

Innovative activity is one of the aspects of the development path of modern higher education. Innovative activity involves measures to deviate from the limits of a certain standard from other areas of Education created by the socio-economic situation and introduce an alternative system. Innovative activity is characterized by such processes as invention, research, preparation for use, and practical use of innovations.

In the works of scientists E.A. Kalimov, A.N. Markova, V.A. Slastenin, V.D. Shadrikov, L.S. Podymova, O.A. Ermakova (Podymova, Ermakova, 2010), who contributed to the study of styles of innovative activity, the definition of stylistic features of innovative activity of a teacher is described as follows:

- the style of action is of an integrative nature, combining the individual characteristics of the subject and the features of the action;

- the structure of innovative activity consists of motivational, creative, operational and reflexive components;

- the structure of the individual style of activity is formed from content, dynamic and productive characteristics;

- innovative style is a discipline process of pedagogical activity that allows you to reveal the creative potential of a graduate and turn it into an individual approach to the implementation of activities;

- the innovative style of activity characterizes not only the ability of the subject to invent a new one, but also the transformation, modification and implementation of the finished "novelty";

- the innovative style of activity is formed on the basis of the choice of the way a person interacts with the environment, in most cases it is aimed at ensuring the disclosure of their capabilities: how much effort is made is determined by the strategy of self-realization of the individual.

Empirical methods of innovative activity include: literature study; control method; survey and evaluation method. Complex methods of innovative activity; pedagogical experiment; method of research and generalization of pedagogical experience; method of creating a scientific basis for the introduction of didactic novelties; methods of innovative management.

Methods for evaluating and analyzing the results of the introduction of didactic innovations: testing and testing; analysis; statistical processing method. Creative methods of innovative activity: seven-fold search strategy; random method; problem solving theory; innovative game.

According to V.S. Lazarev, those who make up the teacher's readiness for innovative activities:

- the presence of an incentive to participate in the same activity;

- a set of knowledge about innovative models, technologies of education, modern requirements for the result of education at the University;

- qualification in the field of pedagogical innovation.

The motivator attaches importance to human actions. Depending on the content of the stimulus, innovative activity has a different meaning in each person. The lack of motivation indicates the lack of preparation of the teacher for innovative activities. A high level of readiness for innovative activities is characterized by a mature motivational structure, in which the values of self-improvement and self-development play a key role. Those who strive to achieve a higher skill should understand that the way to achieve it is through a critical attitude to themselves, their achievements, and the search for ways and means to develop their experience. Without understanding participation in an innovative activity as a value for itself, it is impossible to be prepared for this activity.

The second component of training under consideration is a set of knowledge about innovative educational models, technologies, and current requirements for educational results at the University. The teacher's sensitivity to the problem is determined by how they understand the purpose of higher education, thereby mastering the requirements for their work if these requirements do not meet high standards, the teacher will not be able to see the result of his work.

On the other hand knowledge of innovative educational models, programs, and technologies are not enough. For the teacher to be fully aware of his capabilities and be able to make the right choice, they must have a good understanding of the conditions

for their effective use. Any activity should not only be relevant, but also correspond to the real situation in this university.

The third component of the teacher's preparation for innovative activities is qualification in the field of innovation. A teacher who is well prepared for innovative activities in this aspect:

- has a set of concepts in pedagogical innovation;
- understands the place and importance of innovative activities in educational institutions and their connection with educational work;
- will be able to study the experience of teachers-innovators;
- conduct a critical analysis of pedagogical systems, educational programs, technologies and didactic means of teaching;
- develop and justify innovative proposals for improving the educational process;
- develops projects for the implementation of innovations;
- sets the goal of experimental work and plans it;
- The university is able to analyze and evaluate the system of innovative activities;
- is able to analyze and evaluate himself as a subject of innovative activity.

Guided by these indicators, taking into account modern opportunities, we tried to study the pedagogical and psychological aspect of preparing university students for innovative activities.

Results and discussion

The expansion of new educational models has led to the emergence of new types of universities. The emergence of a new type of university determines various changes in the scale and complexity of the University's pedagogical system. The most common type of new implementation is a change in the content or technology of educational programs. They differ as follows: depending on the main goal and objectives; depending on the concept on which they are based; depending on the form of Organization of training used; depending on the priority of teaching methods (Selevko, 1988). In addition, many diagnostic technologies are used (monitoring, testing, questionnaires, ratings, etc.).

Currently, the most popular innovative technologies are game technologies, problem-based learning, individual learning technologies, self-development technologies, personality-oriented developmental learning technologies, Creative Development Technologies, Group and collective technologies, computer technologies, etc.

Within the framework of these technologies, new teaching methods, methods and forms of implementation, which increase the activity of students, are widely used, and even allow students to look into the future and instill love for their profession. Of course, this is also a gratifying achievement in itself.

It is known that the goal of continuous improvement of innovative technologies is achieved through the adoption of certain strategies, concepts and norms. Today, the system "Kaizen", introduced in order to continuously improve the pedagogical quality of educational institutions, also has a huge impact. Even if we consider our university as an example, all subjects in the education system (teachers, students, staff) are fully involved. We can say that it is characterized by positive performance indicators. The Kaizen strategy is implemented according to the algorithm "plan – implement – checking – influence" (Figure 1). Of course, the strategy is constantly accompanied by Innovative Actions.



Figure 1 – Kaizen algorithm

Today, sharp changes in the country have led to a faster decision-making process to innovate in the education system. For example, optimal opportunities for distance learning and online education follow the introduction of strict requirements and discipline. Certainly, this is a matter of time, but it does not only create obstacles in the training of future specialists, but also contributes to the opening of optimal and high-quality areas in the course of quick actions. Within the framework of this issue, we also tried to analyze the innovative direction in the activity of teachers and their preparation from the point of view of future specialists – students. A research plan was drawn up on the topic "the impact of innovative technologies on the model of a teacher of a new format", and a questionnaire for students was compiled during the work.

According to the results of our research, it should be noted that future students, although not often, perform an innovative activity in a certain specific form. However, we have noticed that very rarely do attempts to participate in conferences, seminars, debates, meetings with scientists or other places of information exchange about new developments and advanced pedagogical experience, study the experience of teachers of other universities, make recommendations to the university management to

improve its work, participate in discussions related to improving the educational process of the University. These shortcomings indicate their low activity as participants in innovative activities. We also had the opportunity to engage teachers in a comparative analysis of educational opportunities in traditional offline learning and online systems, to find out their views on improving and directing various innovative activities.

At the same time, we considered that the teacher's readiness for innovative activities is the formation of the necessary personal and special qualitative qualities, which are distinguished as follows (table).

Table 1 – Personal and special qualitative qualities

Constituents	indicators
Personal qualities	- working capacity
	- stress resistance
	- high emotional status
	- preparation for creativity
Special properties	- knowledge of new technologies
	- mastering new teaching methods
	- ability to develop projects
	- ability to analyze and identify the causes of deficiencies

In our opinion, the increase in professional growth of a teacher depends on many factors, such as the direction and motivation of pedagogical work, as well as the level of creativity and professional competence of the teacher, his emotional plasticity, socio-psychological situation in the teaching staff, etc.

Thus, when studying the readiness of teachers for innovative activities, it is possible to give the following organizational and methodological recommendations:

1. It is necessary to provide psychological readiness for innovation, since the motivating factor of a teacher is the initial step in improving professional competence. The internal motivation of an innovative teacher is the understanding of innovation as a value and its possibility of self-realization.

2. In order to increase the level of professional competence of participants in innovation activities, it is necessary to develop a model for the development of innovative competence of a teacher.

3. Ensuring a favorable socio-psychological climate in the team, since the success of the teacher

in innovation is accompanied by the provision of organizational, material, technical and psychological support directly to the social environment, the administration and the staff of the educational institution.

4. Implementation of methodological support for the introduction of innovative technologies with the consolidation of the creative potential of teachers in various educational institutions in self-organizing communities, such as associations, unions, experimental organizations, laboratories.

Based on the organizational indicators described above, the levels of readiness of teachers for innovative activities can be grouped as follows:

* *low* (unstable interest in innovation, a scattered system of knowledge about innovative technologies and their own innovation potential, insufficient systematic implementation of innovation, but having elements of an individual style of activity in the work);

* *average* (stable interest in innovation, formed system of knowledge about innovative technologies in the chosen specialty and its own innovation potential, systematic implementation of innovation, individual style of innovative activity of the teacher);

* *higher* (having high motivation, fluency and creative use of knowledge about innovative technologies, i.e. the presence of creative activity in the teacher).

Conclusion

In today's conditions, readiness for innovative activities is the most important quality of a professional teacher, without which it is impossible to achieve a high level of pedagogical skills.

Currently, the most popular innovative technologies are game technologies, problem-based learning, individual learning technologies, self-development technologies, personality-oriented developmental learning technologies, creative development technologies, group and collective technologies, computer technologies, etc.

Innovative activity of the teacher is characterized by continuity in solving the tasks of innovative activity. It is characterized by the following tasks:

* In general: mastering new things; self-created innovations; conducting pedagogical experiments; giving your own developments and experiences;

* Personal: identification and analysis of problems in their activities; identification and analysis of problems in the group in which they teach; search and evaluation of new ones; development of innovative proposals; creation of a new proj-

ect of their activities; participation in the design of the pedagogical system of the University, etc. (Selevko, 1988)

Innovation goes through several stages from the moment of the idea's origin to its introduction into practice: a well-founded proposal to solve educational and educational tasks, extensive use of the methodology, and full assimilation. The creation and development of innovations is carried out until new principles are reached that need to solve problems. This approach creates conditions for preserv-

ing the development of proposed ideas and proposals, analyzing the practical impact, and maintaining the volume of innovation. To master new forms of work, you need a certain amount of time, appropriate equipment, training of teachers, and preparation of teams for work in New conditions. (Taubayeva, 2016)

In short, the teacher's own readiness for innovative activities is the readiness to apply the acquired innovative pedagogical technologies in their practice.

Әдебиеттер

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