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MECHANISM OF DYNAMIC DEVELOPMENT OF SCIENTIFIC AND INNOVATIVE POTENTIAL OF TEACHING STAFF IN THE CONTEXT OF PARTICIPATORY MANAGEMENT

Abstract

The development of the scientific and innovative potential of the teaching staff directly depends on the effectiveness of management decisions, which is most responsible for participatory management, as it creates equal relationships between participants in this process, giving them the opportunity to regulate the quality of the implemented technologies of scientific and innovative activity, pedagogical scientific intuition and improvisation of pedagogical skills. Our developed mechanism of participatory management will allow: to determine the driving forces of the development of the scientific and innovative potential of the university teacher; to create a "comfortable" environment for the effective implementation of the process of developing the scientific and innovative potential of the teacher; to optimize the pedagogical strategy of the teacher's "ascent" to the optimal level of development of scientific and innovative potential for it. The creation of a mechanism for participatory management of the development of the scientific and innovative potential of a university teacher ensures an effective transfer of pedagogical technologies.

The study was conducted within the framework of the project of the Ministry of Education and Science of the Republic of Kazakhstan IRN AR14872123 "Participatory management of the development of scientific and innovative potential of the faculty of a research university."

Keywords: scientific and innovative potential, teaching staff, participatory management, participatory management mechanism.

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ППС ҚҰРАМЫНЫҢ ҒЫЛЫМИ-ИННОВАЦИЯЛЫҚ ӘЛЕУЕТІНІҢ ҚОЛДАНЫП БАСҚАРУ ЖАҒДАЙЫНДАҒЫ ДИНАМИКАЛЫҚ ДАМУ МЕХАНИЗМІ

Аңдатпа

Профессор-оқытушылар құрамының ғылыми-инновациялық әлеуетінің дамуы басқарушылық шешімдердің тиімділігіне тікелей байланысты, ол бірлескен басқару үшін ең жауапты, өйткені ол осы процеске қатысушылар арасында тең қарым-қатынастарды қалыптастырады, оларға білім сапасын реттеуге мүмкіндік береді. ғылыми-инновациялық қызмет технологияларын, педагогикалық ғылыми интуицияны және педагогикалық шеберлікті импровизациялауды жүзеге асырды. Бірлескен басқарудың біздің әзірленген механизміміз: университет оқытушысының ғылыми-инновациялық әлеуетін дамытудың қозғаушы күштерін анықтауға; мұғалімнің ғылыми-инновациялық әлеуетін дамыту үдерісін тиімді

жүзеге асыру үшін «жайлы» жағдай жасау; ол үшін ғылыми-инновациялық әлеуетті дамытудың оңтайлы деңгейіне мұғалімнің «көтерілуінің» педагогикалық стратегиясын оңтайландыру. ЖОО оқытушысының ғылыми-инновациялық әлеуетін дамытуды бірлесіп басқару механизмін құру педагогикалық технологиялардың тиімді трансфертін қамтамасыз етеді.

Зерттеу Қазақстан Республикасы Білім және ғылым министрлігінің IRN AR14872123 «Зерттеу университетінің профессорлық-оқытушылық құрамының ғылыми-инновациялық әлеуетін дамытуды бірлесіп басқару» жобасы аясында жүргізілді.

Түйін сөздер: ғылыми және инновациялық әлеует, профессорлық-оқытушылық құрам, партисипативті басқару, бірлескен басқару механизмі.

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МЕХАНИЗМ ДИНАМИЧЕСКОГО РАЗВИТИЯ НАУЧНО-ИННОВАЦИОННОГО ПОТЕНЦИАЛА ППС В УСЛОВИЯХ ПАРТИСИПАТИВНОГО УПРАВЛЕНИЯ

Аннотация

Развитие научно-инновационного потенциала профессорско-преподавательского состава напрямую зависит от эффективности управленческих решений, на что в наибольшей степени отвечает партисипативное управление, так как оно создает равноправные отношения между участниками этого процесса, давая им возможность регулировать качество внедрены технологии научно-инновационной деятельности, педагогической научной интуиции и импровизации педагогического мастерства. Разработанный нами механизм партисипативного управления позволит: определить движущие силы развития научно-инновационного потенциала преподавателя вуза; создать «комфортную» среду для эффективной реализации процесса развития научно-инновационного потенциала педагога; оптимизировать педагогическую стратегию «восхождения» педагога к оптимальному для него уровню развития научно-инновационного потенциала. Создание механизма партисипативного управления развитием научно-инновационного потенциала преподавателя вуза обеспечивает эффективный трансферт педагогических технологий.

Исследование проведено в рамках проекта МОН РК ИРН AP14872123 «Партисипативное управление развитием научно-инновационного потенциала профессорско-преподавательского состава исследовательского университета».

Ключевые слова: научно-инновационный потенциал, профессорско-преподавательский состав, партисипативное управление, механизм партисипативного управления.

Introduction. Awareness of the importance of participatory management that is aimed at proactive scientific activity of teachers of a modern university, creation of scientific space for personalized scientific achievements of teaching staff; provides the necessary integration of research abilities of students and teachers, for a single collective action. Its most important feature is that any participant in the research process can directly participate in its improvement and development. First of all, we are talking about attracting the best representatives of both teaching and student staff to the regulation of the research process.

In addition, the current trends in the development of higher education and the qualification requirements for a university teacher indicate the advancement of scientific and innovative activities and the constant need to develop the scientific and innovative

potential of the teacher. In this regard, it is participatory management that is more focused on the formation of a qualitatively new scientific thinking - innovative, so necessary for everyone in modern conditions, when intellectual resources become the paradigm of progressive world development.

Ensuring the efficiency, quality and productivity of the development of scientific and innovative potential of teaching staff is possible through the implementation of participatory management.

Participatory management creates equal relationships between the subjects of the educational process (Department of Science, graduates, Ph.D. students), giving them the opportunity to regulate and optimize the quality of developed research and innovation. It is largely possible to increase the motivation of a university teacher with the help of participatory management, to bring scientific and innovative activities to the forefront and the constant need to develop personal scientific potential [1, 2, 3].

The analysis of the international scientific discourse has shown within the designated framework that over the past decade, the main focus of research has been on the main advantages of the participatory approach, which lie in the field of psychology: the emancipation of creative and innovative activity of the professioral and teaching staff: each of them can express themselves and their knowledge put forward a particular proposal to solve a specific problem task [4,5, 6, 7].

The effectiveness of participatory management, N.D. Upruchina (2018) and V.V. Danilova (2014), writes largely depends on the correct use of its principles. If these principles are violated, then the effectiveness and sometimes the expediency of participatory management disappears [8, 9].

The main requirements for participatory management according to the scientific views of N.G. Mustayeva, V.V. Tonkonog, P.I Ananchenkova (2019) follows as: - the motivated nature of the participation of the subjects of the educational process in management through scientific research in small groups or participation in projects and competitions [10].

– constant support of the teaching staff, graduates, Ph.D. students;

– interaction “student-teacher”, “graduate student-teacher”, “ Ph.D. student-teacher” is mandatory within the framework of: making proposals, participating in scientific circles, creating scientific schools;

– the absence of any sanctions for putting forward ideas and proposals;

– all the achievements of the teaching staff should be considered, feedback on any idea is needed. Teachers should see that their work is in demand, that they are considered; even if the offer is rejected, it is necessary to inform about it and explain why such a decision was made;

– all ideas that have found approval should be implemented. The Department of Science should facilitate the implementation. If the subjects of the research process see that their ideas just add up to a table, then the enthusiasm quickly fades;

– any achievements of the teaching staff, graduates, Ph.D students should be noted, it is necessary that everyone knows which of these achievements have turned out to be valuable and movement in which direction is welcome [10].

Thus, an analysis of the participatory management style is presented in the work of Benavente, J. M., Crespi, G. (2012) which not only creates a sense of belonging, but also increases motivation in increasing the effectiveness of their scientific potential. As a result, motivation is usually based not only on individual achievements, but also on the overall result of the work of a “student-teacher”, “master’s student-teacher”, “doctoral student-teacher”. Accordingly, each subject is interested in participating in the management of research [11].

In this chain, the teacher does not try to impose his opinion, but strives for a constructive dialogue with young scientists. No less important is the practical significance of using this approach. With properly organized interaction, participation in participatory management improves the quality of research solutions. More alternatives are being considered, more experience is being brought into the discussion, and more innovative ideas are emerging. As

a rule, its result is the publication activity of teaching staff and young scientists.

In addition, the difference between participatory management of the development of scientific and innovative potential of teaching staff is that each subject (student, graduate, Ph.D. student, teacher, research professor, employee of the Department of Science) has the right to initiate the discussion process, and not just has the right, but is strongly encouraged to do so. And it is encouraged, as a rule, through the financing of their unique, innovative achievements.

The forms of financing are different. For example, the role of departments of science are considered by Russian scientists A. N. Blinov and V. I. Konnova (2017) the university foundations in the financing of scientific research through a comparison of the national scientific foundations of the USA, China, Japan, Germany, Great Britain, France and Russia [12].

Huang, Y., Zhang, Y., Youtie, J., Porter, A. L. and Wang, X. (2016) present the results of a comparative study of grant organizations in the USA and China. It is also possible to distinguish a number of works devoted to the influence of the Matthew effect that the phenomenon of uneven distribution of advantages in which the party already possessing them continues to accumulate and multiply them, while the other, initially limited, it turns out to be even more deprived, therefore, it has less chance of further success [13].

Literature Overview

In philosophy, the concept of participation is considered as initial universal, desire to communicate and cooperate during the communication which is characteristic of a person. Participation is understood as a psychosomatic state in psychology where a person begins to feel for some time his unity and unity not only with similar objects but also with someone initially opposite to him. Participation is interpreted as an organization of cooperation between students and a teacher, which is characterized by systematic joint planning and decision-making on methods, means and forms of communication, participation, delegation of rights, dialogical interaction, democratic style of communication [14]

In pedagogical studies on the management of pedagogical systems, the term “participation” is considered as the opposite of dominance, coercion and authoritarianism, realized in joint decision-making, joint identification of problems and solutions, as well as the creation of a psychological climate favorable for cooperation [15].

An analysis of the scientific literature of the modern period of the formation and development of the concept of “participation” has shown that the most scientists correlate the term “participation” with the categories of “participation”, “complicity”, “involvement” [16, 17].

The relations of participatory management of academic science are a fundamental problem, since methodological, methodological approaches, their implementation strategy, the nature of requirements for formal procedures, technical techniques, evaluation of expected results and innovative effectiveness are determined by the academic expert community [18, 19, 20].

In general, participatory management is focused on the basic requirements for obtaining scientific knowledge, during the implementation of the methodological part which is properly constructed, procedures for verifying conceptual provisions and monitoring the data obtained are thought out (using the triangulation method) [22, 23].

Taking into account the dominance of qualitative research strategies, the question is raised about the reliability of the data obtained, the consistency of information to the ordinary consciousness of the studied social community [24].

Another problem of interaction with academic science is the high level of active practical involvement of co-researchers in the studied problem. It often leads to a violation of the principle of lack of value, value neutrality, which contradicts the requirement of academic objectivity and detachment [24, 25].

However, it should be borne in mind that in social anthropology, psychology has already accumulated a lot of experience in collecting qualitative data by this method. That is why a properly organized research process may well

neutralize these deviations. As for the collection of quantitative data by survey methods or standardized observation, here such difficulties are minimized by the very features of the method.

Materials and methods. The mechanism of dynamic development of scientific and innovative potential is considered in three main directions:

1. Development of scientific schools by building an interconnected system of competitions and events. This means preparation of applicants step-by-step through participation in scientific events of the university in order to develop their professional competencies and form scientific collaborations with other participants;

2. Purposeful integration of young scientists into the scientific activities of the university, which allows ensuring the continuity of scientific knowledge and their development;

3. Support of scientific communication of all subjects of the educational process of the university.

The novelty and main advantages of the mechanism of dynamic development of scientific and innovative potential are:

– firstly, within the framework of the dynamic development of scientific and innovative potential, it is necessary to identify the best practices for the formation and conduct of competitive procedures at the university;

– secondly, it should be important to have an interconnected system of competitions for student, master's, doctoral and teaching staff works that meets the strategic objectives of the development of Abai KazNPU;

– thirdly, the mechanism of dynamic development of scientific and innovative potential should be based on a system of input types and indicators of scientific activity, see Table 1.

Table. 1. – **The system of input forms and indicators of the mechanism of dynamic development of scientific and innovative potential of teaching staff**

Forms and criteria of scientific activity		
Scientific-research		
Implementation of promising topics of scientific research	Interest in innovative ideas and directions; Risk taking and experimentation	Creation and preparation of publications and reports covering innovative ideas, topics, directions, prerequisites for research.
Scientific and organizational		
Organization of conferences, seminars, round tables, symposiums, olympiads, scientific circles	Initiative Predictiveness Propensity to take risks and experiment	The use of interactive equipment and innovative technologies for a report, presentation, speech
Innovative Functioning		
Participation in the work of innovative enterprises, a business incubator and an innovation center	Interest in innovative ideas and directions; Risk taking and experimentation	Development and use scientific simulators, simulation business games.
Publication activity		
Examination of manuscripts, scientific, educational, methodical literature and articles	Criticality Predictability Decision Responsibility	Analysis and examination of manuscripts, educational, methodical literature and articles of innovative orientation

The mechanism for the dynamic development of scientific and innovative potential consists of three main levels:

First level – this is the promotion of a scientific problem or a scientific proposal. Proposals can be put forward both individually and during a group discussion (the so-called "problem seminar").

It is best when the process is put on a regular basis. The most common way to collect proposals is to conduct a questionnaire. As an example, we give the following questionnaire:

Questionnaire №. 1 for a university teacher "Innovative activity of a university teacher: the essence and prospects of development".

Purpose: to study the motives and needs of university teachers in acquiring innovative knowledge and experience. To establish the difficulties experienced by the teacher when using innovations and novelties in research activities, establishing the main vector of solving a scientific problem.

Dear university teachers! If possible, we are waiting for honest, detailed and detailed answers from you.

1. Please specify your data: full name, age, teaching experience, education, position, title, academic degree

Questionnaire questions:

What motivates you to engage in scientific and innovative activities?

1. Do you feel the need to use innovations in research activities?

2.Do you use innovative techniques and technologies in the research of your undergraduates and doctoral students?

3. Do you have special innovative knowledge?

4.Which personality can be called innovative?

5. Do you have innovative potential?

6. What do you need to activate innovative potential?

7. What problems and difficulties do you experience when using innovations in scientific activity?

These results were systematized and presented in quantitative terms through the prism of D. Gleicher's formula: R = (DxBxVxF) > C, where R is readiness for change; D is dissatisfaction with the current situation; C is the expected benefits of changes for the subject; V is clarity of vision of what is possible; F is the realism of steps to implement new ideas and C – the cost of changes). Thus, the maximum number of generated factors was selected, which made it possible to put the above equation.

Compliance with the above criteria was described by a statistical method through the use of statistical data analysis tools: correlation coefficient criteria and Pearson CHI-squared techniques.

Second level - the development of alternatives already requires the appearance of special structures in the organization (Department of Science, scientific schools, scientific circles) that could effectively solve this problem.

Table 2. - **Examples of meaningful components of alternatives presented by special structures.**

Topic name	Topic content
Module 1. Innovative methods, methods and technologies of teaching: theory and practice	
Topic 1.1 Modernization and experiment in higher education On the scientific justification of large-scale innovations in higher education.	The structure of the pedagogical experiment. Pedagogical innovations in the framework of higher scientific schools.
Topic 1.2. Innovative activity in higher education	Innovations and innovations at the level of didactic ideas and concepts. Innovations and innovations in the educational process. Innovations and innovations in the training course. Innovations and innovations in traditional higher education. Innovations and innovations in innovative higher education.
Topic 1.3. Theoretical and methodological foundations of the development of innovative projects	Samples of innovative projects. Requirements for an innovative project within the framework of the development of a comprehensive program. The main difficulties of project development. Analysis of situational tasks and determination of possible directions of innovative development of the university. Development of innovative ideas and analysis of their effectiveness.
Topic 1.4. Virtual research and innovation platform «Research University».	Events by dates (speeches, conferences, master classes, competitions, seminars, questionnaires); new and open courses (new courses and lecturers); presentations, placement of the program of scientific schools of the university.

The third level - the choice of an alternative - assumes that participation in participatory management is carried out in the form of the work of special scientific, technical and managerial councils. These councils not only discuss problems and look for ways to solve them, but also have the authority to make decisions independently. In fact, this is no longer just participation in management, but the implementation of management, when part of the managerial powers is transferred to employees.

The main emphasis is on the interaction of "student-teacher", "master's student-teacher", "doctoral student-teacher", in which they discuss intermediate problems, jointly look for possible solutions, help each other to implement the decisions made.

Working in groups is aimed at increasing team responsibility and team interaction, which ultimately leads to an increase in the effectiveness of participatory management.

Thus, the main mechanism for ensuring the participation of subjects of the research process in participatory management is to provide them with the opportunity to discuss their concerns and jointly seek a way out.

Ethical issues

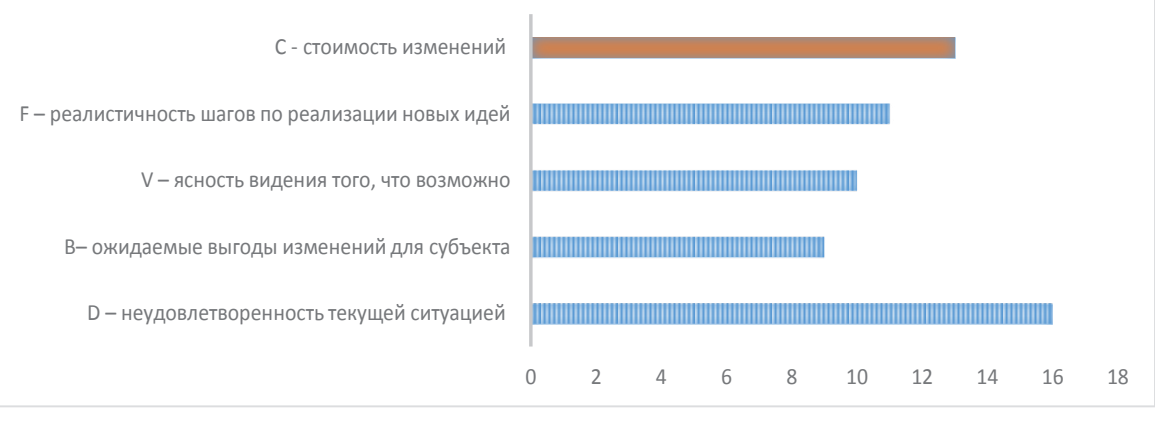
The respondents were familiarized with each stage of the study and filled out information on consent to the processing of personal data in Google Forms. Teachers participated in the program on a voluntary basis and got acquainted with the terms of the program.

Results

The main idea is scientific and innovative potential is revealed in the ability to self-development and implementation of innovative ideas, projects and technologies. The results of identifying the features of the scientific and innovative potential of the teaching staff are formed on the basis of generating the maximum number of non-repeating answers among a sample of 68 respondents of the teaching staff of Abai University.

In general, criterion D as an expression of dissatisfaction with the current situation of the innovation process is the most capacious (R= max (16)-min (4)). The most repeated responses to this aspect of the survey among the sample were: low level of motivation for innovation (SB=24); low level of innovative scientific research (SB=19); disproportion of innovative ideas, solutions and realities (SB=10).

At the same time, category B, describing the benefits of the subject from the survey, turned out to be less capacious. Thus, the variation of responses was 6 points (R = max (9)-min(3)) and almost unanimously concerned one criterion – a high level of motivation for scientific and innovative activity.



The results of the study of the scientific and innovative potential of young scientists (graduates, Ph.D. students) of Abai KazNPU showed the following:

The number of young scientists that took part in the study was 73, 29% of them with an academic degree (PhD, 35 years old), and 71% without an academic degree (graduates, PhD students).

The evaluation of the results in accordance with

the requirements for the processing and interpretation of the methodology data was carried out on three scales: "achieving success in general", "striving for participation", "tendency to affiliation (group recognition and respect)". During the analysis of the obtained results, it was revealed that the motivation to achieve success was developed at a high level in 79% of young scientists, on average – in 21%. A low level on this scale was not detected. The level of motivation for achieving success was generally higher among the settled young scientists (the average score in the group was 21.7 out of 25 maximum possible) than among the non–settled young scientists (the average score in the group was 20.2 out of 25 maximum possible).

The motivation of the desire for participation was presented at a high level in 11% of young scientists who took part in the testing, at an average level – in 88% of respondents, at a low level – in 1%. Correlation of the data on the level of motivation of the desire for participation with other indicators allowed us to conclude that a high level of desire for management prevailed among non-progressive young scientists (10% out of 11% in the entire sample), a low level was also found only among graduates and Ph.D. students*. Young scientists with an academic degree had an average level of desire for participation. The average values in the samples on this scale were the same – 15.1 in each of the subgroups of settled and non-settled young scientists. 53% of young scientists had a high level of affiliation motivation development, and 47% had an average level. The low level was not detected. In the sample of settled young scientists, 48% of respondents had a high level. In the sample of unshaded young scientists, a high level of affiliation motivation was found in 42%. There were no significant differences between the average values in the samples of settled and non-settled young scientists. In the group of settled scientists it was 18.4, and in the group of non–settled scientists it was 19.2.*

We studied individual indicators of the motivational component of innovative activity of young scientists using a specially designed questionnaire with open-closed questions, one of them was the following: "What motivates you to engage in scientific activity?". The answers of young scientists to this question were distributed as follows: the desire to achieve professional success – 39%; the desire to increase the level of scientific competence – 34%; the need to benefit society with their scientific discoveries, research – 11%; material interest – 8%; satisfaction of personal ambitions – 5%.

The main motive determining the decision of a young scientist to engage in science, as it was found out as a result of the survey, is not the prospect of working in "hothouse" conditions and receiving material incentives, but his interest in this activity, very complex, creative, requiring a lot of intellectual effort.

In the course of our survey of young scientists from the proposed system of criteria and indicators, respondents identified certain characteristics that are important from their point of view, for a competitive young scientist a generalized portrait of a modern young scientist was compiled on the basis of it and the types of activity were isolated that form the basis of innovative activity.

Conclusion

So, the scientific and innovative potential of a university teacher, in the context of the mechanism of its dynamic development is considered as a complex integrative characteristic of a person, including: individual abilities and resources of a higher school teacher that allow generating innovative ideas and behaviors, the ability to correlate the internal capabilities of the individual and the conditions of activity, analyze the situations of the modern research space, transform traditional approaches into innovative research methods and technologies.

The structural components of the mechanism of dynamic development of scientific and innovative potential of teaching staff are: motivational and targeted (interest in innovative educational ideas and directions of higher education, the need and initiative in the independent search and implementation of pedagogical innovations); cognitive (the ability to navigate innovative educational trends and the tendency in higher education, receptivity to innovation and the ability to quickly respond to innovative educational challenges and changes in the educational space of the university, the ability to generate new ideas and find original pedagogical approaches to involving graduates and PhD students in research activities); subjective-activity (the ability to experiment in working with scientific innovations; innovative mobility) and a reflexive component (the ability to adequately analyze the results of work with innovations).

References:

1. Abdigapbarova U.M., Tapalova O.B., Zhiyenbayeva N.B. Scientific and innovative potential of the teacher as an integrative reality of the development of "research university" // Proceedings of the 1st International Scientific Conference "Modern scientific technology" (October 13- 14, 2022). Stockholm, Sweden, 2022. P. 67 – 73.

2. Rappleye J., Komatsu H. How to Make Lesson Study Work in America and Worldwide: A Japanese Perspective on the Onto-Cultural Basis of (Teacher) Education."Research in Comparative and International Education – 2017. – 12 (4) . – R. 398-430.

3. Rappleye J., Komatsu H. Towards (Comparative) Educational Research for a Finite Future." Comparative Education – 2020. – 56 (2). – R. 190-217.

4. Sha Li. et al. Recognizing and measuring self-regulated learning in a mobile learning environment." Computers in Human Behavior. – 2021. – 28 (2). – P. 718-728.

5. Delgado M. A. C., Delgado R. I. Z., Palma R. P., Moya M. E. Dyscalculia and pedagogical intervention. International Research Journal of Management, IT and Social Sciences. – 2019. – 6 (5). - R. 95-100.

6. Sakulina Y. V. The use of information and communication technologies in the implementation of distance education Bulletin of Science and Education. – 2018. – 2 (3). – R. 39 - 43.

7. Guseva A. I., Kalashnik V. M., Kaminsky V. I., Kireev S. V. Research leadership of the Priority 2030 program: success factors // Higher education in Russia. - 2022. - T. 31 (1). - pp. 42–58. DOI: 10.31992/0869-3617-2022-31-1-42-58.

8. Upruchina N. D. Theory and methods of development of the participatory style of managing the scientific activity of students // Humanitarium. – 2018. – No. 1. – S. 29–30.

9. Danilova V. V. The system for the formation of the participatory readiness of the future teacher and the conditions for its functioning // Modern problems of science and education. - 2014. - No. 6. - 861 p.

10. Mustaeva N. G., Tonkonog V. V., Ananchenkova P. I. Development of management of innovative organizations based on participatory management. Trud i sotsial'nye otnosheniya. - 2016. - No. 5. - S. 101–115.

11. Benavente J.M., Crespi G. The Impact of national research funds: A regression discontinuity approach to the Chilean FONDECYT/ EstuDios de Economía University of Chile, Department Of Economics 23 Research Policy 41: Elsevier –2012 - P. 1461 – 1475.

12. Blinov A.N., Konnov V.I. 2017. National Science Foundations and Basic Science Funding. – World economy and international relations. T. 61. No. 6. S. 5-13. http://dx.doi.org/10.20542/0131-2227-2017-61-6-5-13.

13. Huang Y., Zhang Y., Youtie J., Porter A. L., Wang X. How does national scientific funding support emerging interdisciplinary research: A comparison study of big data research in the US and China // PLoS ONE. - 2016. Vol. 11(5). DOI: 10.1371/journal.pone.0154509.

14. Hickey S., Mohan G. Participation: from Tyranny to Transformation? Exploring New Approaches to Participation in Development. London: Zed Books. - 2015. - R. 545 - 576.

15. Reason P., Bradbury H., The SAGE handbook of action research Participative inquiry and practice. https://www.researchgate.net/publication/44831841

16. Garone L. F., Maffioli A. J., Negri A. De. Cluster development policy, SME's performance, and spillovers: cidence from Brazil - 2015. - R. - 926-948.

17. Albert G. Z. Hu. Public funding and the ascent of Chinese science: Evidence from the National Natural Science Foundation of China // Research Policy. - 2020. - Vol. 49. - DOI: 10.1016/j.respol.2020.103983.

18. Liu Y., Gao Z., Wang H., Wang J., Shen J., Wang, C. Analysis of projects funded by the National Natural Science Foundation of China during the years of 2014-2018 // Annals of translational medicine. - 2019. - Vol. 7. - iss. 12. - P 267 - 280.

19. Yin Z., Liang Z., Zhi Q. Does the concentration of scientif ic research funding in institutions promote knowledge output? // Journal of Informetrics. - 2018. - Vol. 12(4). - PP. 1146-1159. DOI: 10.1016/j.joi.2018.09.003

20. Bol T., De Vaan M., Van De Rijt A. The Matthew effect in science funding // Proceedings of the National Academy of Sciences of the United States of America. - 2018. - Vol. 115 (19). - PP. 4887-4890. DOI: 10.1073/pnas.1719557115.

21. Zhi Q., Meng T. Funding allocation, inequality, and scientific research output: An empirical study based

on the life science sector of natural science of China // Scientometrics. - 2016. - Vol. 106(2). - PP. 603-628. DOI: 10.1007/s11192-015-1773.

22. Suvorova S. L. Theoretical and methodological foundations for the formation of a communicative-discursive culture of future teachers: monograph. - Chelyabinsk: South. - Ural. books. publishing house - 2004. - 131 p.

23. Vasilyeva V.S., Nikitina Y.Y. Case of Teachers' Communicative Competence Development within the System of Methodological Work in the Context of Prechool Educational Establishments. International Journal of Engineering & Technology. – 2018. - 4(38). - P. 619–627.

24. Nikitina E. Yu., Kostyuk I. S. Participatory approach to the development of graphic competence // Bulletin of the Chelyabinsk State Pedagogical University. - Chelyabinsk. - 2014. - No. 9.1. - S. 180–189.

25. Matveeva N. A., Danilova V. V. Theoretical and practical aspects of psychology and pedagogy: a collective monograph. - Ufa: "Aeterna". - 2015. - 186 p.

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THE PROBLEM OF PROFESSIONALISM OF THE PERSONALITY OF THE TEACHER IN PSYCHOLOGICAL AND PEDAGOGICAL RESEARCH

Annotation

The article is devoted to one of the actual problems of modern education, in particular, the problem of developing the professional qualities of the personality of a university teacher. The authors analyze the understanding of professionalism in the psychological and pedagogical research of foreign and Kazakh scientists. In our research we use the following definition: "professionalism is a combination of professional competence, professional orientation and professionally important qualities of a teacher". The authors present the characteristics of a "professional person", where such a person should be capable of self-organization, as well as should be able to identify and solve problems.

An important aspect of professional development, as the authors note, is its psychological support. That is, the development of such qualities as professional consciousness, thinking, a positive vision of the world, confidence and self-competence. However, after analyzing the initial situation, the authors believe that at universities, in particular, at the technical ones, the educational process is not always based on an understanding of the need for psychological and pedagogical support of a future specialist. To solve the problem, experimental work was organized and carried out, the main method of research was the "survey" and the author's questionnaire. The questionnaire was based on five criteria, each of which reveals the psychological invariants of professionalism and non-professionalism of the individual. The article presents main results of the study. Measures for the development of motivation and the desire for professional development are proposed. The authors believe that the relevant activities should be implemented in the professional training of students, which in the future will contribute to a more efficient and high-quality professionalization process.

Keywords: professionalism, personality, teacher, professional person, professional consciousness, self-development, self-competence.