

Training at the University of the Organizers of Innovation Activities

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Abstract. The article deals with the problem of training the organizers of innovative activity in the process of studying at the University. Innovation involves a fundamentally new way of activity that goes beyond the norm, performed at a fundamentally new level of quality. Innovation is not only a means of economic development, but also a way of self-realization. As part of the study of this problem, the attitude of students to innovation was studied and self-assessment of personal abilities to innovation was given. The results of the study indicate that the majority of students prepare themselves for professional activity, but not for innovation. Also, not enough attention is paid to education, the formation of the organizer, the leader. The article analyzes the ways of actualization of the process of formation of innovative abilities of students and studied the practice of implementing these ways. The main condition of formation of abilities to innovative activity is a process of development of practical professional skills with the subsequent analysis of the received practices in the knowledge plane is revealed. The existing classical educational model: the development of knowledge, the formation of skills and mastery of skills – does not meet the conditions of training in the University organizers of innovation. In addition, teaching at the University should have innovative properties. Training of organizers of innovative activity is carried out only in the process of implementation of innovative pedagogical activity in the formed innovative environment of higher education institution.

1. Innovation – the postulate of today

In modern times, the training of a specialist with the ability to solve non-standard tasks, change social and professional situations in order to obtain a new quality product or result, which is characterized by new characteristics that are not inherent in other similar products of qualified activity, becomes highly relevant.

The term "innovation" was first used in American economic science in the early 20th century and implied innovation, primarily in the technological production process. Gradually, innovation and conquered other areas, including humanitarian. The second half of the XX and the beginning of the XXI century are characterized not only by the widespread expansion of innovative processes, but also by a reduction in their duration. Research is aimed at identifying factors that contribute to innovation, to study the characteristics of the innovation process and their types. It has become vital to the study of innovation systems [1, 2, 3, 4, 5].

In the educational process of the modern University studied knowledge about the nature of innovation, typology and life cycle of innovation, innovation environment, uncertainty and risk

reduction in innovation, innovation strategies, methods of innovative development of firms and other issues of innovation [6, 7].

It should be noted that in the ideas of scientists on the development and expansion of innovation, there are thoughts that "innovation can have not only a positive, functional impact on the social environment, contributing to the improvement of the level and quality of life, strengthening the security of the country, but also a negative, dysfunctional impact, disrupting the environment or the balance of power in international relations» [6, p.50].

The statement of the existence of innovative activity, which according to moral criteria can be asocial directed, confirms the importance of personal characteristics possessed by the organizer of innovative activity. The social orientation of innovation depends on the ideological depth, ideological vision, moral position, intellectual capabilities and other personal characteristics of a person.

2. The relevance of the training of organizers of innovation activities

At the same time, not enough attention is paid to the formation and education of the organizers of innovative activity in the learning process at the University. The focus is aimed at the upbringing and education of a qualified professional, researcher, artist, and professional activities. Personal characteristics of the organizer of innovative activity are practically not studied and purposefully do not develop. Therefore, students form a stereotype that only creative, talented individuals are engaged in innovative activities. There is an opinion that not everyone is able to create something new, that is, to realize innovative activity, special abilities are necessary, it is necessary to be a creative or talented person. "Innovative personalities as a special type of creative personalities» [6, p.55]. The results of a survey of undergraduates showed that only 16% of respondents are convinced that they are able to be organizers of innovation. And the masters is the elite part of the students.

The urgency of development of abilities to innovative activity at each future expert simultaneously and in parallel with acquisition by young people of knowledge, abilities, competences necessary for performance of the chosen professional activity is obvious. In science, there are ideas of formation of innovative abilities of specialists. In the properties of individuals capable of innovation, most often, there are the following characteristics: "innovators, always open to new, addicted to innovation, with some degree of adventurism, ... leader» [8, p.34]. Numerous domestic and foreign researches concern identification of the leadership qualities necessary for the organizer of any professional activity. These ideas are interesting and important for the search of pedagogical technologies of formation of innovative abilities of students [9, 10].

It should also be noted that the organizer of the activity can take a different level of responsibility: it can be the organizer of the activities of large groups of people, small groups of people or their own activities. Therefore, the requirements for the personal qualities of the organizer of the activity will be different. It is logical to recognize that at the first two levels of responsibility, the organizer must have clear leadership qualities. With regard to the organization of their own professional activities, at first glance, it seems that leadership qualities are not needed. However, it should be noted that the formation of its working area, which would meet the requirements of innovation. It is obvious that the organizer of innovative activity of any level of responsibility should have leadership skills.

Conducted research among students of 2-3 courses of the University showed that 63% of respondents are aware of the possibility of developing leadership skills. The position that leadership abilities are given to a person "by nature" is supported by only 4% of students. Among the noted leadership qualities were in priority: ambition, self-confidence, determination, intelligence, eloquence and other personal properties of a self-asserting person.

On the other hand, 65% of the students surveyed do not consider themselves leaders. And the remaining 35% of respondents who ranked themselves among the leaders are not perceived as such by other students. Of the 35% of the above leaders (the result of self-assessment), the classmates classified only 14% as leaders. These results allow us to state clearly inflated self-esteem in 21% of students.

The results of the study also confirm the need to update the socio-educational space of the University, purposeful activation of the process of socialization by attracting cultural and educational structures, the development of student self-government and support for student social initiatives. Through active socialization with an emphasis on public performance of meaningful activities educated leader, organizer of the innovation socially-oriented ideological position.

3. Practice of training of organizers of innovative activity

The research reflected the problem of inconsistency of management support and management culture of innovation technologies [11]. These results also confirm the relevance of training in high school specialists with appropriate innovative management skills and formed innovative management culture.

In pedagogy there is a point of view that modern specialists in various fields of knowledge and activities need to have innovative abilities [11, 12].

In higher education educational standards, innovative aspects of competencies are not sufficiently specified. For example, in the field of training 08.03.01 Construction (bachelor level) in professional competencies noted only possession of "methods of implementation of innovative ideas." The competence in innovation in the field of training 08.04.01 Construction (master's level) is widely considered. First of all, attention is drawn to the fact that the program is focused, among other things, on the innovative activity of the graduate. Master should be formed with professional competencies to own methods of assessing innovation potential, the ability to develop programs of innovation, to organize training of personnel in the field of innovation. Neither innovative management culture nor innovative management skills are reflected in General cultural and professional competences. The results of the content analysis of the above programs pointed to the lack of attention to the formation of competencies related to the acquisition of knowledge, skills and organization of innovative professional activities.

The main aspects of the problem are the study of existing practices in the preparation of the organizers of innovation and the identification of technology to create a system of effective training at the University of such organizers. It is noteworthy that the organizer of innovative activity as an object of research is considered only in relation to a particular professional activity. In Russian literature, the organizer is often called a person who organizes any mass event. Organizer, a skilled organizer [13], the organizer, the initiator, the Creator, the beginner of any thing [14]. It is obvious that in the process of purposeful education of the organizer, there is a saturation brought up by special potentials which are induced over time, are transformed to the innovative abilities allowing the person to realize innovative activity.

In the University the most favorable condition for the training of the organizers of innovative activity is the activity approach [15]. "The activity concept of innovation also assumes that the subject, carrying out innovative activity, changes not only its subject, but also its goals and means, thereby — and himself, consciously or unconsciously makes himself the object of his activity, develops himself as an innovative person [6, p. 50].

Through the formation of skills of innovation during practice and further actualization of reflexive self-consciousness in the study of the content characteristics of innovation in the learning process, students develop appropriate innovative abilities and organizational culture. That is, the classical educational model: the development of knowledge, the formation of skills and mastery of skills, currently does not meet the conditions of training in the University organizers of innovation. For modern young people, the motivation of the research method of obtaining knowledge by setting an artificially created problem is not effective. The pragmatism of today corrects an educational model: the real industrial problem related to innovative initiates the students are learning, and teaching and research motivation.

The results of the study, which was attended by 132 undergraduates, showed that students on average evaluated by 5.0 points the effectiveness of educational, industrial practices for the formation of practical skills (on a 10-point scale). On 10 and 9 points evaluate the effectiveness of the formation of practical skills during the practice – 9% of respondents, 7 and 8 points – 21.2% of respondents, 5

and 6 points – 39.5% of respondents, 4 and below 4 points – 30.3% of respondents, of the last respondents 6% rated at 0 points.

The average self-assessment of the formation of practical professional skills is 5.5 points out of the proposed 10 points. Moreover, only 3% of respondents rated the formation of practical skills at 10 and 9 points, at 8 and 7 points – 27% of respondents, at 5 and 6 points – 33.7% of respondents, at 4 and below 4 points – 36, 3% of respondents.

As shown by the results of the survey of undergraduates, industrial practices play an important role in the formation of professional, organizational skills, so the base of practices need to make special requirements. For example, respondents write the following: "when referring to the production practice to set clear goals and objectives", "choose to practice a well-equipped production" and so on.

The types of training sessions, where practical skills are formed, were determined (table.1). Students prefer laboratory work, practical training and independent work. In this regard, it is particularly appropriate to cite the following idea: "Practice — the oldest way of learning. The idea is simple and clear: a person learns professional skills and tools, being involved in real activity" [8, p. 31].

Table 1. Formation of practical skills in the course of training sessions (%).

Types of training sessions	% of students who affirmatively indicated the formation of practical skills
Lectures	23
Seminars	17
Laboratory work	68,5
Independent work	42,8
Industrial practice	62,8

Educational technologies that contribute to the formation of practical skills of students were also evaluated (table.2). The results show that the most priority is: the implementation of practical tasks, projects and analysis of production situations.

Table 2. The results of the choice of educational technologies that form practical skills (%).

Educational technologies	% of students who affirmatively pointed to the formation of practical skills
Analysis of production situations	51,4
Implementation of projects	60
A case study	8,5
Business games	22,8
Implementation of practical tasks	77,1

As shown in the pedagogy of higher education research, classical, cognitive-oriented form of education, based on the assimilation and reproduction of knowledge, does not actively change the role of the student in the learning process. Traditional lectures, seminars and practical classes prevent the widespread introduction of project methods, which are usually used in the last courses of the University. Project educational technologies are the basis for a radical change in the student's position in the educational process. They transfer the student from the object to the active subject of learning, when independent research becomes the main form of knowledge. Projects create favorable conditions for the development of students ' activity, initiative, confidence, willingness to use their skills in practice.

Obviously, design methods should become the basis of innovative educational technologies.

Another source of formation of students' innovative abilities is an innovative environment. It is impossible to doubt the authenticity of the sayings of K. D. Ushinsky: "Only the personality can educate a personality!" [16]. Similarly, the following pattern is formulated: only the teacher – the organizer of the innovative educational process, can bring up the student's innovative culture and contribute to the formation of innovative abilities. This pattern is confirmed by the fact of the existence of the most effective method of education – an example.

4. Innovative educational technologies in the development of innovative abilities of students

In the pedagogy of higher education there are studies on the relationship of innovative educational technologies and the process of formation of innovative abilities of students included in this process.

The influence of active teaching methods on initiative, involvement of students in the process of comprehension of innovative forms of professional activity is studied. [17].

Not so long ago was established in pedagogy the essence of the category "pedagogical technology", the definition of which was given in 1998. UNESCO has defined pedagogical technology as a systematic method of creating, organizing the functioning of a holistic pedagogical process, taking into account the specifics of human and material resources in their interaction.

Based on this definition, "innovative educational technology" is not identical to active learning methods. Apparently, it is a system of interacting, interconnected, interdependent subsystems. First, it is a substantial component, which is not only the process of mastering a certain amount of modern knowledge, but also the development of competencies necessary for the implementation of modern social roles, arrangement of the space of life and performance of professional activities. And this is the content of knowledge has to present a logically wellfounded structure of the various learning materials, including modern digital education platform, multimedia.

Secondly, it is a subsystem of modern teaching methods, including active, interactive methods of competence formation, based not on passive, reproductive development of educational material, but on productive, search and research training.

Third, it is a subsystem of modern learning infrastructure, that is, technical training tools that allow you to effectively use the advantages of digital forms of education, including distance learning [8].

However, these three subsystems will not be able to form a complete educational system, as an important role in educational technology plays a human resource. Consequently, the fourth subsystem includes modern teachers who possess the skills and abilities of the organization and implementation of innovative teaching activities, as well as modern students with high academic motivation, ready for self-development and self-education.

The studies conducted in the student environment show that students impose quite strict requirements to the personality of the teacher. The teacher, according to the University students, should combine the depth of knowledge in the taught field and have a wealth of experience, possess modern information tools, be open to discussion and be able to manage them. The teacher should not only competently answer students' questions, but also have the skills to involve students in the process of self-comprehension of the problem, be an encyclopedist, educator, bearer of values, ideals, etc.

The modern young generation on personal, mental characteristics is somewhat different than the older generation was in the period of his youth. No wonder there is a bright, figurative expression in relation to modern youth - "digital generation" [18].

According to the results of the study [18], many students (78% of 84 respondents) who have positive results in educational activities are not satisfied with the knowledge obtained from teachers (in lectures, practical classes). Students do not like the "re-hearing of the same information at different levels of education", "similarity of the content of educational material in the teaching of different disciplines", "poor organization of independent work", "reluctance of teachers to answer questions about the content of educational material and to explain organizational issues". Most often, teachers strongly recommend students to apply to manuals and guidelines, which, as students point out: "the term of relevance has long expired." These costs of teaching, oddly enough, cause the activation of the process of self-education of students using the digital educational space.

Students also note that the digital educational space allows them to "save time in preparation for seminars and practical classes", "find interesting information sources", "compare different opinions on any problem", "quickly obtain the necessary information", "just study well" [18].

And if under the above perspective to consider the professional competence of the modern teacher, these competencies should contribute to the implementation of not only classical, traditional roles: teacher – scientist, teacher-Methodist, teacher-organizer, teacher-Manager. Professional pedagogical competence should be maintained and new, innovative teacher role: developer of educational trajectories, the organizer of project-based learning, agropedia, coordinator of the online educational platform, moderator, tutor, and others.

But on the other hand, we must recognize that methodological standardization, policy guidance, "standardization of behaviour and the inner world of the teacher, the fit of the methods under test and test materials are accompanied by the fact that our activities increasingly take the place of guidance instructions. The teacher easily fits into the pedagogical community, but at the same time his creative level is reduced" [8, p. 35].

It is obvious that, developing pedagogy of higher school in the direction of formation of the personality of the young specialist, bachelor, master, it is necessary to develop modern innovative pedagogical technologies of training of organizers of professional activity [19].

Focusing on the role of innovative educational technologies in the formation of future organizers of innovative activity, it is necessary to turn to the content of this problem. "Today," innovative educational technologies" often refers to the non-use of new, innovative teaching methods, and more active, if not aggressive, Directive, use of information and communication technologies — the Internet, multimedia, webinars, teleconferences. Such a narrow understanding of innovation does not make it possible to improve the quality of education" [8, p. 34].

It was noted that in General, the innovative environment of the University contributes to the formation of innovative abilities of the subjects of this environment. Therefore, the innovative work of one teacher will not give the desired result. The ideas of the English teacher, outstanding thinker of the XIX century D. G. Newman, who attached great importance to the creative atmosphere among the teachers of the University, built on the principles of respect and mutual assistance, and enthusiasm for their science. "So there is a clean and clear atmosphere of thinking, which also breathe and students" [20, p. 97].

Humanitarian knowledge increases the forming, innovative potential of the University environment, which, in turn, as it was proved in the studies [21], is one of the system-forming conditions for training the organizers of professional activities at the University.

When testing more than 350 students of medical and transport universities, it was found that only a small proportion of 2nd and 3rd year students are skeptical of humanitarian knowledge, considering them completely useless (about 9 % of respondents). And about 6 % of the students believe that the humanitarian knowledge will allow to "rest" from technology.

Students' interest in the Humanities varies according to the course of study: 63% in the first year, 56% in the second and third years, and 75% in the fourth and fifth years.

Said that modern society lacks human studies, 60% of the students of the 1st course, 67,6 % of the students of the 2nd and 3rd courses, 81.5% of students 4 th and 5 th courses. The fact that with the increase in the course of study the number of students who critically perceive the humanitarian uneducated people increases indicates that the universities systematically carry out humanitarian education [21].

No less important condition for the organization of the innovation environment is the system of organization of extracurricular activities. In the affirmative, 82.8% of respondents said that organizational and leadership skills are formed outside the educational process. They named the following types of extracurricular activities that contribute to the formation of innovative skills: external projects, volunteering, robotics, gathering of young professionals, etc.

Thus, it is necessary to create certain conditions for the training of organizers of innovative activity in the University. First, the process of formation of practical skills from the category of accompanying

translate into the category of defining the innovative essence of professional activity. To select production base for carrying out various types of practices on high degree of equipment with new technologies and realization of innovative professional activity. In addition, the educational process to implement using professionally-oriented pedagogical technology.

Secondly, innovative educational activity of the teacher contributes to the development of students' motivation to implement various innovations in the field of educational activities. It is an example for the formation of innovative skills in the organization of future professional activities.

Thirdly, the created innovative social and educational environment in the University brings together a team of teachers and students in creative search, in research, in innovative research.

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