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Modern Trends of Innovation Activity Development at Higher School

Key words: *Higher educational establishment, Trends and tendencies, Innovation, Innovation activity, System of education.*

Annotation: *Nowadays, education is one of the most important means of promoting the economic development of the nation, its social stability as well as development of public society institutes. The possible variants of restructuring the system of education are being actively discussed, developed and introduced today. The main element of the reconstruction is changing the conceptual, technological, organizational and legal foundations of higher educational establishments' activity. Thus, a flexible adaptation of universities to the requirements of social environment is quite important. At the same time, the universities' development strategy is to be active rather than accommodating to external realities. The article is devoted to the description of strategic aim of higher school, determination of the main tasks of the innovation activity and consideration of the main trends of the higher school innovation activity.*

Introduction: Innovation activity is one of the priority trends of the state economic policy. The main bearers of innovation ability of the nation are higher educational establishments which are fulfilling the tasks of innovation activity intensification.

Analysis of the Latest Research and Publications. As far as Ukraine is developing as a democratic state, the modernization of national system of education consider the problem of innovation activity to be one of the priority ones.

The Ukrainian and foreign researchers have lately paid a great attention to the problem of innovation activity of educational institutions. The problem of pedagogic innovation has been considered in the works of K. Angelovsky, L. Danylenko, V. Palamarchuk, I. Pidlasiy, A. Prygozhyn (1, 2, 3, 4, 5). The features of innovation pedagogic activity have been considered in the works of Russian scientists V. Zagvyazynsky, V. Kan-Kalik, L. Podymova, V. Slastenin, N. Lapin (6, 7, 8, 9). In foreign pedagogic, the problem of planning of innovations and management innovative processes are studied by V. Adam, Ö. Barnett, G. Bassett, M. Kankaanranta, Sh. Kovach, N. Gross, A. Nicholls, E. Rogers, F. Levy, N. Law, T. Hargrave, J. Tid, J. Bessant, D. Strang, Y.-M. Kim and other authors (10, 11, 12, 13, 14).

The Ukrainian scientists regard the innovation as: the process of creation, distribution and application of new means (novelties) for solving those pedagogic problems which have been solved in a different way before; a result of creative search of original and non-standard solutions of various pedagogic problems; urgent, significant and system novelties appearing on the basis of various initiatives and innovations that become prospective for education

evolution and have a positive impact on its development; products of innovation education activity which are characterized by the processes of creation, distribution and application of new means (novelties) in the field of pedagogic and research; new forms of work organization and management, new kinds of technologies concerning not only some separate institutions and organizations but different spheres of activity as well; the process of renovation and improvement of education theory and practice promoting the aim achievement; the process of fulfilling certain components in the organization's structure or functioning aimed at reformation; new ideas, actions or adapted ideas or those which are timely for realization; novelties in the field of technology, work organization and management that are based on the application of science and advanced experience achievements and using those novelties in various fields and spheres of activity (15).

The aim of research is the determination of strategic aim of higher educational establishment's innovation activity, main tasks of higher school's innovation activity and analysis of tendencies of innovation activity development at higher educational establishments.

Basic material of Research. The innovations turn into an important factor of raising the countries' competitiveness on the world market. The creation, distribution and application of innovations are a vitally significant factor of economic growth, the source of social problems solution and raise of the life quality including the provision of mankind with the necessary resources, improvement of health and protection of environment. Under the influence of scientific and technical progress and, as its basis, the innovation process, the sense of innovations themselves is also changing. At the beginning of the 90s in the 20th century R. Nelson understood innovations as the creation and introduction by organizations of products and production processes that are new for those organizations, i.e. technological innovations (16). Some years later, mainly due to the works by B. Lundvall and C. Freeman, the non-technological innovations – institutional, social, educational and organizational, were also considered (17, 18, 19). Innovation is characterized as commercialization of creativity (20). A wider determination has been suggested by the Council of Economic and Social Research of Great Britain which was accepted by the European Community: “The commercially successful exploitation of new technologies, ideas or methods through the introduction of new production of processes, or through the improvement of existing ones. Innovation is a result of an interactive learning process that involves often several actors from inside and outside the companies” (21). According to the philosophic dictionary, “the innovation activity is the means of reproduction of social processes, of self-realization of a person, of his/her ties with the environment” (22). Activity involves different forms and spheres of human functioning. The scientists determine activity as the process of active functioning of a subject determined by the motives, actions and operations and which corresponds to the conditions in which it is taking place. The aim and result of activity are the changes in the subject himself/herself, as he/she are mastering certain activities (23). Activity includes the system of acts performed by the subject for achieving a final aim. Every professional activity requires a certain succession of actions, regulation of attention and energy, overcoming the difficulties, psychological qualities of a personality, character and specific abilities. In any professional activity, its object and aim are made up by the external

factors and they depend on the public demands. The professional pedagogic activity involves the aim, object, subject, result and the activity process itself. The pedagogical activity is an independent kind of human activity in which the social experience, material and spiritual culture are being transferred from generation to generation. It is multi-aspect and it consists of a diagnostic, project, organizational, communicative, collection and analytical kinds (23).

The majority of foreign authors consider the innovation activity to be one of the most important aspects of modern school's work on the way of development which is characterized by succession and stages. Thus, V. Slobodchikov considers any activity leading to essential changes compared to the existing tradition to be innovative. The innovative activity is stipulating a departure from the norm and standard common for concrete social and economic conditions. The innovative activity depends on two factors: the strength of the innovative processes and the character of their relations with the environment (24). An important instrument of higher educational establishment modernization is the strategic management and strategic planning of its activity.

A strategic aim of innovation activity of higher school is ensuring of stable development of higher education on the basis of: preservation and reproduction of higher educational establishment's intellectual potential; creation of accessible educational services of high quality the market is in need of; integration of educational, research and scientific and technical innovation processes; improvement of social and economic condition of the staff, students, postgraduates and those working for doctor's degree.

The main tasks of the innovation activity of higher school include the following: formation and realization of a complete innovation cycle in educational and scientific and technical spheres as a base for training a new generation of highly qualified specialists and developing the intellectual potential of higher school; formation of conditions and stimuli for encouraging the scientists and researchers, teachers and students, postgraduates and those working for doctor's degree to take part in the innovation process; making the higher educational establishment attractive for investors; using the innovation activity for raising the quality of training specialists in the new economic conditions; improvement of content and technologies of teaching on the basis of introduction of innovation activity results in the process of teaching at higher school; concentration of intellectual potential and material and technical resources of higher school on research and development with a focus on the priority trends of scientific and technological development on the basis of realization of a complete innovation cycle; creation of a multi-level, branch system of management of research and innovation activity on the basis of commercializing new scientific knowledge, developments and objects of intellectual property; organization of flexible multi-level system of continuous training and re-training specialists, improvement of personnel's professional skill for innovation sphere on the basis of traditional and distance learning technologies; introduction of the system of management of educational, scientific and innovative activity quality; formation and development of infrastructure in scientific and educational spheres.

The main trends of the innovation activity of higher school include the following: Development of innovation structure and infrastructure in research, scientific, technical, production, technological and educational spheres. Modernization of organizational and functional structure of higher educational establishment as a core of teaching – research –

innovation complex including joint bodies of management which provides for unity and efficiency of innovation activity, potential and material, technical, financial and administrative resources of branches, regions, private sector of economy and foreign partners; Training of personnel for innovation activity. Multi-level training and re-training of personnel for innovation activity as well as for the system of education; improvement of skill and organization of practice of researchers and teachers in the field of innovation activity and research projects management. Development of a common system of teaching aids and methods for training the staff for innovation sphere including electronic and multi-media teaching facilities and new information technologies of distance learning; Management of innovation activity quality. Introduction of multi-level system of innovation activity quality management in scientific and educational sphere. Resource, personnel, infrastructure, norms and methods provision for a complete innovation cycle and balance of separate stages on the Ministry's and higher educational establishment's levels; Economic aspects of higher school's innovation activity. Development of principles and economic mechanisms of encouraging the mutually beneficial entrepreneurship in scientific and educational spheres, which make it possible to reveal the intellectual potential and increase the innovation activity participation of creative collectives and individual researchers; Popularization of innovation activity at higher school. Spreading the experience and information on the advantages of innovative way of higher education development. Support of special means, electronic ones included, aimed at the development of national innovation system and innovation complex of higher school.

At present, an active work is being carried out to form the national innovation system of education in Ukraine. The higher school is able to make a significant contribution into research and formation of the national innovation system, searching the ways of raising the level of innovative abilities in our society, formation of innovation culture, innovative thinking and innovative mentality, development of multi-level system of training the personnel for innovation economy, creation and development of infrastructure objects and network of consulting services organizations, promotion of forming the innovative way of national economy development.

Organization of innovation activity requires for a clear determination of its components. At the current stage of educational innovations development, an active process of formation of general approaches to the innovation activity structure is taking place. V. Slobodchikov considers the activities approach to be the basis of innovation activity structure. The author marks out such components of innovation activity as: scientific and research activity aimed at getting information on discoveries; project activity aimed at development of instrumental and technological knowledge as for the ways of discovery introduction (innovation project); educational activity aimed at professional development of the innovation activity subjects, their own experience in the novelties realization.

Taking into account all mentioned above, it can be concluded that the innovation activity is aimed at the transformation of discovery into a project and the project into a technology of real activity, the results of which being the innovation itself (24).

The main form of organization and realization of innovation activity in the field of science and education is the innovation project. The innovation project is a complex of measures in the frame of complete innovation cycle aimed at the creation of a certain

innovative product. The innovative educational project is a project the realization of which makes it possible to create new or modernize the existing educational technologies, products, equipment, teaching and methodical means, structural and infrastructural novelties in education, as well as to realize new educational services and train the specialists required by the labour market.

The main stages of the complete innovation cycle of creating the innovative product and services are as follows: fundamental and investigating research; strategic marketing research; research and design work; pre-production stage (organization of production , training personnel, licensing and certification of services, methods and equipment); production stage; products marketing; products and services transfer.

The innovation projects in scientific, technical and educational spheres can be classified according to the results as the projects aimed at: the creation of new or modernized products, technologies and services; the formation of new mechanisms of products (services) promotion to the market; the creation and development of innovation infrastructure.

Conclusion: The higher school of today, in addition to science and research, has practically joined all functions concerning the creation of new products, i.e. acquiring new knowledge, its transformation into technical development or technology and their introduction in production, as well as training specialists for implementation of the mentioned functions. Accordingly, today's universities are real subjects of innovation activity.

The innovation activity of higher educational establishments makes it possible to provide a civilized commercialization of knowledge and technologies.

References:

1. Angelovsky K. *Teachers and innovations: Teacher's Book: Transl. from Macedonian. M.: Prosveshchenie, 1991; 159.*
2. Danylenko L. *Management of innovation activity at schools providing general education: monograph. K.: Millennium, 2004.*
3. Palamarchuk V. *Innovation processes in pedagogic: Pedagogic innovations at modern school. Osvita, 1994; 5-9.*
4. Pidlasiy I. *Pedagogic innovations: Ridna shkola. #12, 1998; 3-17.*
5. Prigozhyn A. *Novelties: Stimuli and obstacles. (Social problems of innovation theory). M.: Politizdat, 1989.*
6. Zagvyazinskiy V. *Innovative processes in education and pedagogical science: Innovative processes in education. Collection of scientific works. Tyumen. Publ. of Tyumen State Pedagogic Univ., 1990; 5-14.*
7. Kan-Kalik V. *Pedagogic activity as a creative process. M., 1997; 64.*
8. Slastenin V. *Pedagogic: innovation activity. M.: Magistr, 1997; 224.*
9. Lapin N. *Intensification of innovation processes – a strategic task of the theory and practice of novelties: Innovation processes. M.: VN IISI, 1982; 5-18.*
10. Adam R, Chen D. *The process of education innovation. Lnd, 1981.*
11. Barnett H. *Innovation: The Basis of Cultural Change. N.Y., 1983.*
12. Bassett G. *Innovation in Primary Education. Lnd, 1972.*
13. Gross N. *Implementing Organizational Innovations. N.Y., 1971.*
14. Kankaanranta M. *International perspectives on the pedagogically innovative uses of technology: Human Technology. 2005. V 1; 111-116.*
15. Tyaglo A. *Critical thinking: Problems of word education in the 21st centry. Kharkiv*

- 1999; 356.
16. Nelson R. *National Systems: A Comparative Analysis*. NY.: Oxford University Press, 1993.
 17. Freeman C. *The National Systems of Innovation in Historical Perspective: Cambridge Journal of Economics*, 19, 1995; 5-24.
 18. Freeman C. *The Economics of Technical Change: Cambridge Journal of Economics*, 18, 1994, 563-514.
 19. Lundvall B. *National Systems of Innovation. Towards a Theory of Innovation and Interactive Learning*. London.: Pinter Publishers, 1992.
 20. Hart D. *Innovation clusters: key concepts* : D. Hart Department of Land Management and Development and School of Planning Studies, The University of Reading, United Kingdom, 2001.
 21. EC DG XIII 1996, p.54, Hart D.A. *Innovation clusters: key concepts*. Department of Land Management and Development, and School of Planning Studies, The University of Reading, United Kingdom, 2001.
 22. *Philosophic Encyclopedic Dictionary*. M.: Infra, 1997; 576.
 23. Baykova L. *Pedagogic skill and pedagogic technologists: L. Baykova, L. Grebenkina: A manual*. M.: Pedagogic Society of Russia, 2000; 250.
 24. Slobodchikov V. 2003. *Problems of innovative education establishment and development: Innovations in education.#2*, 2003; 4-28.