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THE PROBLEM OF INNOVATIVE DEVELOPMENT OF THE MODERN PROFESSIONAL EDUCATION IN RUSSIA

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Abstract

This article actualizes some problems and challenges concerning innovative development of the modern professional education in Russia. It dwells upon the peculiarities of the modern professional education development as a key factor of economic growth, and spiritual and moral renaissance of the Russian nation. The determining factor in the system of such development should become an innovative education as the New Pedagogics, and new educational technologies, focused on the development of a personality's creativity in the educational process. The main challenge of an innovative development of education is the creation of conditions for competences formation of a citizen for innovative activities; in other words - competences of "an innovative personality" as a subject of all innovative transformations and changes. The scientific and methodical support of innovative development of professional education system is the result of scientific and methodical activity, oriented towards providing the professional education system with the methodological, didactic and methodical development, meeting the modern requirements of international pedagogical sciences and practice.

Keywords: Innovative processes, innovative abilities, innovative activity, innovative personality, "innovatics", scientific and methodical support.

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1. Introduction

This article explores some of the key themes concerning innovative development of professional education in the Tatarstan Republic and the Russia, as a whole. The article begins with a discussion of the possibilities and the necessity of the educational system modernization in Russia. This will be followed by a brief outline of the ideas of innovative process, the innovation sphere and innovative activities. The article will progress with a detailed examination of the educational innovations classification by a degree of intensity of an innovative change or by the level of innovation. The article will then argue that for the purpose of the quality assessment system development, employers, professional associations and the organizations of professional community's representatives should be involved in the process of future competitive specialists' training. The article will be concluded with a detailed overview of the scientific-methodical support in realization of innovative development of professional education in Russia.

2. Problem Statement

Transformations which are happening in Russia now affect various fields of activities of a personality, including higher school educational space. Educational reforms are carried out in many countries of the world as it is conventional that in the technological and information society of the XXI century, the level of the state development, its status and rating in the world will depend on education of the nation, on ability to create and realize progressive technologies. The history of education convincingly testifies that any country can't achieve the worthy status in the world without continuous development of the educational sphere (Becker & Zhuravchik, 2009; King et al., 2015; Semenova & Semenov, 2013; Tregubova et al., 2017).

In the modern conditions of social and economic changes in the society, and the Russian transition to a market economy, modernization of the contents, structure, and technologies of professional education is necessary. For the first time during the last 25 years of the Russian history of higher education development, the need and the importance of psychological and pedagogical support of these processes have been declared at the state level (Innovative activities…, 2003).

3. Research Questions

The idea of modernization and upgrading of the educational system is reflected in many documents, and, first of all, in the Law of the Russian Federation "About Education", in the National doctrine of education, in "The concept of modernization of Russian education for the period till 2010", etc. At the conceptual and methodological levels, it is expressed in a problem solution of the choice between the specialist, owning a narrow area of knowledge, and the specialist of a wide general scientific and common cultural profile who will improve the professional training after the graduation from higher education institution.

At a methodical-practical level, there is a search for forms of training material structuring, for development of training programs, grants and projects, the managements, and also for effective forms of the organization of students' training and the process of pedagogical interaction in specific modern conditions.

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4. Purpose of the Study

The purpose of the study was to verify the existence of problems and risks in the innovative development of professional education in Russia and abroad, and to provide guidelines for the innovatics' implementations in Russian higher education institutions.

5. Research Methods

The research methods covered the whole range of methods currently employed by educational researchers - qualitative data analysis; curricular and evaluative research; statistical analysis; event-history analysis; the analysis of modern pedagogical literature and educational practice. The main approach to the problem of the study was the systematic approach, which helped to study a complex of benefits and risks of innovative development of professional education in Russia.

6. Findings

The effective economy of countries with the developed market economy of the modern world is, in many ways, a consequence of the attention that is being paid to the problem of the innovative development of professional education, which is a result of science achievement implementation into the market economy. No doubt, professional education is the most important resource of development of the modern society, and its value is increasing in a high tempo (Brown & Lippincott, 2003; Maslennikova, 2016).

The system of professional education is aimed to prepare highly qualified specialists for a modern economy. The activities of the Russian system of professional education in the modern socio-economic conditions is oriented towards the tendencies and features which were formulated in the existing scientific and educational area:

- fast obsolescence of the acquired knowledge puts a task of shifting the emphasis from the "pure" professional training on instilling the "culture of self-development" and on the development of instruments for life-long-learning education;

- the establishment of unique global labor market determines the necessity of content standardization of educational programmes in the process of qualified specialists' training;

- the speeding of scientific and technological progress stimulates the development of educational structures in a way to prepare specialists on the basis of the latest technologies, demands the close interconnection with the powerful governmental structures who determine the developmental strategy, as well as with the scientific - research institutions and modern advanced enterprises;

- in the sphere of mass higher education, there is a process of dynamic diversification in the institutional forms at all levels and in the education content;

- the tendency of education internationalization is gaining its strength;

- the use of computers and telecommunications, introduction of a flexible time-schedule of educating process, as well as module distribution of educational courses allow to receive a certain

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educational modification, without distinct boundaries to the education, that are inherent in the distance learning, such as: flexibility, modularity, parallelism, wide participation, profitability, and internationalism, which are based on the modern pedagogical approaches and the usage of information and telecommunication technologies (Aynutdinova, 2017; Oblinger, 2006).

Organizational characteristics of professional education are the following: it has to satisfy the needs of the personality in his intellectual, cultural and moral development; it has to satisfy the social and economic demands of the civic society, and scientific-technical and social progress of which is impossible without preparing and training of comprehensively educated, professionally qualified, and competitive specialists at all levels.

The most important role in such system of professional education development is assigned to the innovative process which is a complex, interdependent, and mutually enriching one in its content.

The growing interest to the innovation sphere and innovative activity was caused by the acceptance of the fact that education is a key factor of economic growth, and a spiritual and moral renaissance of any nation, and investing into the educational sphere is considered to be the best form of investments. In the sphere of innovations, it means an economic and cultural prosperity of any society, and of the people living in it.

Therefore, the concepts "innovations", "innovative processes", "innovative abilities", "innovative activity" are considered to be the central points in a new philosophical paradigm of education. Consequently, the innovative education is the change of a paradigm; it is New Pedagogics and new educational technologies that are focused on the development of a personality creativity in the sphere of educational interrelations.

Today, it is evident to talk about the appearance of a new branch of pedagogical knowledge – “the pedagogical innovatics”, the subject of which is the innovative development of education, the creation of new contents, and technologies of teaching and learning (Yusufbekova, 2001).

The basic distinction needs to be carried out between the concepts “novation" and "innovation". Specific forms, a content and a scale of converting activity are to form the basis for such distinction. So, if it is a short-time activity and it possesses no complete and systematic character, as well as puts forward the task of upgrading (changing) only some individual elements of a certain system, so in this case we are dealing with a novation. If any activity is carried out on the basis of a conceptual approach, and the result of this activity is the development of the whole system or its basic transformation, here, we are dealing with an innovation. In the scientific-research work and special literature, both forms occur, and one can meet different explanations of these terms as well as different criteria for their definitions and distinctions.

By the concept "pedagogical innovation", we mean the implementation (introduction) of something new in the educational sphere, i.e. implementation of activities for creation, development, use and distribution of something new in the educational area. Some of the researchers assume that only activities for creating something new may be regarded as innovative; the activity for development, use and distribution are considered to be a part of another process.

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We adhere to the explanation of “an innovation”, which is well-accepted in the field of professional communication, as the “implemented innovation”, irrespectively of a scope of application. It is important to understand “innovation” not only as a new method, new tool, or the new technology, that is aimed at the realization of changes, having improvements in the teaching and educational process, but also as an existing new thing which has become an integral part of the teaching-learning process.

The innovation, (i.e. scientific and technical development and the invention), becomes an innovation, as a rule, when it acquires the form of "a product" - a service, a method or technology. Therefore, the innovative cycle is preceded by research, experimental, or project works, by applied methods and technologies. Their results allow to create the reserve, on the basis of which the innovative activity, that promotes the innovative development of professional education, begins.

The idea can be innovative or, more precisely, potentially innovative, when there is a strong confidence in the fact that, having passed through all stages of an innovative cycle, it turns into innovation, i.e. into “a product”. Thus, it isn't excluded that, in some cases, the idea itself has already become an innovation. It is important to mention, that by the analogy with the concept of "organization", the innovation means also the process of its realization. Broadly speaking, an innovation is “a synonym” of successful development in social, economic, educational, administrative, and other spheres on the basis of various innovations.

The analysis of special scientific literature (King et al., 2015; Mironenko, 2015) allowed to reveal, that all educational innovations can be classified by a degree of intensity of an innovative change or by the level of innovation. According to it, it is obviously possible to define eight ranks or levels of innovations.

Innovations of a zero degree are practically reactivation of initial properties of a system (reproduction of a traditional educational system or its elements). Innovations of the first degree are characterized by quantitative changes in an educational system while its content remains the same. Innovations of the second degree represent a regrouping of educational system’s elements and its organizational changes (for example, a new combination of already existing pedagogical technologies, change of sequence, rules of their use, etc.). Innovations of the third degree is an adaptation changes of educational system in the new conditions without the exiting the limits of traditional model of education. Innovations of the fourth degree contain a new version of the decision-making process; very often they are elementary high-quality changes in individual components of educational system, providing some expansion of its functions. Innovations of the fifth degree initiate the creation of educational systems of "a new generation" (changes of all or of the majority of initial properties of a system). As a result of realization of innovations of the sixth degree, educational systems of "a new generation" with high-quality change of functional properties are created, while the backbone functional principle is preserved. And, finally, innovations of the seventh degree are manifested themselves in the radical, basic change of educational systems, according to which the basic functional principle of an educational system also changes. So there appears "a new type" of educational system.

In the strategy of innovative development of the Russian Federation for the period until 2020 year, it is stated that during this period, the educational system and its state and public management, as well as

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the financial and economic independence, an assessment of quality and efficiency of the activity of educational institutions will continue to be developed, providing the further development of a spirit of initiatives and business, as well as the development in a modern innovative way (Strategy of innovative development). The adequate qualification of educational managers and leaders of educational establishments through the systems of qualification requirements, preparation and professional development, will be guaranteed.

For this purpose, in higher education institutions and other educational organizations (first of all, in those that provide the service of professional education and professional training), the system of credits and the modular technologies of the educational process organization will be implemented.

In the leading higher education institutions, the mechanism of teachers' assessment by means of the international scientific community and with the focus on criteria of the international publication activity (publications in SCOPUS, Web of Science, etc.) has just become a norm, and also the mechanisms of the contract cancellation with the university teachers who do not conduct research work at a globally competitive level, and also with the school leaders (top-managers) who do not create conditions for such innovative activity as well as cooperation with the business and production sector. The necessary conditions for engaging international specialists for a permanent or temporary job in to Russian higher education institutions will be provided, and also international experts will receive an access to those sectors of continuing education where the programs of the Russian educational institutions are represented in a little amount or are not presented at all (Mazova, 2012).

For the purpose of the system of quality assessment development of university graduates' training, the practice of carrying out their professional examinations will be developed which will be fulfilled by professional associations and the organizations of professional community representatives. The successful passing of these exams will be a necessary condition for the qualification award and the admission to a profession within the number of qualifications.

The wide dissemination of the international standards in the sphere of education, sciences, technology, and management, as well as the effective stimulation of the international and domestic academic mobility of students and teachers will be guaranteed. The development of the international academic mobility will be regarded as criteria for the educational institutions ratings. The mobility of students, university teachers, and administrative staff within Russia, and the practice of changing the places of study and teaching in other higher education institutions will be encouraged as well. Moreover, the working experience in other higher education institutions, including teaching abroad, should become one of the most effective criteria when certification and determination of the professors' salary level will be defined.

These special measures will be taken within the Federal regulation of the activities of the Russian Ministry of Education and Science, and also, due to the support of the regional complex projects of education modernization, within the Federal Target Programme of Education Development for 2011-2020.

Special value of education is determined by its place in the public life of people, the importance in social and economic, scientific progress in general, and in the opening of intellectual opportunities to a

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person. Every historical epoch of any society is interconnected and defines the characteristics of educational process. And today, due to the rapid changes in all spheres of Russian life, special attention should be paid to the questions of reformation of the content and quality of education.

The innovative development of education shows structural and institutional reorganization of professional training of specialists and the production of innovative things. This is the modelling of the educational environment, formation of a complete new system of life-long-learning education, focused on the personality formation as a subject of culture, the formation of his (her) creative ability, and ability to re-educate. Thus, priorities of modern civic society lie in the development of human being.

The key problem of an innovative development of Russian education is the creation of conditions for competences' formation for an innovative activity; in other words, the competences of "an innovative person" as a subject of all innovative transformations. "The innovative person" is a wide category that means: each citizen has to become adaptive to continuous changes: in his (her) private life, in the sphere of economic development, in the development of science and technologies, to become an active initiator and the actor of these changes including continuous development as an integral part of the vital principles. Besides, each citizen will play his (her) own role in the general innovative community based on his (her) abilities, interests, and potentials.

Key competences of an "innovative person" have to become the following: ability and readiness for life-long learning education, continuous self-improvement, re-training and self-education, professional mobility, a desire to learn new things; ability for critical thinking; ability and readiness for reasonable risk, creativity and initiative, ability to work independently and availability to work in a team, availability for a productive work in the highly competitive environment; deep foreign language skills as communication instruments of an effective participation in globalization processes, including an ability for free communication on general, business and professional topics in English.

Having characterized the transformations, which have taken place in the recent years in professional education institutions, some managers state that the present innovative transformations have influenced methods, receptions, forms of the organization of educational process, on the purposes and the content of professional education, on tutorials, etc. At the same time, mass character of grassroots initiatives is characterized by spontaneity, accidence, unsystematic character of innovations. The vast majority of innovations have had a purely organizational, not intrinsic, substantial character. The mentioned above spontaneous character of such innovations emphasizes the necessity of its thoughtful analysis for the purpose of highlighting the positive and negative sides of this process, and the necessity of the systematic and complete studying of these changes, taking into account all the factors concerning innovations and their socio-cultural environment (Sweeney, 2014; Gavrilov & Yaw, 2013).

On the whole, by the criterion of innovation, the Russian system of professional education can be characterized as being at a stage of formation of innovative units (separate innovations and innovations). The analysis of some special literature and applying experience of activity of professional educational institutions testifies to insufficient intensity of pedagogical innovations implementations in the practice of their work.

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It is possible to define at least two reasons of an implementational failure of pedagogical innovations. The first reason is that an innovation, as a rule, doesn't pass an obligatory professional examination and approbation; the second reason is that the introduction of pedagogical innovations is previously not prepared by either organizationally, or technically, but the most important thing is that it is not prepared at personal and psychological levels.

The distinct idea of the contents and criteria of pedagogical innovations, knowledge of a technique of their implementation allow both university teachers and leaders of professional educational institutions to estimate and predict their introduction objectively.

As a result, the role of system of scientific and methodical support of innovative development of professional education has been created significantly, which is understood as the purposeful system of university staff activity that helps to solve analytically-reflexive, constructive, predictive, and organizational questions about the activity and the corresponding regulating tasks of management of achievement of results within individual professional innovative and pedagogical activity. Management of innovative education development has caused the appearance of new functions which are connected with the creation of organizational and methodical support of innovative processes.

In other words, the scientific and methodical support of innovative development of professional education system is the result of scientific and methodical activity, oriented towards providing the professional education system with the methodological, didactic and methodical development, meeting the modern requirements of international pedagogical sciences and practice.

The specification of concepts allows to point out the main directions of scientific and methodical support, such as research, skill and experimental, informative and methodical, educational and methodical, organizational and educational. All together they define the whole structure and characterize the scientific and methodical activity of a teacher, with regards to the peculiarities of its educational organization from the point of view of innovative development of professional education, and develop the content of scientific and methodical support in each particular case.

7. Conclusion

Summing up, we have come to the main conclusion that the scientific - methodical support in realization of innovative development of professional education should contain the following blocks:

- pedagogical, interpreted needs of a society for the specialists of a certain quality and high level of preparation;

- philosophy of a new professional education, reflecting modern paradigms and the principles of innovative development of professional education as a system;

- teleologic (target) block created according to the qualitative parameters and containing ability for technological transposition of targets in the educational process;

- procedural and technological block, providing transition from the knowledge-centered educational models to activity-operational ones (transition from classical educational activity to quasi-professional (non-professional) and from it to professional activity);

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- diagnostics-estimated block, piercing the whole structure of professional education and training, and providing a qualitative management of the process of professional formation, leading to the programmed result of preparation.

The above-mentioned phenomena can submit the complete concept of scientific and methodical support of innovative development of Russian professional education, whose purpose is the identification and justification of theoretical bases, conditions and mechanisms of supplying expeditious and mass implementation of backbone innovations in professional education practice.

According to the target goals, the tasks determining its realization are the following: to reveal and prove the methodological approaches and the principles of the organization of scientific and methodical support of innovative development of professional education; to reveal and prove organizational and pedagogical conditions of efficiency of scientific and methodical support of innovative development of professional education; to define the main mechanisms of scientific and methodological support of innovative development of professional education; to reveal diagnostic tools of determination of efficiency level of scientific and methodological support of innovative development of professional education; to define the extent of resource supplying scientific and methodological ensuring of innovative development of professional education.

Our experimental work at the Kazan Federal University, Kazan Academy of Social Education and other Tatarstan educational establishments, shows that the efficiency of implementation of the concept of scientific and methodical support of innovative development of professional education could be achieved by the creation and realization of the following pedagogical conditions: modeling and creation of the educational innovative environment; development of system of life-long-learning education, the creation of effective system of incentives and conditions (infrastructure) for continuous retraining and professional development of teachers for development of their innovative culture, etc. Besides, we would mention also such an important principle as the realization of a certain production cycle in the course of scientific and methodical support on the basis of a new methodological iterative approach (diagnostics, estimation, (measurement), forecasting, modeling, design, programming, realization of feedback).

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References

Aynutdinova, I.N. (2017). Innovative technologies in training in foreign languages in higher education institution: integration of vocational and foreign-language training of the competitive expert: (foreign and Russian experience) / the Reference book of the teacher – innovator. 2nd prod., and additional. Kazan, Publishing house Kazan un-that, 456.

Becker, I.L., Zhuravchik, V.N. (2009). Educational space as social and pedagogical category // PGPU news of V. G. Belinsky, *No. 12(16),* 132-140.

Brown, M.B. & Lippincott, J.K. (2003). Learning Spaces: More than Meets the Eye. *EDUCAUSE Quarterly, Vol. 26 (1),* 14-16.

Gavrilov, A.V., Yaw, E.J. (2013). Formation of educational clusters, including Institutions of Different Level Professional Education. *International Conference on Interactive Collaborative Learning, ICL,* 664-665.

Innovative activities of university teachers of specialized secondary school for the formation of the identity of the expert: Scientific and methodical grant (2003). Moskva: Institute of the Problem Development of secondary professional education of the Ministry of Education in the Russian Federation, 51 p.

King, E., Joy, M., Foss, J., Sinclair, J. & Sitthiworachart, J. (2015). Exploring the impact of a flexible, technology-enhanced teaching space on pedagogy. *Innovations in Education and Teaching International, Vol. 52, No. 5,* 522-535.

Maslennikova, V. (2016). Innovative potential of the project-oriented approach to educational process in the professional educational organization. *Modern High Technologies, No. 114,* 34-42.

Mazova, S.V. (2012). Educational space as a factor of development of the identity of the pupil // Electronic scientific Humanitarian Scientific Researches magazine, No. 4. URL: http://human.snauka.ru/2012/04/850 (date of the address: 20.02.2017).

Mironenko, Yu.D. (2015). Creation and use of open educational space as cultural and professional socialization of children, teenagers and youth // Under the editorship of T.A. Artyukhina, N. A. Nefedova. Moskva: Resource Center of "1st IOC", 143 p.

Oblinger, D.G. (2006). Learning Spaces. Publisher: Education, Louisville, Colorado, Washington, DC, USA, 444.

Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (OJ L 394, 30.12.2006, 10-18) http://ec.europa.eu/education/policy/school/competences_en (date of the address: 28.03.2017).

Semenova, E.V., Semenov, V.I. (2013). Modern educational space: multidimensionality of concept // Electronic scientific magazine "Modern Problems of Science and Education", No.4. URL: https://www.science-education.ru/ru/article/view? id=9999 (date of the address: 28.01.2017).

Strategy of innovative development of the Russian Federation for the period until 2020 year. 40 p.

Sweeney, M. (2014). Using science fiction to motivate learning and innovation. *Proceedings of the International Astronautical Congress, IAC, Volume 12,* 8645-8650.

Tregubova, T.M., Dautov, R. Yu., Katz, A.S. (2017). Calls and problems of the higher education in the conditions of the international cooperation. *Materials of the XI International scientific and practical conference "The Academic Science — Problems and Achievements",* North Charleston, USA, *Vol.1, 218 with.* 109-112.

Yusufbekova, N. (2001). General fundamentals of pedagogical innovatics. Moskva: Progress, 146 p.