Educational system modernization: institutional aspect

Peter Nikitovich Gaponyuk¹, Sergey Alexandrovich Dyuzhikov², Natalia Konstantinovna Karpova², Vladimir Ivanovich Mareev², Alexander Pavlovich Uvarovsky²

¹Russian Academy of Education, Pogodinskaya str., 8, Moscow, 119000, Russia ²Southern Federal University, Bolshaya Sadovaya str., 105/42, Rostov-on-Don, 344000, Russia

Abstract. The article is devoted to the dynamics of modern educational system development at the institutional level. Evolutionary theory is proved to be methodology of institutionalization. According to the authors, phenomenology of the concept that integrates multivariate number of notions provides formation of institutionalization meta-theory, which is preconditioned by such socio-cultural phenomena, as processes of globalization, expansion of information space, intensification of communicative interactions between representatives of different cultures. Institutional analysis can be defined as the method of studying condition and features of functioning and modernization of institutions that form modern educational system. The authors offer special algorithm of institutional analysis, carried out on the basis of subject-related approach. A cluster is defined as the necessary structure that organizes modernization process of modern education in institutionalization format. [Gaponyuk P.N., Dyuzhikov S.A., Karpova N.K., Mareev V.I., Uvarovsky A.P. Educational system modernization: institutional aspect. *Life Sci J* 2014;11(9s):161-164](ISSN:1097-8135). http://www.lifesciencesite.com. 30

Keywords: methodology of institutionalization, institutionalization meta-theory, poly-structural systems, real and virtual clusters, institutional analysis

Introduction

Modernization processes, peculiar of the present stage of education development, predetermine continuous updating of conceptual framework of pedagogical science [1]. Multidimensionality of integration processes makes it possible to introduce new terms from various areas of science, innovative and creative activity being one of the priorities. Updating conceptual framework and interpreting categories have become substantial basis of innovations in education [2; 3]. It is worth mentioning that the aspects of uniqueness, originality and novelty, typical of any innovation, cause changes in the existing stereotypes and traditions.

Innovation always stands for certain risks, therefore, possible modernization risks should be taken into account in modernization. Not all kinds of innovation promote progressive development of the system, transition to a new qualitative level. In this respect, scientifically grounded strategy of innovative development for social and economic system of Russia, education being its subsystem, becomes the background, invariant and methodological regulatory standard of modernization [4; 5].

Formation of strategy leads to integration of science and practice in terms of designing and implementing modernizational transformations, as a result of which progressive innovations are duplicated and put into practice, transforming reality at a higher qualitative level.

Section 1. Institutionalization as the factor of innovations differentiation

Changes of the objective reality cause changes in institutions quality. However, time frames of these changes may vary. Deep-rooted norms, rules and functions of institutions may collide with the introduced innovations. Any conflict means development, and it takes time to resolve it. Institutionalization in this context acts as the factor of innovations differentiation, determined by the certain feature of human perception, referred to as intentionality.

Intentionality means ability to relate objects of the real world to concrete functional content. Formation of new institutional facts can be correlated to collective intentionality. Collective intentionality grants a status function to an object. The object gets institutionalized, i.e. there occurs the fact of educational, economic, cultural reality, existing as a certain institution. Status functions include a range of functions which cannot be exercised on the basis of the functions already inherent in the phenomenon. Collective intentionality provides rather long acceptance of functions. As a result, a new institutional fact appears.

However, objects of social and economic reality have difficult logical structure, whereas objects of objective reality can get status-functions typical for more than one institution. The system of such kind is formed on the basis of a certain set of rules that make institution existence possible. Discrepancy of objective reality causes need for transformation, that is, changes of qualitative characteristics.

Any innovation promotes and determines formation of new institutional facts which may be created on the basis of agreements and achieve potential of collective intentionality [6]. Dynamics of educational system development can be traced at the level of institutionalization. In this context, institutionalization enables to integrate two vectors of educational reality changes, namely: the vector of innovative development of institutions, that is, violation of the system stability, and the vector of qualitative determination of the functional content of institutions, constraining innovations and initiating the process of collective intentionality. In terms of institutionalization, the concept "quality" includes some features of the concept "innovation", being conceptual vector of modernization.

The concept "innovative quality" becomes one of methodological premises of modern education institutionalization. It focuses at exercising collective intentionality function and leads to concentration of new knowledge up to certain degree which promotes transformation of institutions and grants them new quality.

Section 2. Institutionalization methodology

As for methodology of institutionalization in education, let us mention evolution theory. This approach makes it possible to consider educational system as the one that undergoes continuous and preconditioned changes, when the present can be treated as the result of the past and at the same time condition for the future, the changes mechanism being based on variability, inheritance and selection.

The key assumptions of evolution theory are applicable for educational system: 1) system developmental path is shaped by previous evolution, causing continuity (stability) of features and natural selection of ideas and approaches in relation to the elements of educational system in ever changing conditions of the objective reality; 2) possibility of accidental developmental paths that arise under the influence of external factors. Thus, while considering institutionalization of modern education, one should outline the factors of evolutionary heritability and variability, which are exercised as collective intentionality functions and gain the status of the inherited ones [7].

Evolutionary approach enables to gradually update basic quality features of the system components (technologies, organizational forms, behavior stereotypes). Meanwhile, the innovations integrated into the basic system construct cause a conflict. Thereby, evolutionary transformation/ modernization of institutions takes place. Institutional structure is inert. Inertness of institutions or nonresistance to changes arises from the nature of institutions as those. According to J. Hodgson, institutions are steady systems of the existing and deep rooted public rules and customs that structure social interactions. Language, money, law, systems of measures and weights, etiquette, businesses and other organizations – all these are institutions. Partial stability of institutions is determined by their ability to successfully create stable expectations, concerning people's behavior [8]. Let us note that inertness may block effective institutions that can be characterized as innovative (B. Arhtur, P. David) [9; 10; 11].

Institutions refer to steady systems which influence establishments and individuals by means of descending causal relationship or, according to J. Hodgson, "transforming descending causal relationship" [12]. That is, institutions, influencing the deep-rooted habits of mentality and behavior, form preferences. Social interactions also influence institutions by means of, for example, demand for prestigious jobs, causing changes in market prices for educational services.

The leading part in mechanisms of descending causal relationship belongs to teaching and learning that can be defined as transformation of individual qualities and preferences. Thus, learning does not only characterize cognitive opportunities of a person, but also sets the vector for qualitative changes of institutions in terms of reverse, ascending causal relationship. Therefore, teaching technologies are defined as the main factor of educational system institutionalization.

"Highly" innovative teaching technologies stand for innovative quality of institutions, being the important factor of modernization in education. In this respect, the concept "teaching/nurturing technologies" becomes methodological precondition of educational systems institutionalization in terms of modernization. New pedagogical technologies stipulate qualitative change of institutions.

Institutional inertia in the system of such kind will lead to the fact that both positive and negative changes can gain cumulative effect due to a relatively strong position of inefficient institutions which do not allow making changes into the developed form of interactions [13]. Institutional inertia is a protective response of the system to the technological and institutional innovations destroying it [14], especially when the introduced institutions and technologies conflict with each other. Institutional inertia is the negative factor which slows down modernization of education. Institutional inertia becomes apparent, for example, in recurrent return to obsolete institutional schemes that mismatch modern economic conditions.

Inertia creates institutional traps [15; 16; 17; 18]. There are two basic approaches to the term "institutional traps": a) V. Polterovich treats them as inefficient but steady norms that have self-supporting nature [19]; b) as effect of blocking – according to D. Nortu. Institutional conflict occurs - between the rooted and introduced norms, and, as a result, either nonviable institutions or steady though inefficient formations [20]. Stability of institutional traps means that at insignificant or temporary external influence the system remains trapped, only slightly changing its parameters. After disturbance is eliminated, it gets back to its former condition of inefficient balance.

The following institutional trap can be observed in Russian education: great demand for education leads to constant increase of expectations level. Meanwhile, the state, communities and enterprises prefer not to invest funds necessary for maintaining good quality of education. Educational programs are permanently underfinanced. It leads to a lot of negative consequences which worsen the quality of education as a whole.

So, institutions determine laws for social development, providing its integrity, being regulators of public phenomena in economic, political and cultural spheres. In terms of institutionalization, culture is considered to be the system that provides support of significant institutional samples [21]. In the given context, culture can be defined as ideological background of institutionalization. According to the main function of ideology, it preserves both political and economic structures and forms the corresponding systems of values that are shared by the majority of population.

concepts "innovative The quality". "teaching/nurturing technologies", "ideology of culture" form integrative semantic field of the new integrated concept, referred to as "institutionalization of modern educational system". Any concept means a kind of universal code, decoding of which is the process of revealing the individual on the basis and in the context of the special and the general. The concept integrates a great number of others, being theoretical constructs and forming meta-theory of institutionalization.

The processes of globalization, expansion of informational space, intense interaction between representatives of different cultures have become socio-cultural preconditions of institutionalization meta-theory. Procedural nature of the meta-theory permits to treat education as institutional matrix of system development. This system shapes vectors of modernization on the basis of possible integration between various poly-structural institutional complexes, which adjust life of modern states.

Poly-structural organization of educational establishments and the structures supporting their work (businesses, banks, associations) represent the system association of people who jointly realize certain programs and reach some purposes, whose behavior is guided by certain rules and procedures. Meanwhile, each establishment has its own resources, purposes, traditions. Poly-structural systems form real or virtual clusters, providing opportunity for decentralized management and use of virtual methods of running the system.

Institutional analysis stands for the method of studying features of functioning and transformation of institutions that form modern educational system. Institutional analysis is aimed at education participants. namely, teachers and students. Estimation of institution efficiency correlates with the quality of its "product". A person/expert can be named the "product" of education. Results of these products' activity cause the need for transformation/modernization of institutions.

Institutional analysis on the basis of the subject approach is conditioned by multidimensionality of institutional environment, as well as by the fact that a person is the core of institutionalization, of transformation/modernization of other processes which shape development of culture, society and the state.

Considering the above-stated, the following algorithm of institutional analysis can be offered: organization of clusters as institutions of innovation. Methodology, technology, scientific and methodical toolkit of innovations is worked out in the scope of the cluster. Further experimental approbation takes place, efficiency estimation based on monitoring and examination for stating repeatability of the received results. The last stage (in case the previous ones were successful) is registration of the innovation as an institution.

Thus, we offer the procedure of innovations institutionalization that provides theoretical and methodological grounds and technological, instrumental, scientifically-methodical support. A cluster as an institution is an appropriate structure which promotes modernization of modern education in the institutionalized format.

Conclusions

1. Modernization assumes application and use of innovations. Accumulation of innovations stipulates development of the system if "critical threshold" of innovative resource is exceeded. Education is characterized by highly traditional nature. Therefore, infringement of stability, system unbalance is necessary and can be carried out at the level of integration into semantic field of pedagogy, formation of terms, first of all, from the area of economic science, management of economic systems. It is objective reality which should be accepted as the necessary condition for modernization in education. It is characterized as the process of system improvement aimed at reduction of its conformity with modern requirements of economic reality and changes in qualitative condition of education.

2. Institutionalization becomes a parameter of development dynamics of the system of modern education. The concept "innovative quality" can be treated as a methodological precondition for institutionalization in modern education. It is aimed at the main functions of collective intentionality, stipulating concentration of new knowledge up to limiting values which promotes transformation of institutions and grants them new quality.

3. Modernization determines the vector of institutional dynamics of modern education, characterized by institution of innovations, and makes it relevant to work out certain clusters of updated methodological technologies.

Corresponding Author:

Dr.Gaponyuk Peter Nikitovich Russian Academy of Education Pogodinskaya str., 8, Moscow, 119000, Russia

References

- Karpova, N.K. and V.I. Mareev, 2009. Methodological Strategy of Modern Education as the Context of Developing Conceptual and Terminological Structure of Pedagogical Science. News of Southern Federal University. Pedagogical Sciences, 8: 25.
- Gaponyuk, P.N., 2011. Institutional Methodology of Managing Modernization of Modern Educational System. Moscow: Vyzovskaya Kniga, pp: 329.
- Gaponyuk, P.N., N.K. Karpova, V.I. Mareev and E.S. Shchipankina, 2012. Strategy of Stable Development of Russian Modern Educational Multidimensional Methodological Phenomenon. Education, 2 (7): 340-346.
- Gaponyuk, P.N., N.K. Karpova and V.I. Mareev, 2013. Institutional Management of Modern Educational System Modernization: conceptual aspect. European Magazine of Social Sciences, 2 (3): 56.
- Gaponyuk, P.N., N.K. Karpova and V.I. Mareev, 2012. Methodological Characteristics of Forming the Theory of Management of Education. Science

5/29/2014

and Education: proceedings of the II International Research and Practical Conference, Vol. II, Munich, December 18th - 19th, 2012. Munich: Vela Verlag Waldkraiburg, pp: 262-265.

- 6. Searle, J.R., 2006. Social Ontology: some basic principles. Anthropological Theory, 6(1): 12-29.
- 7. Chikov, M.V., 2007. Analysis of Institutions Transformation: methodology of research. Tomsk State University Bulletin, 294: 212-214.
- 8. Hodgson, G.M., 2003. The Hidden Persuaders: Institutions and Individuals in Economic Theory. Cambridge Journal of Economics, V. 27: 165.
- 9. Arthur, W.B., 1989. Competing Technologies, Increasing Returns, and Lock-In by Historical Events. The Economic Journal, 99(394): 116-131.
- 10. Arthur, W.B., 1994. Increasing Returns and Path Dependence in the Economy. Ann Arbor: The University of Michigan Press.
- 11. David, P.A., 1985. Clio and the Economics of QWERTY. The American Economic Review, 75(2): 332-337.
- 12. Hodgson, G.M., 2003. The Hidden Persuaders: Institutions and Individuals in Economic Theory. Cambridge Journal of Economics, 27: 165.
- Volchik, V.V. and M.M. Skorev, 2003. Institutional Inertia and Development of Russian Educational System. Economic Bulletin of Rostov State University, 1(4): 58.
- Mokyr, J., 1992. Technological Inertia in Economic History. The Journal of Economic History, 52(2): 325-338.
- Balatskiy, E.V., 2005. "Dissertational" Trap in Russian Economic Science. Economy, Sociology, Management: federal educational portal. Date Views 20.02.2014

www.ecsocman.edu.ru/db/msg/210454.html

- Brendeleva, E.A., 2006. QWERTY-effects, Institutional Traps from the Point of View of Transactional Costs Theory. Economic Bulletin of Rostov State University, 4(2): 42-47.
- 17. David, P.A., 2003. Understanding QWERTY Economy. Institutional Economy. Date Views 23.02.2014 www.ic.boom.ru/Polanyi/Qwerty.htrn
- Polishchuk, L., 2008. Inappropriate Use of Institutions: Causes and Effects. Questions of Economics, 8: 28-44.
- 19. Polterovich, V.M., 1999. Institutional Trap and Economic Reforms. Economic and Mathematical Methods, 2: 1-37.
- 20. Nort, D., 1997. Institutions, Institutional Changes and Functioning of Economy. Moscow: Fund of Economic Books "Nachalo".
- 21. Parsons, T., 1966. Societies: Evolutionary and Comparative Perspectives. N.Y.: Prestige-Hall, pp: 5-29.