

Innovative Processes In Education

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Abstract: The article discusses the usage of innovative technology in the educational system of Kazakhstan and the introduction in the educational process of teaching effective means. Modern educational system of Kazakhstan is characterized by the introduction of 12-year-old school model that guarantees the achievement of a specific result, implementing student-centered learning. School is seen as the main link in this focused training. Transition to 12 - year education will require updating the entire educational system that will ensure consistency with the legal and social norms, age, individual psychological and creative abilities. Thus, the main strategic direction of the school system in Kazakhstan is on the way to solve the problem of personality-oriented education. It reflects the humanistic trend in philosophy, psychology and pedagogy. The choice of this direction contributes to more efficient formation of an innovation culture among the students.

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1. Introduction.

Reforming the educational system of the Republic of Kazakhstan which is mainly characterized by introducing 12-year-old school model, result-oriented on the levels of general secondary education involves the introduction into the educational process of teaching effective means to ensure the achievement of a specific result, implementing student-centered learning.

However, research scientists, and our experience shows that the traditional method does not guarantee such a result of training, as for this, it must be improved to the level of innovative teaching technologies. Therefore, at present educational innovation systems has become a new promising direction of pedagogical science and practice.

The whole spectrum of identified knowledge and skills currently is accepted to cause the concept of "innovation." Innovation is becoming a major factor in the success of professional, educational, self-education and other activities, as well as the person's social protection in the information society.

Conditions for the manifestation of innovative technology and its essence require a different level of independence in activities of students. School, of course, is seen as the main link in this focused training.

Another thing is obvious: to achieve the stated goals is possible only through personality-oriented technologies, for training focused on a certain average student on the assimilation and reproduction of

knowledge and skills, cannot respond to the situation. Actively developing a theory of personality-oriented education (E.V. Bondarevskaya, V.V. Serikov, I.S. Yakimanskaya) opens new possibilities for understanding the pedagogical process of information culture student. In these circumstances, one of the urgent problems of Kazakhstani society is capable of forming a competitive personality, ready not only to live in changing social and economic conditions, but also to actively influence the existing reality, changing it for the better. It is obvious that the transition to the 12-year education will require updating the entire education system, bring it in conformity with the legal and social norms, age, individual psychological and creative abilities.

In this way the main strategic direction of school system development in Kazakhstan is on the way to solve the personal-oriented education where student's activity could be teachers' psychologist's center of attention in which the cognitive activity will be the leading tandem-teaching-student in order the traditional educational paradigm- teacher-textbook-student could be strongly substituted by student-textbook-teacher one.

At this point, educational system in the leading countries of the world [1] reflects the humanistic trend in philosophy, psychology and pedagogy. The choice of this direction contributes more efficient formation of an informational culture among the students.

Thus, our educational research analysis and taking into account the transition of school education for 12-year period of study revealed that at the moment, in our opinion, the current generally accepted concept of the development of innovative technologies which would take into account all ages hasn't resolved the question of the impact of personal information culture on socialization yet and didn't reveal the content structure and levels of information culture normalized to the 12-year-old school.

In the theory and practice of school education there has been strong interest in developing methods of enhancing educational activities of students using innovational methods and forms of education. We highlight the following:

- The necessity of preparation of students to work independently with the lack of innovation and purposeful development of innovative personality skills of high school students;
- rapid changes in the socio-economic sphere of society, imposes a sufficiently high level requirements for students able to make free use of new and innovative methods and forms, and the lack of methods in teaching practice innovative technologies students 12-year schools, as well as training and methodological support, tailored to the needs of educational institutions.

2. Historical basis of the problem of innovation in education.

Studies of innovative development in education began in the 30s of the twentieth century. The term "innovation" has been introduced in the scientific revolution I.Shumpeterom American economist [2], further innovations in education theory developed by G. Mensch. [3]

Researchers Zh.Allak, R.Akoff, B.S.Gershunsky and others [4-6], many works dedicated innovation issues related to the development and maintenance of standards of education in general. Let us dwell on the problems of innovation in education.

The term "innovation" comes from the English word innovation, which translated means "the introduction of innovations" (innovations). [7]

In the late 50's in Germany, the United States and other countries have established centers for the study and synthesis of pedagogical innovations, leaving special periodicals devoted to innovation in the field of education (eg, "Information et innovation en education", «Educational Innovation in the United States", etc.).

In our country, there were the same processes, but they were called differently. It was about the election implementation, distribution of teaching experience, ability and willingness to adopt its practitioners, the novelty of the proposed innovations and how they are rated.

As a rule, innovation arise from attempts to solve the traditional problem in a new way, through a long process of accumulation and understanding of the facts, and when born a new quality, innovative carrier sense. Most modern innovations are in continuity with the historical experience and have counterparts in the past. This gives reason to believe that the process of innovation - is motivated, focused and conscious process for the creation, development, use and dissemination of modern (or modernized) ideas (theories, methodologies, technologies, etc.), relevant and adapted to these conditions and meet certain criteria. It aims at improving the quality of the system in which to innovate, and suggests encouraging its members and changing their views from the perspective of innovation.

3. The essence of innovation processes in education.

At the heart of innovative educational processes are two major problems of pedagogy:

- study the problem of teaching experience;
- The challenge to bring to the practice of psychopedagogical achievements of science. [8]

The result of innovative processes in education is the use of innovations, both theoretical and practical, as well as those that are formed at the intersection of theory and practice. And innovation in education involves the introduction of new goals in education; the development of new content, new methods and forms of training and education, implementation and dissemination of existing educational systems; development of new technologies in school management and its development; school as an experimental platform; situation when the school has a fundamentally new educational orientation and updates the education and training that are systemic in nature, affecting the objectives, content, methods, forms, and other components of the education system.

3.1. Factors of innovation.

At the heart of their development are two groups of factors:

- objective factors - the creation of an enabling environment for the development of innovation and ensuring the adoption of its results;
- Subjective factors related to the subject of the innovation process, with its willingness to innovate.

Innovation processes are the subjects of scientists, teachers, teachers and other education workers, whose activities are innovative orientation.

3.2. Types of innovations.

Depending on the specific point of use, there are several types of innovations. Technological innovation - these are new ways of making products, new technology of their production. [9] They form the basis for industrial development and technological modernization of the industry. In relation to education,

such innovations concern the various technical means and equipment used in training. From the standpoint of didactics information environment and the introduction of software has made a huge number of new features. Computer technology due to its performance and large memory reserves represent fundamentally new learning tool. They allow you to implement many of the options for problem-based learning environments, personalities, different schemes to build a dialog and individual approaches to teaching and learning.

Methodological innovation - is innovation in methods of training and education, teaching and learning, the organization of the educational process [10]. They are the most common and characteristic type of innovation in education, covering the teaching of natural science and the humanities from preschool to higher education, training and retraining.

In practice, methodological innovations are often associated with organizational innovations. They meet in an educational situation where a proposed overall goal is clear, but the methods and means of its implementation require additional research. This type of innovation dominates the private methods, rarely presented in didactics and education theory and practically does not occur in the works on the history of pedagogy.

Organizational innovations concern the development of new forms and methods of work organization and innovation, involving changes in the ratio of spheres of influence (both vertically and horizontally) structural units, social groups or individuals. In particular, the question of acquisition of various classes and groups, ways to work in classes, groups, school and extracurricular teams.

For example, in 2011, decided to establish a general and special (correctional) educational institutions of the so-called "class of protection", which created the conditions for lifelong learning, education and the protection of students and pupils with impaired primary and secondary school age. Occupancy class up to 12 people, for children with complex defect - up to five people.

Another example - the creation of compensatory education classes, classes that are created in educational institutions in accordance with the Law of the Russian Federation "On Education", based on the principles of humanization of the educational process, differentiation and individualization of learning. The organization's purpose of compensating classes - creating for children who have difficulties in learning, education programs, adequate to their features to help prevent maladjustment in terms of educational institution.

The main indicator of selection of children in compensatory education classes is the lack of readiness for learning in educational institution, resulting in low

levels of psychological (including general personal immaturity) and psychophysiological prerequisites, among which are determined primarily by the signs of social and educational neglect, as well as mild symptoms of organic disease or weakened somatic (increased exhaustion, aborted arbitrary forms of activity, not rough poor attention and focus, etc.).

Managerial innovations address structure, methods of production management, organizations are focused on the replacement of control system (or the whole system) to foster, facilitate or enhance the task. Examples of administrative innovations we find in the works related to the improvement of education management at the regional level.

Economic innovations cover the positive changes in the financial, billing, accounting areas as well as in planning, motivation and remuneration and performance evaluation in education. They are not directly related to pedagogy, yet their influence is on the entire system of education offered to the public paid educational services.

Social innovations are manifested in the form of activation of human factors by developing and implementing systems to improve personnel policy; of training and skills development; system of social and professional adaptation of newly employed persons; reward system and performance appraisals. It is also improving the social and living conditions of workers, conditions of health and safety, cultural activities, organization of free time. For most pedagogical innovations characteristic social effect. It manifests itself in the level of education, culture, youth training; eliminate negative phenomena in society, crime, rationalization of mental and physical labor, the formation of useful skills and habits, achieving higher levels of education.

Legal innovation is the new and revised laws and legal documents that define and regulate all kinds of educational institutions. In recent years, issued a series of laws and regulations related to the certification of students, the introduction of federal and regional educational standards, accreditation of educational institutions, training and retraining of managers and other.

The overall positive effect is due to different groups of innovation, taking into account the demands of society and the critical long-term objectives in the field of education of the younger generation.

By the nature of a contribution to the science and practice of innovation can be divided into theoretical and practical.

To include new theoretical concepts, approaches, assumptions, directions, laws, the classification principles in training and education, teaching methods, resulting from research activities underlying the innovation processes.

Among the practical - new techniques, rules, algorithms, programs, recommendations in the field of didactics, education theory, school teaching, technical training, presentation equipment, training and monitoring devices, instruments and models, natural objects, audio-visual aids.

It is important to distinguish between new knowledge on innovations in the field of training and education. In one scenario, the formation of new ideas, new knowledge, in another - the process of its implementation.

Innovation is characterized by time and quality parameters.

To assess the novelty of innovation in education is more appropriate classification levels (level of detail, the level of complement, conversion rate).

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4. **Characteristics and levels of innovation.**

Innovation is characterized by time and quality parameters.

To assess the novelty of innovation in education is more appropriate classification levels (level of detail, the level of complement, conversion rate). It reflects the knowledge gained in place a number of known and their continuity.

The level of detail. At this level of innovation specifies certain theoretical or practical provisions for training and education. This level in teaching science called novelty type of modification (M.M.Potashnik). Its content is the improvement, rationalization, modification, modernization that has an analog (programs, methods, structures, etc.). By modifying the transfer applies a known technique to a new (or another) thing. An example is the transfer method of integration of didactic units developed on mathematical material P.M. Erdnievym, history and other subjects.

Level additions. Innovation extends the known theoretical and practical provisions in training and education. The resulting knowledge opens new faces problems that were not previously known. In general, innovation does not change the picture, but complements it.

Level conversion. It is characterized by a fundamentally new ideas and approaches in the field of training and education, which was not previously in the theory. Fundamental change occurs viewpoints put forward an original approach is fundamentally different from the known concepts in this area. In didactics to this level may include studies that substantiate a holistic approach to learning. Samples of unique and innovative research pedagogical experience in upgrading schools demonstrated in his work such

educators and scientists from Kazakhstan, as Sh.T.Taubaeva, Zh.A.Karaev, M.Zh.Zhampeisova, K.Buzaubakova, K.Kabdykairova, E. U.Medeuova, S.M.Kenesbaeva, K.M.Berkimbaeva, Zh.U.Kobdikov and others. Their pedagogical findings, the results of their pedagogical innovations have become the property of the teachers throughout the country.

5. Performance criteria for Innovation in Education.

New methods that offer science and practice should provide high the educational effect and stimulate further development of students. From this viewpoint, not all innovations justified, even though the individual stages can be obtained encouraging results.

Criteria progressivity pedagogical innovations can be expressed in different results. For example, developed new variants of methods that are partially or completely solve a particular problem. Forward new concepts, ideas, classification, covering and explaining various phenomena and facts in the field of training and education. Promising development and refinement of hypotheses, allowing building new projects for future educational systems. New ideas and technologies open up a route and directions for further search, allow us to propose constructive proposals to create relevant research projects and programs.

The proposed innovations should be theoretically or empirically grounded, meet the criteria for validity, which include:

- Optimality, which means effort and resources for teachers and students to achieve the expected results;
- efficiency, expressed in a certain stability of positive results in the work of teachers;
- ability to use creative innovations in mass experiment [11].

These criteria are used to distinguish pedagogical innovations hare-brained schemes of pedagogical, scientific and practical innovations in the educational processes. They - these criteria - provide a basis for pedagogical creativity.

5.1. Creativity as a result of innovation.

Creativity broadly viewed as a mechanism of development, the interaction, leading to the development. The subject of the psychology of creativity is the structural level of psychic organization of creative activity. Creativity - is the creation of the new, the concept involves personal principle and, therefore, commonly used to human activity. In this sense, creativity - conditional term for a mental act , which is expressed in the embodiment of consciousness or playing in a (relatively) new form in abstract thought, artistic and practical activities (scientific , poetic , musical , etc.) [12] .

Creativity is understood as a mechanism for productive development, scientific creativity - one of the specific forms of this mechanism.

“For all creativity requires some degree of talent and a corresponding education, creating skills to work. Last develops a tendency toward identifying natural talents, so that in the end there is a nearly infinite desire or craving for creative activity. The immediate task is the definition of its environment in the form of the nature of the material culture and social situation in the latest features”. [13] In the Great Soviet Encyclopedia, creativity is defined as “human activity, creating new material and spiritual values that have social significance”. [14]

From the point of view of psychology as a criterion for the social significance of the product of creative activity is wrong, because in relation to children , and sometimes an adult , independent decision " puzzle " is a creative solution , while the social significance of these solutions do not have. At the same time in the history of science and technology represented by the fact that the brilliant achievements of creative thought, truly scientific discoveries not immediately acquire a public importance and recognition of these achievements came much later. Recognizing the different levels of organization of creativity, you can determine that the psychic sphere is only the possibility of creativity in the social sphere. The conversion of such a possibility into reality depends on a number of specific conditions of social relations.

Creativity - a necessary condition for the development of matter, the formation of its new forms, together with the emergence of which they are changing forms of creativity. [15]

Human creativity is only one of these forms.

Conclusions.

Mixing concepts of creativity to its narrow sense - to human activities, rather to one of the areas of activity, creates difficulties in understanding the nature of creativity. Perspective becomes a broad understanding of art as a tool for development. Creativity as a development mechanism acts as an attribute of matter, its inherent properties. Universal criterion of creativity emerges as criteria development. Such a mechanism is represented as a principle that the stages of development of the phenomena are transformed into structural levels of its organization, then acting as functional steps further productive interactions. The need for new productive formations prepared at the highest levels of the organization phenomena; means to her satisfaction is formed on the lower levels. The effect of this tool on the higher levels leads to the need to meet the new formations.

In pedagogical innovation is always a teacher or open himself borrowed a new idea, so innovative experience to be meaningful, summarized as ideas or concepts. In this regard, the teacher must master the scientific and methodological reflection, which allows correlating a particular innovation system with multiple tasks specific study. Methodological reflection connected with the subject of aggregate awareness of methods and means in terms of the adequacy of their goals of innovation, its object and effect.

Analysis of reflection in science suggests that we should not focus just on a " meta-level " (scientific) of consciousness where there is a failure of the patterns of thinking and its fundamentally different position from which science and its development are viewed at a particular angle of view given by shift the focus of attention from the object of his research on the means tools of cognitive activity on the activity of the knowing subject . Having «thinking about thinking " and thus having seemingly purely theoretical reflexive procedures actually involve subsequent practical implementation. They have their distinct strategic objectives critical focus, which is a revision once adopted , but outdated standards activities , auditing, seemingly obvious propositions , but in fact often reveals their nontrivial and problematic. Reflection in innovation teacher has the following characteristics:

- direct analysis - from the current state of educational systems to the end of the planned target;
- targeting - from intermediate goals through both direct analysis and reverse;
- analysis of the importance of motives and their achievability;
- analysis and evaluation of outcomes and impacts of projected goals , the selection of relevant goals .

Thus, introducing innovative technology into practice educational activities can be prepared not only a specialist particular profile , but also to develop the personality with creative thinking, educate civil and spiritual qualities to teach modern forms of communication , to form an active social and professional position.

References

1. Nazarbayev N.A., 2006 .To the knowledge economy through innovation and education. Lecture President of Kazakhstan at the Eurasian National University L.N.Gumileva. Kazakhstan Today, 131-132. Date Views 27.05.2013
2. Schumpeter I, 1987. Theorie der wirtschaftlichen Emtwicklung. Berlin, pp: 122
3. Mensch, Gerhard, 1973. Theory of Innovation. Berlin: International Institute of Management, Januar.
4. Allak Jacques, 1993. Contribution to the future: the priority of education. Moscow.
5. Ackoff R., 1982. Art solve problems. Moscow.
6. Gershunskii B.S., 1998. Philosophy of Education. Moscow,pp: 432.
7. Asadullina I.G., Basov V.M., Wolf N.V., 2004 . Pedagogical class: searches, problems and prospects. Pedagogy, 6. From PP: 55-57
8. Ponomarev J.A., 1976. Psychology of creativity. Moscow, from PP: 303.
9. Report of the International commission of UNESCO on a development of education. Paris: UNESCO, 2000. From PP: 253.
10. Bekhterev V.M., 2000. Creativity in terms of reflexology. S.O.Gruzenberg "The genius and creativity." Moscow, from PP: 233.
11. Monet Zh., 1993. Redagogical education and training of the teacher of multilevel system in Europe and the USA.Materials of the international conference. from PP: 89
12. Vorozheykina O.L., Davydov N.I., Pokladok E.B. etc., 2006. Foreign education systems: (USA, Japan, Great Britain, Germany, France). Moskow, from PP: 168
13. Bulakbaeva M.K., 2010. Pedagogical potential students. Almaty from PP: 244
14. The Great Soviet Encyclopedia, 1955. Moscow. V.34. from PP: 270.
15. Shvyrev V.S. 1985. Reflection and understanding of science in modern analysis. Problems of Philosophy Journal, 6.