



VARIOUS CLASSIFICATIONS OF EDUCATIONAL INNOVATIONS

D. I. Yunusova

National Pedagogical University of Uzbekistan named after Nizami

Abstract

This article describes the structure of the innovation process, classifications of innovations by various authors, and a description of innovations in the field of education.

Keywords: New, innovation, educational innovations.

Introduction

According to the literature, the concept of "innovation" appeared in ethnography in the 19th century, denoting the introduction of elements of one culture into another. This concept, which entered the field of development in the 20th century, began to take shape as a new field of scientific knowledge, the science of innovation, about the introduction of innovations. This discipline has evolved from a discipline that studies the economic and social laws of the creation and dissemination of scientific and technical innovations to a discipline that studies the laws, principles, methods and criteria of innovation in a specific activity.

In the 1930s, the terms "firm innovation policy" and "innovation process" appeared in the USA. In the 1960s and 1970s, empirical studies of innovations implemented in firms and other enterprises in the west became widespread. The firm became the initiator and creator of innovations. Its "sensitivity" and "impact" to innovations were directly related to the structure and methods of management of the firm, and the concept of "decision-making process" was adopted as a research program. Here, the process of selecting and analyzing alternatives proceeds gradually and step by step to implementing the decisions made.

About sixty years ago, pedagogical innovations began to become a subject of research. Due to the conflict between the need for rapid development of educational institutions and the unpreparedness of teachers to implement them, pedagogical innovations became an independent field. As a result, the use of innovation has become widespread, and the need for new knowledge is growing. The concepts of pedagogical innovation such as "new", "novelty", "innovation", "innovation process", "innovator", "innovation opportunity", "innovation environment", etc. have emerged.



The concept of "new" is one of the main concepts in innovative pedagogy. If the first - "first created" - gives an idea of something that was not previously generally known, then the expressions "recently" and especially "newly discovered" - express the fact that the novelty has some element of "oldness", something that is advanced. Thus, we can talk about two types of novelty:

1. Novelty created for the first time. This innovation is equal to an invention.
2. Further improving the existing theory and adapting it to the present.

S.L. Rubinstein associates the introduction of innovation with the creation of new, unique values that have their own value. L.S. Vygotsky understands that the creation of any innovation is also implemented in the inner world of the subject.

Innovation and creativity are interpreted in a broad and narrow sense. In a narrow sense, the creation of a new, unique system; in a broad sense - as an activity aimed at understanding and solving problems that arise regularly in the pedagogical process. Innovation and creativity are an important professional part of any pedagogical activity. Thus, creativity and innovation can be imagined as the creation and application of innovation in the educational process.

In the dictionary of S.I. Ozhegov, "new" is defined as "created or made for the first time, recently replaced by the previous one, rediscovered in the recent past or present, not well known".

One of the important issues of current pedagogical research is the classification of innovations. Analysis of socio-pedagogical literature showed that there is no general system for classifying innovations in the educational process.

As V.A. Slavenin and L.S. Podimova emphasize, in pedagogical literature, innovation processes in the field of education are divided into 2 types:

- spontaneous innovations;
- goal-oriented innovations.

The first type of innovations includes innovations that are not always fully scientific. They usually occur empirically, under the influence of situational requirements. This type of innovations includes innovations implemented by innovators-teachers, educators, parents, and partly by cultural figures involved in administration, education, and upbringing. Such innovations need to be analyzed in order to identify their positive aspects. The second type of innovations in the education system are conscious, purposeful, scientifically based, and are the product of interdisciplinary activity.



The classification of innovations developed in the studies of O.G. Khomeriki, M.M. Potashnik, and A.V. Lorentsov (Table 1) is of theoretical and practical importance for heads of educational institutions.

Table 1 The structure of the innovation process

Components	Characteristic features of components
Activity	Expresses the following set of components: motives-goals-tasks-content-forms-methods-results
Subject	Innovative activity covers all subjects: the director, his deputies, teachers, scientists, students, parents, experts, employees of educational institutions
Scope	Reflects the interconnected innovative activity of subjects at the international, republican, regional, city, school levels
Content	Emergence of innovation in the organization and management of education, educational work, the educational process, its development and assimilation
Lifecycle	The stages of innovation: emergence-acceleration-maturity-assimilation-diffusion-enrichment-obsolescence-final
Innovation Genesis	Emergence-idea development-design-preparation-application
Management	Planning-organization-leadership-control
Organization	Stages of diagnosis, forecasting, organization, operation, generalization, implementation

In the works of P.I. Pidkasistii, innovations are classified according to their specific characteristics and place of application (Table 2)

Table 2 P.I. Pidkasist' s classification of news

Type of innovation	Innovation characteristics and application
Technological	New methods of manufacturing products, new technologies of production. On their basis, the production sector is developed and technologically reconstructed. In relation to the field of education, these innovations relate to technical means and devices in the educational process.
Methodological	Innovations in the organization of education and upbringing, teaching and learning, and the educational process. In practice, methodological innovations are usually associated with organizational innovations. Such innovations are found mainly in special methodology, partly in didactics and educational theory.
Organizational	The adoption of new forms and methods of labor organization refers to innovations associated with a change in the ratio of vertical and horizontal spheres of influence of structural structures, social groups or individual individuals. Including, the organization of various classes and groups; innovations in organizing the work of classes, groups, schools, and extracurricular groups.
Management	Innovations related to the composition of organizational and production methods aimed at replacing elements of the management system in order to improve or ensure the implementation of assigned tasks, and to accelerate them.
Economic	It covers the assessment of the results of educational activities, motivation, remuneration, planning, as well as positive changes in finance, payment and accounting.
Social	The human factor is manifested in the development and implementation of personnel policy, professional training and improvement of skills of employees, socio-professional adaptation of new employees, improvement of the system of remuneration and incentives for labor.
Legal	New and amended legal and regulatory documents and laws that define and guide all types of activities of educational institutions.



Table 3 Types of innovation (V.A. Slastenin, L.S. Podimova)

№	Type of innovation	A characteristic feature of innovation
I.	Absolute innovation	A "novelty" that has no analogues
II.	Relative innovation: 1) specific	From the point of view of modernization, individual elements are updated
	2) conditional	Complex and developmental changes arise based on changing the connections between previously known elements
	3) local	Application of innovation used in other areas to specific situations; brings about a different novelty according to its uniqueness, degree of generalization
III.	Pseudo innovation	The desire to be different
IV.	Subjective innovation	New to the subject. It arises from the application of a new object or phenomenon to a person, community or society, known to others, but obtained separately

Table 4 News in the field of education

№	Classification features	Types of innovations
1.	Depending on the relevance of this or that part of the educational process	-in the purpose and content of education; -in the methods, means, techniques, technologies of the pedagogical process; -in the forms and ways of organizing education; -in the activities of the administration, teachers, students
2.	Innovation opportunities of innovation	-modernization of previously accepted and known ones, related to the improvement and modification of the program, curriculum, etc.; -combinatory innovations; -radical changes.
3.	According to his relationship with his predecessor	-replacing; -abolishing; -improving the old.
4.	Innovation scale	-local and individual, not related to each other in a school or educational institution; -complex, interrelated changes; -systemic, an innovation that covers a school or educational institution as an educational system.

As in all fields, in education, there is talk of "novation", "innovation" and the activities that express their essence.

If the activity is short-term, has the characteristics of a holistic system, and serves only to change individual elements in the system, it is called **novation (renewal)**.



However, if the activity is carried out on the basis of a certain conceptual approach, and its result serves to develop a certain system or radically change it, then it is called **innovation (add new)**.

Main differences	
Novation	Innovation
1) is applied within the framework of an existing theory; 2) is limited in scope and time; 3) methods are updated; the result improves the previous system	1) is systematic, integrated and continuous; 2) designs a new system of activity in a given practice; 3) the activities of the subjects are completely renewed; 4) new technologies are created; 5) new qualitative results are achieved in the activity; 6) the practice itself is also renewed

The concepts of modernization, modification, and rationalization of pedagogical innovations are closely related to the above-mentioned concepts. **Modernization** (from the French moderne - modern) is aimed at changing the structure and technology of the updating process by introducing various improvements based on the requirements of the time. **Modification** (from the French modification - change) involves changing the appearance of the updating process in order to change it, as a result of which new aspects of the process are revealed. **Rationalization** (from the Latin rationalis - conscious) is manifested in improving the entire structure of the updating process.

REFERENCES:

1. Юнусова Д.И. Применение информационных технологий в подготовке педагогических кадров. Информатика и образование. 11, 2008. - С. 51-52.
2. Юнусова Д.И. Инновации в предметно-методической подготовке будущих учителей математики. Сибирский педагогический журнал. 6, 2008. -С. 316-323.
3. Юнусова Д.И. Узлуксиз таълим тизими математика уқитувчисини тайёрлашнинг назарий асослари. Т., «Fan va texnologiya», 2008, 162 бет.