

EDUCATIONAL CLUSTER AS AN INNOVATION FOR THE EDUCATION SYSTEM

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Annotation

This article focuses on the cluster approach to the development of educational systems as a way to increase the competitiveness of regional and national education systems. The article discusses approaches to understanding the essence of an educational cluster and studies the prerequisites for its formation in our country and the world.

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Introduction. In the conditions of the information technology revolution, the generation of intellectual forms of activity is intensifying in the leading sectors of the economy. The production process is turning from an industrial one into a scientific and innovation process. The knowledge worker is more closely involved in innovative production. In the new conditions, professionally qualified training of workers becomes a necessary condition for innovative economic growth.

In this case, educational clusters are called upon to play a decisive role, within which innovative capital is reproduced. The goal of this cluster is to create highly qualified workers for the innovation sector.

Main part. The word “cluster” goes back to the English word cluster, clustre, clyster, which means a bunch, bunch, bush, common yard and surrounding yard buildings [1]. This term was first introduced into scientific use by Michael Eugene Porter (in the book *Competitive Advantage of Nations*. New York: Free Press, 1990

In his classic definition, “a cluster is a geographically concentrated group of interconnected companies, specialized suppliers, service providers, firms in relevant industries, as well as organizations related to their activities in certain areas, competing, but at the same time working together”[2]

Porter showed that a company's competitiveness is largely determined by the competitiveness of its economic environment, which, in turn, depends on the basic conditions (common resource) and competition within the cluster.

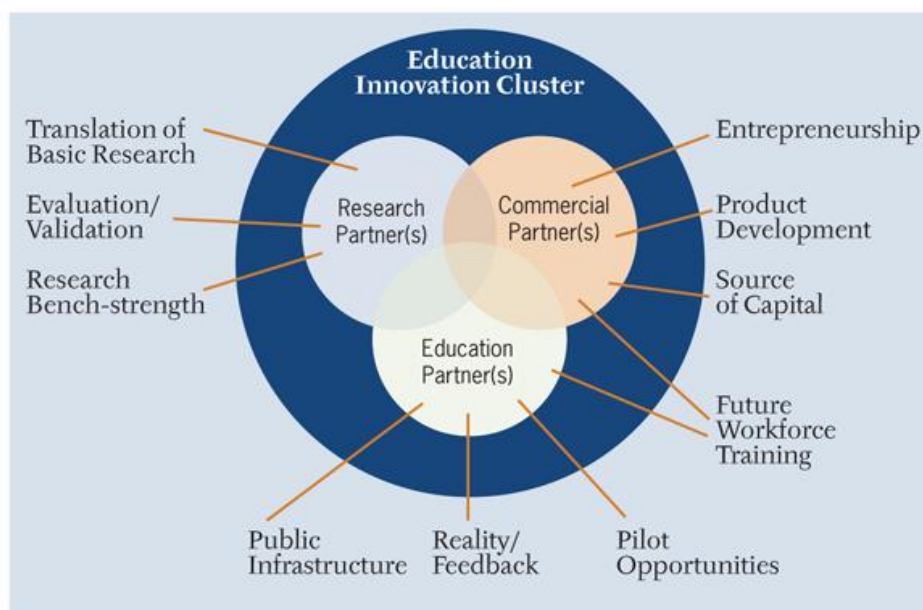
In Europe, the active implementation of cluster policy in education began in the 1990s during the period

of popularization of the term “economic cluster”. In the UK, for example, a large number of medical innovative educational clusters have grown (about 10 sites have been found). Such clusters are seen as a mechanism through which theoretical ideas for improving healthcare penetrate medical practice. All this is only possible through close collaboration with universities, local authorities, charities and private companies that are at the forefront of innovative practice [3].

In France, ecosystem improvement clusters are the most actively developing; there are 71 of them in total. Such clusters include companies, public educational institutions and research laboratories. They position themselves internationally in the most advanced and key technology sectors, and their membership is open to foreign firms [4]. In the United States, the development of an interdisciplinary approach to create specially integrated ecosystems is considered promising, which will help remove barriers that slow down innovative processes in educational technologies. Figure 1.1 shows the key players in the innovative educational cluster.

In the countries of the post-Soviet space, the cluster approach was developed a decade later than in Western countries. First of all, the cluster approach is typical for industry and other sectors of the production sector. There is a gradual trend towards increasing interest in clusters as a tool for regional development.

Figure 1.1. Education Innovation Cluster [5]



The figure shows that the core of an innovative educational cluster is the interaction between research, educational and commercial partners. At the same time, the educational cluster is characterized by such innovative features as access to public infrastructures, feedback from existing realities and the presence of pilot opportunities in education.

To create and operate a cluster, you must have the following types of resources:

1. Personnel or labor (highly qualified heads of educational institutions, creative teachers, qualified support staff)
2. Information resources (data bank of educational cluster participants; support for active interaction with external information channels; inclusion of information flows of all subjects and organizations included in the educational cluster in the general information environment;

3. Infrastructure (organizational conditions) (creation of a network structure of representatives of government, business community, organization, etc., united around the core of innovation activity; development of normative documents regulating the activities and interaction of all elements within the educational cluster; carrying out marketing research on possible directions for the development of the educational cluster;

4. Material and technical conditions (the ability to use the existing material and technical base for the implementation of a specific project, areas of activity within the educational cluster, use of material and technical resources of all partners)

The two main trends in the education of countries around the world at present are globalization and regionalization. These trends are at the same time antipodes and complement each other. One of the main driving factors of globalization in education is the factor of maintaining competitiveness in the educational market. Currently, in order to be competitive, the education system must be global, providing all types of educational services demanded by consumers and the economy.

The second important trend is the regionalization of education systems. It should be noted that this trend has recently become of key importance, with globalization receding into the background. By globalizing, as mentioned above, education systems are forced to be competitive in the global market of educational services.

At the same time, not all educational institutions have sufficient resources to effectively withstand competition from large players. Thus, there is a need to unite regional educational institutions in order to jointly resist competition. The forms of regional associations can be different; first of all, the effectiveness of this interaction is important. Recently, including in the Republic of Uzbekistan, the cluster model of economic development, which involves the creation of educational clusters, has been widely discussed. In Uzbekistan, the problem of creating innovation clusters is currently in its infancy.

Conclusion. Thus, it can be argued that the idea of clustering economic development is essentially inexhaustible from the point of view of implementation. At the same time, the design of clusters in the education system must be subject, first of all, to the requirement of expediency and efficiency. The formation of a cluster should be based on the market mechanism of “profitability”. Important factors when designing a cluster should be its diversification and innovation. The ability of partners of various industries within the cluster to effectively use internal and external resources should be important. The cluster should play a positive role in attracting investment in the educational system.

We can say that in developing the most effective models of innovative projects, the most important place is occupied by the assessment of their results. Educational clusters can use a variety of means, each of which can be effective and efficient depending on the innovative projects being put forward. In order to ensure innovative economic growth, it is important to evaluate the effectiveness of various cluster models and identify the most rational and viable ones. Innovative economic growth ultimately depends on the correct choice of models of educational clusters and the corresponding activation of human capital in solving issues of innovative production and its individual links.[10]

Innovative practice shapes social needs and the goal of mastering new knowledge and ideas by the majority of those employed in the economy. With innovative economic growth, the human factor in the organization of innovative production becomes decisive and dominant.

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