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## Management of Preschool Education System in Cluster Approach

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## **Abstract**

The article is devoted to the issues of improving the management system of preschool education. The author also expressed his own views and comments on the use of cluster technologies in the management system of preschool education.

**Key-words:** Preschool Education, Cluster Technologies, Cluster, Innovations, Management System, Knowledge, Qualifications, Skills.

## 1. Introduction

Today in our country it is possible to observe the expansion of higher education institutions, the consolidation of vocational education institutions in the field, the implementation of preschool, primary and secondary vocational education programs in higher education institutions. Along with the ongoing organizational and structural changes, it is necessary to make structural changes in the system of pre-school education, search for new forms and methods of education. Integration processes, the formation and development of educational clusters, one of which should be based on the differentiation of preschool education [1].

## 2. The Main Results and Findings

The theoretical basis for the introduction and development of cluster approaches in the preschool education system are: cluster approach to preschool education; theory of activity and pedagogical design; the concept of continuing education; research that explores the challenges of social partnership and preschool quality management.

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A cluster (English Sluster - set) is a collection of elements of the same type, which can be considered as an independent combination, with certain features [2]. The cluster is a symbol of the desire to build a "common home" for the training of specialists who can make our economy competitive. The task of the cluster is to systematically organize the actions of preschool education organizations entering the field.

A cluster is a group of interconnected companies and their affiliates that operate in a specific area and are characterized by a common line of business and complement each other [3]. Over the past few years, the general meaning of the term "cluster" has been defined as follows: a cluster is a concentration of enterprises, closely related industries in terms of affiliation and geographical location, which contributes to increased competition. On the other hand, today a "cluster" also means a group of interconnected enterprises and their affiliated organizations that operate in a particular area and have a common direction of activity and complement each other geographically. This approach allows the differentiation of different types of clusters, including the education cluster. At the same time, there are different interpretations of the concept of "education cluster" in the literature.

An education cluster is a set of interconnected vocational education institutions that are united by sectoral affiliations and have established partnerships with enterprises in the sector [4]. An education cluster is a system of education, peer learning, and independent learning that is attached to a science-technology-business chain, based primarily on horizontal communication within the chain [5]. The education cluster is a set of social institutions associated with the relationship of sharing the technology of production of the product, shown horizontally, on the cultivation of "ordinary man" in the vertical of the relationship. An education cluster is a set of vocational education institutions united through sectoral affiliations and partnerships with industry organizations.

The following may be a model for implementing a preschool education cluster:

- 1. Educational cluster based on the territorial location of preschool, primary, secondary, higher education institutions and enterprises.
- 2. University complex (including educational and research institutes, colleges, additional education, postgraduate education, general education departments).

Stages of implementation of the preschool cluster model:

1. 1. Organization of monitoring of employers' opinions on the availability of necessary professional and personal qualities in graduates of preschool education, schools, educational institutions, colleges. timely adjustment of social partnership and identification of promising areas of development, which will improve the quality of training of specialists in the field and meet the needs of customers in the labor market.

1672

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2. Formation of preschool education in accordance with the requirements of the international

quality management system, which allows to quickly and effectively develop systemic

adjustments to improve the system of social partnership, based on the following: access to

information on the labor market; ; to fill it by taking into account the requirements of

employers to the content of professional training of specialists; effective organization of

higher education student practice; assessment of the level of training of experts by impartial

experts, etc.

3. The organization of internships for students in the field of preschool education on the basis

of a combination of theoretical knowledge and innovative technologies, which in turn helps

to increase motivation for the chosen profession, supplement and update the content of

practical and curricula, increase the employment rate of graduates in their field.

4. Cluster approach in the system of preschool education - the organization of scientific and

methodological seminars on the basis of the demand for professional knowledge and skills

of graduates of permanent, customer educational institutions, technical schools and

universities.

5. Development of additional vocational education, including the training of specialists in the

field, the organization of advanced training and vocational training courses, the

implementation of quality internships for students.

Conducting joint events and conferences, working meetings, excursions that affect the 6.

development of the environment of cooperation.

All participating subjects in the preschool education cluster manage a multi-level system of

specialist training with the required qualifications. The employer determines what to teach, and the

educational institution determines how to teach. This reduces the time required to train the required

specialist and the period of his professional training.

For the employer-customer of educational services, the education cluster is a practice-oriented

educational complex that allows to identify priority investment zones.

In the system of preschool education, a cluster approach is understood as a formal unification

of the various components of the trinity of "education - science - preschool organizations", but also

finding new forms of combining their potential in order to achieve greater efficiency in solving the

problem.

At the same time, among all preschool educational institutions, priority will be given to higher

education institutions. The educational cluster also includes general secondary education and

secondary special education. Thus, in the cluster, the student will have the opportunity to acquire any

skills at each stage of the educational process. Students of technical schools in the field of preschool education will have the opportunity to receive higher education on the basis of a shortened program at

the expense of joint plans of universities and colleges.

The education cluster at PEO has the potential to address the challenges of continuing education. Curricula and programs developed in the framework of the creation of a system of continuous vocational training allow optimizing the formation and development of professional and educational potential throughout the human career. This expands the student's ability to create their own "individual learning trajectory." Consolidation of educational institutions into a single system allows the development of standards that harmonize the results of the same educational institution (lower level, for example, educational institutions) with others (higher level, for example, technical schools and universities). In the education cluster, all its participating entities manage a multi-level

system of training a specialist with the required qualifications.

Integration in the education cluster means not only the formal integration of different components of education, science and industry, but also the discovery of new forms of combining their potential in order to be effective in solving the problem. In the context of the education cluster, there is an activation and use of the creative potential of young people in scientific and innovative areas, which leads to a change in the systemic qualities of the innovative economy: flexibility,

activity, variability, stability, predictability, consistency, integrity.

In our opinion, a preschool education cluster is an interconnected system that is integrated

vertically (in order to train a competent specialist) and horizontally in terms of sectoral affiliation.

We will identify the main objectives of the introduction of a cluster approach to the system of preschool education: optimization of the choice of future educators in the early stages of education; ensuring and developing continuing education; increase the competence of graduates PEO Specialists; ultimately increasing the competitiveness of the industry; person-centered learning process; ensuring that the number and qualifications of graduates meet the requirements of the PEO; increase the competitiveness of specialists at all levels of the industry; effective use of innovations in education, science and technology; reducing the duration of training in the transition from one

professional level to another.

The goals are to build a multi-level integrated system of training based on the integration of educational institutions and employers PEO, which will ensure the quality of training, optimize training periods, unite graduates PEO, encourage problem-oriented, fundamental and applied research, create a flexible system of training.

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The preschool education cluster is independent in the selection of PEO education programs, interrelated curricula, including areas and specialties of training for the region. Diversification of education will take into account the requirements of the regional labor market, create conditions for

the training of creative, multifunctional and highly qualified specialists.

Identifying priorities in the field of PEO and proper career guidance will help solve the problem of filling the labor market with professionals trained and working in the same field, which is

the right thing to do for applicants and freshmen.

The principle of independent organization of the cluster. It is known that in recent years in the country there is a shortage of highly qualified specialists in the field of preschool education. Employers note that the level of quality of training in preschool education institutions is insufficient.

As an independent system, the education cluster is able to change the external and internal

conditions of its activity. The number of clusters may increase due to the factor of demand for

personnel in the sectors of the economy. Today, clusters exist in the oil, chemical, construction,

aerospace and other industries. The development of clusters also depends on its location, the

development of the transport scheme of the region. This makes the education cluster interesting for

applicants from other regions as well.

Improving the internal structure of the preschool education system, the introduction of modern technologies of education, the involvement of advanced professionals in training will lead to an improvement in the quality of training.

Systematization in the context of the education cluster: "science - business - education",

"forecasting the development of preschool education - forecasting the development of pedagogical

education", "human - education - profession", "government - ministry - sector - preschool education"

and other systems analysis and synthesis.

The logic of the following textbooks is taken into account when designing the system of

continuing preschool education: fundamental, humanities and special textbooks.

The principle of systematization is reflected in the integrity of the interdisciplinary and

systematic approach to the design of the pedagogical process, the synthesis of theoretical and

practical training, pedagogical and production processes, the unity of their subsystems and

components.

The "education cluster" system consists of such subsystems as the "pre-school education

system", the "primary education system", the "general secondary education system", the "higher

education system", and the "base organizations" system, which can also be considered as separate

systems.

ISSN: 2237-0722 Vol. 11 No. 3 (2021)

The principle of system allows to establish and implement the interaction of the system of continuing education with the learning environment, to determine the laws of change and development of the components of the pedagogical process, to establish key links in the system "PEO - School - HEI pedagogical process".

Systematization ensures the integrity of the structure and interaction of individual subsystem parts of the preschool education cluster (primary, secondary, higher, additional education; general education, general technical, advanced training; theoretical and practical educational activities). This principle implies the interaction of socio-economic, scientific-technical, psychological-pedagogical commonality in all elements of production, science, technology, business and education.

The provision of continuing education based on the innovative integration of individual levels of education, the horizontal integration of educational, scientific, production structures is able to give a positive synergistic effect in the person of a competitive PEO specialist.

Preschool education organizations, PEO-related organizations may change their name during the cluster approach. The cluster interacts with the external environment.

The interaction and integration of pre-school education (primary, secondary and higher education) guarantees the opportunity for a specialist to grow in employment by improving their skills, which require less time than studying at each stage of education. In addition, there will be an opportunity to involve highly qualified educators at all stages of education.

The successful operation of an education cluster can only be achieved when a climate of trust is created among its participants, a culture of communication is formed between them, a common value system for all cluster partners, patterns of behavior and evaluation of their performance.

The emerging culture and trust environment in the cluster facilitates learning together, transferring information to each other, and pooling resources. Therefore, cluster leader leaders need to pay close attention not only to interactions within their own organizations, but also to relationships with other organizations. The resulting mutual trust and mutual understanding allows leaders to spend more time and engage in the work of their team.

In the cluster it is possible to improve the skills of staff, to improve the skills of heads and teachers of preschool organizations, to organize internships for teachers and educators in advanced PEO.

Creating learning clusters can be done in three different ways:

1. The shaping initiative emerges "from below". You have to be proactive here. Being an entrepreneur can be a university that is famous for its traditions. He is interested in improving the quality of training of specialists in demand in the labor market, their

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employment, job growth, expansion of the base of the university laboratory and equipping it

with modern equipment.

2. The second method is the "top" initiative. The regional administration initiates the creation

of sectoral education clusters, believing that the region will be a driving force to increase

the competitiveness of the education system.

3. "Mixed method". In this case, joint efforts to organize the cluster independently will be

carried out by universities, MTT and the authorities.

The organization of clusters in our republic was carried out by the second method.

Implementation of the cluster strategy, development of innovative technologies in universities and

their implementation will increase the competitiveness of the country. Improving the quality of

training in higher education, expanding the base of their training laboratories, increasing their prestige

will increase the influx of applicants from other regions, which will lead to an increase in investment

flows for the development of vocational education. Education clusters lead to an increase in the skills

of the population.

The cluster approach allows preschool education organizations to use the practice and

material base, the introduction of modern techniques and technologies in the educational process, and

the internship of teachers in foreign countries and the most prestigious preschool organizations of the

republic, and so on.

In cooperation with foreign countries, a synergistic mechanism will emerge that will lead to

the growth of the development of all participants in the cluster. The synergistic effect resulting from

the interaction of cluster participants leads to an increase in the skills of teachers and specialists,

improving the quality and efficiency of preschool education, improving the quality of training of

teachers in educational institutions.

"The basis of the cluster" are the practical base of the preschool organization, the training and

laboratory base, the internship of educators, the project and network institutes of PEOs that provide

the requirements for educators.

The cluster approach provides closer collaboration between cluster participants by expanding

the overall labor market, technology, knowledge and access to common resources, reducing overall

training costs, and shaping the synergistic effect of collaboration.

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3. Conclusion

Based on the proposed sequence of actions, we proposed a model of a methodological

approach to the design of the education cluster.

Preparation for cluster creation begins with analysis and diagnostics of cluster formation

conditions. Leading universities, which are the leaders of the future education cluster, as well as MTT

and continuing education institutions, which are part of the cluster, will be identified.

To develop a cluster model, its structure, composition, level and level of interaction of each

participant are determined. Leading educational, project and research organizations of the industry

are identified.

The organization of the cluster should be based on the principles of pedagogical and specific

features. Specific principles include:

Absence of legal dependence, preservation of economic and legal independence;

General strategic goal of the participants;

Yagona Unified coordination system;

Norms adopted and shared by cluster participants;

A single system of values, traditions, behavior, evaluation of results;

Solidarity of cluster participants, good neighborliness.

The motivation of potential participants of the cluster will be determined. The project will

identify common values, traditions, the level of education and innovation in the participating

organizations. The level of qualification of scientific and pedagogical staff will be analyzed, the

competitiveness of educational institutions will be determined.

The motivation of potential participants of the cluster will be the need for their operation and

sustainable development, increasing investment attractiveness, long-term and strong cooperation on

mutually beneficial terms.

The opportunity for innovative development, sustainable and sustainable development is an

important motivating factor for cluster participants.

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