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Professional Identity of Young Teachers in the Structure of the Regional Educational Cluster

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Abstract

The development of a young teacher is always associated with the formation of the professional identity. This process is considered to be a long-term, complex and dynamic. There is a need for an organizational and substantive study of the resource provision of the process of forming the professional identity of young teachers.

In this regard, the problem of our research is that it is necessary to develop the professional identity of young teachers in the conditions of a regional educational cluster. This has allowed us to formulate the goal of our research. The purpose of the study is to substantiate the systemic and functional capabilities of the regional educational cluster in the development of the professional identity of teachers.

In order to test the hypothesis about the systemic and functional capabilities of the regional educational cluster, such methods as theoretical (this is the analysis of scientific literature on the problem of developing the professional identity of young teachers; studying and summarizing the experience of creating an educational cluster), empirical (this is the observation, survey and testing) and methods of mathematical processing of the obtained data were used.

The empirical study was carried out on the basis of secondary schools in the city of Kaliningrad, which are the subjects of the regional educational cluster. In the process of diagnostics, we have studied the following: the formation of the self - awareness as a subject of the professional interaction; understanding the value of the profession as an important component of life-meaning orientations and readiness to independently implement the strategy of professional self-determination and development.

The obtained results can be useful to the specialists in the field of management in the design of educational projects that are aimed at improving the professional activities of young teachers.

Keywords: young teachers, professional identity, professional identity of young teachers, cluster approach, regional educational cluster.

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Introduction

Nowadays, the educational services market is acquiring a pronounced regional focus. The success of the regional educational policy is largely determined by the involvement of the scientific and educational institutions in this process.

The analysis of the scientific literary sources allows us to conclude that, on the one hand, there are significant prerequisites in science for studying the general problems of improving the quality of education, and on the other hand, the meaningful study of the appropriate resource provision at the regional level is required.

The educational practice shows that there is a fragmentation in the partners' actions in the educational network when creating conditions for the personal and professional development of young teachers. At the same time, the professional identity is one of the leading characteristics of the personal and professional development of a young teacher.

This reality has led to the emergence of the cluster approach as a direction in science and practice, which is associated with the search and implementation of new opportunities for the development of society. The main provisions of the cluster approach are presented in the studies of Porter (2003), Markov (2014), etc.

According to the theoretical provisions of the cluster approach, a solution to the problem of developing the professional identity of young teachers was proposed. One of the main conditions for this development is the presence of a regional educational cluster.

The educational cluster of the Kaliningrad region forms a link between the educational, scientific, industrial organizations, the public associations and the information environment.

The formation of the professional identity of young teachers as a multilevel personal education is one of the key areas of activity of the regional educational cluster.

Purpose and objectives of the study

The purpose of the study is to substantiate the systemic and functional capabilities of the regional educational cluster in the development of the professional identity of young teachers.

Literature review

The issues of professional development of a teacher are becoming relevant in the process of globalization of modern education. In this regard, in modern scientific literature, the concepts of "identity" and "professional identity" are often used when characterizing the process of professional development.

In modern philosophy, identity is understood as the qualitative belonging of a person to a certain set: a group, society, etc. (Telnova, 2011).

In psychology, it is customary to understand identity as a formed quality of feeling yourself. Cultural and educational aspects are used to characterize identity. Education includes a person in culture through the formation of basic values (Antonova, 1996). Concepts such as "identity" and "professional identity" are often used in modern scientific literature.

Within the framework of our research, the key concept is the concept of "professional identity". Analyzing the approaches to the interpretation of this concept, the difference in theoretical and empirical approaches to the study of identity can be noticed.

Professional identity is understood as a combination of specific characteristics of a profession that ensure the achievement of the desired professional development (Malyutina, 2014).

One of the key concepts of professional identity is the work of Lydia Schneider (2001), which reveals the structure and dynamics of professional identity. The author uses the term "a sense of professional competence".

Ewald Zeer (2005) defines professional identity through the concept of a professional "self-image". The author believes that professional identification can act as one of the mechanisms for the formation of a young teacher's "I - Concept".

Evgeny Klimov (1996) examines professional identity in the context of the problem of professional self-awareness. He notes that the formation of professional identity is often poorly conscious and emotional in nature.

According to Natalia Perinskaya (2018), professional identity is the result of professional socialization.

An individual learns professional knowledge, acquires professional experience, and the key competencies are formed.

In the studies of Yuri Povarenkov (2014), professional identity is considered as the leading indicator of a subject's professional development. According to the author, professional identity is at the core of professionalism.

We share the position of Elena Ermolaeva (2008) that there is a need for mastering a high level of the profession as the basis of professional identity. This process presupposes a long-term personal and professional development.

The researchers highlight the functions that fulfill professional identity: professional stabilization and professional transformation (Joshel, 1992). These functions are considered important, as they reflect the process of personal development in the professional activities.

In a number of studies, professional identity is considered to be the result of professional development (Korytova & Nikiforova, 2015). With this approach, professional development contributes to the process of turning an individual into a professional, which leads to the acquisition of a professional identity.

Most researchers note that professional identity is a part of social identity. Accordingly, professional identity does not refer to a specific profession, but to the professional community as a whole (Ivanova & Koneva, 2003).

Despite the fact that different definitions of the concept of "professional identity" are given, scientists agree on the importance of the formation of professional identity, as it is expressed in social and personal dimensions (Gryaznova, Goncharuk, & Blokhina, 2019).

When studying professional identity, special attention should be paid to personal characteristics, which are based on the external and internal capabilities of the individual. In this aspect, the problem of the formation and development of the professional identity of a young teacher is relevant.

It is necessary to turn to the concept of "professional identity of a young teacher", which is also one of the key concepts for our research.

We adhere to the position that notes that the basis of the professional identity of a young teacher is the identification with the professional pedagogical community and the process of interiorization of professional role behavior (Borovskaya, 2015).

Scientific research has shown that an unstable identity is a characteristic of a young teacher. He or she has not fully determined himself or herself professionally yet and he or she is in a state of searching for his or her identity, which is associated with a new social role (Luchkina, 2008).

According to an interesting scientific opinion, the professional identity of a young teacher reflects his or her idea of the significant characteristics of his or her professional group and the relationship with the social environment, which assesses his or her professionalism. The identification with a profession can give positive results if the readiness of a young teacher to master new functions of professional pedagogical activity and new professional roles is confirmed (Fonarev, 2004).

A number of researchers note that the formation of the professional identity of a young teacher is associated with the professional self-determination, professional self-esteem, professional orientation, satisfaction with the profession and their own professional activities (Emilbekova, 2018; Chikarova, 2019).

We note that the formation of professional identity is a complex and multifaceted problem of modern educational practice. The process of forming the professional identity of a young teacher should be purposeful and organized.

This task can be qualitatively implemented at the regional level. From the standpoint of these requirements, the regional policy in the field of education is understood as a system of criteria that is guided by regional government bodies when making decisions that relates to the field of education in the region (Masyutina, 2019).

The regional educational policy has the capabilities and advantages that make it possible to achieve high quality training due to the network interaction of educational organizations of various types and levels. The principles of collective access to the resources, the compensation for scarce educational resources, the flexibility and self-development are at the core of network interaction (Sadikhanov, 2017).

Nowadays, the urgent task is to search for the new forms of functioning of the education system, which are based on the unification, integration and concentration of resources of various educational organizations (Mychko & Zelko, 2016).

In this vein, the cluster approach is presented as the initial methodological premise of our research, since it has the advantages in integrating the educational activities of all parties concerned.

The cluster approach to the development of education is understood as the mutual development and self-development of cluster subjects "in the process of working on the problem", which is carried out on the basis of sustainable development of partnership, which enhances the specific advantages of both individual participants and the cluster as a whole (Rusetskaya & Bartosh, 2019).

A regional educational cluster is understood as a flexible network structure that includes the educational institutions, governing bodies, public and research organizations, which in turn are united to solve the problems of improving the educational policy, training highly qualified personnel and enhancing the innovative educational activities in the region (Elagina, 2017).

The main criteria for assessing the importance of an educational cluster are innovativeness and impact on the regional educational policy (Kuzmenko, 2017). At the same time, the leading role in the educational cluster belongs to the university as a scientific and educational institution. Universities are capable of being a point of distribution and coordination of the activities of a regional educational cluster, since they provide the educational-methodological and scientific-informational interaction of all subjects of the educational cluster (Belotserkovsky, 2015).

The researchers note that the modern organization of the regional educational cluster is based on an innovative approach to the educational practice and requires a meaningful study of the appropriate pedagogical support, the formation of the professional identity of teachers, the possibility of their professional and personal development and the responsible design of their professional space (Pudenko, 2014).

The presented theoretical analysis of the existing points of view is associated with the awareness of the systemic and functional capabilities of the regional educational cluster in the development of the professional identity of young teachers.

Methodology

The empirical study was carried out on the basis of general education schools, preschool educational institutions and institutions of additional education in the city of Kaliningrad, which are the subjects of the regional educational cluster. Sixty-seven young teachers with work experience of up to three years were the survey respondents. The participation in the study was absolutely voluntary.

The first stage of the study included the diagnostics of the formation of the motivational-value, reflexive-evaluative and activity-role components of the professional identity of young teachers.

The diagnostics was carried out according to the following criteria: self-awareness as a subject of professional interaction; understanding the value of the profession as an important component of life-meaning orientations; willingness to independently implement the strategy of professional self-determination and development.

The systemic and functional capabilities of the regional educational cluster in the development of the professional identity of young teachers were identified and substantiated at the second stage of the study. At this stage, the study and generalization of the innovative regional experience in creating conditions for the professional and personal development of teachers was also carried out.

At the third stage, a SWOT analysis was carried out, the purpose of which was to identify the external and internal factors of the organization of the educational cluster, which make it possible to highlight its strengths and weaknesses.

A set of valid methods was used as a psycho - diagnostic suite of tools for the research:

- a motivational-value component: "Personal professional plan" (according to Evgeny Klimov as adapted by Schneider, 2001); "Modified differential diagnostic questionnaire" (for assessing the indicators of the development of interests and the focus of activity on success / failure); "Schwartz's Methodology for Studying Personal Values" (2012) (for analyzing the consistency of values at the level of normative ideals and specific actions);

- a reflexive-evaluative component: the scale "Assessment of the semantic differential" (according to Osgood, 1964); "Satisfaction with the profession" (according to Iadov & Kissel', 1978), methods of researching self-esteem of personality (according to Budassi, 1971), which allowed to analyze self-awareness as a subject of professional interaction, as well as the level of development of reflexivity;

- an activity-role component: the questionnaire "Readiness for professional activity", which made it possible to determine the self-assessment of readiness for pedagogical work and the implementation of professional functions, the "Professional readiness" methodology (according to Chernyavskaya, 1992).

Results

At the first stage of the experimental work, the diagnostics of the formation of the components of the professional identity of young teachers according to the relevant criteria was carried out.

For the motivational-value component, the criteria are: understanding the value of the profession as an important component of life-meaning orientations, the formation of the system of values and motives of professional activity. For the reflexive-evaluative component, the criteria are: the ability of self-awareness as a subject of professional interaction, personal self-esteem based on reflection and self-awareness. For the activity-role component, the criteria are: the choice of behaviour models and methods of solving practical problems, the regulation of the behaviour in the professional situations, the readiness to implement the strategy of professional self-determination and development independently.

The obtained experimental data (Table 1 and Fig. 1) reflect the level of formation of the components of the professional identity of young teachers.

Table 1. The level of formation of the components of the professional identity of young teachers

Component	Level					
	Basic		Sufficient		Advanced	
	Number of people	%	Number of people	%	Number of people	%
Motivational-value	31	46,2	26	38,8	10	15,0
Reflexive-evaluative	27	40,2	31	46,2	9	13,6
Activity-role	55	82,1	11	16,4	1	1,5

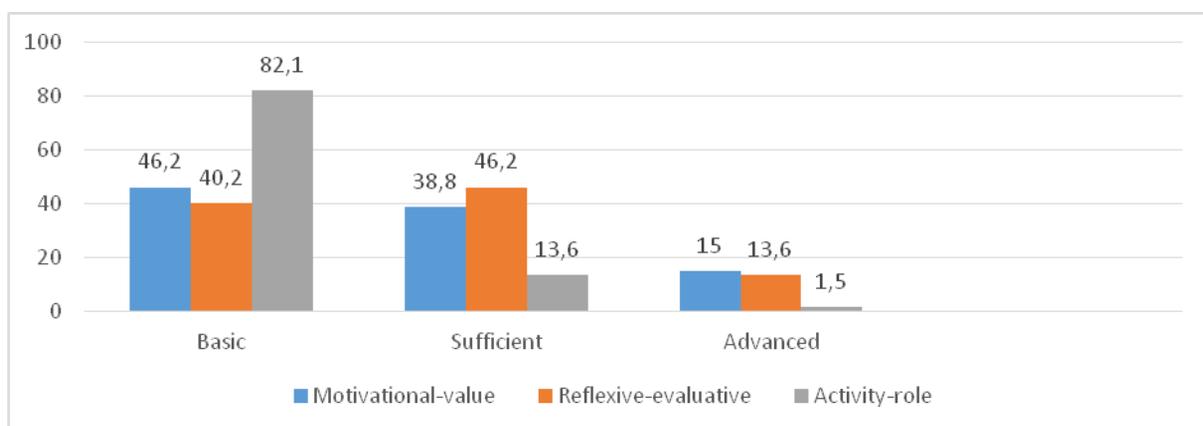


Figure 1. The level of formation of components of the professional identity of young teachers

The designated criteria made it possible to assess the level of formation of the motivational-value component of the professional identity of young teachers:

- 77% of young teachers objectively understand the real possibilities of the teaching profession in relation to meeting needs and creating conditions for professional self-development;
- 69% of young teachers project a system of professional values and positions on the values of pedagogical activity;
- the teachers who have been working for 2-3 years have changed their own ideas about the conditions of activity from ideal to more real;
- the indicator "the acceptance of self-awareness as a professional" among the teachers who have work experience for up to 2-3 years is manifested much more than among the teachers with 1 year experience;
- the young teachers, both with work experience for up to a year, and with work experience for up to 2-3 years, highlight the qualities of professional activity that satisfy their professional needs and reflect the value of pedagogical work: "interesting", "creative", "useful", "communication with children";
- the young teachers for up to 2-3 years of work experience also talk about the presence of a "good and friendly team", the importance of "the help of more experienced mentors", which is associated with a longer professional experience;
- 53% of young teachers note the importance of adopting the values of professional development. Many young teachers for up to 2-3 years of experience note that they are beginning to rethink the professional values in accordance with their experience, the developing values that are important for successful identification with pedagogical work.

When diagnosing the reflective-evaluative component of professional identity, the following results were obtained:

- 71% of young teachers demonstrated the adequacy of self-esteem according to the results of the study (among these specialists, the orientation towards the realization of their abilities in the profession is more pronounced);

- 48% of respondents are quite good at analyzing, realizing and correlating social and professional requirements for pedagogical work and their professional potential;
- 54% of young teachers have sufficiently developed reflexive abilities;
- 65% of young teachers with work experience for up to a year and 74% of young teachers with work experience for up to 2-3 years demonstrate satisfaction with their professional activities (this result can be explained by the presence of pedagogical experience).

The following results were important characteristics of the formation of the activity-role component of professional identity:

- the ability to plan and implement a professional role in practical work is not sufficiently developed independently, the low results were recorded in almost all indicators;
- only 8% of young teachers assess their readiness to carry out the professional actions in various areas of pedagogical work as high;
- 81% of young teachers showed a low level of development of the ability to perceive and analyze new information quickly, plan their work, and assess their potential capabilities;
- 90%; teachers with less than a year's work experience demonstrate the presence of basic knowledge and skills, but, at the same time, show a lack of the psychological readiness for work;
- only 2% of young teachers are ready to carry out research work;
- young teachers have a low level of readiness to work with parents and interact with colleagues and administration.

In general, 82% of young teachers are at the basic level of the formation of the activity-role component, which creates certain obstacles in the formation of their professional identity and the development in the profession.

To determine the possible classifications of the levels of formation of the activity-role, motivational-value and reflexive-evaluative components of the professional identity of young teachers, the method of Clustering by K-means was used. The obtained K-Means Clustering data are presented in Table 2 and Table 3.

Table 2. The end centers of clusters

	Cluster		
	1	2	3
Motivational-value	1,00	2,00	3,00
Reflexive-evaluative	1,13	2,04	2,80
Activity-role	1,00	1,08	2,10

Table 3. The number of observations in each cluster

Cluster	1	27
	2	24
	3	5
Valid	56	
Missed	11	

Hence, analyzing the data presented in Tables 2 and 3, we have noticed that in the process of our research, 3 clusters of the formation of components of the professional identity of young teachers have been formed:

- The first cluster includes the respondents with a basic level of formation of all three components of professional identity (it includes 27 respondents);
- The second cluster includes the respondents with a sufficient level of formation of the motivational-value component, a sufficient level of formation of the reflexive-evaluative component and a low level of formation of the activity-role component (it includes 24 respondents);
- The third cluster includes the respondents with an advanced level of formation of the motivational-value component, a sufficient level of formation of the reflexive-evaluative component and a sufficient level of formation of the activity-role component (it includes 5 respondents);

At the second stage of the experiment, we substantiated the systemic and functional capabilities of the regional educational cluster in the development of the professional identity of young teachers. We understand the opportunities as a set of conditions that contributes to the achievement of the goal and obtaining the result. In our study, we have also characterized the potential, resources and reserves of the educational cluster of the region in the development of the professional identity of young teachers.

The originality of the development of each region requires a certain principle of using regional innovations, technologies, advanced experience, pedagogical experiments, specific human resources, optimal management decisions and original educational systems.

The development strategy of the Kaliningrad region is aimed at implementing the long-term priorities of educational policy. A significant role is assigned to the development of young professionals. In this regard, we note:

- a regional project "500+". The goal of the project is to create a support system for schools in the region that operate in difficult socio-economic conditions, and improve the quality of education. Within the framework of the project, a set of measures is being implemented to provide the methodological support to teachers. The "500+" project is a part of the Modern School federal project and the Education national project;

- a regional project "Big Change". The goal of the project is to promote the professional growth of teachers in the region;

- a regional project "Summer School for Young Teachers". The goal of the project is to improve the qualifications of young teachers in active forms;

- a regional project "Students of the XXI century" consists of a number of sequential training programs, including a program for the professional development of teachers and leaders of educational institutions, taking into account the requirements of the XXI century. The goal of the project is to introduce new methods into the educational process for the formation of meta-subject competencies and skills of the 21st century in twenty pilot schools in the region;

- a regional competition of professional skills "Young teacher". The goal of the project is to introduce the experience of the innovative teaching activities.

A communication platform for the exchange of experience, the dissemination of the best practices and support for the professional development was created within the framework of these projects and competitions.

A special place in the regional educational cluster is given to the Resource Centers of Immanuel Kant Baltic Federal University.

The resource centers are innovative and autonomous forms of interaction between the subjects at the stage of professional training of teachers, as well as the form that creates the conditions for the manifestation of the initiative and the independence of the subjects at the stage of professional development (Mychko, Potmenskaya, & Nesyna, 2020). The communication in the conditions of the Resource Centers removes the contradiction between the requirements of the pedagogical work and the potential of the personality of a young teacher, which leads to the development of their professional identity.

At the third stage, an intermediate diagnosis was carried out, which made it possible to identify shortcomings and difficulties in the implementation of cluster policy in the field of regional education. The use of the SWOT analysis method made it possible to obtain the results that showed the strengths and weaknesses of the regional educational cluster in the development of the professional identity of young teachers.

The SWOT analysis results were combined into several groups:

- the strengths of the regional educational cluster (the relationships are built on the basis of combining various resources; there is a transfer of technologies; the educational innovations are developing; the goals and prospects of being in the cluster are outlined);
- the weaknesses of the regional educational cluster (the types of activities of each cluster member are not always clearly defined; the difficulties arise in the timing of the implementation of activities; the additional training is required in a "narrow, special" issue);
- the promising opportunities for the regional educational cluster (creating a highly professional educational environment; increasing the number of professional communities; increasing the competitiveness of young teachers; the possibility of improving the quality of educational services; the possibility of expanding cooperation with international organizations);
- the difficulties of the regional educational cluster (the organizational difficulties due to formal regulatory documents; the substantive difficulties due to the insufficient information and the methodological literacy; the personal difficulties as a result of the insufficiently formed motivation).

Discussion

The analysis of the obtained results of the formation of the professional identity of young teachers was carried out according to the integral indicator, which included the level of formation of its components.

We have taken into account the influence of this integral indicator on the processes of self-identification and the identification of young teachers with the professional community.

The level of formation of the motivational-value component of the professional identity of young teachers produced good results. Young teachers consider the social significance of the profession, the significance of their own professional work and the specificity of this type of activity as their own target guidelines. The established system of values is highly likely to allow young teachers to adjust and develop the target guidelines in their practical work in the future.

The level of formation of the reflexive-evaluative component of the professional identity of young teachers has showed a comprehensive vision of their professional future and self-awareness as a subject of the professional interaction. This vision is based on the projection of the young teacher's own professional self-esteem onto the ideal self-concept, which becomes the basis for the development of the professional identity.

The analysis of the level of formation of the activity-role component of the professional identity emphasizes its insufficient formation. In the future, the organizational and methodological difficulties may appear.

It should be noted that if the motivational-value and reflexive-evaluative components are formed at the basic level, the activity-role component is also formed at the basic level. When the motivational-value component is formed at an advanced level, and the reflexive-evaluative component is formed at a sufficient level, the level of the activity-role component is determined as sufficient.

A preliminary analysis of the results obtained allows us to conclude that it is necessary to use the system-functional capabilities of the regional educational cluster in the development of the professional identity of young teachers and offer some recommendations for improving this process. These possibilities are: the implementation of network interaction at the "university-school" level; the creation of an educational platform for obtaining innovative professional experience; the formation of readiness among young teachers to independently implement the strategies of professional self-determination and development; the formation of attitudes towards the professional identity as an indicator of their own professional formation and personal development among the novice teachers.

Due to the results of the experimental work, the effectiveness of the formation of the professional identity of young teachers in the structure of the regional educational cluster is ensured: firstly, through the creation of a structured socio-cultural educational space, which includes the interaction of educational resources of the professional community; secondly, through the implementation of the productive pedagogical practices and, thirdly, through the design of innovative activities that contributes to the professional and personal development of teachers and the effectiveness of their activities.

Conclusion

One of the most significant tasks at the stage of modern educational development is to achieve a high quality of education. This task can get its logical continuation in the educational institutions that form a regional educational cluster. The regional educational cluster allows seeing the potential of the existing partnerships in a new way.

In such work, it is important to use as many network educational resources as possible, which allow quickly responding to the rapidly changing socio-economic, organizational and technological requirements for the professional activities of young teachers.

The novelty of the research is associated with the substantiation of the systemic and functional capabilities of the regional educational cluster in the development of the professional identity of young teachers. The educational institutions that are a part of the regional educational cluster are focused on solving the problem of developing the professional identity of young teachers as an indicator of the professional and personal development.

In the long term, the practice-oriented idea of cooperation between the institutions that defines the educational cluster might become a key in the management of the innovative processes in the development of the regional pedagogical education.

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