

SCTCMG 2019

International Scientific Conference «Social and Cultural Transformations in the Context of Modern Globalism»

MODELLING OF A SPECIALIST WITHIN THE MULTI-PARADIGM EDUCATIONAL PROCESS

Tatyana Prokhorova (a)*, Olga Oskina (b), Oksana Rogal-Levitskaya (c)

*Corresponding author

(a) Astrakhan Art School (Technical School) named after P.A. Vlasov,
27, Academician Korolev street, Astrakhan, Russia, prohorova.tn@mail.ru, 89086161995

(b) Saratov State Law Academy, Astrakhan branch,
7/1, st. Krasnaya Naberezhnaya / Kuibyshev, Astrakhan, Russia, oskina_olga@mail.ru, 89627514086

(c) Astrakhan Art School (Technical School) named after P.A. Vlasov,
27, st. Academician Korolev, Astrakhan, Russia, levitskaya_oksana@mail.ru, 89086182512

Abstract

The article deals with specialist modelling in the context of global social changes in the poly-paradigm educational process. The authors analyze the dynamics of paradigm changes in the Russian and world educational processes, and identify features of educational paradigms and pedagogical models using a historical approach. The article justifies relevance of the competence-based educational model, continuity and polyparadigm of the combination of educational dominants. The article analyzes the concepts "competence" and "key competencies". Development of the post-industrial information society generated a need for a new type of personality, identified competence elements of the new educational model. Much attention is paid to the special modelling. Various modelling approaches are being developed. The researchers emphasize the need to form a special professionally oriented educational environment integrating information-technological components. The specialist model reflects the scope and structure of professional and socio-psychological qualities, knowledge, and skills which form generalized characteristic of a member of society. Development of the educational environment through integration of professionally oriented educational technologies is being intensified. The article concludes that it is necessary to develop universal educational approaches to key competencies developed in young professionals who are in demand in the labor market.

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Keywords: Education, paradigms, competencies, specialist model, social changes,



1. Introduction

Since the end of the 20th century, we have witnessed growing systemic changes. There are structural and significant changes in various social institutions. The educational system which has served as a fundamentally binding start, a sustainable institution, is undergoing rapid and global changes. The growing need for a new quality of education, technological changes in educational practices, new relationship between education and social development is one of the main modern trends. The previous period was characterized by variable educational models depending on goals, trends and the dynamics of social development. This problem occupies a significant place in the studies (Tsiguleva, 2014). At the end of the XX – beginning of the XXI centuries, numerous studies describing pedagogical models, educational paradigms, paradigms of the pedagogical branch of knowledge of the transition period were described. This article aims to analyze available approaches, identify fundamental differences fixed by paradigmatic boundaries. Each historical period is characterized by a certain type of pedagogical systems, correlated with social relations. In addition to the dominant system, there are other systems within which new emerging trends are implemented.

Graduates employers in comparison with 2014 Focus on results responsibility ability to work in a team ability to work independently theoretical knowledge ideas of a future job readiness to obtain additional skills practical skill certificates (knowledge of foreign languages, express courses) Significant in comparison with 2014 at the level of 95% Higher lower practical skills focus on results responsibility ability to work in a team ability to work independently theoretical knowledge ideas of a future job readiness to obtain additional skills certificates (knowledge of foreign languages, express courses) Significant Higher lower in comparison with indicators for Russia as a whole at the level of 95%.

2. Problem Statement

The changing conditions and the growing need for competence components of the individual have intensified formation of the *competence-based* educational model. The problem of modelling a modern specialist in the context of global social needs and changes becomes urgent.

3. Research Questions

The article deals with the classification of educational paradigms that have been formed at different stages of social development. These are knowledge-oriented (cognitive-information), personal culturological and competence-based pedagogical paradigms (Yamburg, 2005). The knowledge traditionalist model belongs to the early models. Its essence is reduced to the transfer of the most important elements of the cultural heritage and experience of human society to the new generation.

Technocratic and humanitarian models were born in its depths and developed independently of each other. In the context of the growing demand for pragmatism and efficiency, the learning process has acquired a technological nature with clearly defined learning criteria, training, corrective, monitoring and evaluating procedures whose implementation ensures full absorption of knowledge and acquisition of skills. The predominance of technical categories over universal values is typical of students.

The changing conditions and the growing need for the competence components of the individual have intensified formation of the competence-based educational model. Educational concepts gain a solidarity value, strengthen social support, contribute to the spread of humanistic moral standards, cooperation strategies and humanism that go beyond the pedagogical paradigms.

Yaroshenko (2000) distinguished between

several zones in the structure of each of the educational paradigms that help preserve the most important and reveal the obsolete: a hereditary core which reflects cumulative elements of the old paradigms; the valuable part of the paradigm being replaced, fundamental foundations of a new paradigm, which will become part of the hereditary genotype; the transitional part of a new paradigm which is to be replaced at the next turn of the spiral of scientific knowledge. (p. 22)

The idea of continuity and a polyparadigmatic combination of educational dominants is convincing, and their variability is natural (Grinin, Markov, & Korotaev, 2009; Klyucharev, 2003).

The competence-based paradigm contains essential signs of knowledge-oriented, personal and cultural pedagogical paradigms. Russian and Western researchers emphasize the continuity of conceptual pedagogical ideas which reflect main cultural archetypes orienting a new generation to the necessary values and meanings whose elimination from the educational process can cause serious structural disruptions.

In the conditions of dynamically changing social reality, globalization, social dynamism and diversification, education is being updated and transformed. However, the Russian educational space continues to reproduce a set of components of the traditionalist model, stable but insufficient in the new changing conditions. This fact was emphasized by Verbitskiy and Rybakina (2014): “The new superimposed on the dominant pedagogical “braces” of the traditional educational paradigm, sooner or later is assimilated by the old at all levels of education” (p. 3).

Modern processes of the dynamically developing world, formation of a post-industrial information society generated a need for a new type of personality, identified the elements of the competence-based educational model.

Yamburg (2005) says that the paradigm of pedagogical competence originates from the pragmatic, cognitive-informational paradigm, but, unlike it, it does not focus on the transfer of information to the next generations. The expected result of the educational process is a set of key competencies rather than a system of knowledge and skills. The competence-based paradigm is aimed at strengthening practical and instrumental orientations of the graduate, preparing a skilled and mobile specialist who knows methods for obtaining knowledge and acquiring skills. Manyukova and Kuzmina (2009) say knowledge and skills were a final goal for the vocational education system. Modern education focuses on the ability to use knowledge and skills in practice. It is important how the young specialist will work rather than what he knows.

In this regard, specialist modelling is a crucial issue.

With the similarity of various scientific approaches to globalization of social changes and needs, the nature of competences and educational approaches to the implementation of the competence-based method are being discussed (Pak, Shilnikova, & Pak, 2014).

The concept "competence" has a lot of definitions (Khutorskoy, 2003; Zimnyaya, 2004):

- a degree of professional experience;
- knowledge that allows a professional to assess something;
- a systemic quality which develops in learning and mastering practical activities;
- a system of basic characteristics that determine professional success and can be described in terms of behavior and evaluated qualitatively and quantitatively;
- deep knowledge of the nature of responsibilities, methods used for achieving professional goals and acquiring relevant skills.

In the early 1990s, the International Labor Organization introduced a concept "key competences" which was widely spread in foreign educational models. It was interpreted as a general ability of a person to use acquired skills and gained knowledge in his professional activities. Three functions of key competencies were identified: helping learners learn; allow employees to show flexibility and meet the needs of employers; contribute to success.

In March 1996, the symposium on "Key Competences for Europe" was held in Bern. The participants discussed what students need for successful work. In his report, Hutmacher (1997) cited the definitions of five key competencies given by the Council of Europe:

- Political and social skills (ability to take responsibility, work in groups, peaceful resolution of conflicts, participation in governance and qualitative change of democratic institutions)
- Competence for intercultural communication. In a multicultural society there is no place for xenophobia, so education should explain that all people are different, they may have other culture, language and religions and all should be respected.
- Written and oral communication skills that are essential for work and life. In the context of intercultural relations, knowledge of several languages becomes important.
- Skills of work with information technologies. These are competencies related to the possession of technologies, understanding their pros and cons, the ability to apply them in their work.
- The capacity to learn throughout life as the basis of lifelong learning in both occupational contexts and individual and social life.

The competences are characterized by new ways of communication, searching, processing and assimilating information. Specialists must possess skills to work with information and communication technologies, have a high information culture.

The Russian educational system outlined the vector of development of abilities, readiness for knowledge, social skills, etc. The Russian system of education has always been focused on professional activities, i.e. competences, while the Soviet system prepared specialists for mass, standard production. Economic and technological changes generated the need for specialists capable of working in changing conditions (Shadrikov, 2004). This is reflected in federal educational standards that change the gradation and list of competencies of a graduate specialist.

Baidenko (2006) pays attention to the fact that "the competence-based model must bring to life a gradual, most complex socio-cultural, organizational, technological, personnel transformation of a higher school" (p. 31). The competence-based approach involves fundamental systemic changes in teaching and affects the relationship of higher education with other levels of professional education.

Modern education is innovative. The innovative component is one of the main ones in training a specialist.

The analysis of literature on the development and implementation of the competence-based model has shown that creation of an educational environment can be interpreted as an approach to the innovative learning. The concept of educational environment has several levels: the educational environment of the university, the subject (discipline), etc. The approach to the development of the educational environment is being intensified on the basis of integration of professionally oriented educational technologies developing in society that intensify cognitive activities of students. In accordance with this approach, it is necessary to form a special professionally oriented educational environment integrating into information technology components. The competence-based model should be filled with professional subject-oriented content that meets specialist training requirements.

Both in the West and in Russia, this discourse actualizes the interest in the development of a specialist model. Markova (1996) defines the model of a specialist as a reflection of the volume and structure of professional and socio-psychological qualities, knowledge, skills, which form generalized characteristic of a member of society. She distinguishes between two models: the model of professional activities and the model of personality (a set of qualities that ensure successful implementation of professional tasks, self-development). The specialist model consists of the following components: a profессиogram; professional and job requirements; a qualification profile. The profессиogram is a generalized reference model of a successful specialist in any field, consisted of profession modules based on professional tasks.

The general methodological principle of modelling is ascent "from the abstract to the concrete". Identifying individual aspects of professional activities, it is possible to identify patterns of its formation, abstracting from other aspects.

Simulation of professional skills and qualities is an important direction in the educational space of Western countries and Russia. The Bologna agreement defined limits of convergence, correlation and universalization of requirements for graduates. The analysis of Russian and foreign studies identified coincidences in some requirements for graduates. This can be used to create a more efficient specialist model.

86% of the employers said that communication skills are important. "Soft skills" (personal qualities) are sometimes more important than "hard skills" - professional skills. Employers listed the most important skills, abilities, and personal qualities: communication skills - 86%; teamwork skills - 85%; decency - 83%; intellectual abilities - 81%; self-confidence - 80%; personal character - 79%; organizational skills, planning skills - 74%; literacy (literacy) - 71%; ability to work with figures - 68%; ability to analyze and make decisions - 67% (Archer & Davison, 2008).

HeadHunter (2016a, 2016b) regularly monitors the dynamics of changing requirements for young professionals in Russia. These studies make it possible to summarize and graphically present a list of

basic requirements for graduates and young specialists: initiative, focus on results, responsibility, ability to work in a team, ability to work independently. Data from the Russian regional sample which allow for identification of similarity of modal requirements for graduates are of great interest. The main requirements for young specialists in regions (graduates' self-assessment) are reduced to the following important skills and qualities: practical skills, responsibility, focus on results, ability to work in a team and independently. These studies reveal universalism and variability of specialist competence modelling.

4. Purpose of the Study

The article aims to reveal universalism and variability of professional competence simulation, qualitative characteristics of professional development.

5. Research Methods

Comparative, historical method, logical-analytical, secondary information processing methods were used.

6. Findings

The competence-based approach is a method used for modeling learning outcomes and setting educational standards. The competence-based model is an important tool used by training departments to determine skills and knowledge requirements for specific jobs, assess competence and effectiveness, and determine business strategies. Models can be created for specific workplaces, work groups, professions, industries and organizations.

7. Conclusion

Accounting for scientific and pedagogical research results in the educational process, focusing on practical orientation of specialists and developing flexible competencies will help solve a number of problems of the modern transition period, adapt to changing conditions. The competence-based approach is a method for modeling learning outcomes and setting educational standards. It focuses on professional specialized tasks. The competence-based approach involves analysis of professional requirements, priorities of professional competencies.

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