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**PROFESSIONAL QUALIFICATIONS IN THE SPHERE OF E-  
LEARNING IN AN ALTERNATIVE DISCOURSE**

Olga Fedotova (a)\*, Vladimir Latun (b), Natalia Moskovskaya (c)  
\*Corresponding author

- (a) Don State Technical University, 344000 Gagarina Square 1, Rostov on Don, Russia, fod1953@yandex.ru  
(b) Southern Federal University, 344000, Bolshaya Sadovaya 105, Rostov on Don, Russia, vlatun@yandex.ru  
(c) North Caucasus Federal University, 355009 Pushkina, 1, Stavropol, veritas11@mail.ru

*Abstract*

In the transition to higher technological structures, change of requirements for an organisation's staff's particular specialization and skill level is mandatory. New educational technologies are now actively used which may have a dual purpose. This article is devoted to the problem of professional training of experts whose activities will result in technical progress upon transition to new technological systems usage. It is undeniable that advanced professional qualifications in the organization of educational processes can guarantee the development of society. However, the inconsistency of requirements of the policies and the normative documents regulating work activity and its preparation can become an obstacle. Based on the content analysis of professional and educational standards regarding the problem of preparation and use of technologies related to distance and electronic learning, communication technologies and other technologies it is clear that the universities are not fully prepared to engage with the electronic capacity of modern society. It is established that this problem has been realized at the state level and measures are being undertaken for the coordination of standard requirements for professional activity and the teacher training system.

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**Keywords:** E-learning, professional standards, federal educational standards, electronic educational resources, state strategy of staff training.



## 1. Introduction

The transition of modern society to embrace new technological approaches demands essential changes in the content and the organization of professional education. There are new professions, preparation for which demands change of methodical tools and use of new educational technologies. On the one hand, their technical and personnel potential offered in the new educational programs demanded in modern society offers a competitive advantage to the universities. On the other hand, the need for preparation of traditional staff – teachers whose activity guarantees appearance of the new, interested participants of educational process. Education is influenced by of two factors; the first is the tendency to embrace a variety of the offered educational programs and technologies and the second is the tendency to unification, the standardization guaranteeing recognition in other countries of qualifications, education levels, and competences. In this article, we will consider how these tendencies are highlighted in the education system of modern Russia.

Russian scientific education has a long history which reflects features of its geopolitical and geographic and cultural landscape. One of the most important features of the modern aspects of education is the standard and legal regulations on the basis of the law “Education in the Russian Federation” No. 273. It contains the requirements for the organization of the educational process on the basis of the Federal state standards approved by the government and which are currently the standards of the third generation.

According to this law, education at all its levels is carried out in compliance with the Federal state educational standards which are submitted in open access on the official sites. The federal state standard represents a set of mandatory requirements for the attainment of a certain level and (or) to a profession, specialty and the direction of preparation, approved by the federal executive authority which carries out the functions of elaboration of state policy and standard legal regulation in education.

The transition to new technological approaches demands the use of new educational technologies. Federal state standards reflect the requirements of the state resulting in the development of the program (in the form of a formulation of competences which the graduate has to possess) and conditions of implementation of the educational program. The necessary positions providing qualification of graduates are terminologically enshrined in these two sections of state standards.

The federal standard is usually accepted for a certain period of time, and then it is reconsidered. At present, federal state educational standards (FSES) have been developed, but new FSES for higher education which are in open access have not been approved yet. These standards are marked as 3 +++.

## 2. Problem Statement

The feature of work of the teacher is that it is regulated by other federal law – the Labor Code of the Russian Federation (edition from 12/31/2017 with the changes which have come into force since 1/11/2018). Requirements are defined in professional standards in which the basic necessary skills, knowledge and labor functions are designated. Thus, requirements for training of the expert and his/her readiness for performance of labor functions represent two conceptually different positions.

### **3. Research Questions**

In the existing FSES and the projects FSES 3 +++, intended for different education levels of higher education, requirements of the state are to ensure the competence of future teachers in i) the sphere of ICT and ii) the technical and organizational conditions allowing students to master competences of university education. The comparison of these positions with requirements to ensure the labor functions making a conceptual basis of professional standards will reveal a qualitative originality and the needs for mastering teachers' ICT knowledge. Hence, the research question dealt with the identification of the parameters relating to mastering the ICT competence of teachers of various typological groups.

### **4. Purpose of the Study**

The purpose of this research was to identify, within the context of Russian educational and policy standards, the identification of the parameters relating to mastering the ICT competence of teachers of various typological groups. In doing so, the study will provide information to the authorities on the extent of improvements that need to be made to address the gap.

### **5. Research Methods**

Mainly theoretical methods were used such as analysis, comparative analysis, interpretation, cluster analysis, semantic analysis of concepts and terms, and content analysis. When carrying out the content analysis of the professional standard text, the concept "learning technology" was viewed as a semantic category, a tally unit – the terms which were indicators to the electronic and distance learning systems to information technologies. After the analysis, the data were recorded in an EXCEL program for visualization and interpretation.

#### **5.1. Hypothesis**

The idea of a research is that on the semantic markers reflecting separate points of information and communication technologies to establish representation of these positions in texts of professional and educational standards. The concepts "electronic training", "electronic educational resource", "information and education technologies", "electronic portfolio", "remote technologies", etc. are reflected in such concepts. On the basis of the obtained and systematized information on competences, knowledge, abilities, labor functions and also system requirements to organizational and methodical conditions of obtaining qualification "teacher", it will be possible to draw a conclusion on compliance of requirements of educational standards to the requirements shown to professional functions and knowledge of professional standards.

#### **5.2. Methodology and logic of the research**

The idea of a research is that on the semantic markers reflecting separate points of information and communication technologies (ICT) to establish representation of these positions in texts of professional and educational standards. The concepts "electronic training", "electronic educational resource", "information

and education technologies", "electronic portfolio", "remote technologies", etc. are carried to number of such concepts. On the basis of the obtained and systematized information on competences, knowledge, abilities, labor functions and also system requirements to organizational and methodical conditions of obtaining the qualification of "teacher" it will be possible to draw a conclusion on compliance of requirements of educational standards to the requirements shown to professional functions and knowledge of professional standards.

### **5.3. Materials**

The following materials were the empirical basis of this research:

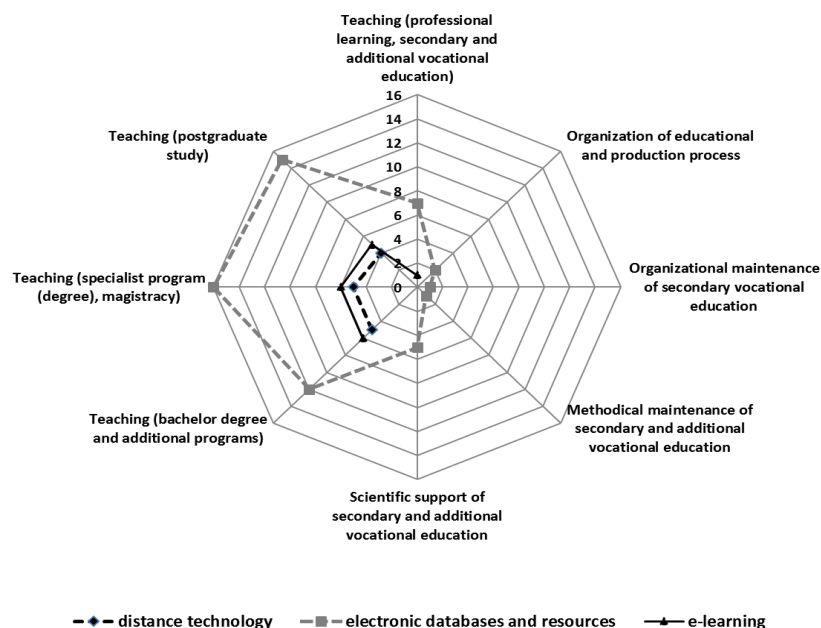
1) The professional standards texts are approved by the Ministry of Labour and Social Protection of the Russian Federation. In Russia there are professional standards for 40 professional groups within which there are specializations. Therefore, only one (from five) the professional standards relating to the professional group "Education" will be the subject of the analysis. It has the PS 01.004 code and is called "The teacher of vocational education, professional education and additional professional education".

2) The FSES texts which regulate the baccalaureate, master, postgraduate levels of training on group of specialties 44.00.00 "Education and pedagogical sciences" approved by the Ministry of Education and Science. Educational standards for specialties which have no analog in foreign systems of professional education (the period of training – 5 – 6 years) were also subject to analysis

## **6. Findings**

### **6.1. The first stage of the research**

The problem of this investigation phase consisted of identification of the parameters relating to mastering the ICT competence of teachers of various typological groups. The structure of all professional standards in the Russian Federation consists of the list of professional functions which the expert needs to have. Therefore, we conducted a content analysis of the professional standard 01.004 "The teacher of vocational education, professional education and additional professional education" taking into account those professional functions which the teacher has to carry out. The results are presented in the Figure 01.



**Figure 01.** Distribution of requirements to qualifications of teachers in the field of mastering technologies of distance technology, e-learning and use of electronic bases and educational resources

In the analyzed professional standards text, ten professional functions are distinguished. For two of them – "Organizational and pedagogical escort of group (course) of students according to programs of higher education" and "Carrying out professional guidance with school students and their parents" – the professional standard doesn't demand mastering ICT. Therefore, in the figure there is information only on eight professional functions.

The tallies provided in the professional standards were distributed on three clusters according to their subject. What emerged is that the greatest requirements are imposed to mastering technologies of use of electronic bases and resources necessary for guiding of documentation and teaching. Requirements for mastering distant and e-learning technologies do not dominate that specific absence of the perspectives of their development planned by the state.

## 6.2. The second stage of the research

The second stage of the research is devoted to the analysis of information on the organization and functioning of the electronic educational environment in the educational organization. The analysis of FSES (level of a bachelor degree, magistracy and postgraduate study) showed that electronic information and education environment shall provide access to curricula, programs for practical implementation, and electronic educational resources which are specified in the educational program. Besides, electronic educational environment shall provide access for the certification and mastering of the program, formation of an electronic portfolio, the synchronous interaction of students by means of a network Internet, access to professional databases in case of application of e-learning and distant educational technologies. The students are provided with electronic educational materials. These items are reflected in all mentioned FSES

which in general correspond to structure of university preparation in the countries which signed the Bologna Agreement.

The majority of these items is retained in FSES in the direction of a specialist program- specialty 44.05.01 "Pedagogy and psychology of deviant behavior". The volume of the program is 300 ECTS. However, this program is oriented to the training of specialists in the field of penitentiary pedagogics; to attending of children and teenagers from risk groups of correction and rehabilitations of persons with deviant behavior has essential restrictions on e-learning use. In particular, implementation of this program using exclusively e-learning and distance educational technologies is not allowed. In the educational process only distinct components of these technologies can be used.

### **6.3. The third stage of the research**

The third stage of the research consisted of the analysis of the projects FSES 3 +++ and comparison of the requirements which are contained in them with FSES 3. The requirement is obligatory for using technology of an electronic portfolio for all levels of the higher education. However, in this position there are certain changes. If FSES included only works of students, reviews and estimates for these works from any participants of educational process" in structure of an electronic portfolio, whereas the project FSES +++ becomes simpler. The use of technology of an electronic portfolio of the student contains the requirement of preservation of and estimation of all his work. As the analysis has shown, in the FSES 3 +++ projects, the emphasis is placed on distance learning, but not on electronic training.

## **7. Conclusion**

The research showed that labor and educational spheres in the Russian Federation are regulated by different laws. Within these laws regulations are developed and in the form of professional and educational standards which have different structure work and are not agreed with each other regarding training of specialists to execution of labor functions. However an attempt of their coordination is made now. In the discussed drafts of educational standards 3 +++ the universities are offered to be guided by the professional competences conforming to requirements of the professional standards corresponding to professional activity of graduates. These competences shall be selected from the register of professional standards placed in a hardware and software system "Professional standards" of the Ministry of Labor and Social Protection of the Russian Federation ([profstandart.rosmintrud.ru](http://profstandart.rosmintrud.ru)). From each selected professional standard the university will have the right to select (in whole or in part) the generalized labor functions according to skill level.

Therefore there is hope that also requirements to mastering information technologies will be considered (including distant and e-learning), and the attention of the state to these aspects in many respects defining transition to new technological ways will change towards their system support.

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