

# **Organizational and Pedagogical Problems of Additional Professional Education**

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*The paper analyzes the basic requirements of professional and public accreditation to the organizational and pedagogical component of additional professional education. The research aims to analyze and characterize the main trends that determine the change in the requirements for the content evaluation and implementation of additional professional programs as one of the aspects of the professional education teacher. Based on the current trend analysis, the necessity of changes in additional professional programs is justified by (1) revision of the approach to the structure and content of additional professional programs, to teaching staff training ensuring their implementation; (2) solving the problem of the invariant and variable ratio of educational programs components; (3) considering the changes in qualification requirements, demands of the labor market, and employers to ensure the anticipatory character of specialists development.*

*Keywords: additional professional education, professional and public accreditation, professional education teacher, professional and pedagogical education, additional professional programs*

## **INTRODUCTION**

The leading trend in current education is its continuity. A dynamic labor market, tough competition in the face of changing requirements, and the intensive development of digital technologies make it necessary for specialists in any industry to improve and master new areas of knowledge constantly. Modern society needs educated, mobile, and creative professionals who want to improve and develop various activity fields. For a modern specialist, lifelong learning, knowledge updating, and mastering new types of activities becomes a condition for constant career and personal growth. In this regard, the emphasis of the personnel training content at various levels of education is changing. If in the past higher education was viewed as “education for life,” today it is only the base for the further formation of a specialist who will carry out his activities under the slogan “education throughout life” (Kubrushko & Kozlenkova, 2019). Current educational standards of the country concentrate the educational process for mastering the profession

towards design and research activities and other educational technologies with a high degree of student independence.

Additional professional education is an integral part of the current model of continuing education. It allows employees to quickly and locally ensure the development of new technologies and areas of knowledge required to solve professional problems. The role of additional professional education is enshrined in several strategic documents, including priority projects of education and the “Digital Economy of the Russian Federation” Program (Government of the Russian Federation, 2017). According to Federal Law No. 273-FZ of December 29, 2012, “On Education in the Russian Federation” (Russian Federation, 2019), additional professional education aims to meet educational and professional needs, professional development of a person, and to ensure their qualifications considering the changing conditions of professional activity and social environment.

The introduction of professional standards made it possible to formalize the conformity evaluation procedure of employee education level and training content to their position. It intensified the need for additional professional education programs to bring the employee qualifications in line with country requirements.

Changes in the qualification requirements for workers due to the development and implementation of new technologies, digitalization of all economic sectors, and an increase in the number of cross-sectoral professional tasks solved by specialists, require the continuing improvement of their qualifications.

Employers’ desire for certain competencies among employees that reflect the industry’s specifics, corporate interests, and priorities determine the need to develop and implement highly specialized additional professional programs for a limited audience.

The abovementioned set organizational and pedagogical problems for additional professional education. Without the solution, it will not perform the assigned function effectively. The most essential of the problems are: (1) the problem of the structure and content of additional professional education, and (2) the problem of training professionals and teaching staff to ensure its implementation.

According to specialists of continuing professional education currently, educational programs do not fully meet their own requirements. They do not sufficiently reflect the needs of the labor market, requirements of the professional standard, characteristics of various categories of students, requests for a variety of forms, methods, and means (including information and communication technologies) of training and knowledge control (Aniskina & Terekhova, 2019).

Today, additional professional education content requirements do not have such strict regulations as primary, secondary, and higher professional education. Federal Educational Standards determine the structure and content of the latter, and the quality of graduates’ training is regulated by the country accreditation procedures. Regarding additional professional programs, they are implemented under a standard educational license and can undergo public or professional public accreditation voluntarily (Aniskina, 2019).

The accreditation organization or community formulates requirements for the implementation of additional education programs.

Due to the “Teacher of vocational training, professional education and additional professional education” professional standards, such a specialist is the bearer of the following labor functions: the teaching of vocational training programs, secondary professional education, and additional professional programs (including their didactic support) (Solovyev, Petrova, Prikhodko, & Makarenko, 2017). The training of such teachers is carried out within the professional-pedagogical education system. However, the analysis of current Federal Educational Standards’ content and approximate professional educational programs of professional training teachers indicates that these regulatory documents do not fully reflect the modern paradigm of continuing professional education in general and its aspects related to additional professional education in particular. Specifically, the issues of improving the training of professional education teachers to implement additional professional programs, including the justification of their relevance, the development of the structure, content, and implementation mechanisms, are not sufficiently disclosed.

## MATERIALS AND METHODS

The research aims to analyze and characterize the main trends that determine the change in the requirements for content evaluation and implementation of additional professional programs as one of the aspects of the professional education teacher.

Research methods include analysis of scientific and pedagogical literature on the problems of additional professional education organization and vocational education teachers training in current conditions.

The research of organizational and pedagogical problems and the main trends that determine the direction of changing the requirements for the content evaluation and implementation of additional professional programs is carried out on the base of Pedagogics and Psychology Faculty of Russian State Agrarian University – Moscow Timiryazev Agricultural Academy.

## RESULTS

Identification of the main directions for improving additional professional education, scientific justification of its content and structure, and, accordingly, the requirements for the implementation of educational programs requires an analysis of various trends reflecting the problems of developing additional professional education, professional-pedagogical education, theory, and practice of professional and public accreditation.

The purpose of professional and public accreditation is the compliance of their content and quality of graduates' training with the established requirements. The latter are determined by professional standards, requirements for specialist certification, the actual needs of a business, individual sectors of the economy, the labor market, and organizations that carry out this accreditation.

Analysis of the requirements of various organizations that carry out professional and public accreditation of additional professional programs makes it possible to single out several generalized parameters, namely:

- Structure and content requirements of programs for compliance with the formed competencies and planned to learn outcomes;
- Compliance of the training content and the assessment system of graduates with qualification requirements;
- Didactic support (material and technical, informational and communicational, educational, and methodological) for the implementation of programs;
- Staff support for the implementation of programs;
- Demand for an educational program and graduates of a professional educational program by employers;
- Employers' participation in program development and implementation (Gerasimov, Mogilnitskiy, Chuchalin, Shamritskaya, & Shaposhnikov, 2016).

Following the selected parameters for evaluating additional professional programs, their improvement directions will be determined by the processes in the professional sphere and the system of training professional-pedagogical staff.

It is necessary to analyze the trends influencing additional professional education development and, accordingly, the content and mechanisms of their implementation.

The leading trend that determines the education system development as a whole is the digitalization of the economy and the accelerating process of its implementation and spread to all branches of the scientific and technological progress achievements. There are several technological breakthroughs that are predicted in the next decade: (1) transition to the use of digital sensor systems in all spheres of production and economy; (2) the use of artificial intelligence in the management of technological objects and processes; (3) the proliferation of unconventional materials processing methods, robotic and automated systems, and bioengineering. A technological breakthrough already imposes new requirements on carriers of traditionally existing professions and determines the emergence of both fundamentally new professions and professions at the intersection of industries. This leads to changes in the labor market, which are manifested

(1) in the dynamism of worker qualification requirements, (2) in the rejection of lifelong employment systems, (3) in demand for specialists who own advanced production technologies and who can work in digital production and economy (Kubrushko et al., 2019).

Besides, it determines the dynamism of professional education content. The main role in improving the qualifications and training of working specialists is assigned to additional professional education. It can develop and implement programs in a short time, using modern information and communication technologies, considering the changing requirements of the industry and employers. Higher education, due to the need to form basic (universal, general professional and professional) competencies, should provide knowledge of the basics, fundamental laws, principles, and approaches. It is impossible to master new technologies and the professional growth of a specialist. Therefore, today many scientific and pedagogical community representatives adhere to the position that a graduate of a higher education program must have good basic training in the chosen professional direction and profile framework. The development of industry specifics is mostly carried out within a professional growth framework (professional development, certification, retraining, internal training, etc.) (Isaev & Plotnikov, 2019).

An objectively grounded trend is university graduates' training in the system of additional professional education according to programs agreed with the customer (with production). This requires cooperation between enterprises, organizations, and universities. Therefore, the leading trend is the joint educational projects of higher education and employers implementing additional professional education. These programs should be carried out even in teaching students at the university and complement the main educational program, thereby carrying out the sectoral adaptation of students at the request of a particular employer in higher education. However, in practice, this is not always possible on a massive scale due to the insufficient development of social partnership mechanisms that combine the interests of interaction between education and production, the state, and the labor market (Pecen, Yildiz, Basith & Albrecht, 2018).

The correspondence of the specialists' professional competence to the requirements for the position held by him also affects such an aspect as the availability of basic education. Today, a college teacher as an industry representative in basic education, such as an engineer or an economist, must undergo retraining and receive a teacher education. At the same time, the content of the training of an economist and engineer is different. Accordingly, when implementing additional professional education programs, it is also necessary to consider students' educational qualifications in their content. We can consider it by developing separate programs for categories of students with the same or similar basic education and highlighting the invariant and variable components of the program's content.

Additional professional education tasks are specialist training considering the needs of a particular employer, ensuring adaptability (considering the individual educational needs and capabilities of students), and updating educational programs according to the changing needs of society.

Analyzing the teachers' training issues for implementing programs for additional education, the authors note tendencies that characterize the development of professional-pedagogical education.

The development of the professional-pedagogical education system remains a problematic field in pedagogical science and practice. The subject area of this type of professional education went through changes throughout the 100-year history of its development. Today, professional and pedagogical activity spheres include (1) primary and secondary professional education and (2) higher and additional professional education. Each listed area of professional and pedagogical activity developed its own system of teacher training. This trend is reflected in the title of the professional standard "Teacher of vocational training, professional education, and additional professional education."

The training teachers' experience of professional education for primary and secondary education was accumulated historically. This system was built in the 1920s and exists to this day. Organized pedagogical training of university teachers is partially implemented within the higher education programs (master's and higher). However, it is basically implemented in the form of on-the-job training. In current conditions of education development, this approach does not provide the basic systematic pedagogical education of university teachers and needs to be improved (Fedorov & Tretyakova, 2017).

Purposeful, systemically organized training to implement additional educational programs is practically not carried out. The strengthening of the supplementary education role increases the urgency of such tasks.

As indicated in the mentioned normative document, the system of professional and pedagogical education is directly related to its solution. A professional and pedagogical education system should carry out the training since this type of education provides the necessary biprofessional orientation of a specialist's formed competencies. Biprofessionalism is the specificity of the teachers' activities of professional training. The content of such a teacher activity is related to the need to teach the profession. Therefore, simply knowing the subject area (by analogy with the "subject teacher") is not enough to ensure the formation of students' necessary professional competencies. The teacher of professional training owns a professional activity that includes two integrated components: sectoral technical and technological-pedagogical. This allows a teacher to broadcast the experience necessary for mastering the relevant profession and use all necessary pedagogical resources to ensure the quality of training.

The teacher of additional professional education must possess the psychological and pedagogical means of educational program implementation and subject content at such a level that they will be able to convey professional experience and form the necessary professional competencies in students.

Currently, a teacher who carries out his activities within the secondary professional, higher, and additional vocational education, must be ready to train specialists in the context of an increasing trend towards transprofessionalism. Many scholars working on the issues of training improvement of professional education teachers note the presence of the transprofessionalism phenomenon in the profession system. The essence of this phenomenon is that a modern specialist faces the need to solve the problems of an intersectoral nature. This requires "going beyond" the profession, learning new competencies traditionally inherent in other professions. Thus, one of the conditions for a modern specialist's success is the creation of their professional competencies in various specialized fields. The specialist should be able to perform activities specific to different types and groups of professions (Zeer & Symaniuk, 2017). Additional professional education can satisfy the need for new competencies formation. Thus, the education system faces the task of forecasting and considering the expansion trends in areas of professional activity and timely provide the necessary advanced training (Zinchenko, Dorozhkin & Zeer, 2020). For example, due to the current regulatory documents that determine the requirements for teachers' qualification, a teacher must possess not only current information and communication teaching aids but also be able to work in the electronic educational environment of an educational organization; in other words – have a relevant competence (Morshchilov, Petrova, Prikhodko & Abrakov, 2019).

The described trends should be considered when structuring and selecting the content of additional professional education, and therefore should be considered in professional and public accreditation.

## **DISCUSSION**

The described tendencies occur in the additional professional education system in general and professional-pedagogical education as a system of training additional education teachers in particular. These tendencies determine the need to revise the approach to the additional professional programs structure and content and to teaching staff who ensure their implementation. It is necessary to solve the problem of the ratio of the invariant (corresponding to the formed competence) and variable (considering the individual educational needs of students) ratio of educational program components. Considering the changes in qualification requirements, demands of the labor market, and employers to ensure the anticipatory character of specialist development. A scientific-pedagogical problem of training professionals and teaching staff to ensure the implementation of additional professional education programs. The search for ways to solve the posed problems will also improve the informative and methodological requirements for professional and public accreditation, which should be an objective and reliable tool to evaluate the quality of additional training of specialists.

## **CONCLUSION**

The presented characteristics of the main trends in additional professional education development, the definition of the role of professional and pedagogical education in ensuring the quality of relevant programs

implementation dictate the need for a change in the requirements for content evaluation and implementation of additional professional programs. This, in turn, will ensure the improvement of accreditation requirements for additional professional programs considering the latest achievements of science and the needs of society.

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