Training of Educators Without Pedagogical Education Under the Requirements of Professional and Educational Standards

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Abstract: The paper focuses on the objectives and content of short-term professional retraining of pedagogical staff without pedagogical education in the system of continuing vocational education, certified by a diploma enabling to legally hold a pedagogical position and to carry out pedagogical activities effectively. The methods being used in the research included analyzing and comparing the current Russian and foreign experience and legal instruments, designing and modelling in the field of educators training, retraining and professional development, monitoring of statistical data on the necessary level and quality of educators in professional educational establishments. The research results are as follows: scientific approaches and principles of content selection and design are presented; the organization and expected results of the professional retraining of the persons of the stated category are substantiated, taking into account the requirements of professional and educational standards for the qualifications of an educator of vocational training and vocational education. The additional professional program of professional retraining has been elaborated, which has both theoretical and practical orientation towards forming the professional knowledge, skills, and competences, which are necessary for ensuring students’ preparedness for pedagogical activity.

1. Introduction

The problem of training, retraining, and professional development of educators is not only important in improving the quality of education in Russia but occupies an important place in the state policy of foreign countries as well. As is known, the quality of education directly depends on the quality of pedagogical staff training. The necessary conditions for ensuring the efficiency and quality of education, as well as of any pedagogical process, are the professional competence of an educator, his/her high level of qualifications relevant for successful and productive pedagogical activities. In order to implement his/her mission, an educator should be ready to solve the professional pedagogical tasks, to carry out the relevant teaching and educational activities, and for this, pedagogical education is required.

The objective of our research was to substantiate the necessity and possibility of professional retraining in the system of continuing vocational education of pedagogical workers without initial pedagogical education; to determine the scientific approaches and principles of selecting and projecting the content, organization, and implementation of retraining process.

The main tasks of the research were: to analyze the trends and directions in the development of continuing pedagogical education and their influence on the content of labor and qualification requirements to a modern educator; to determine the initial theoretical bases for elaborating an additional program of professional retraining, taking into account both the requirements of the professional standard of the teacher and the initial level of higher pedagogical education.

In all countries there is a commonly-shared opinion that every educator working in an educational establishment should have initial pedagogical education, which can be obtained through various forms of educational systems of training, retraining, and professional development. In the United States, teacher training colleges and universities are the main form of teachers’ training. In the UK, teacher training is also concentrated at teacher training colleges and universities. In Norway, the basic pedagogical training courses can be taken in one of 25 pedagogical colleges of the country, and the higher pedagogical courses are offered...
at one of 6 universities. In France, college and lyceum teachers are trained at universities [17].

The current trend of the Russian education development involves the requirement to get basic pedagogical education for educators in various educational establishments of initial pedagogical education. In this respect, an important role is assigned to the system of Continuing Vocational Education (CVE), aimed at “meeting the educational and professional demands, professional development of a person, ensuring the compliance of their qualification to the changing conditions of professional activity and social environment” [9]. It is implemented through additional professional programs (APP) of advanced qualification (AQ) or professional retraining (PR).

Any educator working at school, vocational college, or university must have pedagogical education, which can be obtained in the system of secondary vocational or higher pedagogical education in colleges or at universities, as well as at institutions for continuing vocational education (vocational retraining of pedagogical orientation).

The Professional Standard ‘Educator of Vocational Training, Vocational Education and Continuing Vocational Education’ (hereinafter referred to as the Professional Standard) and the new Federal State Educational Standard for Higher Education (FSES HE) for the training program ‘44.03.04. Vocational module) significantly increase requirements to qualifications and education of educators in the vocational educational establishments. The introduction of these standards in the educational process emphasises the importance of the demand for a highly qualified educator who serves as the guarantor of achieving the goals and objectives of vocational training and education by the students.

As noted in the professional standard, pedagogical activities in professional educational establishments can be executed by persons with ‘secondary vocational education (program for middle-level specialists) or higher education (Bachelor degree program), the direction (profile) of which corresponds, as a rule, to the subject, course, discipline (module) being taught. In the absence of pedagogical education, continuing vocational education in the field of vocational education and (or) professional skills training is accepted; additional professional program can be mastered after employment’.

Therefore, the persons, who have no initial pedagogical education and do not fully meet these qualification requirements, are appointed to pedagogical positions on the condition that they will obtain further pedagogical education through the system of secondary, higher, or continuing vocational education.

In the recent years, taking into consideration the stable trend of employing educators without pedagogical education at vocational educational establishments, the objective contradiction emerges between the requirements of the professional and educational standard for the qualification and the personality of an educator, his/her professional knowledge, skills and competence, and the actual level of readiness of persons without pedagogical education to perform socially and professionally-related functions of pedagogical activities. Elimination of this contradiction requires the intensification of the retraining processes and professional development of the educators working at vocational educational establishments.

Similar contradictions exist abroad. The European Commission, an executive body of the European Union recommended the EU member states to ‘revise and strengthen the professional profile of all teaching professions [by] reviewing the effectiveness as well as the academic and pedagogical quality of Initial Teacher Education, introducing coherent and adequately resourced systems for recruitment, selection, induction and professional development of teaching staff based on clearly defined competences needed at each stage of a teaching career’ [3]. The existence of professional competences, generally accepted and required by education and practice, which should be reflected in teachers’ professional standards, is understood both in Russia and the EU countries as one of the most important conditions for the effective management of training and professional development of educators [13].

For example, the Integrated Program for proficiency enhancement of educators in comprehensive educational establishments, approved by the Government of the Russian Federation claims that ‘the teacher’s professional standard should become a system-forming mechanism that will enhance the quality of the teachers’ work in accordance with the requirements of FSES, create objective requirements to work activities, knowledge, skills, and necessary level of professional education. Professional standard should serve as a basis
Introduction of professional standards leads to a common view on the types and content of professional competences, as well as the certainty of what should be specifically measured, what indicators are sufficient to state the conformity of the teacher’s qualifications with the standard [18]. Therefore, the professional standards should become and are currently becoming the basis for developing FSES and educational programs.

Consequently, the additional professional programs of professional retraining for teachers without pedagogical education, developed on the basis of the professional standard, make it possible to systematise the educator’s labour functions and activities, to select the content and knowledge, skills and competencies required for their training, and to define the evaluation criteria and indicators of the professional pedagogical education results achieved. They are also necessary for the mandatory attestation of educators and for determining their professional level — the level of pedagogical qualification.

A number of scientific research convincingly prove that the students’ progress depends not as much on the teacher’s knowledge of the subject as on the techniques mastered by the pedagogue, allowing to transfer knowledge to the students. This is why the engineering-pedagogical personnel, having no pedagogical education, must have not only the knowledge of their subject, but also a special basic pedagogical training. They should master pedagogy, psychology, physiology, methods of professional teaching and educating, etc. These subjects can be mastered only by pedagogical training.

Developing the pedagogical excellence in people without pedagogical education is the most important activity of the heads of educational establishments, focused on promotion of their personal and continuous professional development, striving to ensure the quality of educational pedagogical activities adequately influencing the level and quality of teaching and education.

Continuing improvement of professional level of pedagogical staff during their lifetime is a necessary condition of their professional and personal development. This is why, in the Russian Federation the CVE of pedagogical staff is appointed by legislation; educators must improve their qualification at least once in three years.

In Estonia, Hungary, and Ireland qualification improvement and personal development of a teacher is considered to be their obligation. In Denmark, Italy, and Greece the teachers decide for themselves whether they will improve their qualification and make a career. In Europe, many teachers improve their qualification for their own money. For example, in Poland and Georgia teachers pay in full for their qualification improvement. In Hungary, 80% of the payment comes from the state budget, and 20% - from the budget of educational organization and own means of the teachers. In Czech Republic, the Netherlands, Great Britain, and Lithuania, as well as in Russia, the budget for qualification improvement is given to the educational organization.

Therein lies the relevance of the study undertaken to substantiate the need for professional retraining and professional development of the educators without pedagogical education, and to develop the theoretical grounds for content selection and design, the models of organization and implementation of the educators' training in the educational establishments for Continuing vocational education, taking into account the requirements of professional and educational standards, and from the perspective of modern trends and innovations in pedagogy, technology and education.

2. Methodological Framework


The research methodology also consisted of the set of scientific approaches and principles of projecting the content and organization of professional retraining of teachers without initial pedagogical education.

The following research methods were used: theoretical (study of normative legal documents, concepts, programs and projects on education modernization and pedagogical education development: scientific literature analysis, systematization and summarization of results of previous studies on the relevant issues; modelling and design of innovative systems, objects and processes); empirical methods (questionnaires and surveys of educators, study of qualification requirements for professional and educational standards, construction of professional model of a teacher of vocational skills training, etc.), and expert estimations.

The research was done on the basis of four secondary professional educational establishments: three technical vocational colleges and one pedagogical college. We performed statistical monitoring of the pedagogical personnel and polling to reveal the necessary directions and content of their retraining and qualification improvement.

The independent expert estimation of the elaborated additional professional program of professional retraining was performed by two educational establishments of CVE in Saint Petersburg.

Despite the high scientific value of the obtained results for the theory and practice of pedagogical education, for selection and design of content and models for training, retraining and professional development of educators, we have to state that the above-mentioned works do not cover the following aspects: taking into account the new requirements of normative and methodological documents, professional and educational standards during the development of additional professional programs, selection and design of the content of professional retraining; the issues of distinguishing, interrelations and integration of working functions, knowledge, skills and professional competencies; intensification of professional retraining, as well as the use of new models, forms and methods of organizing and implementing the educational process in the system of continuing vocational education as continuous improvement of the professional level of educators.

Substantiation and presentation of the theoretical starting-points for solving the problem of training (retraining and professional development) of educators without pedagogical education for effective and efficient pedagogical activities is based on the conducted analysis of the current state, trends and directions of the Russian educational system development, as well as the requirements of existing standards and normative instruments in this field, namely: Federal Law ‘On education in the Russian Federation’ [9], State Program of the Russian Federation ‘On the development of education for years 2013-2020’ [5], Conceptual Frameworks for improvement and development of pedagogical education in Russia [15], and others.

It was found that for persons without pedagogical education, the most rational and short-term is their retraining according to additional professional programs (APP) of pedagogical orientation, which are aimed at obtaining the competencies needed to carry out a new type of professional activity – pedagogical activity [8].

This form of continuing vocational education enables a teacher working in a professional educational establishment to obtain, during a short period of time (but not less than 250 study hours), new pedagogical qualification of initial level on the basis of secondary or higher non-pedagogical education; they receive the Diploma of professional retraining. The Diploma of professional retraining is not adequate to the Diploma of higher pedagogical education but, according to legislation, it gives the right to work as a teacher or foreman of vocational training on an equal basis with other teachers who have pedagogical education. This reduces the barriers for accessibility of pedagogical profession, makes this form of pedagogical education very specific and attractive. In addition, employers are allowed to appoint as teachers those persons who have no special (pedagogical) training or qualifying period of employment established by the professional standards but have sufficient practical experience and competence to perform their duties in a quality and full manner to the appropriate positions, but only on the recommendation of the Certification Commission [10, 11, 12].

In the United States, teacher training policy is also the matter of the national federal level; it is regulated by improving the quality of teacher training on the basis of the established requirements of state standards
and by reducing the barriers for persons wishing to work as educators but not having pedagogical education [1]. Therefore, the American model of pedagogical education reforming, as A. G. Bermus notes, provides for two trends: professionalizing the pedagogical profession and, at the same time, deregulating the training and depriving educational establishments of a monopoly on teacher training [2]. This policy is very similar to the policy of modernization of pedagogical education in Russia.

Consequently, the formation of pedagogical skills in persons without pedagogical education is a major goal not only of secondary and higher pedagogical education, but also of CVE system in the Russian Federation.

Today, educational establishments are staffed by both teachers having secondary or higher pedagogical education and persons not having even initial pedagogical education.

According to the National Research University ‘Higher School of Economics’, in 2010-2014, the professional educational establishments employed over 50% of educators without pedagogical education [4].

The results of the monitoring carried out by us during research also showed that in technical colleges from 40 to 76% of pedagogical staff have no pedagogical education, compared to 7% in teacher-training colleges [16].

A social survey conducted by Kuzbass Regional Institute of Vocational Education Development in the Kemerovo region among 1350 educators from 57 professional educational establishments showed that only 35.5% of teachers and 45.5% of foremen of vocational training were in line with the requirements of the professional standard. This means that educators need to take measures to improve their professional level, and not only those who have pedagogical education, but especially those who do not have it. For most teachers (42.7%), the priority form for upgrading their professional level is training in CVE system – taking evening or extramural form of study; 39.1% prefer intramural form of study, 22.8% - professional retraining of more than 250 study hours, 24.3% - self-education, etc. [7].

This raises not only the issues of selection and design of the vocational training content for this category of educators, but also of how to master it within the prescribed short time-frame for retraining (an average of 500 hours), at the same time obtaining sufficient qualification level to meet the requirements of the professional standard and FSES HE.

The professional standard stipulates the list of the educator's generalised labour functions (teacher, foreman of professional training), their working activities, as well as the list of knowledge and skills needed to carry them out.

From the professional standard analysis, we have stated that it lays emphasis on the requirements to pedagogical and methodological training; on the ability to use psychological knowledge in practice; on mastering the modern pedagogical technologies, including information and communication ones; on the ability to work with different categories of students, and other important theoretical and practical aspects of pedagogical activity.

New requirements to the level and quality of a teacher, specified in the FSES HE and educational professional standard, require systemic changes in the content, organization and technology of training, retraining and professional development.

The priority problem here is that of selection and design of content and development of APP for the professional retraining of educators without pedagogical education.

Teacher training should consist of normative-legal, psychological-pedagogical, methodological-didactic and subject-oriented professional-practical aspects of initial pedagogical education.

An educator as a personality must have the necessary arsenal of specialised knowledge, skills, general professional and professional competences, which are necessary to carry out effective and efficient, multifaceted pedagogical activities.

3. Results and Discussion

The carried out research revealed the scientific approaches which should form the basis for the content
selection and design of retraining of educators without initial pedagogical education, namely:

1) **Professional-competence approach**, which implies examination of the functions and content of the professional field of activity of a modern teacher (labour functions and working actions), and specification of the types of professional knowledge, skills and competencies necessary for effective and proper pedagogical activities.

2) **Personality-activity approach**, which implies consideration of individual personal characteristics of students when determining the content of retraining and developing the additional professional programs, in order to establish individual routes of their professional retraining; this approach implies not only theoretical, but also significant practical content of education.

3) **Integrative-modular approach**, which implies integration of the initial pedagogical education content through the existing secondary and higher pedagogical educational programs, and creation of modular educational programs for retraining.

The scientific approaches conduce to the following basic principles of the content selection and design (development of the additional professional program) for the professional retraining of persons without initial pedagogical education:

1) *the principle of content conformity* with the requirements of the educational professional standard (labour functions and labour activities, knowledge and skills required for their fulfilment) and with the requirements of FSES HE (types of general professional and specific professional competences that a teacher must have to perform the relevant types of work);

2) *the principle of practice orientation*, providing for the orientation to solving the specific practical tasks of the educational activities of teachers or foremen of professional training that will also enable them to better master the theoretical knowledge and practical skills;

3) *the principle of mobility and dynamism*, which implies the timely response of content to the main trends of the Russian education modernization, to the changes and challenges of the developing system of pedagogical education, to the introduction of new professional and educational standards for teacher training, and their updating;

4) *the principle of the content variability*, which implies the availability of invariant and elective parts in the content of the additional professional program, in order to establish an individual trajectory of professional formation and development of teachers in accordance with their educational needs and individual psychological-pedagogical (personal) features;

5) *the principle of integrating the content and modular character of APP design*, expressed in the integration of the content of theoretical and practical education, both the compulsory initial and subject-oriented professional ones, and its structuring in the form of separate training modules, modular units, that will enable to optimise and reduce the volume of educational material, to summarise knowledge, skills and competencies, i.e. to make APP richer in its content and results within the established statutory minimum time frames;

6) *the principle of continuity*, which views the educational process of retraining of the persons without initial pedagogical education as a subsequent stage of continuing education, the content of which should not only generate new professional and pedagogical knowledge, skills and competencies, but also take into account and develop the knowledge, skills and competencies obtained at the previous stages of education.

7) The consideration and implementation of these scientific approaches and principles formed the basis of selecting and designing the content, developing the additional professional program of retraining.

The content of additional professional program for professional retraining of teachers without pedagogical education is designed according to the professional standard and FSES HE. The basis and system-forming factor in the selection of the APP content is the structure of the educator’s labour functions and labour actions, the composition of professional knowledge and skills necessary for their implementation, all taken from the professional standard. The results of professional retraining under APP are general professional and specific professional competencies selected from FSES HE and corresponding to the working activity under...
formation. The essence of the professional-competence approach implemented to design the contents of APP for professional retraining of educators without initial pedagogical education consists in choosing the pedagogical labour functions and activities from professional standard for training and establishing the relevant competences, characterizing the willingness and ability of the trainees for their implementation based on the necessary knowledge and skills to implement them.

The FSES HE analysis shows that a number of competencies provided in it can be united (integrated) into more comprehensive classes with less number of competences; these classes should be deemed priority for mastering and mandatory for successful professional pedagogic activities.

The content of vocational retraining should not only be practice-oriented towards mastering of pedagogical functions and activities, but also include basic theoretical training. In the process of the professional retraining of persons without pedagogical education the content components of knowledge and activities should be in a certain logic, balance and interrelationship.

The result of the study is the elaborated additional professional program ‘Psychological-Pedagogical Vocational Education’ (530 study hours) for professional retraining of teachers of technical and special subjects, foremen of vocational training of educational establishments of secondary vocational education, as well as teachers in the educational network of enterprises and organizations, training, retraining and professional development centres for workers, employees and mid-level professionals without pedagogical vocational education.

The program meets the requirements of the legal documents and methodological materials of the Ministry of Education and Science of the Russian Federation to the APP structure and content of vocational retraining. It is designed on the basis of the qualification requirements of the professional standard to labour functions, activities, professional knowledge and skills of an educator and the requirements of FSES HE to the development of the necessary general professional and specifically professional competences of a teacher of professional training and education.

The curriculum of the additional professional program includes the following main sections and disciplines:

**Section 1. Normative-legal**

1) Normative-legal support and regulation in the field of vocational training and education.

The objective of this 72-hour discipline is to form an integral system of normative-legal knowledge, skills and competences in the sphere of professional education and training, organization of labor and implementation of pedagogical activity at professional educational organizations.

**Section 2. Psychological-pedagogical**

2) Professional Pedagogy

Mastering of this 200-hour discipline is aimed at forming the fundamental and applied pedagogical knowledge and skills, general-professional and professional competencies necessary for effective implementation of the new type of activity – professional-pedagogical activity and solving the professional tasks stipulated by the professional standard and FSES HE.

3) Professional Psychology

The objective of this 58-hour discipline is to acquaint the students with the modern psychological phenomena in professional pedagogy and psychology of labor, to form the psychological-pedagogical knowledge and skills, professional competencies in the sphere of professional education and training, and personal development of the students.

**Section 3. Subject-oriented professional activities**

4) Organization and implementation of the educational process according to the initial vocational and secondary vocational training programs

The objective of mastering of this 122-hour discipline is to form theoretical knowledge and practical skills, general-professional and professional competencies in the sphere of organization and implementation
of educational process, managing the students’ activity within the basic programs of professional education and secondary professional education, control and estimation of mastering the educational program, and elaboration of program-methodological support of their implementation.

**Section 4. Final assessment**

Mastering of APP of pedagogical education is completed with a 40-hour probation period and the 38-hour final attestation (preparation and defense of a project work).

Each educational discipline has a basic (invariant) and an elective part and consists of several conceptual training modules, each of which consists of a number of modular elements (topics).

The basic parts of APP are mandatory for all categories of trainees, but the elective parts are selected for trainees according to their specialised professional orientation of pedagogical activity and position in an educational establishment.

The APP content of professional retraining covers the volume of educational material necessary and sufficient to form the basic normative-legal, psychological-pedagogical, didactical-methodological theoretical knowledge, and the applied practical skills, general professional and specific professional competencies, needed to organise and implement the educational process according to the basic programs of vocational training and secondary vocational education.

The curriculum includes different types of classes: theoretical classes (lectures), practice (learning activities, tasks, internships), seminars, independent work, and various forms of control of educational achievements: current and midterm examinations, interim and final assessment.

Of 530 study hours for professional retraining, 170 hours are allocated for in-class learning, 126 hours for practice, 194 hours for individual work, and 40 hours for practice in a professional educational establishment.

Achievements of the trainees studying according to the additional professional retraining program are assessed in respect of compliance of APP mastery results with the stated objectives and planned outcomes of the training.

On the basis of the APP quality assessment it was approved and recommended for implementation in the system of Continuing Vocational Education, as it will ensure short-term, effective and qualitative training for productive professional activities of educators without professional pedagogical in the professional educational establishments.

The necessary knowledge, skills and competencies for a teacher’s productive and qualitative pedagogical activities will be formed through developing and mastering the interrelated theoretical and practical modules of the APP content as relatively self-contained units of learning which are adequate to the requirements of both professional standard and the closely related educational standard, using intensive methods and teaching technologies.

In order to organise and implement the process of professional retraining of teachers without initial pedagogical education in the CVE system, the distributed network model is proposed, which implies a shift in emphasis towards a personalised, individual model of retraining according to variable educational programs (modules).

The network form of educational programs implementation involves a contract-based organization and implementation of the educational program mastery by the trainees using the resources of several organizations to provide training, practice, internship and other training activities in accordance with the corresponding additional professional program. It is possible to select individual educational programs from a package of network variable educational programs.

The model of network educational personalised retraining system and further professional development of educators without initial pedagogical education, based on cooperation of the various educational establishments (pedagogical colleges, scientific institutions, advanced training institutes, compulsory education establishments) enables to improve the quality and effectiveness of continuing vocational education, its theoretical and practical components of initial pedagogical education.
4. Conclusion

The research allows making the following conclusions.

1) Involving of persons without the initial pedagogical education into pedagogical activity significantly actualizes the problem of their professional retraining in the system of CVE, allowing to reveal the sphere of their professional activity and to strengthen the practice-oriented aspect of training.

2) Pedagogical activity, like any other activity, is determined by the level of abilities which are not given to a person naturally in the ready form, but are acquired and developed in the course of specialized training of pedagogical activities.

3) In order to ensure the quality pedagogical work and to achieve the pedagogical excellence, an educator needs professional pedagogical education, practice, aptitude, lifelong self-education, and continuous professional development, motivational desire to become an expert of pedagogical activities.

4) Professional pedagogical qualification of an educator is one of the most important factors directly influencing the quality of training and performance of future professionals. It not only characterises the willingness and ability of teachers to carry out the broad functionalities of their professional pedagogical tasks but also demonstrates the inherence of the basic social, general cultural, general professional, and specific professional competencies and orientations.

5) Continuous expansion of labour functions of pedagogical activities and complication of pedagogical tasks enhances the necessity to improve professionalism of pedagogical staff as the most important factor that determines and ensures the effectiveness of diverse pedagogical activities affecting the quality and effectiveness of students’ training and education.

6) Training of persons without initial pedagogical education in the Continuing Vocational Education system should consist of two stages. The first stage: there is a special development as a teacher, implemented as a mandatory process of retraining according to standard modular integrated supplementary professional program, taking into account the specificity of composition and professional qualifications of the functioning teacher. The second and subsequent stages: professional growth and development of an educator being implemented in the process of professional development according to the targeted, individual supplementary professional programs, taking into account the interests and needs of an educator.

The research revealed the possibilities of the educational environment of Continuing Vocational Education to offer psychological-pedagogical training to persons without pedagogical education. The research results were summarized and systematized in a monograph “Preparation for pedagogical activity at professional educational organizations of persons without basic pedagogical education”, which was prepared for publication.

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