Organization of Lifelong Learning in the System of Professional Training of Teachers

Irina I. Burlakova*a, Anastasiya S. Budnik (b), Elizaveta S. Burlakova (c)

(a) Moscow State University of Psychology and Education, Moscow, Russia
(b) Moscow City Pedagogical University, Moscow, Russia
(c) Academy of Social Management, Moscow, Russia

Abstract
The relevance of the present issue is caused by the need for carrying out lifelong learning of teachers as an essential condition of their professional development. The aim of the article is to prove the necessity of integrating formal and informal professional and optional development of educators. The main methods of the research are analysis and synthesis of the data obtained. The authors hold an analysis of the lifelong learning development in the EU countries and in Russia, which can be formal and informal. The latest represents an entirely new phenomenon in the social and educational practice. Its content bases on their own principles, carries out specific functions and solves existing problems in an innovative way. The article also views the strategies and models of lifelong professional education of teachers being under a significant pressure of informational and communicational technologies and relying on informal mechanisms of giving knowledge and forming competences. In the research part of the article the objective and subjective difficulties of teachers and their professional needs are revealed. Lifelong learning is bound to overcome these difficulties and satisfy the necessity of forming and developing new professional competences. The analysis of the documents of educational institutions shows the dominance of informal education. It proves the need for defining the status of informal education as a constituent part of professional development of an educator.

Keywords: lifelong learning of teachers, informal education, personality-oriented trajectory of continuous education, models and strategies of lifelong learning, professional development of an educator.

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* Corresponding author. E-mail address: iiburlakova@mail.ru
**Introduction**

*Development of continuous education in EU countries*

In the context of globalization, most countries have reformed their professional training systems in line with the “Lisbon strategy” adopted by the leaders of EU states, the goal of which was to create the most competitive and dynamic knowledge-based economy in the world by 2010 (Kok, 2004).

The European Commission, assessing the results of educational reforms in 2008, pointed to the need to develop national strategies for lifelong learning. The principles of reorganization of the existing educational systems and construction of lifelong learning are universal. The most significant of them are:

- orientation of the educational system to the individual, unique personality and basic needs, among which the leading place is the need for lifelong self-improvement, self-development and self-realization;
- democratization of the educational system, accessibility and openness of any level and form of education to each individual, regardless of social status, nationality, race, physical condition;
- flexibility of the educational system, rapid response to the educational needs of the population, special interests, styles and rates of potential students learning;
- variability of educational services and the realization of the right of every person to choose their own strategy for further education after graduation;
- integration of formal and non-formal types of education, creation of a holistic educational segment that turns the adult population of the country into “students”;
- use of information technologies for educational purposes at any stage of their life (home, work, recreation, transportation, etc.);
- development of an integrated system of information support;
- the existence of an extensive and constantly updated legal and regulatory framework for lifelong learning.

In European countries, lifelong learning is essential for two reasons:

1) the population of the European Union lives in a complex socio-political and economic environment, where the full development of the person is impossible without mastering the ability to adapt quickly to cultural, linguistic and ethnic diversity;

2) knowledge-centrality is the basis of modern European society. This means that the knowledge, information and motivation to update it constantly and the skills, necessary to do this, become decisive factors for the competitiveness of the individual and the effectiveness of the human potential in a market economy (Commission of the European Communities, 2000).

In such circumstances, education is designed to help people to cope successfully with adaptation to new conditions of life. These reasons for the development of lifelong learning are closely interrelated and determine the two main goals: the active position of citizens and the competitiveness of a professional in the labor market. It must be noted that the governments of European countries have come to a common understanding of the need to develop lifelong learning as a combination of formal, non-formal and informal education. Taking into account this factor, the modern national systems of lifelong learning develop nowadays in the European Union.

The concept of “lifelong learning” appeared in science in 1929, and in 1968 – in the materials of UNESCO. In the terminology of UNESCO from 1997 lifelong learning is defined as “formal, non-formal, non-institutional (informal)”, i.e. it is possible in any organizational form (UNESCO, 1995-2012).

The scientific literature uses several concepts of lifelong learning, differing from each other:

- education as lifelong learning (life-long education);
- lifelong education for adults;
- lifelong professional education.

The European Union defines formal education in the 2000 Memorandum as the process leading to the issuance of a state diploma or certificate (Commission of the European Communities, 2000).

According to the International standard classification (2004), formal education is provided through formal institutions (College / University). Formal education is a system of hierarchically structured and inherent to the majority of States including Russia (International Labour Organization).

Non-formal education is a qualitatively new phenomenon in social and educational practice, the content of which is based on its own principles, performs certain functions, solving many old problems in a new way. Non-formal education is a flexible educational system focused on specific needs and interests of students. Non-formal education has the characteristic of «complementarity» of the acquired knowledge in relation to the professional education and experience. A study of non-formal education shows that it is neither a simple addition to or continuation of traditional education nor an alternative to traditional education. According to Klimov, non-formal education, located between the poles of formal and informal education, is conscious in contrast to the latest, organized and managed, focused on the specific educational needs of different professional groups (Klimov, 1998).

McConnell and Brue (1992) highlighted the general characteristics of all types of non-formal education:
- continues throughout life;
- focuses on active participation in the training of students;
- emphasizes the importance of the problems and needs of people as the fundamental points for the organization of training;
- carried out within certain communities (professional communities);
- uses the methods and contexts of non-formal education, the impact of direct life experience;
- the absence of coercive based on other people's motivation;
- high personal meaning of learning;
- internal responsibility of students for the result of educational activities;
- flexibility in organization and methods of teaching;
- high level of activity of students;
- self-assessment of students' results on the basis of their relevant criteria.

The increasing role of the teacher in the modernization of education has led to the fact that in developed European countries the concept of “lifelong professional development of teachers” appeared. M. Fullan, a researcher of the effects of school reforms carried out in the United States and Canada at the end of the twentieth century, believes that the professional development of teachers – a set of formal and non-formal education throughout the career (Fullan, 2010).

Based on the design of the educational program, it is possible to trace the difference between formal and non-formal education. In this sense, formal education can be seen as “top-down” education. Accordingly, almost all teacher-training programmers fall into this category. In turn, non-formal education is organized exclusively on request and for the benefit of students, and students themselves participate in the planning of programs, i.e. such education is carried out, largely, “from the bottom to up”.

Lifelong learning in the normative acts of the Russian Federation

The concept of “lifelong learning” appeared in the USSR in 1986 in the Decision of the CPSU Central Committee and the USSR Council of Ministers “On measures to improve the quality of training and use of
specialists with higher education in the national economy”.

In 1987, the Decision of the CPSU Central Committee and the USSR Council of Ministers “On measures to improve the training and use of scientific-pedagogical and scientific personnel” sets the task of restructuring the training of scientific-pedagogical and scientific personnel, presenting it as an integral and mandatory part of the unified system of lifelong education in the country. In 1989, and then in 2010, the concepts of lifelong learning were discussed and adopted, but they were not implemented.

A new stage in the development of lifelong learning began with the adoption of a new Federal Law “On education in the Russian Federation”. This law introduces such concepts as: “lifelong learning”, “e-learning”, “modular principle of presenting the content of programs and building curricula”, “network forms of program implementation”. The drafters of the education act define different ways of getting education:

- through the organization of credit-modular system of educational process;
- through networking in the implementation of educational programs;
- through the use of distance learning technologies in the educational process;
- through the organization of training with the help of integrated educational programs;
- through the use of information and educational resources in the educational process, etc. (Ministry of Education and Science, 2012).

The priority direction of the state policy in the sphere of education is the development of lifelong learning, which includes various forms of education throughout the life of a person. In the Federal Program of education development for 2016-2020 years, it is noted that due to the increase in the requirements for teaching staff in connection with the adoption of the professional standard of the teacher, a fundamental change in the socio-cultural educational environment, the need for highly qualified teaching staff capable of effectively solving the problems of education modernization at all levels gets stronger (Ministry of Education and Science of the Russian Federation, 2015).

The government has set a difficult task to design a new image of the integrated education system as a branch of the national economy, creating favorable conditions for both personal and professional development of employees.

In June 2015, the Ministry of Education and Science of the Russian Federation presented for discussion the Concept of lifelong learning development of adults in the Russian Federation for the period up to 2025. The Concept considers the priorities of state policy, principles and content that provide conditions for the realization of the right of the adult population to receive education throughout life. Adult education is offered in the following areas:

- formal education (development of educational programs in organizations engaged in educational activities);
- non-formal education (training outside organizations engaged in educational activities, at the place of work (in the form of mentoring, training, coaching, training, exchange of experience, etc.), education in public and socially oriented organizations);
- information (spontaneous education through the organization of individual cognitive activity or self-education) (Ministry of Education and Science, 2015).

It should be noted that the role of “corporate education” institutions is currently being strengthened through the activities of personnel services of organizations that organize on-the-job training with the help of tutors, mentors, instructors, organize professional conferences and seminars to exchange experience. In general, their activities are aimed at the implementation of comprehensive training programs for highly
qualified personnel.

The answer to the ever-increasing need for updating knowledge and skills (competencies) is the active introduction of modern technologies into the lifelong learning process, including e-learning, open education, remote technologies.

The Concept of development of lifelong learning in the Russian Federation for the period up to 2025 is based on the following principles:
- the right of every citizen to lifelong learning;
- responsibility of the citizen for his / her own professional growth and personal development;
- individual character of educational trajectories and variability of forms and methods of education;
- internationalization of adult lifelong learning;
- information openness of the sphere of lifelong learning.

The main directions of the Concept implementation are:
1. Ensuring the implementation of individual educational trajectories (routes).
3. Creation of conditions for on-the-job training, formation of corporate training systems.
4. Development and updating of educational programs in accordance with the requirements of professional standards, taking into account the best national and international experience.
5. Formation of the system of quality assurance of lifelong learning for adults.

Educational organizations and organizations engaged in educational activities, implementing basic and additional educational programs develop programs for the development of lifelong learning, taking into account the principles of this Concept.

As a result, of the Concept implementation the following effects will be provided:
- strengthening of social stability of Russian society through the development of mechanisms for recognition of qualifications and results of non-formal education, socialization and integration of citizens;
- improving the competitiveness of the teaching staff of educational organizations through the formation of professional competencies to meet the requirements of the modern labor market;
- ensuring high quality and constant updating and variability of programs of continuous education through the creation of a competitive environment;
- attracting qualified personnel, combination of state control and independent quality assessment tools, self-regulation of lifelong learning;
- development of effective mechanisms to stimulate and support the lifelong professional development of teaching and management personnel in the field of lifelong learning for adults (Ministry of Education and Science of the Russian Federation, 2015).

Models and strategies of lifelong professional education of teachers

Dynamic changes in all spheres of life and numerous educational reforms introduced in European countries and the USA at the end of the 20th century have led to the appearance of a new model of professional development in education called ‘post-technocratic’. It is an alternative of the existing model of discrete formal education or advanced training. The post-technocratic model includes non-formal and informal education and provides continuous professional development of teachers. The model implies:
- constant professional educational needs;
- including ability of professional development in plans of developing educational institutions;
- combining needs for personal development with needs of educational institution;
- regular monitoring and assessment of professional competences of teachers and heads of educational institutions (Chechel, 2014).

The teacher’s work in terms of reformation and constant modernization of the educational system leads to the increase of tension and shortage of competences. Consequently, there is need for organizing proper education in order to develop necessary knowledge and skills. P. Jackson called it the ‘model of deficit’. Its point is that teachers are to be provided with knowledge and skills that are missing at the moment, but become essential in specific educational conditions. This model has long remained dominant in many countries (including Russia) which were members of the Organization of Economic Cooperation and Development (OECD). The author of the model assumed that the teacher’s professionalism increases in a discreet way – from one deficit to another, from one level of education to the next one, from one advanced training course to another (The World Bank, 2003). This thesis is connected to such usual formal practice of teachers’ work as the demand to take advanced training course at least once in three years. Although everyone understands that daily teacher’s experience and abilities to master new forms of professional activities are the main components of the teacher’s professionalism, this approach is seldom used in the practice of teachers’ advanced training.

A wider application in the sphere of professional education and advanced teachers’ training has been given to the idea of ‘mentoring’ – consulting by more experienced colleagues or experts during the working process. This idea has features of traditional tutoring, but it means structural and informative collaboration in order to develop professionalism. The accent is put on additional training of specialists according to the specific character of their activity and without interfering with their work. The idea also implies further constant access to informational resources of continuous professional development including:

- programs of preparation and discussing the needs of young teachers who have Bachelor’s degree to continue their education on the next level;
- creating conditions for continuous professional development and further statement of acquired competences during non-formal and informal education;
- availability of equal opportunities of continuous professional development of teachers from all regions (Gracheva, 2012).

There are also models of lineal, parallel and simultaneous inclusion of non-formal education into formal one. These models are realized through such educational technologies as online discussions, webinars, net interaction, scientifically methodological and practice-oriented seminars, attendance of authorities and educational institutions, retraining, conferences, corporative training in the form of tutoring, internship, experience exchange, etc. (Korshunov & Gaponova, 2017).

In England there are so called ‘lighthouse’ schools which have been created to spread advanced experience in the fields of methodology, technologies, pedagogy and psychology. Fixed competences preceding professional pedagogical career are replaced with teachers’ immersion into the area of constantly changing competences (Dachkovskaya, 2001).

Non-formal and informal education is often realized through professional associations of teachers. The main task of such societies is the exchange of practical experience gained during professional educational activity. Fullan calls this process ‘interactive professional development’ singling it out as a key source of realizing educational reforms (Fullan, 1991). Network interaction provides with such advantages as constant professional development of teachers, decrease of isolation, finding of collective solutions of
common professional problems and experience exchange. An association is a platform for informal communication which is created for meetings of professionals, connection with international professional societies, discussion of project ideas, assessment of their results and spread of experience and results both inside and outside the region. The infrastructure of such networks is worked out by the virtual variant of a methodological study, which has become the meeting point of project groups, informal communication of teachers, storage of methodological works of teachers and a reading hall at the same time. This informative resource centre is aimed at creating conditions for non-formal and informal education of future teachers. The symbiosis of formal (getting education, advanced training courses), non-formal (societies, associations) and informal (informal professional communication) sides holds wide educational opportunities (Tyunnikov & Maznichenko, 2014).

Thus, the structure of professional development contains the networks of formal, non-formal and informal education represented in the form of Euler diagram. Education is realized in terms of combining formal (lectures, presentations, texts) and informal communication which is followed by discussions, reflection and experimental part. Unfortunately, it must be stated that in Russia not a great number of teachers are members of professional societies. However, a significant amount of useful information motivates local subject methodological communities to form teachers’ associations. This practice in Russia does not have either normative base or traditions.

In terms of modernization of higher education there is a widespread practice of teaching at schools when students and young teachers observe, assist and teach under the guidance of senior mentor. The problem is that the mechanism of mentoring isn’t worked out properly and only a few teachers are ready to have students during their practice period. However, in several regions there are networks of schools of teachers’ professional development, which provide interschool advanced training courses for teachers.

One of the innovations of education is group work of students and teachers. Classes in pedagogical colleges, universities and advanced training courses often contain collective (group) forms of work. In modern conditions the accent is made on projecting and realizing of professional development not only of an individual teacher, but the whole group including teachers of a difficult form, the same school or those working on a specific problem.

It is necessary to state that the change of professional education strategies and development is influenced by informational and communicative technologies. They add such innovative elements as new network services and extra informational resources to professional education and advanced training of teachers. During the development of informational communicative technologies the system of education has absorbed them in full rate. For example, network libraries formed outside education are used actively by students and teachers.

Recently a wide spread in the educational process have been received by interactive technologies which are an alternative of traditional pedagogical interaction. The priority of interactive pedagogical process is given to such characteristics as procedural forms, activity, communication, dialogue, opportunity of self-expression, creativity, reflection, etc. Traditional pedagogical impact as an attribute of the authoritarian pedagogical process is aimed, first of all, at formal implementation of compulsory curriculum. During the realization of interactive methods it is learning, not teaching dominates. The teacher in this method is not a translator of readymade information, but they organize autonomous activity of students directed at producing knowledge about the reality, they encourage the search, research of phenomena and processes and autonomous solution of problems. A teacher is merely one of the sources of information. Their function is to create conditions for students’ activeness, initiative in activities, primarily the cognitive one.
The leading role of the teacher in interactive methods is a facilitator, a helper in organizing mental activity, creativity and reflexive activity of students. The activeness of students is gained by combining common educative forms of pedagogical interaction: frontal, group, pair work and individual. Practically each interactive method implies interconnection and combination of all these forms (Romashina & Mayer, 2011).

It is essential to cover the experience of European countries while reforming school inspections into agencies of professional development. In fact, inspection gradually turns into a kind of consulting which in its turn is closely connected to the teachers’ professional development. There is an interesting example of Scottish inspectional agency, which declares not to assess schools, but to teach them self-assessment.

Modern strategies of teachers’ professional development like traditional approaches face the problem of assessing the results of professional education. In the past the dominant role was given to fixating the fact of education itself when students or trainees got certificates of finishing the advanced training courses or took exams. It was considered that this way could show the degree of acquiring knowledge and skills in the context of the course taken, but not in the real educational environment. Such assessments lead to formalization of curriculums.

Nowadays the solution of this problem is realized in two directions: on the one hand, by improving the ways of laboratory certification and testing of teachers who are not linked to specific courses, but they put certain demands to those who project the courses. During such examination procedures an attempt is made to imitate real contexts of teacher’s actions. On the other hand, there has been a wide spread of authentic assessment, which implies teachers’ observing how students solves tasks in real situations. An instrument of the authentic assessment can also be realized in the form of teacher’s portfolio, which presents data of their pedagogical activity results. (Tyunnikov & Maznichenko, 2014).

In general, it can be stated that new strategies of teachers’ professional development rely on non-formal mechanisms of giving knowledge and forming competences.

**Issue study**

In the process of research the following methods were used: theoretical (analysis; synthesis; concretization; generalization); diagnostic (questioning; interviewing); empirical (study of the experience of educational organizations, normative and educational documentation; pedagogical observation).

The subject of this research is revealing students’ needs for continuing their professional education. The concept of lifelong learning is based not on the offers from the system of professional education, but on the demands of the labour market. Thus, it is crucial to state and analyze the needs of educational institutions and their employees for the programs of further education and development.

Some researchers from the Institute of Foreign Languages of Moscow City Teachers’ Training University have conducted a research to reveal professional difficulties and needs of teachers. The research was aimed at analyzing and preventing difficulties of future teachers in terms of working out various modules of Master programs. During the research in 2017-2018 the following subjective professional difficulties were revealed:

- creation of curriculums connected to forming students’ universal educational skills;
- use of new pedagogical technologies;
- methodology of using ICT in educational process;
- creation of upbringing and socialization programs for students;
- forming students’ interdisciplinary skills;
- working with talented students;
- criterial assessment of students’ educational achievements;
- organization of extra-curricular classes;
- working with poor students;
- planning and predicting final results of education;
- motivating students to master a subject and prepare successfully for the state exams.

Objective difficulties:
- insufficient technical equipment of educational process, lack of computers, activity books, smart boards;
- difficulties in creating of school development program, the basic educational program of the educational organization and subject programs;
- not all teachers understand the ideology of new time and use old-fashioned soviet methods;
- incompetence in organizing lessons with more than 35 students.
- unwillingness and inability to work with students with special physical and mental development;

During the research there has been singled out a wide range of teachers’ needs which can be divided into basic and specific.

Basic needs include:
- enhancing the level of professional competence;
- effective use of modern interactive pedagogical technologies;
- mastering methodologies of organizing students’ project and research activities;
- studying methods of alternative education;
- knowledge of peculiarities of group work technology;
- studying personality-oriented and operational approaches and their possible use in educational process;
- learning about methodology of giving integrative and binary lessons;
- use of different forms of lessons, methods, techniques and means of education;
- ability to form students’ motivation in mastering a subject;
- getting information about projecting modern lessons;
- organizing extra-curricular classes;
- organizing pay educational services in order to raise non-budget resources for the educational institution.

Specific needs of teachers of different subjects are the following:
- knowledge of monitoring students’ skills in various lessons;
- mastering technology based on volunteering (equal educates equal);
- enhancing professional competence;
- getting information about projecting modern lessons;
- understanding the structure of school reforms;
- ability to hold double lessons, massive events in various types of school curriculum.

Analysis of teacher’s needs for continuing their professional education of optional education shows the contradiction between the things teachers know and can do and those they have to know and be able to do. Continuing professional education on the next level or optional professional education is not to be regarded as correcting mistakes. Education implies revealing and satisfying the needs for forming and developing
new competences essential to conduct professional functions on a qualitatively new level.

**Results**

The result of analyzing documents (expert conclusion application) presented for attestation shows that teachers of schools, optional education and pre-school educational institutions, etc. participate in non-formal advanced training by doing the work stated. The teacher’s portfolio includes preparation and giving a report at a pedagogical council, seminar or conference, work and presentations at school methodological association, «open» classes or being a jury in contests, etc.

If we compare the number of teachers finishing advanced training in formal and non-formal conditions (according to the survey of teachers of Moscow and Moscow Region) we can see that non-formal education prevails. It proves the necessity of posing the status of non-formal education as a constituent part of teachers’ professional development.

**Discussions**

Today it is necessary to create a network of organizations that will be able to carry out quality educational activities. It should be borne in mind that education is a licensed activity. Licensing, in turn, involves the presence of an educational organization of a certain regulatory material base that meets the requirements for educational activities, and human resources that can carry out this activity. This ability must be confirmed by the relevant documents recognized by the licensing authorities. It follows that in the system of continuing education there should be enough organizations to carry out educational activities on the required scale:

- educational institutions should have a sufficient number of places for those wishing to take a course of study;
- educational institutions should have a sufficient number of qualified teachers and other specialists to train everyone in accordance with their needs;
- availability of variable programs, teaching materials, textbooks, teaching AIDS and other resources necessary for the implementation of educational activities.

**Conclusion**

Thus, we came to the conclusion that it is necessary to integrate formal and informal professional and additional education in the process of continuous professional development of teachers. This should be done at the legislative level of the Ministry of Education and Science of the Russian Federation in order to take into account these forms of education in the certification of teachers, which does not always happen on the ground. Continuing education should be both formal and non-formal. The latter is a qualitatively new phenomenon in social and educational practice, the content of which is based on its own principles, performs certain functions, solving many old problems in a new way. Modern strategies and models considered in the article are under the significant influence of information and communication technologies and are based on informal mechanisms of knowledge transfer and competence formation. Continuing education of teachers will overcome difficulties and meet the needs for the formation and development of new professional competencies.

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