

Modeling of a Regional Continuing Professional Development System for Academic and Teaching Staff

Marina Georgiyevna Sergeeva, Vyacheslav Nikolayevich Skvortsov, Roza Moiseyevna Sherayzina, Marina Viktorovna Aleksandrova, Svetlana Aleksandrovna Trashchenkova, Iana Viktorovna Poliakova, Yelena Georgievna Kolesina

Abstract: *Introduction. The transition of Russia to the innovative socially oriented type of development has determined the growing demands for highly qualified personnel ready for continuous professional growth and social mobility. Methods. The problem of modeling and practical implementation of the regional continuing professional development system for academic and teaching staff on the basis of the activity-based approach is timely and relevant. The scientifically grounded theoretical and methodological support of the teacher's activity on the improvement of professional competence and mobility should use modern methods, network forms and distance technologies. This approach is developed to help overcome the inertia of the regional continuing professional development system for academic and teaching staff. Results. Identifying characteristic features and socio-historical prerequisites for the development of the regional continuing professional development system for academic and teaching staff contributes to the enrichment of life-long pedagogical education, provides the explication of conceptual and terminological apparatus of the issue. The solution to the problem of the development of the regional continuing professional development system for academic and teaching staff requires the substantiation of the theoretical foundations of system modeling. The theoretical and methodological basis for modeling the regional continuing professional development system for academic and teaching staff is an activity-based approach, according to which the goal of training is not to master knowledge, but to provide engaging and challenging learning materials and flexible space for learning through activity. Discussion. The activity-based approach includes andragogical, competence and modular components of individual educational trajectory for academic and teaching staff based on the network*

form of interaction between various educational organizations. Conclusion. Socio-historical implications identified in the study of the advanced teacher training development in Russia, dictate that in connection with the transition to the innovative, socially oriented economy, the continuing professional growth of personnel potential in the system of higher professional education is of paramount importance.

Index Terms: *academic and teaching staff, activity-based approach, continuing pedagogical education, continuing professional development, professional competency, regional system.*

I. INTRODUCTION

In connection with the transition of Russia to the innovative, people-centred type of development, it is of paramount importance to meet the needs of the economy for highly qualified personnel targeted at continuous professional growth and social mobility. The Federal Law "On Education in the Russian Federation" proclaims one of the basic principles of the state policy in the educational sphere to ensure the right to life-long education in accordance with the individual needs [1]. One of the main directions of the modernization in the educational sphere is the continuous system development of personnel potential and the associated sector of higher pedagogical education. Measures aimed at the development of scientific and teaching staff and at providing targeted support for young professionals require concerted actions at both the federal and regional levels. The existing mechanisms for the development of personnel potential in the scientific and scientific-educational sphere need to be supplemented with new mechanisms to support and stimulate the innovative activity of academic and teaching staff. As a result, the main priorities in the field of continuing pedagogical education include modernization of the advanced training system, qualitative updating of the pedagogical community, development of regional teacher education systems, formation of mechanisms for the advance renewal of the education content, creation of high-tech educational environment that provides favorable conditions for the individualization of educational programs.

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* Correspondence Author

Marina G. Sergeeva*, Research Institute of the Federal Penitentiary Service of the Russian Federation, Moscow, Russia.

Vyacheslav N. Skvortsov, Pushkin Leningrad State University, Saint Petersburg, Russia

Roza M. Sherayzina, Yaroslav-the-Wise Novgorod State University, Novgorod, Russia.

Marina V. Aleksandrova, Yaroslav-the-Wise Novgorod State University, Novgorod, Russia.

Svetlana A. Trashchenkova, Department of Continuing Education, Moscow Region State University, Mytishchi, Moscow region, Russia.

Iana V. Poliakova, Donetsk Pedagogical Institute, Donetsk, Ukraine

Yelena G. Kolesina, Moscow Institute of Open Education, Moscow, Russia

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The main goals of continuing education are to meet educational and professional needs of learners, to ensure professional development and improvement of professional status, to ensure correspondence of the qualifications to the challenging conditions of professional activities and social environment [2]. Evaluation of the current education system prompts a search for new approaches to qualitative changes in continuing professional development (CPD), which should meet the prospective level of the regional economy and enrich the potential for the continuing development of a person's professional and personal qualities. The development of continuing pedagogical education initiated at the federal level is aimed at updating the regional CPD system as a dynamic, practice-oriented, working in advance mode, based on the construction of individual educational and career trajectories.

II. PROPOSED METHODOLOGY

Recognizing the undoubted value of the fundamental theoretical provisions in the field of advanced teacher training, it should be noted that only a small part of research works was devoted to the modernization of the regional CPD system for academic and teaching staff. The concepts *system of continuous professional development for academic and teaching staff*, *regional CPD system for academic and teaching staff* and others remain debatable. In the existing research works, we could not find any theoretical justification for modeling a regional CPD system for academic and teaching staff on the grounds of the activity-based approach. Network forms of implementing additional educational programs for the formation of individual educational trajectories remain poorly studied [3].

The issue of modeling and practical implementation of the regional CPD system for academic and teaching staff on the grounds of the activity-based approach is timely and relevant. The scientifically supported, informative and methodical support of teacher's activity on the improvement of professional competence and mobility, based on modern methods, network forms and distance technologies, would help to overcome the inertia of the regional CPD system for academic and teaching staff. In this research study, we consider the CPD system not as a simple set of educational organizations and government bodies implementing additional educational programs. The content of personalized educational programs should be aimed at raising the level of academic and teaching qualification by improving professional competencies in accordance with new socio-economic, technological conditions and standards. We regard the regional CPD system for academic and teaching staff as a set of cluster-concentric modular programs implemented with the aim of forming an individual educational trajectory of specialists. Such programs can ensure the ongoing development of a teacher's creative potential in the process of networking between various educational organizations [4]. The study of the regional CPD system for academic and teaching staff requires an analytical presentation of its historical development. The study of the issue history provides understanding of its current state and contributes to the scientifically based definition and future prospects. A distinctive feature of teachers' professional

development at the beginning of the 19th century was the lack of special institutions, whose task would be to improve the teaching skills, develop programs and conduct centralized regular courses. The first organizational forms of work with teachers in Russia were pedagogical councils, congresses, meetings and seminars. In the second half of the 19th century, summer teacher courses organized by zemstvos (institutions of local government), city boards, and school districts, teacher training classes at gymnasiums and pedagogical communities became widespread [5]. At the beginning of the 20th century, improvement of the teacher training was put on a scientific and system basis. By the 1940s, all forms of advanced training and retraining were combined (short-term local and regional courses, central and local workshops at experimental and support institutions, local methodological associations in specialties, pedagogical readings, etc.) into a coherent system of collective pedagogical work. Permanent governing organizations appeared in major cities and regions, teacher training institutes were opened, and correspondence courses were created at pedagogical institutes. Special attention was paid to the ideological and political education of teachers, development of self-education, creation of exemplary schools as reference sites. The emerging centralized state system of advanced teacher training was based on the following principles: planning and scheduling, continuity, universal coverage of teachers, correlation of the advanced training content and school tasks, focus on active methods of teaching. Next stage of the CPD system for teachers in the second half of the twentieth century was more associated with the integration of pedagogical theory and information technologies. This stage can be characterized as the period of the institutionalization of the advanced training system (the creation of advanced training departments, the organization of permanent Higher Pedagogical Courses at the USSR Academy of Pedagogical Sciences, further development of teacher training institutes). The most significant result of this stage is the development of theoretical principles for modeling the teacher education content in the system of advanced training. Based on the principles of modeling, several generations of block-module educational and thematic plans and advanced training programs have been developed. The main research result was the identification of didactic regularities and principles in the process of teaching pedagogical and managerial personnel in the system of advanced training. Determination of the main strategic directions for improvement in the subsystem of vocational education was an important outcome of the theoretical and experimental studies. By the mid-1980s, about three million people studied in the advanced training system annually in 356 specialized institutes and 188 university branches [6]. Modern period in the development of the advanced training system is characterized by the transition to continuous pedagogical education, the interest of state authorities and society in the modernization of supplementary professional education,

the abolition of state accreditation for supplementary professional programs, increasing the share of e-learning; introduction of internal monitoring and external independent assessment of the education quality, development of procedures for professional and public accreditation of programs and organizations of additional professional education [7].

III. RESULT ANALYSIS

The genesis of the advanced training system (according to E. M. Nikitin, P. V. Khudominsky and others) revealed the following socio-historical prerequisites [8]:

- social and economic (globalization of labor markets, social mobility, the transition to a people-centred type of economic development, etc.), determining the social order for continuous training of academic and teaching staff, a high level of professional competence in priority areas of social development;
- social and pedagogical (expansion of the higher education system, reduction of the formal approach to education, independent assessment of the education quality, informatization of education, etc.) affecting the continuing professional development, the formation of readiness to decision-making and problem-solving in the conditions of rapid scientific and technical progress;
- cultural and historical (ideological orientations and values of modern society associated with successful career growth, self-actualization in the profession, etc.) aimed at developing an active person capable of planning individual educational trajectory and improving professional competencies required for the further professional career and personal growth.

Identifying characteristic features and socio-historical prerequisites for the development of the regional CPD system for academic and teaching staff contributes to enriching the theory of continuous pedagogical education, taking into account the challenges of practice. The current state of the issue required clarification of the conceptual and terminological apparatus [9]:

the CPD system for academic and teaching staff is a set of personalized educational programs (modules/courses, internships) aimed at expanding the level of specialist qualifications by improving professional competences in accordance with new socio-economic, technological conditions and (or) new requirements and standards;

the regional CPD system for academic and teaching staff is a set of cluster-concentric modular educational programs implemented on the basis of the network interaction of various educational organizations in order to form individual educational trajectory of specialists ensuring the on-going development of the professional and creative potential and positive change in the status of the participant.

The development of the regional CPD system for academic and teaching staff requires the substantiation of the theoretical foundations for the CPD modeling. As a theoretical and methodological basis for modeling the regional CPD system for academic and teaching staff, the activity-based approach has been chosen, according to which the goal of training is not

the acquisition of knowledge, but provision of engaging and challenging learning materials and flexible space for learning through activity. The regional CPD system for academic and teaching staff implies active and purposeful interaction of participants in the educational process for solving vital problems ensuring the continuous professional development of a person, changing his/her professional status (teacher, supervisor, moderator, facilitator).

IV. DISCUSSION

The activity-based approach provides theoretical grounds for the andragogical, competency and modular components of an individual educational trajectory for scientific and teaching staff based on the network form of interaction between various educational organizations.

The andragogical component of the activity-based approach ensures that the specific features characterizing the development of knowledge and skills of an adult student, are taken into account [10]. Carrying out the formula *learning for life*, andragogy implies the following factors: student's leading role, the possibility of self-realization, independence, self-government, experience, immediate application of acquired knowledge and skills, joint activities of a teacher and a student, etc. When modeling the regional CPD system for academic and teaching staff, the andragogical component of the activity-based approach provides facilitating management of the participants' professional development.

The competency component of the activity approach in modeling the regional CPD system for academic and teaching staff allows focusing on the result of joint activities of a student and a teacher at all stages of training (planning, implementation, evaluation, correction). The result is not a sum of the learned information, but the ability of the listener to act in various challenging situations, taking into account the acquired professional competencies. In the regional CPD system, the status of a scientific and pedagogical worker varies from an active listener to an active participant in the pedagogical courses and coordinator of the particular programs. Thus, professional competency of a university teacher is enhanced by improving all components of professional activity (psychological, pedagogical, subject-methodical, communicative, reflective, design, etc.); due to the purposeful organization of management activities, building work with students based on the principles of andragogy [11]. The modular component of the activity-based approach is the methodological and technological basis for modeling a regional CPD system. The modular component provides conditions for the variability of training and individual educational routes, accounting for labor costs in credit units, expressing the volume of learning based on the defined learning outcomes and their associated workload. Module-accumulative and cluster-concentric programs are used as the main reference points of the CPD organization.

Thus, the modular component of the activity-based approach provides every teacher with the opportunity to choose the educational trajectory, individual progress and self-assessment of the result [12].

The conceptual and activity model of the regional CPD system for academic and teaching staff has a structural organization. This model is based on the components of the activity-based approach (andragogical, competence and modular components) and is represented by five interconnected blocks: target, theoretical- methodological, content, multifunctional, procedural-methodological, productive.

V. CONCLUSION

The socio-historical background identified in the process of developing the advanced training system in Russia dictates that, due to the transition to the innovative, people-centred economy, continuous professional growth of the staff potential in the sphere of higher education has paramount importance. The solution to this problem is possible through modeling an up-to-date regional CPD system for academic and teaching staff, using cluster-concentric modular educational programs and networking of various educational organizations.

Prospects for further research are the methodological and technological aspects of continuous training system on the basis of e-learning, development of procedures for professional and public accreditation of programs and organizations of additional professional education.

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