

Conceptual Model of Continuing Professional Education Based on Social-and-Academic Approach

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ABSTRACT

The importance of the issue in subject derives from the fact that the vocational (professional) education does not really meet the demands of people, society and state that are explained by new qualification requirements to employees in various fields, including forestry, in the modern socio-economic situation. Thus, continuing professional education is particularly important. This article is aimed for development of a conceptual model for continuing professional education based on the potential of this system, that has to be used to its full extent in order to overcome the danger of our country lagging behind the world tendencies in economic and social development and increasing quality of training of forestry workers that possess such qualities as mobility, dynamics, constructiveness, independent thinking and acting. The leading method in research of this issue is modelling that allows us to see the issue as a process of focused and deliberate learning to monitor the quality of education by specialists. The article presents a conceptual model for continuing professional education, reveals its peculiarities, and describes an algorithm for implementation of such model based on socio-academic approach. The model is aimed for successful socialization of students, adaptation to new professional environment and development of scientific and methodological basis for the education quality monitoring.

KEYWORDS

Conceptual model, continuing professional education, education quality monitoring, socialization of students, socio-academic approach

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Introduction

Advanced continuing professional education for the forestry workers is one of the important factors of stability and development of the national resources – forest in this case. Forestry is aimed to become one of the main parts of the

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common strategy for socio-economic development of the Russian Federation in long-term prospective.

The research of the essence of the continuous education idea as a contest for continuing professional education of specialists in Russian and foreign pedagogy allowed uncovering of stages for development of modern concepts of continuous education: statement, phenomenological, methodological, stage of theoretical expansion and specification, and finally – the stage of practical application of the continuous education concept that is still ongoing (Arnautov, 1988; Osipov, 1989; Hilton, 1981; Zinchenko, 1991; Dzhurinskiy, 2004; Panachev, 2016; Frolov, Frolova & Chernyayev, 2013; Mokronosov & Vershinin, 2014; Zolotaryova, 2014; Symanyuk & Deviatovskaja, 2015; Dremina, Davydova & Kopnov, 2016; Fidan & Ay, 2016; Khinkanina & Serova, 2016; Kalimullin & Dobrotvorskaya, 2016; Gabdulchakov, Kusainov & Kalimullin, 2016; Zakirova & Purik, 2016). The unified system of continuous education with multi-dimensional approach is being considered as a complex of state and other educational institutes that provide organizational and substantial unity and successive connection of all of the links of education process, that solve the issues of personal development, general education, polytechnic and professional training of specialists together and by means of coordinating with each other (Belkin, 2004; Gershunsky, 1998; Steinberg, 2002; Zhukov, 2013; Zeer, 2013; Amirova & Fedorova, 2014; Biryukova, 2016; Dorozhkin, Zaitseva & Tatarskikh, 2016; Kalimullin, Yungblud & Khodyreva, 2016; Kalimullin, Khodyreva & Koinova-Zoellner, 2016; Muskhanova et al., 2016). The analysis of theory and practice of continuing professional education of forestry specialists allows us to point out its following features that are characteristic for the state of the phenomenon under study at different levels:

- the society shows demand for quality professional training and re-training of specialists;

- in the modern environment of dynamic changes of life and rapid updating of knowledge, creation of flexible and dynamic continuous education system, a person is searching for re-orientation of his/her plans for life and personal goals for all of his/her life, but the social targeting and balance of personal and social interests are not always guaranteed; it's them which could have allowed to execute socially and individually important update of professional knowledge and enrichment of a specialist's experience, review the personal motivation toward continuous education considering the modern socio-economic conditions;

- the scientific and academy approaches to the issue of the continuing professional education and advanced training that has been proven, do not provide for widening of socio-cultural range and individual potential of the students; they do not help much in their socialization and gaining a modern socio-professional self-identification; they are mostly aimed for teaching narrow range of professional knowledge and skills;

- the renewed educational paradigm of humanistic, subject-subject nature requires for relevant scientific and methodological basis for the continuing professional education; however, the advanced training practices do not always use the achievements of andragogy and social pedagogy relevant to the special features of education for adults to make them competitive at the labor market – they prescribe significant changes in the roles of students and teachers as



subjects of the interaction within the framework of continuing professional education programs for the new generation.

One of the top-priority movements for perfecting of the contents is design and implementation of continuing professional education for the forestry specialists based on socio-academic multi-dimensional nature that allows consideration of diverse and controversial factors, including actual professional training of highly qualified specialists that is aimed for achievement of results that meet international standards, is adequate to the requirements of new socio-economic situation.

Materials and Methods

Research methods

The following methods were used for the research: theoretical (analysis; synthesis; specification; generalization; analogy method; modelling); diagnostic (questionnaires; interviews; testing; task-solving); empiric (studying of experience of education institutes, regulatory and guidance documentation; pedagogical observation); experimental (stating, forming, controlling – experiments); methods of mathematical statistics and graphic imaging of results.

Experimental venue of the research

Experimental venue for the research was the Ural institute for education and advanced training for forestry employees.

Stages of the research

The issue was studied in three stages:

First stage – research and theory. This was for theoretical and diagnostic research of the issue, analysis of continuing education and pedagogical experience gained in the fields of design and management of education for forestry specialists, advanced training of forestry employees. Further on, we searched for methodological basis and made a working hypothesis; we have studied and analyzed literature on philosophy, sociology, psychology and sociology in pedagogy dedicated to the problems and leading methods for realization of continuing professional education of the forestry specialists; we have carried out a trial experiment and performed preliminary analysis of its effectiveness.

Second stage – experiment. This stage was for development and verification of a development program for the Ural institute for education and advanced training for forestry employees in Ekaterinburg; creation and testing of local experimental models for improvement of continuing professional education based on socio-academic diversity, educational plans, special trainings, elective trainings within the main educational schedule: was have carried out a stage-by stage analysis of results gained from the diagnostic study; specified the criteria and measurement values for the effectiveness of continuing professional education institutes, thus building strategy and tactics for the continuing professional education.

Third stage – analysis and generalization. Redefining of existing approaches to continuing professional education; trying of research concept together with

postgraduates, students of the advanced education faculty, managers of the Ural, Siberian and other Russian forestry businesses; checking and practicing of scientific and academic technologies for the educational process; specification of the revealed socio-academic conditions for the results of the research; comprehension, generalization of results, definition of logic for documenting of the research materials; processing of the gained information; and preparation of the dissertation.

Results

The structure and content of the model

Modeling of an educational process based on socio-academic approach has revised the upgrading of advanced professional training programs considering the following:

- fundamentalization that provides for development and strengthening of professional education components;
- succession and integration that define the structure of an educational chain considering the previously gained knowledge;
- completeness and fullness that foresee studying under an educational program of relevant level and content;
- availability that allows choosing of an educational program according to one's needs, capabilities and personal abilities;
- openness and mobility that allow for individuals to increase their level of education by choosing their own ways in the educational space;
- division in levels, steps, variety of functions and profiles that allow individuals as well as education institutes to formulate their individual educational system.

Contents of continuing professional education were modernized according to the main factors of functioning and development, in particular – planning with known results, i.e. engineering of educational events that meet the goals of an individual, economy, society and professional education system at this point in time and for the future;

- good results confirmed by a wide range of educational programs and types of schools that realize the goals that were set forth;
- correctability that foresees multiple steps of education process to allow help a person choose individual educational trajectory based on prompt feedback;
- division in regions that is provided by means of educational goals and which corresponds to the peculiarities, traditions and possibilities of a region.

Model for implementation of continuing professional education based on socio-academic diversity (Figure 1) is the collection of structural components: goal, functional, substantial, organizing and result-evaluating, that provide for an integrative worldview for a student's personality.

The goals reflect the necessity to achieve the main goal of modern continuing professional education to develop abilities of a competitive specialist that has a need to learn; uses reflection as a means to understand not only the surrounding world, but him/herself as well; possessing post-industrial way of



thinking that includes understanding of education's necessity, meeting the requirements of civilized society's high technologies.

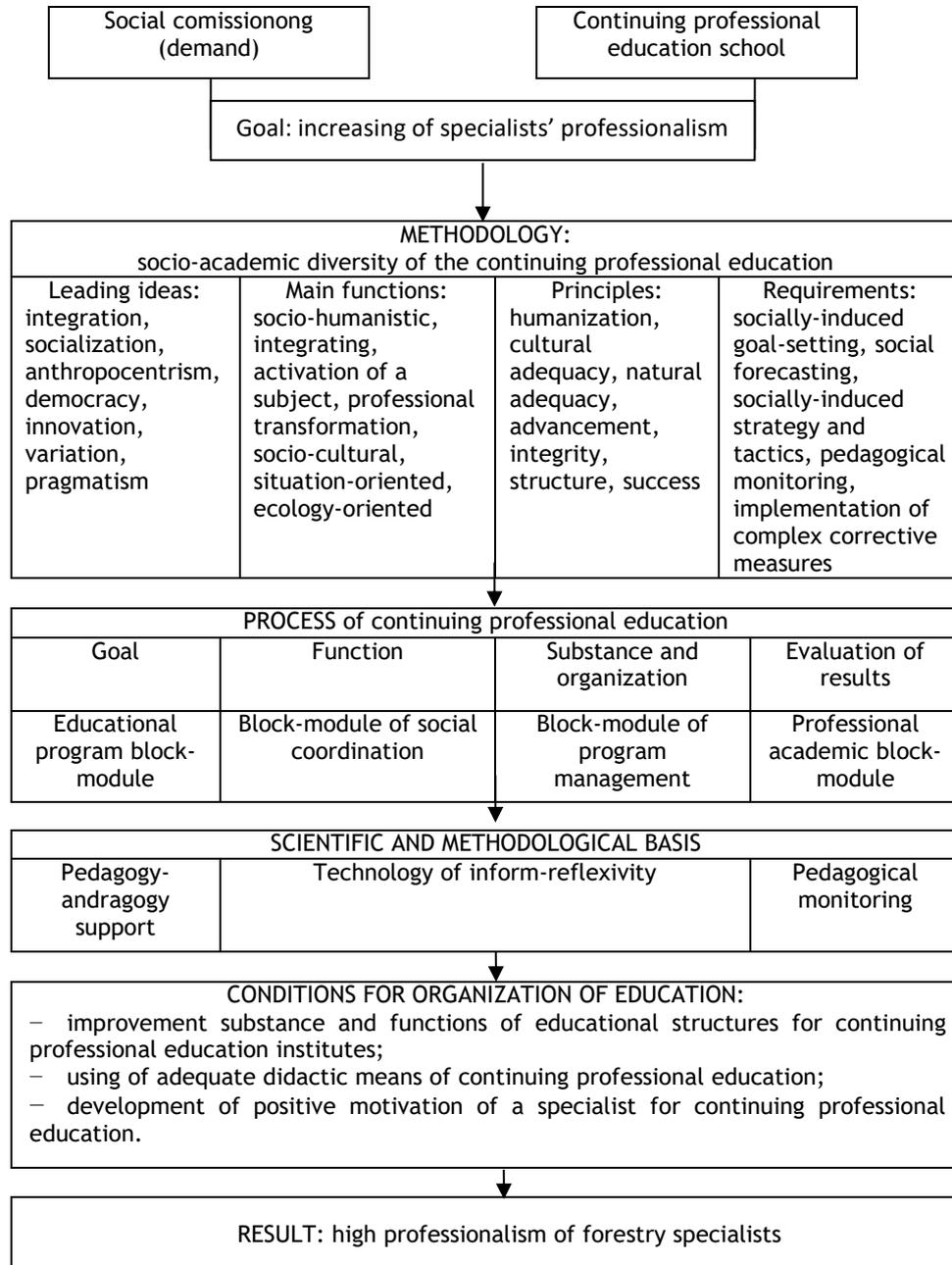


Figure 1. Conceptual model for implementation of continuing professional education based on socio-academic diversity

Functional component guarantees realization of functions of the socio-academic diversity: socio-humanistic, integrating, activation of a subject, professional transformation, socio-cultural, situation-oriented, ecology-oriented.

Substantial component shows in connection of educational plans, variety programs, special trainings, extracurricular activities, integration of in-class and out of class activities.

Organizational component provides for organization of educational process based on socio-academic diversity; foresees successful implementation of inform-reflexivity educational technology, motivation of students for constant gaining of informational basis for their professional work.

Evaluation means increasing of professional level of a specialist, political, social, inter-cultural information-oriented key competences as a foundation for success in professional, private and social life.

Stages for implementation of the model

Stages of the model implementation, which are the most adequate to the goals:

- observation and diagnostics (determination of the achieved level of effectiveness of continuing professional education at different stages of the education process modelling);
- organization and correction (introduction of a management system to ensure socio-academic conditions for planning and effective functioning of the education process within continuing professional education and comparing of the acquired data with the results of the 1st stage);
- evaluation and control (evaluation and control of the achieved level of effectiveness for the continuing professional education using previously developed substantial, process and personality criteria with respective values).

The conceptual basis of socio-academic diversity for the continuing professional education proved in the research required development of a technology that would allow bringing the theory in correspondence with the practice and ensure that the main requirements to the training of specialists are met.

The research gives proof to the pedagogical technology of inform-reflexivity that needs tools and algorithms for processes of coordination of actions of the educational interaction subjects, whose goal is search and creation of environment for optimal integration of socio-cultural, pedagogical and personal factors of quality upgrading of professional work of forestry specialists.

The technology under consideration is of diachronic character, which is due to the modern understanding of socio-cultural processes that bear the force and energy of dialogue. That is why it is aimed for inherent value, uniqueness of a person, his/her personal experience, motivation of a teacher to bear upon these factors for the purposes of education.

In order to understand the meaning of the first aspect of the technology – “inform”, let us elaborate the meaning of the following characteristics:

- multiple aspects of the “information” category allow us to see it as a way for movement of knowledge, emotions, will influences in space and time;
- cognitive activity of a person aimed to determine the profound meaning of events and products of historical development of the social practice, problems and controversies, is more effective in the scientific and information



environment, which has to be created by a professional specialist, initiator of the education process;

–deliberately organization-oriented information environment contains mechanisms of introduction to the worlds of culture and science, recognition of notions, ways of learning, activates self-improvement mechanisms of a person and work of a student, thus allowing to navigate in rapidly and dramatically changing environment;

–educational and informational environment creates a foundation for learning of a whole scientific view on the world based on objective knowledge, since it constantly receives and transmits ideas, concepts, methods, technologies, ensures turning to the basics and richness of culture accumulated by the humankind, creating fundamental and universal knowledge, deepening specific professional training, allowing a student to take his/her rightful place in the community.

The second aspect of the technology, “reflexivity” – can be described by the following statements:

–the essence of the notion “reflexivity” reflects the property of our mind to look inside itself, analyze, observe, understand knowledge and actions, self-explore to gain new knowledge;

–advanced education, as quite a subjective process, is based on understanding that lays upon the concepts that allow understand a problem of your own education from the global point of view of a third-party observer (reflexing subject);

–as a state of a personality, reflexivity characterizes a person’s culture of thinking, self-regulating level of a personality, allows a student to arrange self-management by means of setting of goals, scheduling, programming and correction of his/her actions, to evaluate results of his/her work, and thus – to develop projects for changes;

–revised reflexivity makes it possible to activate the need to review one’s professional position, become an instrument of self-development, be selective towards the types of education and its substance, thus enlarging one’s professional space and space for growth, that includes not only previously formed ways and stereotypes, but also the possibilities for transformation by means of resistance to the long-standing standards and templates;

– reflexive behavior of an education subject reflects the presence of a complex of actions and deeds of a student that express his/her readiness to change, which corresponds to the reflexive expectations according to the personal choice based on liberty and responsibility, relationships with the world in the logic of necessity or the long-standing stereotypes, familiar ways of life.

The main goals of the new technology are self-education, self-understanding and personal fulfillment of the students.

The main functions of the technology that were experimentally proven and tested during the experimental stage of the research are consultative and informational, social orientation and professional development.

The research has shown that the success of a technology is defined by the point of view of a teacher who supports a student as an independent and developing individual.

In its research and experimental work, the Ural institute for education and advanced training for forestry employees used pedagogy-andragogy support of continuing professional education. In order to develop its essence and substance we used a relatively new thing known as “pedagogical support” (it is mostly used in social pedagogy).

The support in course of continuing professional education consists in helping the adult students overcome different obstacles in their learning and professional work (difficulties in learning, difficulties in relationships with fellow students, professors), appealing to the student’s real and potential abilities, capabilities, resources and at the same time developing his/her need for successful independent action.

The pedagogy-andragogy support of continuing professional education for forestry employees was performed in the following ways:

1. Ensuring of conditions for quality learning, meeting requirements to specialists.
2. Development of the leading functions of the professors: organization, personal development, forecasting, prevention, organization of communication, social protection, creativeness and esthetics.

The research has shown that the modern world requires for projective teaching, as well as cooperation of professors and students within the contracts of the Institute with its social partners. The Institute was constantly holding planning seminars involving famous scientists and practitioners; this helped in realization of models and projects for continuing professional education based on the research concept; the projects were meeting the requirements of such criteria as openness, orientation on a person, technology. The continuing professional education here lays upon the principles of humanization, humanitarization, fundamentalization, professionalization and democratization.

The traditional ways to organize and improve continuing professional education based on socio-pedagogical diversity required development of an adequate evaluation criteria and instruments in order to control the results of education and training.

Level and quality of continuing professional education were monitored by professors. It means determined, specially organized, uninterrupted observation of education process in order to take timely and adequate management decisions based on the analysis of the gained information and processors’ forecasts. The main components of the professors’ monitoring are: diagnostics, modelling, observation, coordination and control.

Monitoring used justified criteria, values and tools of diagnostics that allowed revealing the degree of efficiency for the continuing professional education. Due to the conceptual positions of the research, the professor’s monitoring had specific substance.

Systematic standardized observation of changes in quality and quantity of the education results, main characteristics and realization conditions of the socio-academic diversity that affects the level and quality of education was executed by psychological and educational, as well as sociological methods of measurement. Thus, the students were really interested in testing for management skills (cascade evaluation method for the self-esteem of a manager).



Collection and analysis of information about the condition of the continuing professional education at the said and final stages was performed by means of such sociology methods as social diagnostics (polls, studying of social and domestic situations of the students, social documentation of the environment and regions where the adult students of the Institute live, longitudinal observation) and social expertise (measuring of the Institute's quality of performance, using of control and measurement materials, tests, process schemes, sociometry, Delphi method (expert evaluations), SWOT-analysis, expert supervision, reviewing).

Sociological methods were used at different levels and according to the tasks to be solved: at a Federal (monitoring of the state social policy results); regional (territorial research of a particular region in order to familiarize oneself with the process dynamics of social functioning); local (or individual; studying of a particular situation of a school and social and personal wellbeing of its subjects).

Together with the sociological methods, the professor's monitoring wildly uses psychological and pedagogical procedures for investigation of problems, their sources and carriers.

According to the set-forth goals, the pedagogical experiments on planning of the continuing professional education system, search and development of new ideas, their testing and practical using were performed on all levels.

The experimental data (table 1, figure 2) shows significant growth in efficiency of continuing professional education and level of professionalism (from critical to high) of a forestry specialist.

Table 1. Forming of effectiveness for continuing professional education (according to substance)

Feature	Start, %	Finish, %
Social and professional practice	58,2	36,4
Connections with community	16,3	25,2
Quality of education	25,5	38,4

The professor's measurements were based on the previously developed tools and criteria for evaluation. In accordance with the main features of substance and process used during the professors' monitoring of the continuing professional education results, the following improved in quality:

- connections between the school and socio-professional circle, regions where the students of the Ural institute for education and advanced training for forestry employees live;
- socially needed quality of the school's work;
- organization of innovative professional practice and socio-cultural activities of the students.

Moreover, the group of main features that are characteristic to the personal basis of continuing professional education diversity evidences that the level of the students has risen – in socializing, social and professional identity, education.

The data gained at each of the research's stages thus reveal a tendency towards domination of new level of quality of education that is being realized within the framework of socio-academic diversity.

Therefore, the research has proven the determined organizational and pedagogical conditions of the continuing professional education that derive from a proven scientific concept to be effective; it has also revealed the just nature of the developed theory and methods of solving the issue under study.

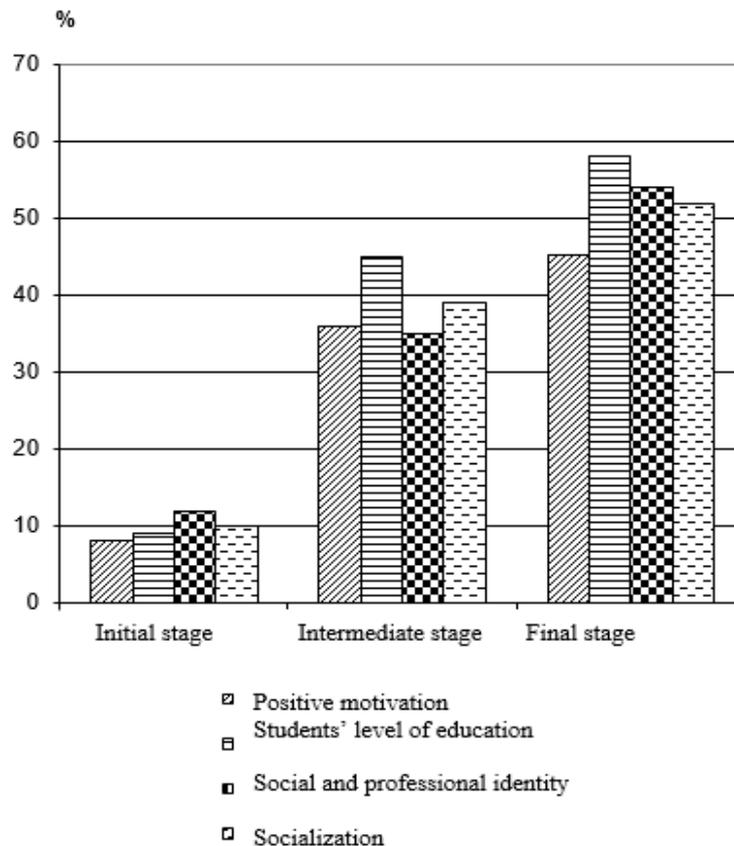


Figure 2. Dynamics of development of professionalism for a forestry specialist (personal criterion)

Discussions

The study of the issue in pedagogical theory and practice proves the importance to modernize the continuing professional education system, since it uncovered the main tendencies that lead to the necessity in deep scientific study of the continuing professional education: orientation towards personal socialization; humanization of education; subject's central nature of education; updating of substantial and technological means of education (Galagouzova, 2001; Gayazov, 2003; Serikov, 1999; Abragimovich, 2013; Zeer, 2013; Larin, 2014; Dorozhkin et al., 2016).

The analysis of the forestry sector of economy shows the importance of modernization for the continuing professional education institutes with a special



attention to modern requirements of the society and labor market to the level of professionalism of a forestry specialist, his/her general and professional degree of education, socialization and positive motivation for constant learning during his/her lifetime.

The analysis of socio-academic factors for development of a continuing professional education system for adults has revealed *tendencies* that allow us foresee the prospective and define goals for development of conceptual basis for the methodology, theory, technology of software for the continuing professional education: orientation of education for socialization of an individual, humanization of education, social and cultural orientation of education, subject's central nature of education; updating of substantial and technological means of education.

The socio-academic tendencies are the reason for the need of modernization of the advanced education process from the point of view of socio-academic diversity in order to form new logical way of thinking with the professionals, specialists.

The continuing professional education is a multilateral process that unites relatively independent, but closely connected and mutually conditioned methods for training of professionals: *specialized* (for learning of the subject); *psychological and academic* (realized based on activity approach with highlights on development of identification and self-construction means), *social and cultural* (aimed to develop whole world perception). The continuing professional education is an integrative and comprehensive process united by the common goal (development of a specialist's personality), common and specific principles, internal structure, interconnected and interdependent structural elements that actively interacts with the outside environment.

Analysis of literature and educational practices allows concluding that a reasonable relation and unity of the general, specific and single suggests for correspondence of invariant component of the professional training to the varying one; the core of the training, its integral part must be fundamental knowledge in the professional field. Good results of continuing professional education based on socio-academic diversity can be valued by means of monitoring with diagnostic tools that include criteria for substance and process and features of the education process as well as criteria and features that characterize personal basis for continuing professional education (Abdullina, 1998; Majorov, 1998; Kalabina & Aleksandrova, 2012; Masalimova & Shaidullina, 2016).

Conclusion

It is determined that the work of continuing professional education schools would be successful provided that the conceptual model for implementation of continuing professional education based on socio-academic approach would be realized with the following conditions for socialization of the students: improvement of substance and functions of educational structures, planning of adequate formats and methods of training for specialists, development of positive motivation of the continuing professional education subjects.

This article might be helpful for professors that adopt to new working conditions in the field of education, specialists in education that want to develop techniques for education quality monitoring.

The research has risen new questions and issues that require solutions. In the prospective, we would need to develop academic specifications and programs of socially-oriented education at specialized classes, students – future specialists in different fields of the forestry industry as well as socio-academic technologies for the students to learn how to perform various jobs (ecological and economic, economic and ecological). The methods of the advanced education need to be justified in order to develop competitive advantages of the specialists and to improve the cognitive component of the continuing professional education process.

Disclosure statement

No potential conflict of interest was reported by the authors.

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