Practice-Oriented Teachers’ Training: Innovative Approach

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ABSTRACT

Modernization of Russian education meets the global trend of professionalization of teachers’ training which assumes strengthening the practical orientation of educational programs as a significant factor in increasing the competitiveness of the teacher in the modern educational environment. The purpose of the article is to identify and experimentally test the conditions for effective practical training of teachers in the framework of the educational program of pedagogical magistracy. The study was conducted on the basis of the methods of theoretical and empirical level. The leading method is the method of pedagogical experiment allowing to determine the effectiveness of professionally-oriented training of teachers, to identify a set of conditions for the organization of this process. The achievement of positive results of the pilot study was obtained due to the implementation of the following pedagogical conditions: the reliance on the idea of the activity approach, a focus on modular design of the basic professional educational program of pedagogical magistracy, a change of the organization procedure and the content of practices, partnerships of educational institutions in the context of the professionalization of teachers’ training, a change in the assessment procedure of professional competencies and labour actions of teachers. The findings demonstrate the increasing level of formation of professional competence and labour actions of graduates which both form the basis of student’s qualification. The materials of the article are valuable for scientists, graduates, teachers of educational institutions.

KEYWORDS

Practice-oriented training, educational module, partnership, practice, professional competences

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Introduction

In modern conditions it is crucial to train of the teacher-practitioner who is able to solve professional problems on his own having practical competences, capable of creative transformation of the reality, as well as professional self-
development and self-improvement. Practice-oriented teachers’ training is presented in the works of both foreign and national researchers. A variety of scientific views reflects a wide range of problems and necessity to find their optimal solutions. The concepts of foreign researcher pay a considerable attention to defining the content and technology of practice-oriented teachers' training (Bacca et al., 2014; Goodyear et al., 2001; Musset, 2010; Nistor, Gogus & Lerche, 2013; Petty, 2006; Reece & Walker, 2006; Zeichner & Conklin, 2005), as well as assessing the professional competence of teachers (Baran, 2014; Black et al., 2003; Ilanlou & Zand, 2011; Robinson, 2006; Wayne & Youngs, 2004). In studies of Russian scientists (Bolotov, 2014; Buyanova, 2013; Margolis, 2015; Koletvinova, 2015; Mokshina, 2015; Shukshina et al., 2016; Yakunchev & Gorshenina, 2013) the essence of practical training is considered in the context of the development of optimal models of educational programs realization. Some works actualize the issues of practice-oriented teachers’ training in the conditions of networking of educational institutions (Adamski, 2004; Kadakin & Shukshina, 2015).

In the context of the modernization of the Russian education it is necessary to update the approaches to the design and implementation of teachers’ training educational programs due to the requirements of the federal state educational standards of higher education (Federal State Educational Standard of higher professional education on the direction of preparation 44.04.01. Pedagogical education “Master's degree”, 2014) and the professional standard of the teacher (Professional Standard of “Teacher (Teaching Activities in Preschool, Primary General, Basic General, Secondary General Education)”, 2014). The intensification of practice oriented teachers’ training is focused on the achievement of new educational results allowing to master professional competencies and labour functions.

Mordovian State Pedagogical Institute named after M. E. Evseiev focuses on the implementation of innovative approaches in the training of teachers that enhance the quality of their education and competitiveness in the labour market. The Institute has received state support of innovation activity as an experimental ground of the Russian Academy of Education. Since 2014 the university is involved in the modernization of pedagogical education of the Ministry of Education and Science of the Russian Federation whose goal is to provide efficient and qualitative educational process aimed at training the modern teacher, creating a set of variant paths of teachers’ training who are ready for professional work in the education system, culture and social services (Kadakin & Shukshina, 2015). In the framework of the project at the Institute, a practice-oriented model of teachers’ training is implemented which implies the professionalization of educational pedagogical graduate programs (Shukshina et al., 2016). Experience in implementing of this model enabled to reveal pedagogical conditions ensuring the effectiveness of its functioning.

Research Methods

The study was conducted on the basis of use of methods of theoretical level, among which the priority was given to the analysis of scientific literature, comparison, systematization of the material on the issue of practical training of teachers, forecasting, designing. From an empirical level methods, pedagogical experiment, praximetric methods, the method of expert evaluations, test materials to evaluate the professional competence of teachers were used. The
experiment was conducted during the period of 2014-2016. Experimental research base was Mordovian State Pedagogical Institute named after M.E. Evseev. Students enrolled in the teachers’ graduate program took part in the experiment.

The study was conducted in stages. The first phase was carried out by the analysis of the problem of practice-oriented teachers’ training in the pedagogical theory and practice. In the second phase was implemented the model of a practice-oriented training in pedagogical magistracy, conducted experimental work to verify the effectiveness of this model; an independent evaluation of formation of professional competence and labour actions of the future teachers was exercised (Shukshina et al., 2016). In the third phase conditions for effective practical training of teachers were revealed, their experimental validation, compilation, processing and presentation of results of the research were conducted.

Results and Discussion

Characteristics of pedagogical conditions of practice-oriented teachers’ training

Previous experimental work has revealed the conditions of effective practice-oriented teachers’ training:
- implementation of the activity approach, providing practical training determining the ratio of competences of the federal state educational standard of higher education (Master's level) with generalized functions and labour actions presented in the professional standard of the teacher;
- focus on the modular design of the basic professional educational program suggesting the restructuring of the organization of the learning process;
- changing the procedures of the organization and content of practices;
- partnerships of educational institutions in the context of the professionalization of teachers’ training;
- changes in the procedure of assessment of professional competence of teachers and their labour actions.

The implementation of the activity approach providing practice-oriented teachers’ training

Professionalization of teachers’ training is aimed at educational outcomes ensuring the formation of the abilities to perform professional activities in accordance with the standards elaborated by the professional community, as reflected in the professional standard (Bolotov, 2014). An activity approach sets the logic to design qualification requirements for pedagogical high school graduates, based on the analysis of the scope of the professional work of the teacher; establishing appropriate qualification characteristics and professionally important qualities; selection of educational content. On the basis of the activity approach in the process of practice-oriented teachers' training, a specific significance is the formation of the ability to carry out professional activities, their reflection, the ability to implement these actions in a new environment and their independent development (Margolis, 2015).
In the development and implementation of educational programs in the context of the activity approach it is necessary to target at specific types of professional activity which a teacher is being trained for and to achieve a high level of competence for each activity (teaching, research, design, methodological, administrative, cultural, education). Using an active approach implies an increase in the practical constituent of training, changes of the structure, form and content of the training, evaluation and diagnostic tools for the certification of graduates, as well as the organization of professionally-oriented practices in educational institutions.

**Orientation on the modular design of the basic professional educational program of teachers’ training**

The modularization of the educational process is an organization of professional training in order to give it a certain structure and sequence of passing the compliance of educational modules. The modular approach provides processibility and variability of content, tools, forms and methods of teaching, actively includes in the management of the system, not only teachers, but also students. The modular approach is based on the principles of agility and flexibility, parity, conscious perspective, the effectiveness and efficiency of the knowledge, highlighting the major (Margolis, 2015).

With the modular construction of the educational program, the principle of individualization of learning is implemented. According to this principle, the modular education program ensures the formation of competences on different levels, differentiated mastering of the content module due to variability of elective courses included in the module, as well as variable modules in academic subjects. The sequence of module study with a given depth of mastering of every individual forms the educational student route. A master-degree student, studying on an educational tailor-made program chooses his own educational path, taking into account initial training and access to the planned level of formation of competences.

Modular education graduate program is a set of planned modules within which the generalized special labour functions are implemented, the formation of common cultural competence is carried out, promoting more effective implementation of professional functions. The modular structure of curriculum tends to be rigidly structured compared to a traditional single-cycle system and it requires a greater number of compulsory subjects and contact hours with a teacher. The work on the modular system assumes a deep and detailed study of the relevant training documentation.

Module development objectives are formulated in terms of teacher’s training tasks and expected results of the mastering of the module are described in terms of specific competencies of students. In formulating the results of mastering a module through the expected outcomes of students, teachers’ training tasks are written in the routing. The educational content of the module depending on the purpose and place in the basic professional educational program includes the content of the theoretical subjects or sections, which together make it possible to form necessary knowledge for the student, skills and labour activities associated with the implementation of specific work function of the future teacher. The modules are complemented by a significant part of practice and are specially
organized in laboratory and learning environment (workshop) and on the clinical basis (in a real educational institution) (Margolis, 2015).

Modular structuring of the educational program is designed to promote its openness, flexibility and focus on increasing the share of independent work of students. Achievement of these characteristics is associated with a change in the algorithm of the organization of an educational process. This process involves students, teachers and administration. The student should become familiar with educational and methodical complex of a unit at the initial stage of training. This means that at this stage, the joint project activities of teachers and students is exercised, taking into account the prospects of meeting the educational needs and further professional development.

The modular concept allows the head of the magistracy to build a variety of options in the master's programs, using different composition of modules, optimize the process of graduates' training. Such a construction of the curriculum assumes the rejection of the "linear" educational trajectory of the student. Students study individual modules or their components, depending on the individual educational needs.

**Change of organization procedures and content of practices**

The main issues of the organization of professionally oriented practices are in the structuring of this type of activity in the logic of competence-active approach and taking into account modularity of the basic professional educational programs structure (Zemlyanskaya & Sitnichenko, 2015). A professionally-oriented practices provide a combination of practice-oriented study of theoretical disciplines of the modules (integrated practices) with the system of concentrated (academic, industrial) practices.

Integrated practice corresponds to the general plan of the modular construction of the basic professional educational program, its content matches the theme and structure of each functional module, including the academic disciplines constituting it. An integrated idea means that the task of practice is determined by the content of the module of theoretical disciplines and it is exercised by a real educational process of educational organization.

Concentrated practice is included in each semester with a break from the training sessions at the university, it has different types of (academic and work) and the content of which is determined by the topics of modules and dynamics of graduates’ professional development. Concentrated practice in an informative aspect does not duplicate integrated practices, but summarizes, deepens to a new level formed professional competence and labour functions of graduates.

The main professional educational programs assume the following types of practices: training workshops, internship (pedagogical) and work. Following the logic of forming an educational graduates’ program it is possible the outline the target orientation of each type of practices. Training workshop is preceded by a study of theoretical training and made in a concentrated manner. Its main purpose is the formation of the complex competencies required for entry of students in a meaningful and functional problems of the educational module. This practice creates the motivation to self-teaching activities and contributes to the effective development of labour functions as a separate educational module.

Internship (pedagogical practice) coincides with the period of theoretical training and is implemented by the type of dispersal. This practice is aimed at
improving the professional pedagogical and methodological graduates' culture, it contributes to the formation of motivational and professional position and promotes research activities in the field of education. The integrated practice specifies the content of modules and blocks and it is aimed at professional refinement action generated in the modules. The integrated practice provides a constant student immersion in the professional activity.

Work practice as the final form of the practice module is carried out by the concentrated type. It is aimed at organizing the development of a holistic professional activity in accordance with the objectives of the program in a school-university partnerships with the involvement of experienced teachers of the educational organization - supervisors. This type of practice is designed to carry a reflective analysis of innovative experiences and develop professional competence in the design and implementation of specific practical situations teacher's activities, creatively solve professionally-applied and scientific-pedagogical problems. This type of practice is carried out with a break from university studies.

The content of vocational-oriented practices is developed on the basis of legal documents - the federal state educational standard (Federal State Educational Standard of higher professional education on the direction of preparation 44.04.01. Pedagogical education “Master's degree”, 2014), the professional standard “Teacher (educational activities in the field of preschool, primary general, basic general, secondary general education) (educator, teacher)” (2014), etc. The content of professionally oriented graduates' practices is aimed at the following the main types of professional activity: the study of the basic activity directions of the educational institution; revealing the specifics of designing activity of the teacher in the educational institution; studying the methodological bases of the organization of educational process; studying the technological bases of designing of the educational process.

Partnerships of educational organizations in the context of the professionalization of teachers’ training

Modernization of teachers' training programs, interfacing requirements of the federal state educational standards and professional standard of the teacher actualizes the problem of strengthening the practice oriented training of future teachers on the basis of the mechanism of networking of educational institutions of general and higher education. One of the characteristic features of networking is mutual benefit and productivity as the basis of an educational partnership. By implementing various forms of networking, educational institution receives additional opportunities for positioning in the market of educational services, acquires importance in solving problems of improvement their competitiveness (Kadakin & Shukshina, 2015). The integrator providing partnerships of educational institutions in the context of the professionalization of teachers' training are basic departments.

A basic department is seen as school-university partnership that ensures the interaction of pedagogy and educational practices that meet the condition of employers in teachers' training, "clinical base" of the practice. The basic department provides support for continuous education of teachers in a changing professional pedagogical activity. Targets of activity as the basic departments as innovative structural divisions of pedagogical universities are associated with
the improvement of the quality of education, strengthening the practical orientation of the educational process, as well as targeted at training of teachers with professional educational programs demanded by employers. The activity of basic departments is carried out in the following areas: the development of basic educational training programs for teachers and educational and methodological support; teaching of the discipline in the workplace of educational partner organizations; development and implementation of modern educational technologies in the educational process; organization of diagnostic, corrective and preventive actions in the framework of the educational process; management of final qualifying works for the formation of the necessary competencies of students; the provision of educational services for programs of additional vocational training based on the directions of research and practical work of partner organizations; conducting joint scientific and methodological activities in the priority areas of research; implementation of vocational guidance work with students; promotion of employment of graduates.

The staff of the basic department should include highly qualified university professionals with practical experience constantly improving their professional and scientific level, as well as practitioners and leading experts of educational organization on the profile of graduates' training. In terms of the basic department activities it is necessary to form supervising system represented by teachers-mentors, exercising teaching and methodical support of activity of the future teachers, their psycho-pedagogical support and professional self-determination.

Practical activities of the basic departments ensure effective practice-oriented training of teachers under the following conditions:
- the availability of public information and educational environment, providing scientific and methodological support and interaction of subjects of educational process,
- high-quality scientific and methodological support of the basic departments;
- highly skilled human resources of the basic department carrying out effective practice-oriented training of teaching staff, their psycho-pedagogical support and professional self-determination.
- monitoring of the needs of employers with regard to training of teaching staff, as well as their involvement in assessing the level of formation of professional competence of future teachers.

**Changing procedure of assessment of professional competence of teachers and their labour actions**

The basis for the design of professional competence assessment procedures and labour actions of teachers is a multi-disciplinary and inter-module approach (Margolis et al., 2015). In this case, priority is given to the subject-disciplinary and content side of the educational process focused on the success of graduates, final competency and other educational outcomes which can only be achieved in an independent activity.

The basis of the assessment procedures assumes the level assessment model of formation of professional competence of teachers and their labour action which distinguishes it from an invariant one, used in the traditional approach.
Therefore, during the formation of the necessary fund of evaluation tools a level model of educational test materials is used, which is distributed on two related units. The first unit contains the tasks at the level of "know" where the way of solution is obvious, learned by students while studying module subjects. The tasks of this unit are aimed at identifying knowledge component of academic disciplines and are assessed on a binary scale "True - False" The second unit is represented by the tasks on the level "to know and be able to", in which there is no explicit reference to the method of execution, a student chooses one of the studied methods. Tasks of the given unit enable to carry out an assessment not only the knowledge of the disciplines and skills to use them in solving the standard and routine tasks (Shukshina et al., 2016). The results of the tasks of this unit are evaluated based on the correctness of their performance. For this purpose, there are various case-meters - learning activities, consisting of a description of a real practical situation and collectively formulated questions. Implementation of case assignments requires the solution of the problem as a whole and displays the ability to analyze specific information, tracing the cause-and-effect relationships, highlighting key issues and methods of solutions.

To assess the level of formation of professional competence and labor actions of teachers it is necessary to attract employers as independent experts.

**Experimental verification of the effectiveness of pedagogical conditions of practice-oriented teachers' training**

Experimental verification of the effectiveness of pedagogical conditions of the practice oriented teachers' training was carried out in stages and has been focused on the logic of the construction of an educational module, including overall training, the theoretical unit of disciplines, educational practice, research work, reflective unit.

The first stage of training assumed an introduction to the professional activities of the teacher in the conditions of teaching and evaluation of training workshops. Graduates carried out independent professional tests, compiled a list of theoretical questions and educational issues that were necessary to successful performance. As a guideline, the projected image of the teacher was used, capable of independent development of the specifics of the educational environment of the particular school, designing the educational environment that meets the general, specific or special educational needs of a child. It enabled to update and problematize a contemporary educational reality in the eyes of the graduates and created the necessary motivation for theoretical training.

In the second stage graduates mastered the theoretical content of professionally-oriented modules, represented by a complex of a variety of academic disciplines related to the common ground of professional activities requiring knowledge of this content. Education has been directed mainly at providing students with the knowledge on the ways of design of the various activities of students in the educational organization, including metacognitive technologies that were actively studied that form of intellectual skills and enhancing reflexive mechanisms in the professional activities. Graduates mastered the technology of the dialog interaction, development of critical thinking, developing training, information and communication technologies to exploit the potential of the virtual environment in the design, making scenarios of classes, training and resource expansion of personal possibilities of students.
The study of the theoretical part of the module was administered in combination with an active independent work of graduates using practically-oriented forms of organization of learning activities: the creation of an electronic portfolio, the organization of project activities, role plays, case studies, implementation of competence-oriented multi-level tasks, interaction in Info-environment. The training organized in such way enabled to create conditions for a meaningful graduates' attitude to theoretical material and the resolution of conflicts arising in the previous stage of training.

The next step was aimed at modeling the professional action, i.e. its study and development in the model (simplified as compared with the real) situation. At this stage processing of the certain ways of implementing mastered professional activities in a specially organized learning environment was exercised. Graduates practiced skills of organization of educational activities in order to support real learning, designed and simulated the activity of the teacher, taking into account the characteristics and educational needs of students.

One of the most important instruments ensuring the formation of the labor activities of the future teachers, was the organization of research activity of graduates with the introduction of new forms and technologies (scientific societies, research groups, circles) in the traditional (faculties, departments) and innovative (scientific-educational and scientific practical centers) structural units of the institute. During the fourth stage research and design assignments were carried out which were focused on practicing professional competences and labour action in the educational environment of the school. The results of the research work of graduates were reflected in the course projects.

On the reflexive stage the self-assessment of professional activities, the level of development of analytical abilities, professional motivation, professional communication, formation of skills and goal setting, forecasting skills, design, self-control were exercised. This approach allowed to form professional skills of reflection of the graduates and has contributed to their professional self-development.

Conclusion

Experimental testing of the pedagogical conditions of practice-oriented teachers’ training was carried out during the implementation of the basic professional educational program of a pedagogical magistracy. In the course of the experiment, innovative approaches to the organization of educational process were implemented, contributing to the formation of professional competence of graduates and acquisition of labour skills of labour activity performance by understanding, structuring, designing and applying professional teaching experience in the operation, formation of research competences, capacity of reflection and the possibility of an independent professional development. The achievement of positive results have been obtained thanks to the implementation of the principles of interactivity, dialogization of educational process, providing self-actualization and self-presentation of a graduate's personality; organizing integrated professionally-oriented practice, based on the realization of the ideas of the activity and the modular approach in a partnership with educational organizations; change the procedure of assessment of professional competence and labour actions of the future teachers. The results
of testing indicate an increased level of practice-oriented graduates’ training and prospects of a studied problem in the sphere of the issues related to improving the content and process of training of the parties in terms of pedagogical magistracy, strengthening the practice-oriented content training, creation of conditions for the graduate scientific and pedagogical research.

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