Pedagogical Maintenance of Future Teachers’ Practice-oriented Training

Mokshina Nadezhda Grigorevna
The Kazan Federal University, Elabuga, the Russian Federation; mokshinang@mail.ru

Abstract
In modern world momentous events took place in the field of education due to the general processes of globalization and democratization. The European Higher Education Open Space was created. Through understanding of shared values and belonging to a common social and cultural space “A Europe of Knowledge” became not only an irreplaceable factor for social and human development, but a necessary component to consolidate and enrich the European citizenship. At the same time, education in Russia is also going through a difficult period of reassessment of social, moral and cultural values, and defines a new vector of the theoretical and practical orientation of the future teacher’s training. The refusal of knowledge-paradigm is taking place; this paradigm was lying for many years at the heart of the Russian fundamental education and was unable to solve the problem of the separating knowledge from skills to apply them. The current social situation has caused an acute shortage of qualified practice-oriented staff experienced by the real economy in spite of the large number of specialists with higher education. One of the causes resulting in the crisis of the traditional paradigm is the rapid information obsolescence which led to a change in a key orientation of education: from “teacher’s translating the required stock of knowledge to the students” to “education throughout life” (lifelong learning). In addition, the labor market was in need for not the knowledge as such, but the specialist’s ability to acquire and put it into practice by performing certain professional and social functions. That is why in today’s society there is a need for teachers of the new socio-cultural type, capable of ensuring the training of professionals of another level (practitioners rather than theorists). The innovative style of the scientific and pedagogical thinking, the willingness to take creative solutions and create new values, the individual style of pedagogical activity, capacity for reflection, the need for continuous self-education and commitment thereto must be integral features of the modern teacher. According to the provisions of the Federal National Educational Standards of basic general education, the transition from subject-based learning to learning implementing a system-activity approach involving the training of students for professional and social life is required. In this regard, one of the important issues of the would-be teacher training in Russia is the lack of their practical preparation for professional activities. The article describes the experience of Elabuga Institute of Kazan (Volga) Federal University on the implementation of the model for updating the content of pedagogical cycle disciplines, and enhancing their practical orientation. The author, one of the developers of the content module “Disciplines of professional cycle of basic educational program: design and implementation of educational processes”, presented the experience of its approbation.

Keywords: Pedagogical Practice, Practice-Oriented Training, Professional Standards for Teachers, Teacher Competencies, Teacher Labor Activities, Teacher Labor Functions

1. Introduction
Transition of the general education system in Russia to new Federal National Educational Standards (FNES), the development and approval of FNES of Basic General Education (BGE) determine fundamentally new requirements for the professional activity of the modern teacher. The most important feature of the second generation of standards is their reliance on the education activity paradigm postulating the development of students’ individuality based on mastering work methods as the objective and the main result of education. The totality
of these requirements is reflected in the Professional Standards for Teachers. Current teacher training programs at universities do not fully provide the formation of the would-be teachers’ required labor activities defined by the Professional Standards for Teachers relating to the implementation of labor functions (general pedagogical, teaching, educational activities, partial developmental activities).

The pioneers of practice-oriented training in the world are medical and technical universities, which traditionally devote much time to the practical aspects of training students. They were the first to develop a problem-oriented training system, which enabled to greatly increase the quality of would-be medical and engineering workers.

Issues relating to the practice-oriented teacher training are reflected in the works of both Russian and foreign scholars. The former include L.V. Baybarodova, S.A. Berlina, Ye. I. Mychko, S.V. Rettikh, E.A. Sazanova, F.G. Yalalov, the latter are V. Griffiths, A. Castling, J. Petty, P. Ramsden, I. Reece, W. Robinson, D. Fish and others.

The practice-oriented approach enhances the quality of training would-be teachers through the strengthening of the content practical orientation and organization of educational process in high school. This means that any significant professional knowledge is mastered by future teachers in practice, while organizing training and educational work, during each class and each educational activity the issues related to future professional activity should be solved with students.

2. Literature Review

A retrospective analysis of the scientific literature indicates that every era brings its practice-oriented paradigm in teachers’ education training, filling it with their own ideas about the nature and content, methods and implementation technologies. One such paradigm is a practice-oriented education, which is actively implemented in the educational programs of leading universities in the world from the beginning of the 1990s. Its priority is reflected in the national educational initiative “Our New School”, the Federal Law “On Education in the Russian Federation” and in the State Federal Program “Education Development, 2013-2020”.

In a report to UNESCO by the International Commission on Education in the 20th century “Learning: the Treasure Within”, the chairman of the commission Jacques Delors outlined four main principles of education: “learning to know”, “learning to do”, “learning to live revealing one’s potential”, “learning to live together”. In the generalizing report it was noted that education should not be confined only to theoretical knowledge; it must also include the experience to act in practical situations.

Back in 1965 in Turin (Italy) International Labor Organization (ILO) created the International Training Center for modular training, which bases its work on precise analysis and description of the activities, functions, and actions of a certain specialty employee. Visual methodological and educational materials are being developed, known in Russian literature as “Module of Expertise Skills” (MES). It is necessary to take into consideration foreign experience of training teachers, particularly in Italy which is characterized by progressive changes in the field of teacher education, where all structures of its national systems are updated, the content and methods of teacher training are renovated, new forms and relationships between teacher training and school are developed.

Issues relating to practice-oriented education are addressed in the works by Russian scientists.

Considering the educational opportunities of students’ practice-oriented learning, I.Yu. Kalugina notes that the didactic approach to learning is based on the unity of emotional and imaginative and logical components of content, acquisition of new knowledge and gaining practical experience of its use, emotional and cognitive components when performing creative tasks. F.G. Yalalov understands the aim of the practice-oriented education as the formation of professionally and socially important competencies in the course of acquiring knowledge, abilities, skills and practice experience by students, calling this kind of practice-oriented approach the action competence approach.

Another practice-based paradigm is a practice-oriented approach which A.V. Savitskaya describes as “a method of academic education”. In her opinion, it focuses rather on authentic problems that future specialists may face and are facing with, rather than on academic subjects, moreover active training of small groups is put at the forefront rather than the traditional forms of educational process organization. Another researcher L.V. Pavlova equates it to “a method of teaching and learning, which allows students to combine their studies at the university with practical work.”
R. Ahtarieva, N. Mokshina and A. Rakhmanova suggest the content renovation model of pedagogical disciplines cycle, enhancing their practical orientation through networking of educational institutions of general and higher education (school-university partnership). The authors suggested the content of the module "Disciplines of professional cycle of basic educational program: design and implementation of educational processes", besides the overall trajectory of its acquisition by the student is presented. The model suggested is being tested at Elabuga Institute of Kazan Federal University in 2015.

3. Methods and Data

In order to study the teachers’ opinion about the new education reforms we conducted a survey in which 400 teachers in the cities of Elabuga, Nizhnekamsk located in the Republic of Tatarstan took part.

The results of the survey showed as follows: 80% of respondents indicated the need for professional standards; 15% of respondents did not reflect on this issue; 5% of teachers answered negatively.

There were the following answers to the question “How much are you familiar with the provisions of the Professional Standards for Teachers?”: 50% of respondents said they studied it; 75% of teachers heard a lot about it; 2% of respondents did not know anything about it.

The survey included the question “The teachers of which disciplines, in your opinion, are given special attention to in the Standards? Select a discipline: History, Mathematics, Social Studies, Geography, Elementary School, Russian language, Computer Science, Chemistry, Biology, Physics, Literature, Physical Education, English language”. The correct answer was given by 40% of teachers.

While answering the question “Do you agree with the statement that the teacher is obliged to comply with the Standards?” some teachers said that the standard is a tool to improve the quality of education and advance the national education to the international level; a tool of the education strategy in a changing world; objective measuring of teacher qualifications; means of teaching staff selection at educational institutions; the basis for the formation of the employment contract establishing the relationship between the employee and the employer.

The question “Would you like to participate in a working group to develop standards for teachers in the school?” was answered affirmatively by 75% of teachers.

In this connection the module “Disciplines of professional cycle of basic educational program: design and implementation of educational processes” may be a

<table>
<thead>
<tr>
<th>Labor activity code</th>
<th>Labor activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.2</td>
<td>Professional activities in accordance with the requirements of Federal national educational standard of preschool, elementary general, basic general, secondary general education.</td>
<td>50 20</td>
</tr>
<tr>
<td>1.1.9</td>
<td>Formation of motivation to learn.</td>
<td>20 39 11</td>
</tr>
<tr>
<td>1.1.10</td>
<td>An objective assessment of students’ knowledge on the basis of testing and other methods of control in accordance with the real educational opportunities for children.</td>
<td>15 20 15 15 5</td>
</tr>
<tr>
<td>1.2.1</td>
<td>Regulating students’ behavior to ensure a safe educational environment.</td>
<td>10 15 39 6</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Implementation of advanced, including interactive forms and methods of educational work, using them both in class and extracurricular activities.</td>
<td>5 25 24 16</td>
</tr>
<tr>
<td>1.2.3</td>
<td>Educational goals setting to promote students, regardless of their abilities and character.</td>
<td>20 30 20</td>
</tr>
<tr>
<td>1.2.5</td>
<td>Design and implementation of educational programs</td>
<td>11 29 30</td>
</tr>
<tr>
<td>1.2.6</td>
<td>Implementation of educational opportunities of the child's various activities (educational, gaming, work, sports, art, etc.).</td>
<td>12 30 28</td>
</tr>
<tr>
<td>1.2.8</td>
<td>Assistance and support in organizing the activities of students’ self-government.</td>
<td>19 30 21</td>
</tr>
<tr>
<td>1.3.1</td>
<td>Identification of students’ behavioral and personal problems related to their development characteristics in the course of the observation.</td>
<td>10 28 32</td>
</tr>
</tbody>
</table>
Pedagogical Maintenance of Future Teachers’ Practice-oriented Training

separate basic section at the professional retraining and advanced training of educators (subject teachers, class tutors, educational facilitators, Deputy Directors for education, Deputy Directors for studies and pedagogical work, School Principals).

Before implementing a content model for psycho-pedagogical preparation of the future teacher of primary school, we had a general survey of students at Elabuga Institute of Kazan Federal University, majoring in the “Teacher Education”. The total participated in the survey were 70 first- and second-year students. The survey results are presented in the following table.

Students conducted a self-test of labor activities formation included in the Professional Standard for Teachers, assessing the degree of manifestation of any particular labor activity according to five-point system: 5 – very strong and constantly manifested; 4 – is manifested stronger, but periodically; 3 – appears slightly and impermanently; 2 – appears occasionally; 1 – almost never seen or is weak.

It is worth noting that most students did not highly appreciate the degree of labor activities formation which is natural, since they begin studying basic disciplines of psycho-pedagogical cycle.

4. Results

The development of practice-oriented teacher training model according to the undergraduate higher education program 44.03.05 “Pedagogic Education” (bachelor's level) provides formation of the teacher who is not a knowledge translator and its acquisition controller, but a moderator, a tutor, a developer of individual educational paths, learning tools ensuring the formation of students’ competencies they need for their self-decision of conscious and subjectively taken educational objectives. Training such teachers, ensuring their basic expertise development that enables to carry out teaching with regard to the qualitative upgrading of the requirements for teaching profession is the most urgent task of teacher education.

In the period from February 16 to May 28, 2015 the module “Disciplines of professional cycle of basic educational program: design and implementation of educational processes” consisting of a basic and variable part was tested with the first-year students of Russian philology and Journalism specialty and second year students of the Physical Education Faculty at Elabuga Institute of Kazan Federal University (EI KFU).

The module base includes the following sections:
- Pedagogical activity phenomenon;
- Educational psychology;
- Management of the educational process;
- Interactive education practice.

The module variable part includes the following sections:
- Assessment of educational progress;
- Workshop on the general education programs design and implementation;
- Cooperation in the educational process.

The following regulations are taken as a basis of the module program development:
- Federal Law No. 273-FZ “On Education in the Russian Federation”;
- Federal State Educational Standard of General Education;
- The Professional Standard, Pedagogue (teaching activities in preschool, elementary general, basic general, secondary general education) (tutor, teacher).

The module begins with introductory training practices culminating with the training event – the business game “The image of a successful teacher”, which is carried out within the study of module unit “The Phenomenon of Pedagogical Activity” and “Educational Psychology”. The business game enabled to reveal the urgent teacher training problems and allow students to carry out the reflection of their existing personal qualities which help master the profession. The essay “My first steps in the profession” plays a reflective role as well. The module unit “The phenomenon of pedagogical activity” is of propaedeutic character. It opens the whole cycle of psychological and pedagogical subjects and is logically connected to the basic theoretical pedagogical and psychological disciplines, as well as pedagogical practice.

The program was tested with the first-year students of the Russian philology and Journalism specialty and second year students of the Physical Education Faculty at EI KFU.

The students were presented the program section and the list of major creative projects that they should perform in groups and individually.

The most large-scale group creative projects performed by students were the script-writing and the video film making:
- TV advertising “Teacher’s profession”;
- Social survey on the topic: “What is a modern teacher like?”
- The most significant projects individually made by students are as follows:
The essay writing "The teacher who I remember best"; Teacher portfolio formation and the electronic presentation making; Drawing up the self-development program of professionally important qualities.

Learning the unit “Phenomenon of pedagogical activity” is accomplished by an intermediate training event – Dedication to the teacher’s profession.

Learning the unit “Educational Psychology”, where personal and professional significant qualities of the student as a future teacher are formed, allows providing a students’ holistic view about psychological and pedagogical bases of teaching activities, and the successful mastering of pedagogical disciplines at the subsequent stages of learning as well. “Educational Psychology” includes two units focusing on students’ mastery of general and vocational competencies applied in teaching. These are such units as the elementary psychology, and educational psychology. Labor actions related to the ability to carry out training, upbringing and development taking into account individually typological features, to manage educational groups in order to engage students in the process of training and education, motivating their educational and cognitive activity are formed while developing this module unit. When teaching this module unit (at seminars and workshops, during the execution of independent work), we used the following interactive forms and methods of training: representation of pedagogical situations in micro-groups and in a group, viewing videos of training sessions and extracurricular activities, discussions, psychological testing, solution of case studies. These forms helped students in mastering the skills of understanding the core of the problem under analysis, taught the application of theoretical knowledge in real life situations. Use of situational techniques allowed students to demonstrate and improve skills of educational work, to put theory into practice. Application of case-based technologies for the assessment of generated competencies made it possible to conduct both training and assessment using the same methodology. During the final event of the academic educational activities “Psychological analysis of the lesson”, the essays “My first steps in the profession” and “Portrait of a perfect teacher” were discussed.

The introduction to the study of “Process management in education” begins with the training event “The Educational Workshop”. The problematization of knowledge obtained was carried out for students and the necessity of new knowledge that future teachers need for the successful management of educational activity of pupils was shown. For this “The Educational Workshop” was provided with the participation of school teacher-supervisors, where they demonstrated workshops on management of educational activity of pupils. In the first lecture the issues related to the need to upgrade teacher training in pedagogical education were covered. To motivate students to study this course the debate was organized, during which students asked various questions related to the problems of teaching. It should be noted that the module tested in this course was perceived by the students of the Physical Education Faculty as something whole, it is noted by them in the module review. Lessons and activities that they attended at school, fragments of lessons and educational activities developed and implemented on their own, were discussed and analyzed. Students especially noted the last key event “Educational Fair”, where the students’ group work was assessed. In the reviews it was noted that the viewing sessions were discussed from different perspectives, it allowed students to see the diversity of the teacher’s work, to get a better idea of what the teacher needs to know and to master. A variety of applied methods and techniques of informative activity intensification in the organization of module classes was noted by all students; 53% of the students changed their attitude to the future profession, they also noted a sense of responsibility for their performance. Group work organized at mastering module disciplines was welcomed by 79% of students. Participation in the preparation and holding educational activities by all students (100%) was singled out as the best way to understand how to effectively organize the educational process. 81% of students considered holding a fragment of a lesson in pseudo conditions (in the group with first-year students) a difficult task, but an important one because it allowed understanding the peculiarities of teacher’s preparation for taking classes. Lessons held by teacher-supervisors were highly evaluated by all students (100%). The analysis of the school practice enriched the bundle of students’ methodical knowledge (there are reviews where this experience is called “an invaluable experience for mastering teacher’s professional tricks”.

Simultaneously with the module units “Educational Psychology” and “Management of the educational process” the unit “Interactive education practice” is studied which also supposes the introductory educational event – in
the course of educational workshops acquaintance with teachers’ using interactive forms and methods of teaching and education in their teaching practice. During the study of this module unit classes were held using the following interactive techniques: “Interactive learning organization techniques”; “3 steps” technique; the “Q and A” (“ping-pong”); technique “Card survey” technique; “Flash” technique; “Multi-poll” technique; “Field of coordinates” technique; “Mind map” technique; “Six hats” technique.

The variable part of the module was aimed at the advanced training of the future teacher and begins with the introductory event “The Educational Workshop” where the university and school teachers hold mini-workshops with the purpose of motivating students to study disciplines by the choice of this part of the module. Students have the right to choose 3 out of 5 disciplines proposed. An educational event “Educational Fair” rounds out the module study, where students offer their own experience to the networking school in the form of comprehensive programs, education and self-development programs. Teachers of networking schools act as experts to assess the quality of the final students’ educational product.

Learning the unit “Assessing the effectiveness of the educational process” in the networking interaction with the teacher-supervisor packages of evaluation tasks were developed by students which included Monitoring and Measuring Materials (MMMs) in the form of tests (blocks of tests on Physical Culture and Monitoring and Evaluating Materials (MEMs) – the documents used to assess the qualification level of teaching staff. MEMs included the regulations which focused on the system assessing achievement of the expected students’ results on physical training (Professional Standard for Teachers (PST), FNESBGE, the Order No. 575 of the Ministry of Sport of the Russian Federation as of July 8, 2014 “On approval of the state requirements for the physical fitness of the population in the performance standards of the All-Russian sports complex “Ready for Labor and Defense” (RLD)”, “Technological Map of quality monitoring of educational achievements of students”). Testing package of evaluation tasks (MMMs and MEMs) by the students was held by the participants of “Educational Fair” and was highly appreciated by teachers-supervisors of schools taking part in the experiment.

Training program of module section “Workshop on the design and implementation of educational programs” provides an in-depth learning design and implementation of educational programs technology by students and develops labor activities PST – the development and implementation of academic disciplines programs in the framework of the basic educational program and actualization of professional activities in accordance with the FNES BGE. Introduction to the study unit “Workshop on the design and implementation of educational programs” began with a definition of the problems, the study of the social order. Within the framework of networking with Municipal Budget General Education Institution (MBGEI) “Secondary school No. 10” and MBGEI “Secondary school No. 4” in the city of Elabuga, Republic of Tatarstan the issue about the development of educational programs of various kinds was discussed. As a result, the working programs on Physical Training for grade 6 and Russian Language for grade 6 were developed according to the new FNES BGE.

The module unit “Pedagogical interaction in the educational process” is aimed at enhancing socio-educational and communicative competence of future teachers raising their ethics level of interaction with students, forming a positive orientation, empathy and reflection. Introduction to the study unit begins with a definition of the problems, learning the social order. It is formed during the Pedagogical workshop activity with representatives of the networking schools, reception of the order for the development of communication programs, conducting observations during teaching practice in the networking school to see how the teacher interacts with students, teachers, school administration.

5. Discussion

The results of the research presented in this article are consistent to a certain extent with the data given by some researchers[27,28]. The module content study was carried out at the first stage in the form of familiarization with evolving labor actions during the introductive training. At the second phase of module development (in the process of solving teaching problems), students learn the theoretical content presented as a complex of module study units, but interrelated through the common basis of professional action (actions) requiring knowledge of this content. Module study units are learned as a search for answers to the questions put at the first stage of the module study (the introductive training stage) as a form of finding
solutions to specific educational issues and objectives set through its completion as the introductory training event to the unit), creating conditions for the student’s reasonable attitude towards the theoretical material under study. At the third stage of the study the module includes specific ways of implementing developed labor activity in a specially organized educational laboratory environment (workshops, training laboratory). This stage is aimed at modeling the labor action, i.e. its research and development in the modeling situation (in this sense, a simplified situation compared to the real one).

At the fourth stage of module learning the approbation of the developed labor activity is carried out in a real educational institution in the conditions of specially organized reflection. The purpose of this module learning stage (teaching practice) is the analysis of the labor activity development by students in a real educational environment, monitoring its implementation correctness and assessment of its establishment.

6. Conclusion and Final Considerations

Following the results of the module content implementation, it should be noted that it integrates the disciplines of psychology and education and partly methodical cycles and, therefore, focuses on a fairly large list of the teacher’s labor activities, which could entail the tenuous training of future teachers, especially in the implementation of educational activities, or require time extension for this module. Module developers came to the conclusion about the need to reduce the amount of labor activities toward the establishment of which this module should be oriented.

When designing the new basic professional educational programs the developers rely on the following key provision: it is required to achieve a balance between the theoretical knowledge of students and practice-based teaching in the process of professional training. Improving the relationship between theory and practice in basic professional educational programs of teacher education will enable the future teachers to use both types of knowledge for the successful implementation of labor activity at school.

7. Acknowledgement

This article was prepared within the framework of Governmental contract of Ministry of Education and Science of the Russian Federation as of May 23, 2014, No.05.043.12.0016 for works (services) performance for the project “Improvement of the practical aspect of future teachers’ training according to bachelor’s programs within the framework of the enlarged group of “Education and Pedagogy” specialties in “Pedagogic Education” major (Teacher of basic general education) by organizing educational institutions’ network interaction, implementing higher education and basic general education programs.

8. References

5. Rettikh SV. Practice-Oriented Model of Professional Training in Public Relations at the University. [PhD Dissertation]. Tomsk. 2004 [in Russian].