

Workshop on Design and Implementation of Education Programs

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•Received 19 September 2013 •Revised 11 February 2013 •Accepted 21 April 2015

The relevance of this research is due to the fact that the latest normative documents regulating the teacher's activities in the general school and teacher training in higher school envisage the teacher's participation in the process of implementation and, partially, in the development of basic educational programs and additional educational programs for educational institutions. The article aims at developing a model of future teachers' training with regard to the requirements of Professional Standard of Teacher, Federal State Educational Standard of Main General Education, and Federal State Educational Standard of Higher Education. The leading method of investigation of this problem is the methodology of designing educational programs, which allows considering the program as a system product of targeted and organized process for the formation of students' special competences. This article represents the program developed by the authors for a new optional discipline "Workshop on design and implementation of education programs" for the direction of training "Teacher education". Particular attention is paid to the formation of future specialist's labor actions and competencies in line with the Professional Standard of Teacher during the pilot training in the discipline. The program is designed for the teachers of this discipline and university students of this direction of training in any specialty.

Keywords: teacher training, professional standard of teacher, labor actions, educational program, design and implementation.

INTRODUCTION

Field of application and normative references

The program of discipline "Workshop on design and implementation of educational programs" is designed for teachers conducting the discipline and students in the direction of training "Teacher Education"; it establishes requirements for students' readiness and ability to the labor actions and defines the content and type of training sessions and forms of report. The bases for the development of the program are the following regulations:

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doi: 10.29333/iejme/309

– Professional standard. Teacher (pedagogical activities in preschool, primary general, basic general, secondary general education) (tutor, teacher). Order of the Ministry of Labour of Russia from October 18, 2013 № 544n (Professional standard, 2013);

– Federal Law “On Education in the Russian Federation” dated December 29, 2012 № 273-FL (Federal Law, 2012);

– The Federal state educational standard of basic general education. Order of the Ministry of Education and Science of the Russian Federation dated December 17, 2010 № 1897 (Federal State Educational Standard, 2011).

Aims, objectives and learning outcomes of discipline study

The main goal of the discipline “Workshop on design and implementation of educational programs” is to create the future teacher’s ability to labor actions in the sphere of design and implementation of comprehensive programs. This goal is set due to the fact that:

1. The Professional Standard of Teacher (PST) requires the following skills: to carry out psychological and pedagogical support of the educational programs of general education, implemented in the organization, including programs of additional education.

2. Federal State Educational Standard (FSES) of Higher Education (HE) in the direction of training “Teacher Education” is aimed at developing a graduate’s readiness to implement educational programs on subjects in accordance with the requirements of educational standards.

3. Federal State Educational Standard (FSES) of main general education (MGE) states that basic educational programs (BEP) of MGE in the educational organization is developed on the basis of exemplary basic educational programs (EBEP) independently.

Realization of this goal requires addressing the following tasks:

– students’ mastering the technology of designing and implementing education programs (EP);

– practice in modeling teacher’s actions in the process of developing sections and components of BEP, additional educational programs (AEP) and modular educational programs.

Educational outcomes of the discipline study are:

– ability to labor actions in designing and implementing programs of academic disciplines within BEP;

– demonstration of knowledge of FSES requirements to BEP of MGE and basic educational programs.

Students’ competences formed as a result of the discipline study

As a result of mastering the discipline the student should be able to perform the following labor actions:

– participate in the development of sections and components of BEP of educational institutions;

– develop and implement an individual educational route and the program of student’s individual development (PID).

The student must know:

– specificity of EP-s analysis and development, their types, the main stages of design;

– functions, forms, methods, and procedures for EP implementing.

The student must be able to:

- analyze theoretical developments in the field of EP design and implementation;
- formulate goals and objectives, the expected outcome of a particular educational program.

MATERIALS AND METHODS

The logic of the discipline in the module “Disciplines of professional cycle of basic training: design and implementation of educational processes”

As a result of the discipline study, on the basis of labor actions the future teacher forms the following competencies (Table 1).

Table 1. Relationships between labor actions and competencies

Labor actions specified in PST	Competences according to FSES of HE	Educational outcomes, provided by		Descriptors
		Higher School	in networking	
1. Implementation of programs of academic disciplines within the MEP 2. The exercise of professional activity in accordance with the FSES MGE	Implement educational programs on subjects according to the requirements of educational standards	Mastering the technology of designing and implementing educational programs	Modeling teacher’s action in the process of developing sections and components of BEP, AEP and modular educational programs	It gives definitions: - BEP, AEP, PID, - universal educational actions and their types, - personal, subject and metasubject learning outcomes. It demonstrates: - knowledge of FSES MGE requirements to BEP.

The program includes five interconnected themes. The labor input of the discipline is 2 credit units – 72 hours (Table 2).

Table 2. Thematic plan of discipline

№	Themes within discipline	Hours total	Classroom hours		Independent work
			Lectures	Practical classes	
1	Introduction to the space of education programs	6	2	2	2
2	The basic educational program of MGE	14	0	8	6
3	Additional educational programs	14	0	8	6
4	Programs of student’s individual development	8	0	4	4
5	Design of sections of BEP and AEP of educational organization network	30	0	12	18
	Total	72	2	34	36

Learning the discipline starts with identification of the problems and the study of the social order. It begins during the round table in the form of “Pedagogical workshop” with the participation of school network representatives.

The study of the subject ends with the defense of the final program in the network organization and its representation in the framework of the final events of the module “Educational Fair” (Table 3).

Table 3. Networking with schools during distributed practice

No	Theme within the discipline	Total hours	Educational practice
1	Introduction to space of education programs	6	Meeting representatives of educational organization network. Master-class “Design of educational programs”. Discussion “New in Education: the pros and cons”.
2	The basic educational program of MGE	14	Analysis of BEP MGE of network organization. Planning work on the final EP, defining its goals, objectives, learning outcomes, separation of its structural elements.
3	Additional educational programs	14	Working out models of AEP and playing out the situation of defending programs (performance).
4	Programs of student’s individual development	8	Work in the situation of developing students’ individual educational routes in the network schools.
5	Designing sections of BEP and AEP of educational organization network	30	Designing optional EP of educational organization network and their testing in higher school. Defending the program in the network organization. Presentation at the “Educational Fair”
Total		72	

Mastering the first theme “Introduction to space of education programs” begins with a mini-lecture “The problem of designing and implementing educational programs”, which focuses the students’ attention on the requirements of FSES to the BEP.

Practical class in the form of discussion “New developments in education: pros and cons” is dedicated to the analysis of the articles of the Federal Law “On Education in the Russian Federation” on the issues of development and implementation of educational programs.

Thus, common approaches to the design and methods of EP implementation develop. The final stage of work on this topic is “A short glossary of educational program terms”.

The second practical task concerns identification of the final product of the discipline that will be designed later – the education program. It is presented in the form of “Motivation speeches”.

Mastering the second theme of the section “The basic educational program of MGE” starts with the front work (mini-lectures-moderations) “The basic FSES requirements to the educational program”.

Front work creates the foundation for students’ independent work – writing reviews on the video lectures that they have watched: A.M. Kondakov. Federal state educational standard of general education (Kondakov, 2010).

Sharing the results of individual activities is carried out during the practice session held in the form of “brainstorming”. It results in the creation of a unified scheme of analysis and evaluation of EP.

The third theme “Additional educational programs” begins with a mini-lecture-facilitation. This lecture helps to generate an idea of AEP of MGE, their design and implementation. The results are fixed in a performance that is the situation of defending the main provisions of the program in front of a contingent customer.

Mini-lecture-visualization is a basis for studying the fourth theme “Programs of Student’s Individual Development”. The teacher creates a learning situation (case) that represents the school social order on designing individual programs. Studying this theme also includes an independent study of literature and preparation of the digest on the topic “The pupil’s individual educational route” (Sagitova, 2014).

The fifth theme “Designing sections of BEP and AEP of educational organization network” is logically linked with the previous ones. In practical classes students present the results of analysis of BEP and AEP of educational organization network, and the process of their implementation. The following stage is testing the developed program in higher school.

Forms of students' labor actions control

Monitoring is carried out in the form of checking homework that is a written student's statement on the solution of the problem posed during classroom activities and discussed in the proposed texts. Two types of student's work are controlled on completion of every theme: homework and specialized practical tasks (Table 4).

Table 4. Forms of monitoring

Type of control	Form of control	Week	Control parameters
Entrance	Testing terminology	1	Identifying distractors
Current on Theme 1	Home task	1	Written task. Oral presentation of the results of the work in practical class.
	Task to identify the designed program	2	Motivational speeches
Current on Theme 2	Home task	3-4	Written task
	Samples of educational programs with their analyses	5-6	Presentation of the analysis of the general education program.
Current on Theme 3	Home task	7-8	Written task
	Performance	9-10	Participation in the design and implementation of education programs in an interactive way
Current on Theme 4	Home task	11	Written task
	Solving a situational problem (case)	12	Presentation of the program of student's individual development
Current on Theme 5	Home task	13-15	Presentation of the results of analysis of BEP and AEP of network educational institution and their implementation
	Final test for the course	16	Taking the final test
	A sample of the educational program	17-18	Testing and defending a comprehensive program as the final product
Final Control	Credit	3 rd term	Evaluation of the final product

Criteria for assessing the knowledge, skills, and labor actions are defined as follows.

In assessing homework, the knowledge, skills, and labor action that the student demonstrates are taken into account, namely:

- completeness of coverage of the topic,
- student's enthusiasm in role-playing games, discussions, interactive forms of studies (Abdrafikova & Konopatskaya, 2014; Anisimova & Krasnova, 2015; Telegina, Galimova & Masalimova, 2015; Sharifzyanova, Shtreter & Nauryzbayeva, 2015; Asaphova & Golovanova, 2015; Kalimullin & Schaydullina 2015).

In evaluating a sample educational program the following criteria are taken into account:

- agreement on the theme, objectives and tasks of the program with the school network,
- compliance with the requirements to the structure of the general education program,
- practical significance,
- program testing,
- educational organizations' comments and reviews,
- program presentation and defense.

Discipline content and evaluation tools

Theme 1. Introduction to the space of education programs.

Statement of problems of designing educational programs for an educational organization.

Items for discussion and control:

- What definitions of “educational program” are offered by different authors?
- What is the difference between “basic educational program” and “additional educational program”?

Task 1. On the basis of various sources of information fill in the table and give 2-3 definitions of the terms “educational program”, “exemplary basic educational program”, “additional educational program” etc. in the following table (Table 5).

Table 5. Terms in educational programs

Term	Definition	Source of Information
Educational Program	1.	
	2.	
Exemplary basic education program	1.	
	2.	
Additional educational program	1.	
	2.	

Task 2. Compare the definition of the notion “standard” based on the analysis of the old and new version of the Law on Education (Article 7 of the Federal Law “On Education in the Russian Federation”, 2012 and the Law “On Education”, 1992).

Used sources: (Gilmullin, 2015; School-centred initial teacher training., 2015; Kietzman, 2015; Black, 2015; Concept of supporting the development of teacher education, 2014; Mayer et al., 2005; Margolis, 2014; Nyshanova et al., 2014).

Theme 2. The basic educational program of MGE

Basic FSES requirements to BEP structure and content. Objective, thematic and organizational sections of the program. Thematic section: structure, basic provisions. Curriculum as a major component of the educational program. EP implementation.

Items for discussion and control:

- What is specific about BEP sections of the educational institution?
- In what ways do teachers take part in MEP designing?

Task 1. Based on the analysis of documents (text fragment of FSES MGE “Requirements for BEP of MGE structure” and etc.) fill in the missing sections in Table 6.

Sources used: (Exemplary basic educational program, 2011; Khutorskoy, 2013).

Theme 3. Additional educational programs.

Additional comprehensive and pre-professional programs. Work programs of invariant and variant part of the curriculum.

Table 6. Structure of educational programs

Sections of BEP	Components of Section	Content of Components
Objectives	Explanatory Note	Aims and Tasks
	Schemed results	- Personalized - Metasubject - Subject
	Evaluation system	
Thematic	Basic Educational Program	
	Additional Educational Programs	
	Curricula	
Organizational	Plan of Studies	
	EP implementation system	

Items for discussion and control:

- What are the requirements for the AEP?
- How is the elective part of the curriculum of educational institutions formed?

Task 1: Examine experience in designing programs of extracurricular activities in the work by N.V. Afanasyeva, N.V. Malukhina, O.N. Koptyaeva. Introduction FSES of main general education into the activities of the educational institution. Vologda, 2012. 208 pp. http://viro-test.edu.ru/attachments/article/3861/FGOS_000.pdf

Using methodical designer given in Appendix 1 of this paper (pp. 194-195) analyze the program of extracurricular activities of the network school.

Sources used: (Exemplary basic educational program, 2011; Churakova, 2013).

Theme 4. Programs of student's individual development.

Individual educational route (IER). The content and structure of IER.

Items for discussion and control:

- On the basis of what requirements the pupil's IER is designed?
- What does an individual curriculum include?

Task 1. Write a review on the article "Individual educational programs for pupils" by V.B. Lebedintsev and O.V. Zapyataya. <http://www.pandia.ru/text/78/319/16500.php>

Used sources: (Khutorskoy, 2013; What Is an Individualized Education Program, 2015).

Theme 5. Designing sections of BEP and AEP of network educational organizations.

Designing optional EP-s and their testing.

Sample topics of final work:

- Designing a section or component of BEP of network educational organizations.
- Designing AEP of network educational organization.

Selecting the theme takes into account, first and foremost, the interests of the contracting party.

Published official teaching aids for the discipline are not currently available as this academic discipline has not existed so far. Teaching materials can be found in the sources of the bibliography.

RESULTS

Implementation of this program involves the following procedure for the formation of grade in the discipline which is based on a scale of 100 points (Table 7).

Credit on the discipline counts if the student accumulated at least 66 points; the evaluation of the final product should be not less than 10 points.

The discipline testing was held in 2015 at the Faculty of Physical Education (2nd year, 25 students) and the Faculty of Russian Philology and Journalism (3rd year, 24 students) of Elabuga Institute of Kazan Federal University.

In February this year a business game "What a successful teacher should be like" was held as the final evaluation of teaching and practice. The experts, evaluating students' work in the course of the business game, were school teachers-supervisors. Entrance to the discipline began with identifying problems, and studying the social order. Within the framework of networking with the secondary school № 4 and №10 in Elabuga, Republic of Tatarstan, the EP development of different orientation was discussed.

Table 7. Table of assessment of interim and final control results

Theme	Form of Control	Week	Practical Classes (points)	Independent Work (points)
Introduction into space of educational programs	Home Task	1	5	2
	Task to identify the designed program	2	5	3
The basic educational program of MGE	Home Task	3-4	5	2
	Samples of Educational Programs with their Analyses	5-6	5	3
Additional educational programs	Home Task	7-8	5	2
	Performance	9-10	5	3
Student's individual development programs	Home Task	11	5	2
	Situational task solution	12	5	3
Designing sections of BEP and AEP of network educational establishment	Home Task	13-15	5	2
	Sample of Comprehensive Educational Program	16-18	5	3
Total score for current work			50	25
Final product		17-18	20	
Additional score			5	
Credit		18	100	

In May 2015 there was held the event "Educational Fair", where some of the products on the discipline were demonstrated, such as:

- curriculum of the subject "Physical training" and "Russian language" for the 6th grade in accordance with the new FSES;
- brief glossary of educational program terms;
- review of the materials on the issue "New FSES MGE: pros and cons".

DISCUSSIONS

In the process of the discipline testing the mechanisms of forming ability to perform labor actions in EP designing and implementation were found. The most significant of them are: the program of networking with educational institutions, the program of distributed practice, the system of events to input students into the modules, and their outcome on completion.

The curricula for the direction of training "Teacher education" have not envisaged the study of the discipline "Workshop on design and implementation of education programs", neither has the developed aspect been considered in any previous research.

Of a practical significance is a brief terminological dictionary of educational program terms, which includes 70 basic terms and shows a tendency for further development.

The program implementation and the pilot study identified the following problems and mapped the ways of their solutions:

- The students of the experimental groups had not yet studied the discipline "Theory and methods of teaching". Therefore, the programs that they designed were mainly programs of additional education. Accordingly, it is necessary to harmonize the program and schedule of future teachers' methodical training.
- The discipline is not yet provided with teaching aids; it is also necessary to develop an appropriate electronic educational resource.

CONCLUSION

It is established that the described technology of future teachers training for performing labor actions necessary to design and implement educational programs under the new discipline that we have developed contributes to the formation of labor actions in accordance with the Professional Standard of Teacher.

The materials of the article can be of practical value for the teachers of this discipline and university students studying in the direction of training "Teacher education".

The research shows prospects for further development of the formation of psychological and pedagogical foundations of the discipline; the accumulation of a database of educational programs samples and assessment tools fund.

ACKNOWLEDGMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

The research is performed during the execution of the State contract with the Ministry of Education and Science of the Russian Federation № 05.043.12.0016 from 23.05.2014.

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