

Professional Pedagogical Education Quality Management

Rashida G. Gabdrakhmanova

Kazan (Volga region) Federal University, Kazan, RUSSIA

Guzel I. Kalimullina

Bashkir State Pedagogical University named after M. Akmulla, Ufa, RUSSIA

Viya G. Ignatovich

Belorussian State Pedagogical University named after Maxim Tank, Minsk, BELARUS

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

The urgency of the issue stated in this article is caused by the need for effective educational practice in the effective management mechanisms of professional pedagogical education quality, which consider the specificity of educational process of teachers training and consistency of personal development of the future teacher. The aim of the article is to develop and describe the design principles of management system of personal-oriented pedagogical education quality in higher school. The leading method of study of this problem is the modeling method, which consists in the development and approbation of the local model of quality management system of professional pedagogical education, with due consideration of the individual peculiarities of subjective personality development of the future teacher. The article presents a theoretical analysis of the “education quality” concept on the basis of a synthesis of philosophical, psychological and pedagogical, social and economic approaches, provides rationalization for principles of multilevel monitoring of the educational process mobility in HEI of education, describes a model of professional pedagogical education quality management system and shows the results of its approbation in HEI of education. Materials of the article present practical utility to scientists, which study the questions of professional pedagogical education development, practicing teachers engaged in the training of teachers in higher school, as well as specialists in the sphere of professional education management.

Keywords: education quality management, professional training of teacher, quality management system of HEI of education, competency-based approach, subjective personality development of teacher

INTRODUCTION

Social and economic changes in the country determine the need for radical renovations of the educational system. The problem of education quality has stabilizing and fundamental importance in the rating of the various factors that influence the development of education. Current objectives of the social sphere development determine the need for construction of professional education of

Correspondence: Guzel I. Kalimullina,
Bashkir State Pedagogical University named after M. Akmulla, October Revolution
Street, 3a, 450000, Russia.
E-mail: g_kalimullina@mail.ru.
doi: 10.12973/iser.2016.21010a

fundamentally different type, creation of system of psychological and pedagogical tools and conditions that will contribute to successful self-determination and self-realization of young specialists, formation of his “competencies” which allow to be competitive in the labor market (Shadrikov, 2014).

The theoretical analysis of the problem and study of the national educational practice identified two trends in the development of the conditions and mechanisms of professional education quality assurance. Structural changes in higher schools of Russia provide external education quality assurance. The implementation of a multilevel educational process essentially increases the dynamism of the higher education system as a whole, providing an opportunity to respond to permanent changes in the labor market and public relations more flexible. Renewed state educational standards of professional education, which are oriented to modular organization of educational process on the basis of competency-based approach and which define the broad academic freedom of higher education institutions in the development and implementation of the main educational programs, provides an opportunity to take into consideration the needs of regions in qualified personnel. Quality assurance in this case is achieved by means of the mobility of the renewed educational system, which allows it to adapt easily to the constantly changing conditions of the economy, production, science and culture, and to respond flexibly to the needs of the labor market and public relations (Kalimullina, 2009; Valeeva & Valeeva, 2013; Valeeva, 2015; Shaidullina et al., 2015; Sharifzyanova, Shtreter & Nauryzbayeva, 2015; Murat Ayan, 2015).

Improvement of the quality of educational process involves the development of potential of higher education institution, which performs professional training of specialists, its informational, scientific-methodological and technological base, resource provision and improvement of management mechanisms (Asadullin, 2013; Sadovaya, Khakhlova & Reznikov, 2015). Studies suggests that improvement of the quality of professional education is possible due to the strengthening of successive links in the system "school - HEI- production", the creation of an integrated space of professional development of the person.

By developing the idea of continuous professional education, the researchers propose ways of integration of the various levels of the educational process, show the possible forms of cooperation between educational institutions, discover content-related and technological aspects of the succession of levels of basic and professional education, and show the educational park management models.

The study emphasizes the need of establishment of local mechanisms of interaction between education, science, culture and production at different steps of a multilevel training. Among the reasons underlying the need of cooperative structures development, as well as the creation of a single model of its management, the researchers outline the tendency of institutions to establish a common “bank of ideas”, to strengthen the material, personnel and scientific resources, to create a team of professional like-minded persons, the desire of development of “team spirit” which has a significant impact on improving the labor quality and productivity.

The necessity of training of specialists that meet the needs of the modern economy and production, increased competition of universities in the educational market identified a new concept of “education quality management” in pedagogical sciences, in support of which the substantial contribution is made by researches in the field of economy. The various models of quality management are used in modern economic science: Quality System, Quality Driven Management System, Total Quality Management, Quality Control, Statistical Quality Control, Quality Assurance System, etc. All of them, in some ways become the basis for creation of the models of quality management in the educational systems (*Standards and Guidelines for Quality Assurance in the European Higher Education Area*, 2005).

Modern stage of development of higher school in Russia is characterized by the intense searching of ways and conditions of improvement of professional education quality management processes in the HEI. They are based on the recommendations for implementation of the standards series of ISO 9000-2001, "Standards and Guidelines for Quality Assurance of Higher Education in Europe", developed by the European community (Association) of Quality Assurance (ENQA) in the field of higher education, standard on quality management of ISO 9000:2000 (GOST R ISO 9000-2001).

At the same time, the theoretical analysis of the problem, study of the experience of the implementation of the quality management system (QMS) of professional education in the leading universities of the Russian Federation showed that most of the focus of the researches in the existing models of QMS is on the study of organizational and methodological aspects of education quality management and the role and place of personality development process of the of the future specialist are expressed insufficiently as the main objective of professional education and a leading factor of its development. Content-related and technological aspects of personality-oriented professional education under the conditions of implementation of the quality management system of professional training of future teachers in HEI did not become a subject of special study.

MATERIALS AND METHODS

The following research methods are used for solution of stated problems: theoretical (analysis and synthesis, abstracting and specialization, ascension from abstract to concrete, modeling, system analysis); diagnostic and empirical (study of the literature and regulatory documents, supervision, questioning, testing, method of pedagogical consultation); pedagogical experiment on approbation of organizational and pedagogical conditions of education quality assurance in the HEI; methods of mathematical statistics and quality control.

Experimental base of the study is higher educational institutions, which perform the training of the pedagogical personnel: Bashkir State Pedagogical University n.a. M.Akmullah, Branches of the Bashkir State University in the Sterlitamak city and Birsk city. In order to study the processes of succession of professional pedagogical education the separate stages of experiment was performed in the establishments of general education: lyceums Nos. 5, 96; gymnasiums Nos. 3, 39, 158; public schools Nos. 35, 110 of the city of Ufa, The Republic of Bashkortostan.

Study of the problem is performed in three stages:

- the first stage includes the theoretical analysis of the problem on higher professional education quality; development of the pedagogical conditions of improvement and control of education quality in HEI; development of characteristics and criteria of education quality assessment;
- the second stage includes the development of the professional pedagogical education quality management system model, selection of the methods of experimental works on approbation of pedagogical conditions of education quality assurance, specification of characteristics and criteria of quality assessment, conduction of the pedagogical monitoring of the educational process in HEI;
- the third stage includes the conduction of the statistical processing and analysis of the results of approbation of organizational and pedagogical conditions of education quality assurance in HEI.

RESULTS

The professional education quality management system is basic condition for the functioning and development of the HEI in permanently changing social and

economic conditions, which cause the intense competition of educational institutions.

Theoretical analysis of the problem reflected the multidimensionality of the “education quality” concept. Three approaches to its determination are defined: firstly, the quality means the peculiarities of the educational system distinguishing it from other systems and phenomena; Secondly, it is the level of development of the student and the dynamics of manifestation of his personally and professionally important qualities; Third, the quality of education supposes the compliance of all elements with social norms, demands of the society, the state and the individual.

Retrospective analysis of the national pedagogical experience shows successive address of the researchers and practitioners to the separate aspects of this concept. Multiplicity of scientific publications, dedicated to the education quality assurance, confirms the urgency of this problem, as well as necessity of the system approach to the consideration of the concept “quality of the professional pedagogical education”. Consequently, the quality of the education represent the integral notion, which reflects the differential peculiarities of the educational system (philosophical aspect), qualification characteristic of the graduate (psycho-pedagogical aspect) and compliance with the requirements of the interested parties (social and economical aspect). Knowledge of these peculiarities is the basis for systematization of the management approaches of the professional education quality in the higher school.

As a result of the theoretical analysis the conditions of the professional education quality assurance in the pedagogical HEI are determined: the construction of a multidimensional dynamic educational process focused on subjective personal development of the future teacher; continuity of the professional pedagogical education in the system “school – HEI – professional occupation”; operation of the education quality management system in pedagogical HEI on the basis of monitoring of multidimensional process of becoming a teacher.

ISO series of standards were used as the basis for development of the local model of education quality management in the pedagogical HEI, which allows considering of the educational process as flexible system of means, methods and technologies, which are able to adjust to the dynamics of external social and economical conditions (Fig. 1).

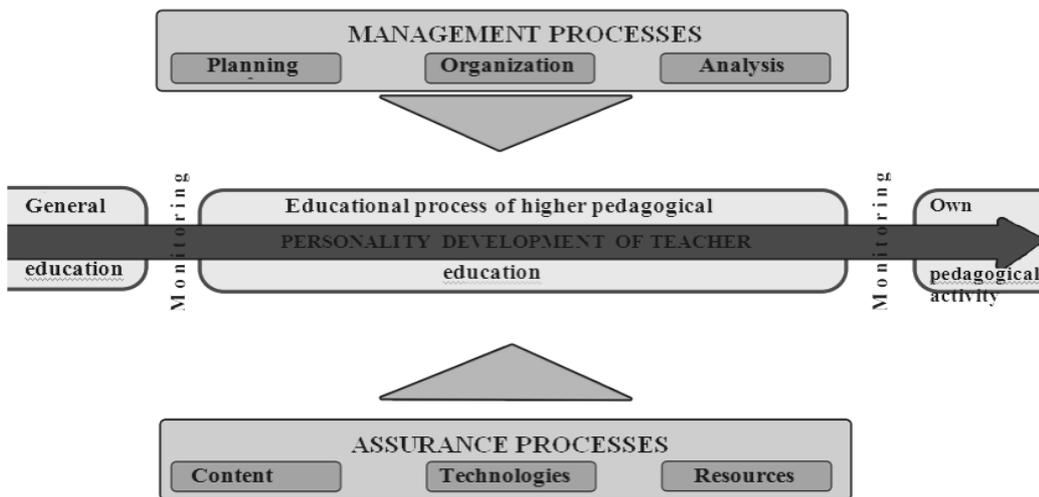


Figure 1. Local model of education quality management system in the pedagogical HEI

The basis of the model includes the continuous process of personality formation of the teacher as subject of pedagogical activity. The formation of the future teacher on the one hand is accompanied by the management processes that allow the

analysis of the needs and requests of external and internal organizations interested in the results of the professional pedagogical education and planning and organization of the educational process on the basis of the analysis; and on the other hand- it is provided by the content, educational technologies, informational, personnel and material resources, reasonable assigned tasks. Mobility of teacher training process is provided by a multilevel internal and external monitoring of educational space, which determines the degree of conformity of all of its components to the specified requirements, needs and expectations. Succession of the educational processes of general and higher professional education and independent professional activity is externally provided due to conformity of educational standards, programs and education technologies. The internal structure of the succession is the continuous process of personality development as the subject of teaching activities.

According to the results of theoretical analysis the multidimensionality of the notion "education quality" is determined by the multiplicity of its indicators, which characterize all components of educational system of the pedagogical HEI. At the same time the leading target of the professional education in all conceptions is the personality of the young specialist, who possesses the professional direction, social and professional mobility, has the "set" of basic, key and special competence. In the context of this study the characteristics of the graduate is the main among the various indicators and criteria of education quality: readiness to performance of social and professional tasks, the psychological satisfaction to education, professional mobility.

Content of the personal-oriented educational process, which is aimed on the development of the personality of teacher as the subject of pedagogical activity, is represented as the complex of tasks, actualizing their own pedagogical activity of the future teachers, system of professionally oriented elective and special courses, which reveal the profession specificity of the teacher. Training technology was based on the integration of educational, research and professional pedagogical activity of the future teachers, which was achieved by the succession of scientific research and special organization of teaching practice, which brings it into proximity with category of probation.

The continuity of the process of teacher training was provided by external and internal successive links in the system "school – pedagogical HEI- an independent professional activity", expressed in the coherence of educational programs, profilization of the senior stage of general education school, the development and implementation of integrated courses, the implementation of joint research-and-development and methodical work.

The mobility of the educational space of pedagogical HEI is achieved due to a system complex multilevel monitoring of all its elements, the results of which formed the basis of planning, development and implementation of the educational process. The system monitoring of the professional pedagogical quality education represented a combination of three local monitoring: monitoring of educational process conditions, monitoring of the potential capabilities of the Higher Educational Institutions education system and monitoring of the subjects of the educational environment. In addition, we determined the levels of monitoring: local (monitoring of the educational process), inside the HEI (monitoring of the educational system of the HEI) and external (monitoring of the satisfaction of the employers' expectations and the quality of the applicants training).

Results of the ascertaining experiment showed that the educational process in pedagogical HEI has a bright personal orientation. Most implemented innovative changes in pedagogical education focused on the formation of the personality of the future teacher, the intensification of its creative potential and the development of a subjective position. At the same time, the specialist training educational process

itself has predominantly a linear structure. Analysis of the regulatory documents shows the orientedness of the higher professional education content, primarily on the requirements of the state standard. The educational programs are reflected weakly the needs of the pedagogical personnel market, the wishes of potential employers.

The first stage of implementation of QMS includes the monitoring of the requirements of employers and students to professional pedagogical education, on the basis of the results of which a rating of the quality characteristics of pedagogical HEI graduate was created. Analysis of these data showed the similarity of requirements of school principals and young professionals to the model of pedagogical HEI graduate, higher-priority features of which are professional and personal qualities. The obtained data identified the content of the experimental educational process, characterized by the strengthening of the career guidance component, personal-oriented teaching technologies, extensive use of modern information technologies and the actualization of the scientific and research and methodological work of students.

The integrative nature of the professional education quality, substantiated in the theoretical part, the priority of professional and personal characteristics of the graduate as an indicator of quality defined the criteria for assessment of the effectiveness of approbation of the education quality management system in pedagogical HEI: educational (the level of formedness of basic, key and special competencies), psychological (stability of professionally significant persuasives and psychological comfort in the chosen profession), the criterion of development (the degree of self-actualization of the young teacher in the professional sphere).

Competence development of the graduates was monitored on the basis of the results of final assessment, which consisted of assembled examination and defence of the graduate qualification work, as well as in course of teaching practice. Complex monitoring and method of independent expert judges were used as the research methods. The level of formedness of competencies was evaluated on ten-point scale (Table. 1).

Table 1. Level of formedness of key, basic and special competencies of the HEI graduates

Competencies	Indicators	Competencies evaluation of future teachers					
		2012		2013		2014	
		CG	EG	CG	EG	CG	EG
Key	Assembled examination	5,7	7,6	5,8	8,0	5,8	8,3
	Defence of the graduate qualification work	5,2	7,7	5,2	7,8	5,3	8,2
	Teaching practice	4,8	7,8	5,0	7,6	5,0	8,4
Basic	Assembled examination	5,6	7,0	5,7	7,4	5,8	7,8
	Defence of the graduate qualification work	5,5	7,0	5,4	7,3	5,0	7,6
	Teaching practice	5,1	6,9	5,3	7,2	5,5	7,4
Special	Assembled examination	5,5	7,01	5,6	7,1	5,6	7,2
	Defence of the graduate qualification work	4,8	7,0	4,8	6,9	5,0	7,1
	Teaching practice	4,5	6,9	4,7	6,7	4,9	6,8

Inter-sustaining results of three-stage measurement show higher level of competence development in the experimental groups in comparison with those in control groups. Development of all types of competences in it is simultaneous,

competences appear in complex, uniformly desobjectifying in all typer of activities. Asynchronous development of competences with a predominance of key competencies of basic and special competencies was observed in the control groups. Competencies are manifested predominantly at the theoretical level.

Pedagogical diagnostics of directionality of motivational sphere of personality of young teachers and level of their trait anxiety (Table 2) make it possible to estimate the satisfaction of graduates of pedagogical HEI with chosen profession and received education.

The results of the study show a higher level of psychological comfort of respondents of experimental groups and allows for the conclusion that the experimentally time tested mobile educational process takes into account in a greater degree the needs and expectations of students, thereby providing a relatively higher level of adaptation of young specialists to the conditions of their independent professional activity.

Table 2. Indicators of satisfaction of the graduates with gotten education (%)

Indicator	Levels	2012		2013		2014	
		CG	EG	CG	EG	CG	EG
Motivational sphere	Professionally	21,3	51,2	14,8	52,4	16,6	55,1
	Partially	47,7	38,7	50,0	22,4	51,1	32,1
	Does not have	31,0	10,1	35,2	25,2	32,3	22,8
Level of trait anxiety	High	16,4	27,0	17,5	25,9	21,6	24,4
	Medium	74,4	49,3	75,3	54,0	76,3	56,3
	Low	9,2	23,7	7,2	20,1	12,1	19,3

According to the ISO series of standards education quality as a result can be considered high if it allows a young specialist to carry out successfully its own professional activity and gives the opportunity to build a successful career. In this context, complex observation over the graduates was conducted during the first three years of their working practice, their achievements in the professional sphere was analyzed and career development was evaluated (Fig. 2).

The obtained results give evidence of a greater demand of experimental group graduates in the market of teaching personnel, high success and effectiveness of their professional activity, career development, attempts to improve their qualification, professional mobility.

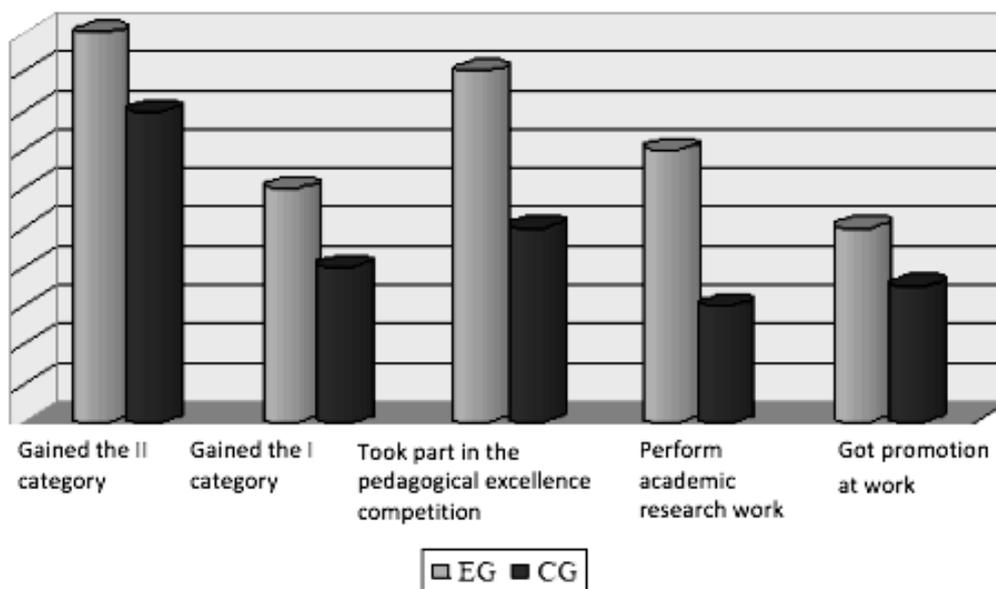


Figure 2. Key accomplishments of the young specialists in the field of education during the first three years of professional activity

Consequently, the experimental work has shown the effectiveness of the education quality management system in pedagogical HEI, built on the basis of multilevel monitoring of the educational process of teachers training. In addition the idea of multidimensionality of educational space of teacher becoming is confirmed, the effectiveness of the proposed organizational and pedagogical conditions for improvement of the professional pedagogical education quality, as well as objectivity of indicators and criteria for its evaluation.

DISCUSSIONS

Substantial contribution to the development of the theory and practice of the education quality management is studies made by R. M. Asadullin (2013), E. V. Efimova and G. I. Kalimullina (2009), V. S. Lazarev (1997), E. A. Popov (2011), M. M. Potashnik (2000), V. Ya. Sinenko (2012), V. D. Shadrikov (2012), J. Newton (2007).

Analysis of external requirements to the quality of the modern teacher training was conducted by V. M. Asadullin (2013), V. P. Solomin and V. A. Goncharov (2014), G. I. Kalimullina, E. V. Efimova, M. V. Mikhailov and M. D. Krivnaya (2010).

Problems of education quality monitoring are reflected in the works of O. A. Abdullina (1998), L. N. Glebova, M. D. Kuznetsova, and V. D. Shadrikov (2012).

Competency-based approach in the management of the professional pedagogical education is shown in publications of V. A. Bolotov and I. A. Zimnyaya (2003), V. D. Shadrikov (2014), G. I. Gaysina (2015), J. Biggs (2003).

CONCLUSION

It was found that the professional education quality management system is a basic condition for functioning and development of the HEI in an constantly-changing social and economic conditions, which determine the severe competition of educational institutions. The concept of “education quality” is multidimensional and reflects the outstanding features of the educational system (philosophical aspect), qualification characteristic of the graduate (psycho-pedagogical aspect) and compliance with the requirements of interested parties (the social and economic aspect).

Obtained results of the study have several aspects:

- scientific and theoretical: the integrated nature of the concept of “professional pedagogical education quality” is discovered; higher-priority role of the mobility of the educational process in professional pedagogical education quality assurance is proved; the necessity of integration of the educational space of general education schools and higher education institutions, which ensures the continuity of the process of teacher becoming is substantiated; a theoretical model of education quality management system in pedagogical HEI with consideration for the individual characteristics of subjective personality development of the teacher is worked out; a set of organizational and pedagogical conditions which ensure the quality of professional pedagogical education in HEI is determined;

- application: methodological recommendations for improvement of the educational process in pedagogical HEI under the dynamic social and economic conditions are developed; technology of multilevel pedagogical monitoring of education quality is shown; indicators and criteria of teacher training quality in pedagogical HEI are proposed; the quality management system of professional pedagogical education in higher school is time tested; the effectiveness of the education quality management in the form of a single continuous didactic process, which is built on the basis of level monitoring with последующей transformation of the content and the conditions of training of the future teacher, is proved in experimental way.

At the same time, theoretical and experimental study does not cover the entire range of problems related to improvement of the education quality as a condition for the competitiveness of higher education institutions in the market of educational services. The implementation of fundamentally new educational standards of higher professional education acutely actualizes the problem of education quality assurance in the HEI with the modernized educational system. It is necessary to continue the study towards the search mechanisms and organizational and pedagogical conditions of professional education quality assurance in the field of training of graduates for the production, medical activities, engineering specialities, etc. It is also necessary to adapt the developed model to the educational process of intermediate professional education in Russia in order to assure high quality of training of workers, employees and middle ranking specialists.

ACKNOWLEDGMENTS

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

REFERENCES

- Abdullina, O. A. (1998). Monitoring of the professional education quality. *Higher education in Russia*, 3, 35-39.
- Asadullin, R. M. (2013). Management of pedagogical education: assessment, state and prospects for the development. *Pedagogy*, 5, 3-11.
- Asadullin, R. M. (2013). Pedagogical education: problems of management. *Pedagogical Journal of Bashkortostan*, 2, 5-34.
- Biggs, J. (2003). *Teaching for Quality Learning at university* (2nd ed.). SHRE and Open University Press.
- Bolotov, V. A. & Zimnyaya, I. A. (2003). Key competences – a new paradigm of education result. *Higher education today*, 5, 34-42.
- Efimova, E. V. & Kalimullina, G. I. (2009). Research activities of bachelors and masters in the professional education quality management system. *Siberian Pedagogical Journal*, 2, 469-475.

- Gaysina, G. (2015). Content and Methods of a Teacher's Professional Culture Formation. *Review of European Studies*, 7(1), 18-22.
- Glebova, L. N., Kuznetsova, M. D. & Shadrikov, V. D. (2012). *Monitoring of the higher pedagogical education quality*. Moscow: Logos.
- Kalimullina G. I. (2009). *Management of professional training quality of future teachers in the educational process of pedagogical HEI* (Dissertation of the candidate of pedagogic sciences). Bashkir State Pedagogical University, Ufa, Russia.
- Kalimullina, G. I., Efimova, E. V., Mikhailov, M. V. & Krivnaya, M. D. (2010). The accreditation of the HEI in modern conditions of the educational legislation reforming: from the problems to the results. *Pedagogical Journal of Bashkortostan*, 2, 7-16.
- Lazarev, V. S. (1997). *School management: theoretical framework and methods*. Moscow, M: Center of Social and Economic Research.
- Mikhailov, M. V. & Kalimullina, G. I. (2008). Modernization of the Russian educational space: problems and prospects. *Pedagogical Journal of Bashkortostan*, 3, 11-17.
- Murat Ayan, (2015). Problems, difficulties and gaps encountered in education quality. *Obrazovanie i samorazvitie*, 2(44), 174-183.
- Newton, J. (2007). What is quality? *Embedding Quality Culture in Higher Education*. EUA Case Studies.
- Popov E.A. (2011). Higher education quality management under the conditions of modernization of higher education in Russia. *Politics and Society*, 4, 95-100.
- Potashnik, M. M. (2000). *Education quality management: Practice-oriented monograph and methodological rationale*. Moscow: Pedagogical Society of Russia.
- Sadovaya, V. V., Khakhlova, O. N. & Reznikov, A. A. (2015). The Formation of Professional Readiness of a Social Teacher to Organization of Children's Leisure Time Activities. *International Journal of Environmental and Science Education*, 10 (4), 595-602.
- Shadrikov, V. D. (2012). *The quality of pedagogical education*. Moscow, M: Logos.
- Shadrikov, V. D. (2014). Formation of basic competences on the basis of the activity approach (by the example of pedagogical activity). *World of Psychology*, 3, 105-119.
- Shaidullina, A. R., Evsyukova N. Y., Mikhailov V. A., Gazizova F. S., Masalimova A. R., Khairullina E. R. & Galimzyanova I. I. (2015). The Curriculum Project on Professional and Pedagogical Teachers' Communication Culture Formation. *Mediterranean Journal of Social Sciences*, 6(2 S3), 202-208.
- Sharifzyanova, K. Sh., Shtreter, J. N. & Nauryzbayeva, R. N. (2015). Structural-Functional Model of Designing Individual Educational Path of Teacher's Professional Development in Conditions of Information Educational Environment. *International Journal of Environmental and Science Education*, 10 (4), 523-532.
- Sinenko, V. Ya. (2012) Innovative management of education as a key factor of its quality growth. *Siberian Pedagogical Journal*, 2, 14-16.
- Solomin, V. P. & Goncharov, V. A. (2014). Pedagogical personnel: a new image, a new education. *Education in Russia: traditions and challenges of the modern age, materials of the VI session of the socio-pedagogical forum*. St. Petersburg, Russia: ICF "Center of National Glory", Saint Petersburg State University, A.I. Herzen Russian State Pedagogical University.
- Standards and Guidelines for Quality Assurance in the European Higher Education Area*. (2005). Finland, Helsinki: DG Education and Culture.
- Valeeva, L. A. & Valeeva, R. A. (2013). Development of future engineers' critical thinking in foreign language teaching. *16th International Conference on Interactive Collaborative Learning, ICL, 2013* (pp. 438-439). Kazan, Russian Federation: Kazan National Research Technological University.
- Valeeva, R. A. (2015). Substantive and organizational and pedagogical bases of modernization of psychological-pedagogical education. *Obrazovanie i samorazvitie*, 2(44), 16-22.

