Methods Of Forming Professional Competence Of Students As Future Teachers

Yessen B. Omarov[a], Darkhan Gabdyl-Samatovich Toktarbayev[a], Igor Vyacheslavovich Rybin[a], Aigul Zhanayevna Saliyeva[a], Fatima Niyazbekovna Zhumabekova[a], Sholpan Hamzina[b], Nursulu Baitlessova[c], Janat Sakenov[d]

[a]L.N. Gumilyov Eurasian National University, [b]Innovative University of Eurasia

[c]M. Utemisov West Kazakhstan State University, [d]Pavlodar State Pedagogical Institute

KAZAKHSTAN

ABSTRACT

The article presents an analysis of the problem of professional competence; a methodological basis of forming professional competence of college students as future teachers is established. The essence of professional competence is defined. The structure has been experimentally proved and developed, the contents, criteria and levels of professional competence have been defined. The effectiveness of the identified methodological basis of professional training, that provide the forming of professional competence of students. A methodological model of forming of professional competence of college students as future teachers has been theoretically proved, practically developed and experimentally approbated. In the process of the experiment, the pedagogical effectiveness of the developed methodological model of forming professional competence of students in the process of their college professional training has been empirically tested and proved.

CORRESPONDENCE   Irina B. Buyanova   ✉   Email: ibbuyanova@yandex.ru

1. Introduction

The requirements to the quality of education that have grown in the conditions of its structural restructuration and integration into the world community considerably change the level of social expectations in relation to the effectiveness of the whole complex of higher education. Passing to the competence-oriented education is a natural step in modernization of the system of higher professional education that enables us to resolve contradictions between the requirements of the state and the employer to its quality, and the developing labor markets, and actual results. The relevance of the problem is by the fact that this approach has been established in the project of the new standard of higher professional education that is also oriented at acquiring new competences by college graduates. A student`s professional competence is a dynamic category; it develops, it is determined by a definite situation, and in this situation professional activities are going on. Researches Arsamerzaev G.A., Dauletova I.G., Sakenov J.Z., Toktarbayev G.- S. D. (2014), Asenova N.S., Zhumabaeva Z.E., Kenenbaeva M.A., Sakenov D.Zh., Toktarbaev D.G. (2013), Baigozhina Z., Zhakibayeva G., Sakenov J.Z., Zavalko N., Nurtayeva Z. Z., Tasbulatova G.T.(2014), Berkimbaev, K., M. Akeshova, A. Meirbekov and G. Meirbekova, (2013), Chown A.(1994) see the main difficulty of forming professional competence of students as future teachers in the fact of this process being a multi-level one. In examining works of Berkimbaev, K.M. and B.T. Kerimbaeva, (2012), Berkimbaev, K.M., S.T. Nyshanova, B.T. Kerimbaeva and G.P. Meyrbekova, (2012), Claire Kramsch, (2006), David Carr and Don Skinner, (2009), Day Ch. (1994), Johnson, M., Cowin, L.S., Wilson, I. and H. Young, H., (2012), a contradiction was discovered between the variety of conceptual approaches to the considered problem field, and the fact that the methodological basis fot the forming of professional competence of future teachers has not been developed well enough I the real educational process.

Professional activities of a teacher are characterized by an underdevelopment of his/her professional status and responsibilities. Researches (educationalist and methodologists) Gifford S. (1994), Berkimbaev, K.M. and B.T. Kerimbaeva, (2012), Hutchinson D. (1994), Ishanov, P., Bekmambetova, Z., (2013) do not pay attention to the conditions that make for effective forming of professional competence of students as future teachers. No theoretical basis of such training has been elaborated, no methodological basis making for effectiveness of forming of professional competence of future teachers have been discovered. An analysis of works by Kathleen A. Brown-Rice and Susan Furr, (2013), Kerimbaeva, B.T., (2012), Nicolas Fernandez, Valerie Dory, Louis-Georges SteMarie, Monique Chaput, Bernard Charlin and Andree Boucher, (2012), Niyazova G.Z., Kamalbek Meirbekovich Berkimbaev K.M., Rabiga Esimovna Pralieva R.S., Dinara Kadirkhanovna Berdi D.K., Alina Kuandykovna Bimaganbetova A.K.(2013), Oreck B., (2004), Rakhimbekova G.O., Baigozhina Z.M., Abdrakhmanova A.Y., Samatanova A.R., Orazakova R.K., Nurtayeva Z. Z., Sakenov J.Z.(2015) shows that forming the professional competence of students as future teachers becomes one of the main directions of modern pedagogical education.

An analysis of scientific works by Sakenov, D. Zh, etc., (2012), Schantz, E.A, (2012), Sundburg L. (2001), Uzakbaeva, S., B. Baimukhanbetov, K. Berkimbaev,

B. Mukhamedzhanov and R. Pralieva, (2013) shows that the level of scientific organization of the educational process and methodology making for forming the students` competence as future teachers, is not high enough. Some research has been done in this direction, but the results have not been generalized and systematized.

This obvious contradiction defines the relevance of research of the problem. The problem consists in establishing of a methodological basis of forming professional competence of students.

The aim of the research is theoretical proving and practical realization of a methodological basis making for forming of professional competence of students as future teachers. The necessity of forming professional competence of students as future teachers as a part of their professional readiness, is quite evident nowadays, but the methodological basis of its forming in the educational process not being proved requires a more exact definition of the concept itself.

2. Methods

Methods of research: To reach the goal of theoretical proof and practical realization of the methodological basis that makes for the forming of professional competence of students as future teachers the following methods were used: Theoretical research methods: studying and analysis of philosophic, sociological, pedagogical and psychological literature on the problem of research, terminology and theoretical approaches to the problem; synthesis, comparison, generalization, content-analysis. Empirical methods of research: studying and generalization of the experience of work in forming professional competence of a student in the system of higher education, talks with students, college professors and school teachers, questionnaires, observation, method of generalization of independent characteristics, mathematical and statistical data processing, modelling, pedagogical experiment.

The methodological basis of this research is formed by the leading conceptions of personality development, the theory of the contents of education, modern theories and conceptions of higher professional education, the Statute on the essence of the pedagogical process, a pedagogical research on the nature of a teacher`s competence, research on forming a teacher`s professionalism, research on forming a teacher`s competence, ideas of systematic, cultural, personal, activity, humanistic, axiological and acmeological approaches, the idea of subjective activity of a person in its life process, elaboration of technological approaches and variative technologies of higher education.

3. Results

We can find the following explanations of the categories of competences and competence in scientific literature (Chown A. (1994), Gifford S. (1994), Berkimbaev, K.M. and B.T. Kerimbaeva, (2012)). Competences are generalized and formed personality qualities, its ability to use acquired skills in a most universal way, the totality of knowledge, skills and abilities, that make it possible for a person to get adapted to changing conditions, the ability to act and survive in the given conditions. Competence is a special ability of a person necessary to make a certain step in the sphere of a certain subject, including narrow special knowledge, skills, ways of thinking and readiness to be responsible for one`s actions. What is the difference? Competencies are a result of education, readiness of a person to organize effectively both inner and outer resources to achieve a

definite goal. Competence is an ability to solve problems that appear in one`s surroundings, with available means/ A person is competent if he/she is able to solve non-standard, meaningful problems practically, using knowledge, skills, experience, etc.

If we imagine it in the form of a table, it will look like this:

Table 1: Competencies and competence.

Category	The essence of the category	Indicators of the category	Marks of the category	Levels of manifestation of the category
Competences	Authority. Sphere of knowledge.	Diploma, order, statute, other standards.	Work status. Program.	Category, class, rank, level (high, medium, low).
Competence	Ability.	Knowledge, skills, ways of doing things, etc.	Activity.	Levels of competence (high, medium, low).

As we can see from Table 1, there are meaningful connections between the categories of competence and competencies in essence, indicators, marks and levels of manifestation. Considering all this, we can say that professional competence of students as future teachers is the leading characteristic of their professionalism and it is a multi-level, integrative personality formation, based on positive motives of choosing a profession, the totality of systematic knowledge, reflexive activity, the culture of dialogue, that is manifested in the readiness of a teacher to solve educational tasks effectively.

Professional competence of students is defined by characteristics of his/her personal qualities including professional competences. It makes for effective and adequate professional activity in different spheres of education, being a capable organizer, having skills of pedagogical analysis and forecasting results of pedagogical activities and knowledge of its most effective ways. Students` professional competence manifests itself through solving professional tasks that form the basis of their professional activity (Berkimbaev, K.M. and B.T. Kerimbaeva, (2012). Besides, we should remember that professional competence is an ability to perform the main kinds of professional activity and solve educational tasks in the conditions of an educational establishment. Consequently, a list of professional competences may include the following groups: general professional competences, special competences, specialized competences.

The contents of professional competences in the context of scientific approaches to the concept of competencies is formed under the influence of the following inner and outer factors:

-The social demand of the territorial market of educational services;

-The demands of the state educational standard to the qualification of a specialist, foe which legal documents of administrative regulation are the basis;

-The demands of the employers to the professional qualification as far as the graduate`s capabilities are concerned;

-Constitutive parts of a technology (technological, methodological, organizational);

-Activities of the professor and the student.

Each group of competences should be classified according to the levels of its being formed, which depends on the planned educational result, the type of activities in the framework of the academic subject (intuitive, stereotypical and reproduction activity, searching and creative one), the training that the students have had and their personal characteristics. Each level is based on cognitive concepts: reproduction, understanding, application, analysis, synthesis, assessment (Tracey Arnold Murray, Pamela Higgins, Vicky Minderhout and Jennifer Loertscher, (2011), Wesley D.C.(1998). The basic level of formation of professional competences is the minimal indicator and the basis for further enhancement and enrichment of a professional competence. We shall consider the productive level its next step, which a student achieves in the process of development of his/her professional competences. It is the medium indicator. The creative level of professional competences is the high indicator. The levels of formation of professional competences are determined by criteria of human activity. So, the criterion of the basic level is reproductive activity according to a given algorithm, based on understanding and reproduction of professional actions. Let us consider partial searching activity as the criterion of the productive level that implies using professional actions to analyze a professional task. The criterion of the creative level is the work of searching, accompanied by assessment of the situation or the professional task and synthesis of possible variants of professional actions.

Reproduction activity has the following characteristics. Students use detailed instructions in which the goal of the work is defined and explanations (theory and main characteristics), means and methods of achieving the goal and the plan of achieving it are given. Partially searching activity has the following characteristics. Students do not use detailed instructions, they are not given a plan of their actions, and students choose means and methods themselves, using reference literature. Searching activity has the following characteristics. Students have to solve a new problem based on the theoretical knowledge they have.

Thus, getting a result on the basic, productive or creative level should be supported by understanding and acceptance by the subjects of the educational process of its goals and demands to its intermediate and final results. Students` professional competence is their complex professional and personal characteristic as future teachers that is being formed in the process of professional training, and the students` readiness to solve professional tasks including the block of contents (knowledge of professional activity), the block of motivation (presence of interest and need of professional activity) and the block of activity (professional skills for qualified professional activity).

The methodological basics of forming students` professional competence are:

- Mastering theoretical and methodological knowledge and practical skills necessary for pedagogical activity, in the process of theoretical and practical training.

- Supporting maximal use of theoretical, methodological and practical directions of professional training according to the logic of training on all main forms of professional activity, innovational pedagogical technologies in the academic subjects and in the process of practical professional training, in the process of complex pedagogical practice in the course of forming professional competence;

- Meaningful connection of active innovation technologies of teaching in the process of forming professional competence of students;

- Forming axiological attention to mastering the methodology of the future profession.

The criteria and indicators of professional competence of the students are the following:

-- Cognitive (the acquired knowledge, the level of professional mastery, mastering a complex of concepts, categories and laws), motivational (qualities and features of a personality, tolerance and pedagogical readiness);

-- Practical (mastering actions of professional character, being able to organize one`s work effectively, using knowledge in non-standard situations, skills of planning, organizing and performing pedagogical work).

-The levels of professional competencies of students are the following:

--The intuitive level (absence of special theoretical knowledge about the special characteristics of pedagogical activity, about ways of solving pedagogical tasks, not being able to act in non-standard pedagogical situations, thinking according to a pattern, absence of understanding of the role of a teacher`s professional competence in his/her successful work and professional development;

-- The stereotype and reproduction level, showing knowledge that enables too define the direction of pedagogical activity, to have one`s own behavior strategy in different pedagogical situations, and effective solving of pedagogical tasks;

-- The search and creative level, showing strong knowledge, a wish to solve pedagogical tasks and enter spontaneously appearing or offered pedagogical situations, mindful attention to the process of forming professional competence of a teacher as a meaningful characteristic of his/her professionalism. Thus, projecting a model of forming professional competence of students as former teachers, we should establish the following blocks:

- I. The organizational and methodological block: thinking of goals and ways of defining the professional actions, that demand using professional competences, construction of tasks, elaboration of criteria of assessment of the tasks that are done, preparing means of teaching, organizing of methodological groups of students and distributing tasks.

- II. The motivational block: giving tasks.

- III. The block of activity and methodology: Students` projecting of solving a pedagogical task, presenting results, methodological assessment, expertise of solutions.

- IV. Criteria and indicators of students` professional competences.

- V. Levels of students` professional competences.

- VI. Methodological basics of forming of professional students` professional competence:

- - Mastering theoretical and methodological knowledge necessary for professional activity, in the process of academic studies and practical training;

- - Making for the maximal usage of possibilities of theoretical, methodological and practical directions of professional training according to the logic of teaching students in the main forms of professional activity, innovational pedagogic technologies in the academic disciplines, in the process of practical training, in the process of the complex pedagogical practice in forming the students` professional competence;

- - Meaningful connection of active innovation technologies in the process of forming the students` professional competences;

- - Forming an axiological attention of the students to methodological mastering of their future profession.

- VII. The technological and dynamic blocks: the basic technology of forming professional competence of a student in the educational process of a higher educational establishment consist of:

- - Educational technologies aimed at development of creative qualities of a personality: integrative technologies; technology of forming the subjective social activity of a student;

- - Pedagogical technologies based on a humanistic personally oriented pedagogical process.

- Technologies based on activation and intensification of students` activities (active methods of teaching); problem-based teaching (the method of partial search, the technology of learning research, research games); technologies of project making, interactive technologies (technology of organizing discussions and disputes);

- Play technologies: pedagogic games, role playing and business games;

- Technologies of individualized teaching: project method;

- Technology of educational integration: integrative forms of teaching (a practical seminar, a workshop lecture, a lecture with elements of a dialogue);

2. The dynamic block: the dynamic of forming the professional competence of a student on the basis of realization of the established methodological basics reflects the passing from the intuitive, stereotype and reproductive levels to the research and creative levels of a student`s professional competence. It needs systematic monitoring, that includes the defined levels and the developed criteria.

4. Discussion

The organization of the process of forming professional competence of students needs developing of a methodological model of forming of students` professional competences, that can reflect the necessary personal and professional qualities of a student. The methodological model of forming students` professional competences, is a whole and integrated process, all blocks and other components of which are aimed at the ultimate goal, forming students` professional competences (Figure 1).
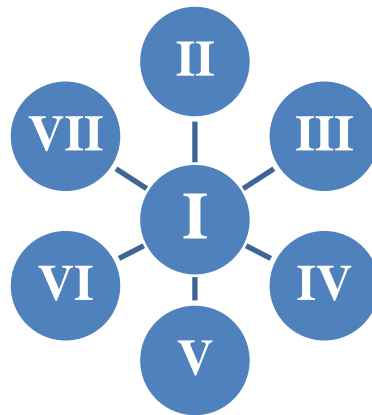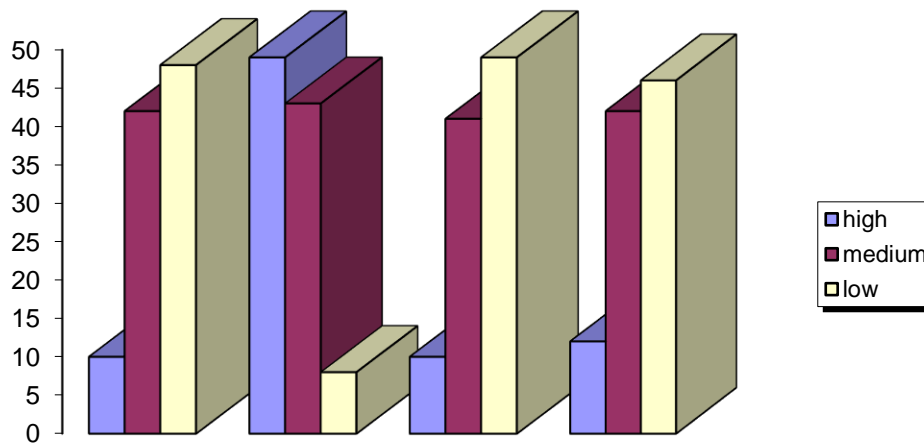
Figure 1: Methodological model of forming of professional competences of students as future teachers.

Note to Figure 1 Methodological model of forming of professional competences of students as future teachers:

I. The organizational and methodological block.

II. The motivational block.

III. The block of activity and methodology.

IV. Criteria and indicators of students` professional competences.

V. Levels of students` professional competences.

VI. Methodological basics of forming of professional students` professional competence.

VII. The technological and dynamic blocks.

The pedagogical experiment consisted in realization of the developed methodological basics of forming students` professional competence established in the Methodological model of forming of professional competences of students in the process of their professional training, and checking its effectiveness. Dynamic of development of professional competence of students of the control and experimental groups in the whole period of their studies. The research took place at pedagogical departments of a higher educational establishment. 75 students took part in it.

The technology of diagnostic of the results of defining the level of students` professional competence using the point system helped to see a broad tendency of increase of the level of students` professional competence, which can be seen from the results of the research in the experimental and control groups before and after the experiment. (Figure 2: Diagnostic of levels of students` professional competence.)

EG (Experimental group) EG (Experimental group) CG (Control group)
CG (Control group)

　　before the experiment　　　after the experiment　　　before the experiment

Figure 2: Diagnostic of levels of students` professional competence.

　　As we can see from Figure 2, the number of students with a high level of professional competence in experimental groups increased by 39%, the number of students who had reached the medium level increased by 1%, and the number of students who had had a low level before, decreased by 40%. The results in the control group show that the number of students with a high level of professional competence increased by 2%, the number of students, who had reached the medium level increased by 1%, and the number of students who had had a low level before, decreased by 3%. The data show thigh effectiveness of the suggested Methodological model of forming of professional competences of students as future teachers.

Thus, the research has shown that realization of the defined methodological basics and application of the developed Methodological model of forming of professional competences of students has influenced the changing of the level of professional competence of students in the experimental group.

5.　Conclusions and recommendations.

　　Forming of professional competence of a student in the educational process of a higher educational establishment on the base of the presented methodological model implies the following steps: the first step – adaptive and reproductive, the second step – active/ the third step – creative and changing. The methodological model has been developed according to the following approaches: the personality approach, the activity approach, the systematic approach, the axiological, acmeological and cultural approaches), and principles that are necessary for successful forming of professional competence of a student. They are the principle of humanization and democratization of the educational process, the principle of social and axiological orientation of a teacher`s activity, the principle of interconnection of sociocultural and educational values, the principle of

correlation of public and personal values, the principle of continuity of professional training in the modern cultural space, the principle of variability, that implies creating conditions for individually oriented education; the principle of relying on the leading achievements of science and technique and the principle of integration of traditional and innovative values. Having examined the process of forming of students` professional competence in the educational process of a higher educational establishment, we have come to the conclusion that traditional forms and methods of forming students` professional competence are not effective enough. It is due to the frontal character of professional pedagogical training, low level of introduction of fundamental achievements of educational theory into the teaching process, the scientific base if competence forming, that is not well developed, absence of a single opinion on the essence and structure of a teacher`s professional competence, haphazard character of forming the competence of future teachers and absence of coordination of efforts of those who teach all academic disciplines (especially those dealing with the theory of education). All this influences the analyzed phenomenon. Our research on forming students` professional competence consisted of three steps: the ascertaining step, the formative step and the control step. The ascertaining step was made at the beginning of our research, and it included such methods of pedagogical research as observation, questionnaire survey, talks, studying and analysis of products of students` activity. It showed a low level of professional competence of students of a pedagogical college and their low motivation to develop in the sphere of psychology and education. The methods of research that we used included observation, questionnaire survey, talks and analysis of professional motivation enabled us to see and define several meaningful weak points that prevent effective forming of professional competence of a student in the educational process of a higher educational establishment. These weak points and difficulties can be subdivided into the following groups: basic difficulties (self-doubt, lack of initiative , categorical judgments, rejection of another point of view and mainly outer motivation for professional activity), meaningful difficulties (superfluous ideas of the essence of a teacher`s professional competence, low level of general and communicative culture), operational difficulties (low level of communicative skills, absence of skills of working with textbooks and scientific literature, difficulties with homework), reflexive difficulties (lack of objective self-esteem or reflexing about one`s own activities). The defined interconnection of forms and methods in preparing future teachers according to established standards of an academic discipline with simultaneous forming of separate parts of professional competence can be recommended as means of increasing the effectiveness of the teaching process at a higher educational establishment. Validated criteria, indicators and levels of professional competence forming of students at a teachers` training college can make for innovative development of higher education. In the course of our research some methodological conditions of forming professional competences of students in the process of their professional training, have been validated. A structure has been elaborated, its contents, criteria and levels of professional competence have been defined.

In the process of our research the effectiveness of the developed Methodological model of forming of professional competences of students and the implied by it methodological basics of professional training, aimed at forming professional competence of students as future teachers. The developed model of

forming students` professional competence is recommended for practical use in teachers` training colleges.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

Arsamerzaev G.A., Dauletova I.G., Sakenov J.Z., Toktarbayev G. - S. D. (2014). Formation of professional competence at students (on the example of creative pedagogical specialties). Life Sci J,11(6s):97-101.

Asenova N.S., Zhumabaeva Z.E., Kenenbaeva M.A., Sakenov D.Zh., Toktarbaev D.G. (2013). About preparation of students of higher education institution for professional activity in the course of studying of elective disciplines Life Sci J, 10(10s):96-100.

Baigozhina Z., Zhakibayeva G., Sakenov J.Z., Zavalko N., Nurtayeva Z. Z., Tasbulatova G.T.(2014). About increase of efficiency of vocational training of students. Life Sci J, 11(5s):259-262.

Berkimbaev, K., M. Akeshova, A. Meirbekov and G. Meirbekova, (2013). Correlation of the traditional approach and information– communicational technologies in training of the future ecologists in Kazakhstan. Life Science Journal, 10: 501-507 www.lifesciencesite.com.

Berkimbaev, K.M. and B.T. Kerimbaeva, (2012). Communicative competence of future specialist. European Science and Technology. Materials of the 2th International Research and Practice Conference 9-10 May (issue Vol. 3), Wiesbaden Date Views 25.07.2013 sciencic.com/conference.

Berkimbaev, K.M. and B.T. Kerimbaeva, (2012). To the problem of using internet technologies in forming informational-communicative competence of future specialists/. Bulletin of laboratory of mathematical, education and informatization of the peer-reviewed collection of Scientifics., 2: 22-31.

Berkimbaev, K.M., S.T. Nyshanova, B.T. Kerimbaeva and G.P. Meyrbekova, 2012. The formation of professional competencies of future specialists New Educational Review. Poland: Thomson Reuters Journal Impact Factor 0.149, 271-281.

Chown A.(1994). Beyond competence? // British journal of in-service education. 20, 2: 161-180.

Claire Kramsch, (2006). From Communicative Competence to Symbolic Competence. The Modern Language Journal, 90 (2): 249-252.

David Carr and Don Skinner, (2009). The Cultural Roots of Professional Wisdom: Towards a broader view of teacher expertise. Educational Philosophy and Theory, 41 (2): 141-154.

Day Ch. (1994). Personal development planning: a different kind of competency // British journal of in-service education. 20. 3: 287 -302.

Johnson, M., Cowin, L.S., Wilson, I. and H. Young, H., (2012). Professional identity and nursing: contemporary theoretical developments and future research challenges. International Nursing Review, 59 (4): 562-569.

Gifford S. (1994). Evaluating the Surrey New Teacher Competency Profile//British journal of in-service education. 20, 3: 313 - 326.

Hutchinson D. (1994) Competence-based profiles for ITT and induction: the place of reflection // British journal of in-service education. 20, 3: 303 -312.

Ishanov, P., Bekmambetova, Z., (2013). Improvement the process of professional education specialists training. European researcher, 4-2(46): 902-906.

Kathleen A. Brown-Rice and Susan Furr, (2013). Preservice Counselors' Knowledge of Classmates' Problems of Professional Competency. Journal of Counseling & Development, 91 (2): 224-233.

Kerimbaeva, B.T., (2012). To the question of forming of informational-communicative competence of future specialists of electroenergetics. Bulletin of Peoples' Friendship Universityof Russia Series Informatization of education, 4: 81-88.

Nicolas Fernandez, Valerie Dory, Louis-Georges SteMarie, Monique Chaput, Bernard Charlin and Andree Boucher, (2012).Varying conceptions of competence: an analysis of how health sciences educators define competence. Medical Education, 46 (4): 357-365.

Niyazova G.Z., Kamalbek Meirbekovich Berkimbaev K.M., Rabiga Esimovna Pralieva R.S., Dinara Kadirkhanovna Berdi D.K., Alina Kuandykovna Bimaganbetova A.K.(2013). To the question of professional competence of the future teacher of chemistry. Life Sci J;10(9s):193-197 (ISSN:1097-8135). http://www.lifesciencesite.com.

Oreck B., (2004). The artistic and professional development of teachers. A study of teachers attitudes toward and use of the arts in teaching. Journal of Teacher education, 55 (1): 55-69.

Rakhimbekova G.O., Baigozhina Z.M., Abdrakhmanova A.Y., Samatanova A.R., Orazakova R.K., Nurtayeva Z. Z., Sakenov J.Z.(2015). Development of professional competence in students of creative pedagogical specialties (professionally-oriented aspect). Life Sci J;12(1s):24-28.(ISSN:1097-8135). http://www.lifesciencesite.com.

Sakenov, D. Zh, etc., (2012). Preparation of students of higher education institution for professional activity in the course of studying of pedagogical disciplines. World applied sciences journal, 19 (10): 1431-1436.

Schantz, E.A, (2012). Professional training of university students as a holistic educational system. Theory and practice of education in the modern world, 1: 383-386.

Sundburg L. (2001). A Holistic approach to competence development//Systems Res. and Behav. Sci.18, 103 - 114.

Teresa Cremin, Janet Maybin, (2013). Children's and Teachers' Creativity in and Through Language. International Handbook of Research on Children's Literacy, Learning and Culture, 1: 275-290.

Tracey Arnold Murray, Pamela Higgins, Vicky Minderhout and Jennifer Loertscher, (2011). Sustaining the development and implementation of student-centered teaching nationally: The importance of a community of practice. Biochemistry and Molecular Biology Education, 39(6): 405–411.

Uzakbaeva, S., B. Baimukhanbetov, K. Berkimbaev, B. Mukhamedzhanov and R. Pralieva, (2013). To the Problem of Forming Creative Competence of Future Teachers. Creative Education, l.4(3). Date Views March 2013 www.scirp.org/journal/ce) DOI:10.4236/ce.2013.43034.

Wesley D.C.(1998). Eleven ways to be a great teacher // Educational leadership. 55, 5: 80-81.