

On the Role of Elective Disciplines in the Formation of Professional Competence of Students as Future Teachers

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ABSTRACT

The article examines essential characteristics and specific features, role of elective disciplines in the formation of professional competence of students as future teachers. Important and promising characteristics of the content of professional competence of students as future teachers have been studied and theoretically justified. We have theoretically justified, practically developed and experimentally tested an original model of formation of professional competence of students as future teachers when studying elective disciplines in conditions of a teaching institute, including criteria, rates and levels of performance of this process. Within the conducted experiment, we have empirically tested and proved the pedagogical efficiency of the developed original model of formation of professional competence of students as future teachers when studying elective disciplines, the role of elective disciplines as a means of formation of professional competence of students as future teachers has also been proved.

KEYWORDS

Elective disciplines, role, means, professional competence, students, future teacher, formation of professional competence.

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1. Introduction

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The goals of educational programmes of institutes of higher education is training bachelors as specialists of new formation who are able to solve socially important tasks of education and upbringing creatively and professionally, who possess professional competence and can conduct teaching activities creatively in the institutions of education and upbringing. Present academic value and specificity of educational programmes at teacher training institutes of higher education shows in the content and catalogue of elective disciplines which gives a student an opportunity of providing educational services in polylingual trajectory; introduction of dual learning elements into the process of learning; flexibility and update of educational content; development of professional skills and competence focused on an educational field of activity taking into account the needs of society and economy. Elective disciplines are optional disciplines the content of which allows to satisfy professional interests in accordance with personal inclinations. A subject chosen by a student becomes mandatory. As a whole, regional component of professional education and elective disciplines secure knowledge, skills and abilities of future teachers. Elective disciplines, in their turn, are a list of educational disciplines which are approved by educational institutions and form an optional component that students use to form their individual curriculum within the scope of established credits. The list of elective disciplines is discussed and approved by Education Board of a higher educational institution. Registrar Office of a higher educational institution works out a catalogue of elective disciplines based on the list of elective disciplines. The process of signing students up for elective disciplines is organised by the Registrar Office with the methodical and consultative help of departments, dean's offices and advisors. Student's individual curriculum is formed after the enrolment for elective disciplines is over. Elective disciplines are selected under the supervision of an advisor. The advisor presents students with alternatives to each subject from the catalogue of elective disciplines, consults them on the succession of studying the disciplines. Therefore, it is obvious that elective disciplines are of great importance in providing knowledge, skills and abilities for future teachers, in formation of their professional competence as future teachers.

The analysis of works by Arsamerzaev G.A., Dauletova I.G., Sakenov J.Z., Toktarbayev G.-S. D. (2014), Chown A. (1994), Uzakbaeva, S., B. Baimukhanbetov, K. Berkimbaev, B. Mukhamedzhanov and R. Praliev. (2013), Gifford S. (1994), Nicolas Fernandez, Valerie Dory, Louis-Georges SteMarie, Monique Chaput, Bernard Charlin and Andree Boucher (2012) shows that one of the priority areas of modern education is formation of professional competence of students. The conducted analysis of academic literature on the issue of formation of professional competence of students is indicative of growing scientific and methodical interest to this problem. It should be noted that no system research of the problem of essential correlation between elective disciplines and formation of professional competence of students of a teacher training institute has been conducted yet. Comprehensive expertise of scientific research by Albekova A.S., Rezuanova G.K., Muratbekova A.M., Kukenova G.A. (2014), Asenova N.S., Zhumabaeva Z.E., Kenenbaeva M.A., Sakenov D.Zh., Toktarbaev D.G. (2013), David Carr and Don Skinner. (2009), Hutchinson D. (1994), Kenenbaeva, M.A., A.Sh.Tleulesova. (2013), Kul'kov, S.A., (2013), Oreck B. (2004), Zhaparova, B.M., etc. (2013) shows that teacher training institutes of higher education lack the required level of scientifically based organisation of



teaching process which favours the influence of elective disciplines as an educational means on the formation of professional competence of students as future teachers. Thus, the goal of our research is to justify the role of elective disciplines in the formation of professional competence of students as future teachers.

2. Methods

The methodological basis of the research is the theory of personality development; the theory of educational content; modern theories and concepts of higher professional education; propositions on the essence of integral educational process; pedagogical research on the nature of teacher's competence; the research on the formation of professional competence of teacher; ideas of system, cultural, personal, activity, humanistic, axiological, acmeological approaches; the idea of subjective activity of a personality in the process of its life activity; development of technological approaches and variable technologies of higher education; regulations on elective courses, catalogue of elective disciplines. The methods of the research are the following: to achieve the desired goal of justifying the role of elective disciplines in the formation of professional competence of students as future teachers we used: theoretical research methods: study and analysis of philosophical, sociological, pedagogical and psychological literature on the problem of professional competence research; conceptual term construct; scientists' approaches to the issue of elective disciplines and professional competence; synthesis, comparison, generalisation, content analysis; empirical research methods: study and generalisation of the experience in formation of professional competence of a student in the system of higher professional education in the process of studying elective disciplines; conversations with students, lecturers, teachers; questionnaire surveys, observation; method of generalisation of independent characteristics; study of the results of students' creative activities; method of mathematical and statistical data procession; modelling, pedagogical experiment on the research of the role of elective disciplines as a means of the formation of professional competence of students as future teachers.

3. Result

As the analysis of research by Berkimbaev, K.M., S.T. Nyshanova, B.T. Kerimbaeva and G.P. Meyrbekova (2012), Claire Kramersch (2006), Johnson, M., Cowin, L.S., Wilson, I. and H. Young, H. (2012), Ishanov, P., Bekmambetova, Z. (2013), Kathleen A. Brown-Rice and Susan Furr. (2013), Kerimbaeva, B.T. (2012), Rakhimbekova G.O., Baigozhina Z.M., Abdrakhmanova A.Y., Samatanova A.R., Orazakova R.K., Nurtayeva Z. Z., Sakenov J.Z. (2015), Sakenov, D. Zh, etc. (2012) shows, the existing studies of professional training of students single out the conditions, factors and content variability of professional training of students. We believe that the research data allows us to state that there is possible influence of elective disciplines on professional training of students as future teachers, on the process of development and formation of their professional competence. It should be mentioned that the range of a student's professional needs in the formation of professional competence as a future teacher within the process of studying elective disciplines remains under-

investigated and unexplored. Judging from the established scientific problem, the formation of professional competence of students as future teachers is obviously necessary, but the process of its development and formation within the process of studying elective disciplines requires the examination and justification of the content of professional competence concept.

Professional competence of students as future teachers is a description of professional and personal characteristics of a student, including professional competencies, which ensures effective and reasonable professional activities in different areas and segments of education in accordance with legal and moral standards established in the contemporary society, distinguishing the availability of organisational abilities, skills of analysis and prediction of teaching activity results, knowledge of the most effective and reasonable methods of its implementation, as well as professional mobility (Albekova A.S., Rezuanova G.K., Muratbekova A.M., Kukenova G.A. (2014), Sundburg L. (2001), Niyazova G.Z., Kamalbek Meirbekovich Berkimbaev K.M., Rabiga Esimovna Praliev R.S., Dinara Kadir Khanovna Berdi D.K., Alina Kuandykovna Bimaganbetova A.K. (2013). Such understanding of professional competence of future teachers creates a scientific basis for the development of the content of elective disciplines as a means of formation of professional training of students. However, as the analysis of psychoeducational and methodical literature and the works by Schantz, E.A. (2012), Shavaliyeva Z.Sh., Ahmuldinova A.N., Isinbayeva K.G., Ayapbergenova G.S., Alibayeva Zh.E., Sakenov D.Zh. (2013), Claire Kramsch (2006), Asenova N.S., Zhumabaeva Z.E., Kenenbaeva M.A., Sakenov D.Zh., Toktarbaev D.G. (2013), the development of elective disciplines as a means of formation of professional competence of future teachers remains out of view of modern scientific research, and, as a result, their specificity as compared with major disciplines is not taken into account. Present insufficient theoretical development of this scientific problem has led to rather low results of elective disciplines as a means of formation of professional competence of future teachers.

The main element of the development of the content of elective disciplines as a means of formation of professional competence of students as future teachers is formation of the experience of professional activities of students of a higher education institution. We understand the development of elective disciplines as a means of formation of professional competence of students as future teachers as the process of the development and detailisation of the system of professional competencies of future teachers, their experience of professional and research activities in order to ensure the integrity and purposefulness of an elective subject itself. The process of the development of elective disciplines as a means of formation of professional competence of students as future teachers as the basis of our research is an activity aimed at the development, explication and formation of the following criteria and rates, levels of professional competence of students as future teachers:

- educational and cognitive (assimilation of knowledge, level of professional literacy, studying a set of concepts, categories, rules; ready to use theoretical knowledge for generation of new ideas; able to implement educational programmes of major and elective courses in different educational institutions);



- personal and motivational (qualities and characteristics of a person, tolerance, psychological readiness; realises social significance of future profession, is motivated to perform professional activities; ready to be responsible for the results of their professional activities; knows methods of and is ready for professional self-knowledge and self-development);

- empirical (learning professionally-oriented actions, able to organise the work efficiently, use of knowledge in non-standard situations, skills of planning, organizing and implementing professional activities, ability to use modern information means (phone, fax, computer, printer, modem, copy machine, etc.) and information technologies (audio and video recording, interactive whiteboard, e-mail, mass media, Internet);

- levels of professional competence of students as future teachers: high, medium, low (Albekova A.S., Rezuanova G.K., Muratbekova A.M., Kukenova G.A. (2014), Ishanov, P., Bekmambetova, Z. (2013), Niyazova G.Z., Kamalbek Meirbekovich Berkimbaev K.M., Rabiga Esimovna Pralieva R.S., Dinara Kadir khanovna Berdi D.K., Alina Kuandykovna Bimaganbetova A.K. (2013).

Comprehensive analysis of the scientific problem of the study of the role of elective disciplines as a means of formation of professional competence of students as future teachers allowed us to develop and justify an original Model of formation of professional competence of students as future teachers when studying elective disciplines, including criteria, rates, performance levels of the process. The following elements are to be singled out during the process of developing and designing the Model of formation of professional competence of students as future teachers when studying elective disciplines: action-procedural, educational-cognitive, communicative-informational. Action-procedural element is based on a set of practical skills and abilities of students as future teachers which form the basis of professional competence when studying elective disciplines. Educational-cognitive element of professional competence describes, first of all, intellectual development and specifics of cognitive activity of future teachers, which also form professional competencies when studying elective disciplines. Communicative-informational element describes the tactics and strategy of professional behaviour of future teachers, which also form professional competencies when studying elective disciplines.

3.1. Originality results.

In our opinion, scientific grounds of the process of formation of professional competence of students as future teachers when studying elective disciplines should call for the development of an original model, the structure of which contains professional competencies and which reflects the required professional characteristics of students as future teachers. Unique Model of formation of professional competence of students as future teachers when studying elective disciplines that we have designed is an integral, interrelated process all the unique elements of which are aimed at the achievement of the desired goal – formation of professional competence of students as future teachers as a result of studying the catalogue of elective disciplines (see figure 1).

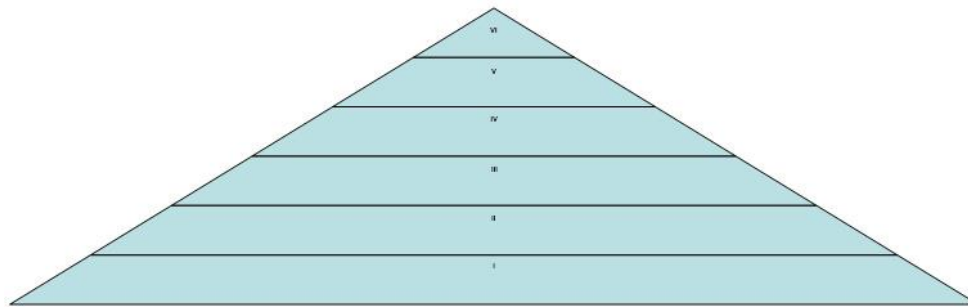


Figure 1. Model of formation of professional competence of students as future teachers when studying elective disciplines

Figure 1 explanation. Model of formation of professional competence of students as future teachers when studying elective disciplines. This Model of formation of professional competence of students as future teachers when studying elective disciplines shows interrelated basic elements of the process of the formation of professional competence of students as future teachers when studying elective disciplines:

I - the process of the formation of professional competence of students as future teachers when studying elective disciplines;

II - criteria and rates, levels of professional competence of students as future teachers when studying elective disciplines such as educational and cognitive (assimilation of knowledge, level of professional literacy, studying a set of concepts, categories, rules); personal and motivational (qualities and characteristics of a person, tolerance, pedagogical readiness); empirical (learning professionally-oriented actions, able to organise the work efficiently, use of knowledge in non-standard situations, skills of planning, organizing and implementing professional activities, ability to use modern information means); levels: high, medium, low;

III - elective disciplines (the list of educational disciplines in the optional component) as optional disciplines the content of which allows to satisfy professional interests in accordance with the content of the subject and personal professional needs of students);

IV - elements of formation of professional competence of students as future teachers when studying elective disciplines, such as procedural, cognitive, communicative-informational; action-procedural element is based on a set of practical skills and abilities of students as future teachers which form the basis of professional competence when studying elective disciplines; educational-cognitive element of professional competence describes, first of all, intellectual development and specifics of cognitive activity of future teachers, which also form professional competencies when studying elective disciplines. communicative-informational element describes the tactics and strategy of professional behaviour of future teachers, which also form professional competencies when studying elective disciplines;

V - individual curriculum of students as future teachers, as a dynamic element of the model, it is formed during the assignment of the mandatory part of the course curriculum and optional disciplines. Disciplines chosen from other



curricula of the student's faculty or from different ones can also be added to the student's individual curriculum. The formed curriculum can be viewed, analysed and edited. Characteristics set for elective disciplines in the curriculum (the number of current and cumulative credits, the number of hours of workload of various kinds, etc.) can be shown for notes on the disciplines;

VI - professional competencies of students as future teachers when studying elective disciplines, ensuring effective and reasonable implementation of professional activities in different areas and segments of education, availability of organisational abilities, skills of pedagogical analysis and prediction of teaching activity results, knowledge of the most effective and reasonable methods of its implementation.

4. Discussion

To justify the role of elective disciplines as an educational means of the formation of professional competence of students as future teachers, during the experiment we used methods of conversations with students, lecturers, teachers; questionnaire surveys, observation; method of generalisation of independent characteristics; study of the results of students' creative activities; methods of mathematical and statistical data procession. 30 students participated in the experiment, there were divided into control (15 students) and experimental (15 students) group. Elective disciplines were used only in the experimental group. During the experimental check of the Model of formation of professional competence of students as future teachers when studying elective disciplines, also analysing the dynamics of the students' attitude as future teachers to the content of elective disciplines, the following justifications can be made: at the statement stage of the experiment there were 46% of students with cognitive interest in the control group and 44% in the experimental group, at the end of the forming experiment it increased to 48% in the control group and 90% in the experimental group. The comparison of these results has shown that improvement by this criterion by 46% allows to positively justify the efficiency of the experimental work. Comprehensive analysis of the results of the forming experiment allows to detect the dynamics of the process of the formation of professional competencies of students as future teachers when studying elective disciplines. At the statement stage of the experiment there were 16% of students with highly developed professional competencies in the control group and 15% in the experimental group, at the end of the forming experiment it increased to 17% in the control group and 51% in the experimental group. On that basis we believe that improvement by this criterion by 36% in the experimental group indicates the efficiency of the experimental work on the formation of professional competence of students as future teachers when studying elective disciplines. Comprehensive and thorough analysis of the results of statement and forming stages of scientific experiment has proved that in the process of experimental work improvement by all criteria, rates, level of the Model of formation of professional competence of students as future teachers when studying elective disciplines had been found. Also, in the process of pedagogical interpretation of the results and identification of the level of formation of professional competence of students as future teachers when studying elective disciplines conducted with the use of point rating control system we have detected positive tendency towards the increase of the level of formation of professional competence of

students as future teachers when studying elective disciplines. This scientific statement was proved by the results of students' progress analysis in experimental and control groups before and after the scientific experiment (see figure 2).

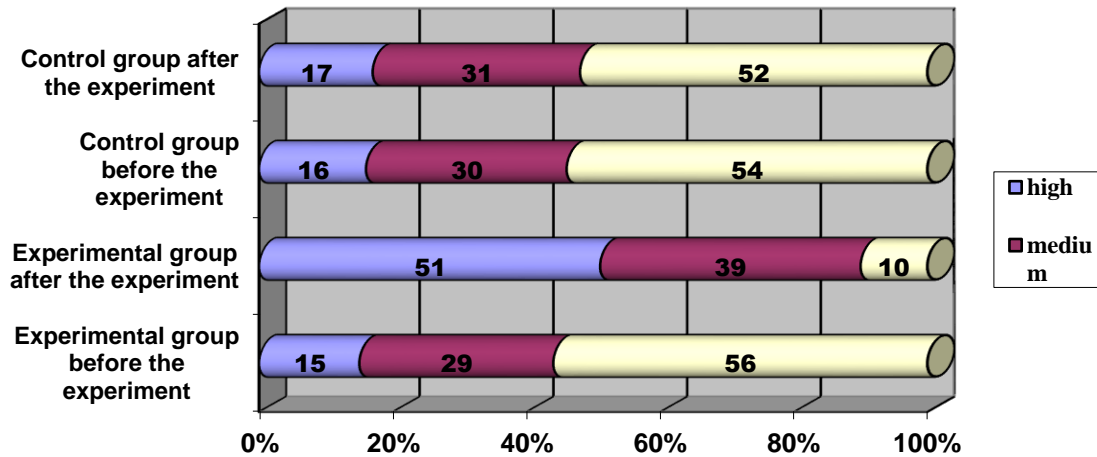


Figure 2. Diagnostics of the level of formation of professional competence of students as future teachers when studying elective disciplines.

As we have mentioned before, the number of students with highly developed professional competence in the experimental groups increased after the experiment by 36%, the number of students who achieved means level increased by 10%, the number of students with low level decreased by 46%. The results of the control groups show that the number of students with highly developed professional competence remained the same (17%), as well as with means level (1%), while the low level decreased by 2%. The received data prove the high effectiveness of the suggested Model of formation of professional competence of students as future teachers when studying elective disciplines.

Thus, the conducted research has proved that consecutive implementation of the chosen elements of the Model of formation of professional competence of students as future teachers when studying elective disciplines, their interrelation in the process of the formation of professional competence of students as future teachers when studying elective disciplines, specific and regular use of the developed Model of formation of professional competence of students as future teachers when studying elective disciplines influenced the change in the levels of formation of professional competencies of students in the experimental groups.

5. Conclusions and recommendations

Scientific analysis of exploration degree of the problem of studying elective disciplines as a means of the formation of professional competence of students as future teachers allowed to identify and justify main characteristics of the process of formation of professional competencies of students as future teachers when studying elective disciplines.



In the process of the examination of the role of elective disciplines as a means of the formation of professional competence of students as future teachers essential characteristics of the content of elective disciplines as optional disciplines, catalogue and content of elective disciplines allow to diversify and expand professional interests of students as future teachers in accordance with the content of the subject and personal professional needs of students. In distinction from the research of Albekova A.S., Rezuanova G.K., Muratbekova A.M., Kukenova G.A. (2014), Zhaparova, B.M., etc. (2013), Kul'kov, S.A. (2013), Gifford S. (1994), we have experimentally developed, testes and implemented an original model of formation of professional competence of students as future teachers when studying elective disciplines in conditions of teacher training institute, including criteria and rates, levels of the process performance. In the process of the experiment the Model of formation of professional competence of students as future teachers when studying elective disciplines has been scientifically tested. During the research, the efficiency of the developed Model of formation of professional competence of students as future teachers when studying elective disciplines and its elements ensuring the formation of professional competence of students as future teachers has been experimentally proved. The developed Model of formation of professional competence of students as future teachers when studying elective disciplines is recommended for practical use at teacher training institutes of higher education.

References

- Albekova A.S., Rezuanova G.K., Muratbekova A.M., Kukenova G.A. (2014). Elective disciplines as means of formation of professional competence of future teachers. *Life Sci J*;11(8s):53-56 (ISSN:1097-8135). <http://www.lifesciencesite.com>.
- 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.
- Asanova 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.
- 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.
- Kenenbaeva, M.A., A.Sh. Tleulesova. (2013). Preparation of students for professional careers during the study of special courses. *Middle-East Journal of Scientific Research*, 13 (4): 449-454.

- Kerimbaeva, B.T. (2012). To the question of forming of informational-communicative competence of future specialists of electroenergetics. *Bulletin of Peoples' Friendship University of Russia Series Informatisation of education*, 4: 81-88.
- Kul'kov, S.A. (2013). Readiness to choice of variant disciplines of the university students: Analysis of problems and solutions in the organisation of teaching and educational process. *Modern problems of science and education*, 2: 280.
- 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 Praliev R.S., Dinara Kadirkanonova 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.
- Shavaliyeva Z.Sh., Ahmuldinova A.N., Isinbayeva K.G., Ayapbergenova G.S., Alibayeva Zh.E., Sakenov D.Zh. (2013). Improvement of quality of vocational training of students (on the basis of courses of humanitarian and ecological cycles). *Life Sci J*;10(12s):838-841(ISSN:1097-8135). <http://www.lifesciencesite.com>.
- Sundburg L. (2001). A Holistic approach to competence development. *Systems Res. and Behav. Sci.*18, 103 - 114.
- Uzakbaeva, S., B. Baimukhanbetov, K. Berkimbaev, B. Mukhamedzhanov and R. Praliev. (2013). To the Problem of Forming Creative Competence of Future Teachers. *Creative Education*, 1.4(3). Date Views March 2013 www.scirp.org/journal/ce DOI:10.4236/ce.2013.43034.
- Zhaparova, B.M., etc. (2013). The Development of the Catalog of Elective Disciplines as a Means of Professional Training of Students. *Life Sci J.*, 10(11s): 282-285.