tionships with students based on the principles of cooperation and joint work. In these circumstances, inevitable revision of existing today, forms of organization of educational work: an increase in independent individual and group work of students, a departure from the traditional classes dominated by explanatory and illustrative method of teaching, increase the practical and creative work and research the nature of the search. The above is the basis for the formulation of priorities that follow from the requirements of informatization of higher education in the aspect of training of future specialists of Power:

1) to improve the process of preparing the future of Power Systems based on the use of Internet technologies in higher education, the revision of the organizational forms of educational activities, develop a package of training and procedural documentation, taking into account the specific features of professional experts of Power;

2) to study issues of the preparatory process for the future of Power methodology and how-forming qualities of a specialist, characterized by the ability to develop and optimize the use of modern information technology.

Future professionals must be competitive in the labor market demand. Therefore, the aims of education are determined primarily on the basis of the curriculum requirements for skills and knowledge and the requirements of the society to develop and foster a new generation. Future professionals must be able to own, operate actively, make decisions, flexible to adapt to the changing conditions of life.

We reaffirm the fact that the analysis of scientific sources and teaching them to practice in IKTU by A. Yasawi, the department «Electric» shows that the use of Internet technologies in teaching English language of future specialists is of great importance and promotes informational-communication competence of future specialists. Scientific and practical research will be continued and at this stage of our research we conclude about the significance and relevance of using information and computer technology in forming the information and communication competence of future professionals the power industry, the modernization of the educational process, updating the content of the subject of English for future specialists, which accordingly affect the change in the professional training of electric power.

References

1. State Program for Development of Education of the Republic of Kazakhstan for 2011–2020 // Www.edu.gov.kz.

2. Message from the President of RK Nursultan Nazarbayev «Socio-economic modernization – the main vector of development of Kazakhstan» was 27/01/2012 http://www.akorda.kz/kz.

3. Polat H.H. Internet for foreign language lessons // IYASH. – 2001. – № 2. – P. 3.

4. Cabs V.L. School of Information Civilization: «Intelligence XXI», MA: Education, 2002.

5. Zakharov I.G. Information Technology in obrazovanii. – M.: The Academy, 2008.

6. Rudakov D.T. The content and principles of the Internet – teaching // Bulletin of Peoples' Friendship University Informatization of Education Series. – 2009. – № 3.

7. Mihaylova E.B. Formirovanie professional foreign language competence of students of engineering specialties in the computerization of education // Bulletin of Peoples' Friendship University Informatization of Education Series. – 2010. – № 3.

8. Polat H.H. Internet access in the humanities. – M.: VLADOS, 2001. – P. 153.

The work was submitted to International Scientific Conference «Innovative technologies in the higher and vocational training», Spain, 2-9, August, 2012, came to the editorial office on 06.06.2012.

PROBLEMS OF PREPARATION OF FUTURE TEACHRS ON NATURAL SCIENCES

Yermekova Z.K.

L.N. Gumilyov National University, Astana, e-mail: zhadyra-ermekova@mail.ru

It is known that at every stage of the society development there appear its own requirements to the level of education and culture of a personality and moral values. The aims of schools and institutes of higher education are changing and, accordingly, there are changes in a pedagogical paradigm, representing the most important principles and the adequate constructive means for the decision of educational problems. The new educational orientations were internationally acknowledged in the 90-s of the XX-th century and were accepted as working programmes of UNESCO. In the report to the Rome club «No Limit to Teaching» there were formulated conceptions about the principal types of teaching in the broad sense – as the process of the increase of experience either individual or social –cultural. To these types of teaching we refer: *supporting* and *innovative* teaching [1].

«*Supporting teaching*» is the process and the result of such educational activity, which is directed to the support, reproduction of the existing culture, social experience, social system that is traditionally inherent in either school or institute of higher education teaching.

«Innovative teaching» is the process and the result of such educational activity, which stimulates the innovational changes in existing culture, social environment. Such type of teaching (in education) besides supporting the existing traditions stimulates the active response to the problem situations either for a separate individual or the society.

Nowadays the system of education includes both of these types of teaching and is characterized by the tendency of transition from pedagogy of authoritarism to the pedagogy of cooperation, turning to a person as the most important value. And the introduction of the scientific term "human capital" became the major moment in the change of views on education as applied to the social-economic development of humanity. The cognition of the significance of education and educational level of the

citizens of the country as a «strategic resource» of any state was the most important factor of reforming either secondary or higher education, the necessity of its adaptation to speedy changes in the society and the conformity of the system of education to the strategic plans of social and economic development of the country.

Large-scaled reforms in the system of education of the Republic of Kazakhstan are stipulated in the laws of education of RK [2], in «Conception of the Development of Education of RK till 2015» [3] and other normative Acts. Integration processes arising at different levels of modern civilization touched upon the sphere of education and that is witnessed in the Lisbon convention, Bologna declaration the followers of which became not only European states [2].

Integration of the system of higher education of Kazakhstan into the world educational space is one of the long-term strategic priorities. The principal condition of integration of our country into the world educational space is the adaptation of the Kazakhstani educational system to the Regulations of the Lisbon Convention and Bologna declaration, that presupposes the 12–13 year school education that is the admission to a higher education, introduction of credit units ECTS – European Credit Transfer System, transition to an integral system of training of highly skilled staff: Bachelors, Masters of Science, Doctors of Philosophy, etc.

New conceptual approaches presuppose the development of such schools and institutes of higher education, which will be able to influence the positive social and economic advance of the society effectively, and the main accent in them is made on the development of a personality, his/her thinking in emotional, esthetic, resolute, intellectual spheres, revealing the creative potential of a person, his/her socialization, the qualities which must be revealed in any sphere of his/her professional activity.

Let us consider the aims and objectives, put forward by the state programme of the reformation of the education of RK:

– renewal of the contents and structure of education;

– improvement of educational-methodical and scientific provision of the educational process;

– integration of education, science and production;

– strengthening of the ecological training of students;

– introduction of new pedagogical information technologies;

– increase of social status of the pedagogical professions;

The achievement of the ultimate general aims, the most important priorities of a new educational policy of RK depend on each of them, that is:

– improvement of the quality of teaching and upbringing of students;

– conformity of the system of education with the strategic plans of the social-economic development of the country.

How long will it take to achieve these priorities? What are the most urgent problems, the decision of which will accelerate the advancement to the ultimate aims of today's plans? Let's discuss this.

At present the plans of the government are concentrated on the broad-scale innovational transformations, first of all, in the industrial –production sphere, its diversification, introduction of nun technologies and others.

Are there enough highly skilled, competent specialists with fundamental natural-science education, who are able and ready to realize the planned transformations effectively in our country? The answer is evident. Acute deficit of competent specialists of engineering-technical staff either of higher or secondary professional level is observed in all post-Soviet territory. The reasons of such situation became well-known. For the formation of a highly skilled, creative staff potential it will take not some years but dozens of years and their training should start from school, from the early age, that is a trivial axiom, which , in our opinion, must be imperative and the most important component in the conception of the development of education of RK till 2015.

Any reforms in education assume changes inside the pedagogical system of training and upbringing, the functioning of which is defined, in particular, by the most important principles of didactics.

And as we know, any activity in didactics, including educational, is constructed on the basis of the structure of the activity (A.N. Leontyev) [4], including the aim – the motive-contents (means) – results, that are the basis for the appearance of different pedagogical systems (PS). Any PS is an interconnected combination of invariant elements, and the theory of the variation education requires maximum components of the pedagogical system and such, in our opinion, is the pedagogical system, suggested by L.V. Zagrekova and V.V. Nikolina [5]. The components of this PS are as follows:

– aims of teaching and upbringing;

– students;

– teachers;

– Contents of teaching and upbringing;

– Means of teaching and upbringing;

– Forms of the organization of teaching and upbringing;

– Pedagogical processes (processes) of teaching and upbringing.

Undoubtedly, the main components of any PS, which fulfill the role of «carrying support», are **teachers and students**, who set definite aims and are eager to realize them. Only the tandem of a teacher – students are real functionaries of the process of teaching and upbringing to which from year to year higher demands are made.

It is the **teacher, pedagogue-scientist** who is the quintessence of any educational system, **the practical executer of the most important conceptual approaches** in the sphere of teaching and upbringing. Transition to market relations, which caused revolutionary changes in social life in the last dozen of years, led to the swift fall of pedagogical professions having no high rating. Thus, as it had been before, the problem of training and forming of competent pedagogical staff on natural science disciplines, in particular, is still an urgent one.

Realization of the next priority of the educational policy of RK – the improvement of the quality of teaching (education) is also facing the problem of improving the quality of training the teaching staff. Dependence of the quality of education on the quality of training a teacher is either proved by statistic data or from practice [6, 7]. Professional-pedagogical education as the sphere, closely linked with the preparation of a young generation to life in conditions of continuous education, must take the responsibility in solving the most important tasks of the realization of modern educational tendencies in the development of the society. A key figure in this sphere, a teacher, was and is remaining a competent professional teacher, who possesses all the arsenal of means of teaching and educating the pupils, a creative personality capable to develop the motivation of learning and cognitive interests of the pupils in the conditions of the whole pedagogical process, the personality striving for the improvement of his/her professional knowledge and skills [8]. In our opinion, there is a certain dependence of the level of practical mastering of knowledge and skills of the organization of the process of the development of the cognitive interest of students on the effectiveness of the professional-pedagogical training of the graduates of pedagogical institutes of higher education. It is quite dialectical that for the real improvement of the quality of the level of the system of education (teaching) it is necessary to have the adequate staff potential of teachers, the quintessence of any pedagogical system.

In the course of the research with the aim to improve training of future teachers to the development of the cognitive interest of students there was developed and introduced the elective course for the students of pedagogical specialties «Development of the cognitive interest of students to fundamental sciences» in the educational process [9].

The aim of the course is the formation of preparedness of future teachers to their forthcoming pedagogical activity through mastering special professional-pedagogical knowledge about the ways of activization of school teaching, practical skills of their effective application in practical conditions of a comprehensive school.

The objectives of the course include acquaintance with basic directions of the acivization of the process of teaching students the basics of fundamental sciences, development of skills and habits of choosing the most suitable methods and organizational forms of teaching for their educational subject, the formation of reflexive skills of defining the degree of their effectiveness aimed at improving the quality of teaching and also the skills to apply a creative approach to this process.

The programme of the elective course consists of two modules, each of which contains interconnected theoretical and practical parts. The contents of the course is constructed on the basis of the module technology of teaching which allows not to lead the process of training of future teachers to a simple reproduction of some information of knowledge from a teacher to a student on the development of the cognitive interest of students. It is important to teach future teachers to get necessary knowledge independently, to direct their searching, i.e. to realize motivated management of their training. Module teaching as a special pedagogical technology helps to solve this task effectively.

The elective course «Development of the cognitive interest of students to fundamental sciences on the basis of the module technology is worked out for 1 credit (30 class hours and 15 hours for the individual students' work)».

We represent as an example the contents of some studies on the developed elective course. First of all, we'll consider the planning of studies of different organizational forms (lecture and a practical class) on module 1 «Pedagogical basics of the development of the cognitive interest of students».

Theoretical studies (lecture)

«Urgent problems of the activization of the educational –cognitive activity of students and the development of motivation to the study of fundamental sciences».

Issues for the study:

1. Ideas of modernization of the educational system of the Republic of Kazakhstan in the context of integration in the world educational space. Ways of the solution of the most important task of the educational policy of the Republic of Kazakhstan at the current stage: improvement of the quality of teaching through the development of the cognitive activity of schoolchildren.

2. Urgent problems of the activization of the educational-cognitive activity of schoolchildren in the integral pedagogical process of a comprehensive school.

3. Qualitative education as a guarantee of the future. The role of the cognitive interest for the qualitative education.

4. Development of the cognitive interest of schoolchildren and their motivation to the study of fundamental sciences.

5. Necessity of the preparation of teachers to the development of the cognitive interests of schoolchildren. Pedagogical mastery of a teacher as a necessary condition of improving the level of the cognitive activity of the pupils.

6. Practical studies

«Development of the cognitive interest of the pupils in the integral process of teaching the fundamental sciences in the unity of educational and developing functions».

Practical assignments:

1. On the basis of the analysis of scientific literature, pedagogical and methodical literature reveal the psychological-pedagogical aspect of the process of the development of the cognitive interest of pupils.

2. Build the matrix of ideas (comparative characteristics of homogeneous phenomena in the works of different authors) about the essence of the cognitive interest, characterizing the point of view of different pedagogues-researchers on the problem of the development of the cognitive interest of schoolchildren of the end of the XX-th and the beginning of the XXI-st century.

3. Study «The Conception of a Higher Pedagogical Education of the Republic of Kazakhstan», clear out the essence of re-orientation of pedagogical institutes of higher education on the preparation of the teachers of a new formation, get acquainted with the results of the researches about the real state of training of the pedagogical staff in the Republic of Kazakhstan and with the facts, negatively influencing it. Formulate the objectives of a professional-pedagogical education of teachers taking into account the necessity of their preparation to the development of the cognitive interests of schoolchildren.

4. Study «The Conception of Continuous Pedagogical Education of the Pedagogue of a New Formation of the Republic of Kazakhstan», get acquainted with the requirements, principles, the system and mechanism of the work of the system of the continuous pedagogical education. Work out a plan of self-education for the improvement of professional knowledge, skills and habits on the development of the cognitive interest of pupils towards their subject.

5. Carry out the pedagogical research and clear out the reasons of the decrease of the cognitive interest of the pupils towards fundamental sciences.

Introduction of the developed elective course into the system of professional education of future teachers gives the opportunity to create special conditions for their preparation to the development of the cognitive interest of schoolchildren. The course meets the requirements of future teachers in acquiring professional-pedagogical knowledge, its deepening and broadening due to the growing role of the intensification of teaching in school educational practice, provides improvement of their professional-pedagogical preparation to the development of the cognitive interest of the pupils to fundamental sciences. This is promoted by the use of various forms of conducting the studies while doing the elective course, systematic character and purposefulness of the students' work while mastering the contents of the elective course, their involvement in the process of conducting seminars, discussions and practical studies on mastering knowledge and skills of the organization of the pedagogical activity for the improvement of the level of the cognitive activity of pupils.

Thus, on the today's agenda the problem of training the pedagogical staff namely in natural sciences, the pedagogues of a new formation, able on the basis of innovative technologies of teaching to develop the cognitive interest of schoolchildren to natural sciences: physics, chemistry, astronomy, biology, remains urgent. It is obvious, that not a single brilliant super-pedagogue will be able to develop the cognitive interest to fundamental sciences effectively without the educational laboratories and subject cabinets corresponding to modern equipment requirements, without measuring instruments, reagents, audio-visual and other means, composing didactic complexes.

According to the above-stated, we think that the most important strategy of the Ministry of Education and Science, of all the government of RK and the society as a whole in the sphere of secondary and higher education today there must be a rise of the prestige, reputation of the pedagogue, stimulation of the youth's interest to pedagogical professions and natural sciences. Our country, which has achieved great success in its successful progressive development for the sake of every man and all people during its independence, has a lot of possibilities for this.

References

1. Klarin M.V. Innovations in world pedagogy. – Riga: Experiment, 1995. – 176 p.

2. The Law of RK «About Education and Lisbon Conference of 1997». – Almaty: Daneker. – 2000. – 72 p.

3. Conception of the development of education of the Republic of Kazakhstan till 2915. // Pedagogical Bulletin. – 2003. – № 12.

4. Leontyev A.N. Activities. Consciousness. Personality. – M.: Academy, 2004.

5. Zagrekova L.V., Nikolina V.V. Theory and technology of teaching. Teaching aid for students of pedagogical institutes. – M.: Higher School, 2004. – 157 p.

6. Borber M., Murshed M. How to achieve stable high quality of teaching at school // Issues of education. – №3. – P. 16–18.

7. Kovaleva G.S. Actual Researches and Developments in the sphere of education // Issues of Education. – M., 2008. – №1. – P. 197–198.

8. Teaching and Development. Experimental-Pedagogical Research / Under edition of L.V. Zankova. – M.: Pedagogy, 1980. – 290 p.

9. Yermekova Zh. K., Ligai M.A., Stukalenko N.M. Development of the cognitive interest of pupils to fundamental sciences. Elective course for students of pedagogical specialties of the institutes of higher education. – Astana.-Kokshetau, 2010. – 58 p.

The work was submitted to the International Scientific Conference «The problems of quality education», Antalya (Turkey), 16-23, August, 2012, came to the editorial office on 22.06.2012.