

## Trends in Development of the Educational System in the Republic of Kazakhstan

K. Bekishev

*Al-Farabi Kazakh National University, pr. Al-Farabi 71, Almaty, 480078 Republic of Kazakhstan  
e-mail: kurmanb@rambler.ru*

Received September 3, 2011

**Abstract**—At present, the system of education in Kazakhstan is in the transition state. It is difficult to give an unambiguous assessment of the achieved level of education as yet. It is necessary to wait for a certain period of time for the performed modernization to have a positive impact on the educational system outcomes.

**DOI:** 10.1134/S1070363213030328

The Soviet system of education played a pivotal role during the period of formation and development of the Soviet Union. The main advantages of the system were its fundamental and systematic character and its accessibility (free education) [1]. At the same time, it had certain drawbacks, which became apparent in the epoch of globalization which followed [2]. These disadvantages are mostly related to providing students with extensive knowledge to the detriment of teaching them to actually apply the obtained knowledge in life situations. It is considered that the Soviet students knew a lot; however, they did not always know how to apply their knowledge in practice. Another characteristic of the educational system that can be considered a disadvantage is the fact that all schools and higher educational institutions of the country used one and the same generalized curricula and textbooks, with no choice. However, it can be understood as the country had to train a large number of highly qualified personnel within a short period of time and the Soviet system of education coped with the task.

The breakup of the Soviet Union was accompanied by economic difficulties in all post-Soviet countries, which could not but affect the development of the national educational systems. Besides, the breakup of the Soviet Union coincided in time with the beginning of the globalization epoch.

Conditions of globalization dictate the necessity to modernize the educational system [3]. Ongoing changes primarily affect methodological systems of education, the main components of which are the

objective, content, methods, means, forms, and control of the learning results. The former criteria for selection of educational content also require revision. There is a gradual change in the very function of the teacher, who ceases to be the main source of information and becomes much more of a facilitator of the educational process. Now there is the Internet, which as a source of information is not only able to replace the teacher but also tens, hundreds, and even thousands of libraries. Computers, interactive whiteboards, photo and video cameras, and electronic textbooks are becoming typical teaching aids. Education organization forms are also changing. The Internet and computer technologies contribute to the development of distance learning, as well as to differentiation and individualization in education. There is a contradiction between the unlimited growth in the amount of information and the limited capacity of the person to consume it. There is a transition going on from traditional to competence education based on development of the students' competences to apply the obtained knowledge, abilities, skills, and experience of creative activities and value relations for solution of problems in unusual situations [4–7].

In modern understanding teaching is not limited to a simple transfer of total knowledge. The formation of modern teaching activities requires a different approach to setting of educational objectives, changes in the principles of selection of the educational content, and changes in the system of evaluation of the learning results.

### **Brief History of Development of the Educational System in the Republic of Kazakhstan**

After the breakup of the Soviet Union all post-Soviet countries started building their own national systems of education. Unfortunately, in the majority of countries it is possible to observe a drop in the quality of education. Today rethinking of the traveled way and search for new benchmarks are in progress.

Trends in development of the educational system in the Republic of Kazakhstan are analyzed in detail in numerous articles written by domestic and foreign researchers (see e.g. [8, 9]). In our opinion, the most detailed analysis is given in the National Reports on the Status and Development of Education, systematically published starting from 2006 [10–14]. The country adopted a number of strategic concepts, including the State Program on Development of Education in the Republic of Kazakhstan for 2005–2010, Concept for Development of Education in the Republic of Kazakhstan till 2015, State Program on Development of Education in the Republic of Kazakhstan for 2011–2020, and other documents, providing guidance for practical activities and serving as a methodological benchmark for performance of scientific and educational research [15–32]. As a result, in terms of modernization rates in the sphere of education Kazakhstan is one of leaders among the post-Soviet countries.

Nevertheless, there are still a lot of problems in our educational system, which have to be solved step-by-step, laying the foundation for long-term development of the Kazakhstani society in the post-crisis and more remote periods. Let us dwell on some of the problems and their possible solutions and consider certain aspects of the status of our educational system and resources for its improvement.

In order to form effectively functioning Kazakhstani model of the educational system the following main areas for development were envisaged:

- introduction of common national testing;
- transition to specialized training in the upper secondary school;
- transition to twelve-year general secondary education;
- creation of the post-secondary vocational training system;
- transition to a three-level system of professional personnel training (bachelor – master – doctorate programs) based on the system of academic credits;

– creation of the national system for evaluation of the quality of education.

The basic element of any national system of education is general secondary education. Within the framework of the strategic concepts for development of education in Kazakhstan mandatory state standards for secondary education were developed. These standards, obligatory for all, include standardized curricula, as well as standardized academic programs and educational-methodical complexes for all subjects based on these curricula.

At present the following problems of secondary education are most discussed.

**Common national testing (CNT).** Since 1999 common national testing has been used in the Republic of Kazakhstan for final evaluation of the students' educational achievements; in accordance with the testing results educational grants for further education in higher educational institutions are awarded [33]. Supporters of the CNT believe that advantages of the testing are objectivity, rapidity, and elimination of corruption in higher educational institutions.

Opponents of the CNT find more drawbacks than benefits in the testing. The main disadvantage of the CNT is that using the testing it is difficult to determine the depth of learning and almost impossible to control the level of development of practical abilities and skills, to say nothing of the experience in creative activities and emotional and value relations, which combine to provide key and subject competences. What is the purpose of multilevel assignments (questions, exercises, and tasks) in educational-methodical complexes or laboratory and practical classes at school if CNT question sets are mostly used to check only the properties of the student's memory – the level of knowledge recognition and reproduction?

The quality of CNT tasks is criticized most frequently. A typical CNT question set consists of one hundred closed-type tasks with four answer options, only one of which is correct. Not all answer options are plausible; therefore, often students can guess the correct answer easily. Furthermore, the number of questions is insufficient for objective assessment of the students' knowledge. In fact, how is it possible to evaluate the knowledge in chemistry obtained by students from VIII to XI grades using only 25–30 questions? In neighboring China such test includes up to five hundred questions.

Though, there is systematic work aimed to improve the quality of the task sets accompanied by search of alternatives. Thus, it is no accident that in the Program on Development of Education till 2020 it is planned to develop new systems to assess the results of general education of schoolchildren apart from the CNT, evaluating the student's ability for logical analysis, the culture of writing, the creative potential of the school graduate, and the area and originality of thought.

In our opinion, a task-based approach is more promising, as the solution of learning tasks models the solution of household, technical, social, and other problems. Furthermore, calculation and experimental tasks, the shares of which in the educational process are extremely low as yet, would make it possible to make more precise diagnostics and evaluation of the students' educational achievements and to simultaneously implement educational, upbringing, and developmental functions of training at all stages of the system consisting of school and higher educational institutions. This statement can be proved, for example, by the experience of the Chemical Faculty of M. V. Lomonosov Moscow State University [34, 34a].

At present, common national testing is held in four subjects, including three compulsory subjects – Kazakh or Russian (language of learning), mathematics, and history of Kazakhstan – and one optional subject. Modifications of the CNT format are discussed, in particular, with regard to increasing the number of subjects to six and introducing more creative tasks. At present, foreign academic experts are involved into development of monitoring and test educational materials.

**Problem of textbooks.** After the breakup of the Soviet Union one of the pressing problems in the sphere of education was related to methodological support of the educational process. It was decided to create subject-specific educational-methodical complexes consisting of the following components: the textbook, didactic materials, the reading book, the workbook, and methodological guidelines for teachers. Attention was focused on the textbook, which logically holds a central position in the composition of the educational-methodical complex.

There are a great number of complains about the quality of textbooks; and there are several reasons for that. Firstly, like in other post-Soviet countries, the educational system of Kazakhstan was developed on the basis of the Soviet system of education, in which it

was common practice to provide students with a lot of knowledge, and the textbooks reflected the situation. Due to relative inertness of the approach to education the former principles of material selection continue to apply, although now other selection principles are required [35–38]. Kazakhstani authors who have no experience of writing textbooks often make methodological mistakes, which is naturally criticized by teachers and parents accustomed to high quality Soviet textbooks. It is evident that good textbooks cannot be written in a year and many countries have many decades of experience in creation of textbooks. Our country is only accumulating such experience.

In recent years a series of positive measures were undertaken in order to improve the quality of textbooks. For example, the Uchebnik (Textbook) Republican Research and Practical Center (RRPC) and the state system for expert evaluation of the quality of school textbooks were established. The system of multistage expert examination of the quality of textbooks consists of the Department of the Ministry of Education, the Uchebnik RRPC, the National Academy of Education, and the Republican Council on the Quality of Textbooks. Well-known teachers, deputies of the Parliament, members of the Government, and representatives of the local executive bodies are involved into the work of the Council.

In our opinion, there are more steps to be undertaken. Firstly, within the framework of the Uchebnik RRPC it is necessary to establish a think tank, similar to the body that existed during the era of the Soviet Union at the Prosveshchenie Publishing House; the best methodologists in every school subject should be invited to become members of this think tank [39]. Secondly, it is necessary to ensure that, as it was initially planned, every writing team includes the following members: a researcher who is responsible for reflection of the current level of the science in question in the textbook, a practicing teacher who should take care that the researcher does not go too far, and a didactic teacher in the specific subject who ensures continuity and compliance with the methodological principles in the course of development of the educational-methodical complex with respect to several grades (e.g. VIII–X or XI–XII). Thirdly, all authors should take a course in didactics and technology of compilation of modern traditional and electronic (multimedia) textbooks oriented at the competence-based approach.

**Transition to a twelve-year educational system.**

Preparation to the transition to twelve-year education is a significant step forward towards changing the content and improving the quality of education. In Kazakhstan this period will start in 2015; in this case the number of schoolchildren taken into the first grades will be doubled, which is a great social burden. Apart from that, *Beiindik mektep* (specialized school) will be created in the upper grades. There is a serious problem related to the fact that 56.4% of schools in Kazakhstan are ungraded as they are located in remote settlements. In order to solve this problem it is planned to establish 160 supportive schools (resource centers). Apart from that, it is expected that 40 higher educational institutions of Kazakhstan will become a basis for implementation of the possibility to locate and train students of XI and XII grades at *Beiindik mektep* specialized schools.

The transition to twelve-year education will require an absolutely new methodology; therefore, the Ministry of Education and Science is now developing corresponding regulatory documents, including new State Obligatory Standards of Education, programs, textbooks, and educational-methodical complexes.

**National system for evaluation of the quality of education.** In compliance with the State Program on Education approved by Presidential Decree no. 448 of September 30, 2000, the National System for Evaluation of the Quality of Education (NSEQE) was established in Kazakhstan [40].

The NSEQE is a combination of institutional structures, procedures, forms, and methods for determination of compliance of the quality of education with the state obligatory standards for education, needs of the individual, the society, and the state. The objective of the NSEQE activities is to contribute to the achievement of the quality of education ensuring competitive ability of the domestic educational system and specialists of the Republic of Kazakhstan in the international educational space and labor market. The NSEQE main procedures include licensing of educational activities, intermediate state control of the quality of personnel training, state certification, state accreditation, and final state certification of the students. The NSEQE functions external evaluation of educational achievements of students and levels of development of their personal qualities; educational achievements of a grade, group, or subject-specific workshop, department, faculty,

separate specialty or profession, organizations of the settlement, district, city, region, and the educational system as a whole; activities of educational organizations, as well as educational achievements of students by means of internal evaluation (self-evaluation) carried out by educational organizations.

**International Expert Examination**

In order to evaluate and compare the quality of educational services it is important to have generally recognized international standards. High positions in international rankings and studies testify to the great educational potential of Kazakhstan.

According to the data of the UNESCO World Report 2009, Kazakhstan was ranked first based on the education development index. With regard to the human development index, Kazakhstan is among the countries with a high level of the human development potential (index of 0.804), the main indicators of which reflect accessibility of education and the population literacy rate. In 2009 Kazakhstan improved its positions with respect to seven educational indicators of the Global Competitiveness Index. With regard to two of these indicators, namely secondary education coverage and ability for innovations, Kazakhstan takes the 51st and 50th places, respectfully.

According to TIMSS-2007 international survey Kazakhstani schoolchildren were the 5th in mathematics and 11th in natural science, which ensured the 7th position in the total. For the first time ever Kazakhstan took part in PISA-2009, an international study of educational achievements of fifteen-year-old students [41].

**Work with Gifted Children**

Understanding that gifted children represent an intellectual and creative potential as a major resource for development of the state as a whole, Kazakhstani specialists employed in the sphere of education prepare and hold a number of activities aimed to detect, teach, and develop such children at various levels and in different forms. Intensification of work with the most talented children and young people in Kazakhstan was promoted by the Presidential Decree on State Support and Development of Schools for Gifted Children (1996). For implementation of the Decree the Government of the Republic of Kazakhstan issued Resolution no. 256 of March 24, 1998, thereby opening a principally new scientific and educational institution – the Daryn (Giftedness) Republican

Research and Practical Center (RRPC) under the Ministry of Education and Science, which became a core element in work with gifted children. Daryn is a multifunctional scientific and educational institution, the work of which is aimed to improve the ways of detection and development of gifted individuals.

The main tasks and objectives of the Daryn RRPC are to contribute to the formation of the intellectual potential of the Republic of Kazakhstan; to establish a system aimed to detect, select, support, develop, and teach gifted children; to expand international cooperation in the field of innovative technologies for development of the gifted individual; and to ensure social and legal protection of gifted children and young people.

The Daryn RRPC embraces 4 Republican and 34 regional specialized boarding-schools for gifted children, 23 Kazakh-Turkish lyceums, 3 regional centers, and 6 experimental schools and sites. The Daryn RRPC has the following structural subdivisions: a laboratory of intellectual competitions, a laboratory of innovative educational technologies, a laboratory of psychological diagnostics and personality development of gifted children, and a laboratory of organizational and teaching activities. Management functions, tasks, forms, methods of activities, and expected results are determined for all structural subdivisions.

The following institutions are constantly in operation within the framework of the Daryn RRPC: the Republican Olympic reserve school, the Republican correspondence general subjects school, Zhas Galym (young scientist) scientific school, extended education schools, and the Daryn shift-type school with six areas of specialization: Olympic, humanities, natural science and mathematics, cultural-cognitive, creative, and summer schools. Also, the Daryn RRPC carries out research studies in the field of pedagogy and psychology of giftedness (within the framework of fundamental research programs of the National Academy of Sciences of the Republic of Kazakhstan).

It is possible to obtain more detailed information on the structure and activities of the Daryn RRPC and get acquainted with the works published in the Daryn scientific and methodological journal at [www.daryn.kz](http://www.daryn.kz).

Implementation of a new project on establishment of 20 intellectual schools with physical-and-mathematical and chemical-and-biological specializations is started. The activities of these new intellectual schools are aimed at upbringing of the future scientific

elite, highly qualified managers and executives for all sectors of the Kazakhstani economy.

For many years the Republic has held a multilevel Republican competition in fifteen subjects which includes the school, district, regional, and Republican stages. Apart from that, Kazakhstani schoolchildren annually take part in world competitions in many subjects, in Mendeleev's international competition in chemistry, in international junior competitions in natural sciences, in Tuimaada international multi-subject competition, and many others. Our students are gaining experience, and the number of awards won by them at international competitions in different subjects is also increasing.

At present, an improved model of the structure of Republican subject-specific competitions for schoolchildren is in operation. This model differs from the previous one by the fact that, firstly, in order to create equal conditions for all participants and to comply with the principle of continuity the district, regional, and Republican stages of the competition are provided with sets of tasks from the single center; and, secondly, in order to screen out accidental results and select the best students regardless of their place of residence there are preliminaries between the school, district, and regional stages [42].

### **Informatization of Education**

In 1997 the state program on informatization of the secondary education system was adopted in Kazakhstan. According to this program, all schools of the Republic are provided with multimedia computer classes, computer educational programs and electronic textbooks are developed, and the information system for management of education is created. Implementation of the interdepartmental program "Internet – into Schools" is continued [43, 44].

Within the framework of the strategic programs N. A. Nazarbaev, the President of the Republic of Kazakhstan, in his message to the people of Kazakhstan "New Kazakhstan in the new world" issued a commission to create educational television. Under conditions of technical progress and development of digital media technologies educational television is a promising form of education capable of achieving the main objective of modern education, namely to create a new model of personality – well-educated, creative, self-sufficient, and able to make their own decisions. The Ministry of Education and Science of the Republic of Kazakhstan, the Ministry of Culture and

Information of the Republic of Kazakhstan, and the Kazakhstan Republican Teleradio Corporation together developed the Concept for Creation and Development of Educational Television in the Republic of Kazakhstan.

### **Prospects for Development of the Educational System**

It is suggested to hold subject-specific conventions of teachers in order to discuss the problems of education. In May 2011 the first convention of school teachers of mathematics took place. In the coming years it is expected to organize discussions on how to improve other areas.

The state program on development of education envisages qualitative changes in the educational system within a period of 2011–2020; one of the main questions which has not been previously raised by any other state program is the status of teachers. The program pays attention to all aspects of education starting from training and professional development of teachers themselves to improvement of the material base of advanced training institutions and many other things.

Implementation of the project “Trinity of Languages” is started in Kazakhstan. The objective of the project is the use of three languages by the population: Kazakh as an official language, Russian as a language of international communication, and English as a language of successful integration into the global economy.

According to estimates, the Kazakhstani system of secondary education is characterized by the following competitive advantages:

- free and compulsory secondary education guaranteed by the Constitution of the Republic of Kazakhstan;
- a wide network of general education schools providing all school-age children with education and training, including children living in extremely sparsely populated villages and mountain villages;
- in general, children’s great thirst for knowledge and a great desire of the majority of their parents to give them good education;
- according to the outcomes of TIMSS-2007 international survey on the quality of education, Kazakhstani primary education is the most competitive.

In the sphere of higher education in the Republic of Kazakhstan no major competitive advantages over other educational systems can be observed.

### **Higher and Post-Graduate Education**

Below we consider only structures that were significantly changed or created for the first time.

#### *Transition to the Three-Level System*

Kazakhstan defined the benchmarks for entering the European educational space and performs modernization of educational activities in the context of the European requirements. Our country was one of the first post-Soviet countries to sign and ratify the Lisbon Convention on the Recognition of Qualifications concerning Higher Education in the European Region in 1997.

In 2004 the State Program on Development of Education in the Republic of Kazakhstan for 2005–2010 was approved by the Decree of the President of the Republic of Kazakhstan. One of the main objectives of this program is to establish an integral three-level staff training model accepted in the majority of the world countries, consisting of the bachelor, master, and doctorate programs, where Ph.D. course is the final stage of training of highly qualified academic and teaching personnel. By now almost all higher educational institutions in Kazakhstan have started working with the first two of these steps. The two leading universities (Al-Farabi Kazakh National University and L.N. Gumilev Eurasian National University) have already reached the third stage training Doctors of Philosophy.

The structure of the higher and post-graduate professional education includes bachelor, master, and doctorate programs (Ph.D.) in compliance with the formula of 4+2+3; the curricula of these programs are mutually coordinated taking into account the principle of continuity. Training of highly qualified specialists is based on the credit technology of education.

Starting from academic year 2006/2007 there is a new classifier of professions applied in Kazakhstan. There have been changes in the structure and content of the bachelor training standard. A block of optional subjects has appeared. The Bologna Process has shown a trend towards modification of the principles for presentation of educational content in state standards. The emphasis is shifted from the process of education to measuring the results of it. The requirements to educational results are formulated in the form of competences.

Within the framework of master courses training can be performed according to two directions: advanced specialized training and research and development training.

In 2010 Kazakhstan officially joined the Bologna Declaration and became the 47th participant of the Bologna Process. Under conditions of economic globalization, expansion of international relations, and increasing mobility of the population the country's accession to the Bologna Process is considered right and timely. At the same time, is our system of higher education ready to fully implement the basic principles and requirements of this process in a short time? There is still a lot of work to do in order to adapt our system to the new requirements and principles of organization of the educational process.

#### *Bolashak (Future) International Scholarship*

For seventeen years Bolashak, an international scholarship of the President of the Republic of Kazakhstan, has been given to the most talented young people enabling them to study at the best foreign institutions of higher education in specialties that are priority for the Republic [46]. The Bolashak program is extremely efficient; it allows the students to obtain high quality education at the best world universities, fully immersing the students into a different language environment and culture of the people, making it possible for the students to adopt the best traditions and moral values of the people. Education based on other technologies and methods, as well as active involvement into university research works in university laboratories allows our students to obtain professional education. If a certain minimum number of Bolashak graduates is reached in the country, it will undoubtedly contribute to acceleration of the social and economic development.

It is clear that for implementation of this program significant financing from the state is required. In this connection the concept for training of specialists under the Bolashak program is changed starting from 2011. Whereas in the first years of the program the Republic of Kazakhstan had bachelors trained abroad, now there is a gradual shift away from this educational practice. Previously school graduates could go abroad to study right from the school bench, whereas now they have to study at home for four years and obtain recommendations that they have a tendency to scientific research which can be continued abroad. The overwhelming majority of the Bolashak scholarship holders, studying at foreign universities within the framework of international exchange programs, successfully learn the curricula of these universities, which testifies to the solid and deep knowledge base obtained at home.

In addition to the above, it should be noted that the Republic of Kazakhstan has Nazarbaev University with the best conditions for training specialists of a very high level.

#### *Training of Masters and Doctors of Philosophy*

Like it used to be in the Soviet Union, today researchers in Russia can be awarded two academic degrees – Candidate of Science and Doctor of Science. In this case the degree of Candidate of Science is not given upon completion of special education in a higher educational institution like the Ph.D. degree in European countries, but only as a result of preparation and defense of a thesis, including in research and development institutes, which are not always connected with the higher education system. Until recently such practice continued to work in our country as well. However, according to expert opinions, when moving into the European educational space and joining the Bologna Process it is not logical to keep the old system for training of research personnel.

A new system for training of high qualification scientific and research personnel is created in Kazakhstan. Thus, starting from 2011 dissertation councils at higher educational institutions, which used to award the degrees of Candidate and Doctor of Science, stop operating. Training of Candidates and Doctors of Science will be replaced by training of Masters and Doctors of Philosophy or Doctors of other specializations. Doctors of Philosophy and Doctors of other specializations are at the same level. The case is that in certain sciences, for example, in medicine and in law, the doctoral degree can be called Doctor of Medicine (M.D.) or Doctor of Law (J.D.), respectively. These are Doctors of other specializations mentioned and the level of requirements to them is the same as for Doctors of Philosophy [47].

The new system differs from the previous structure by the fact that it is based on a natural combination of high quality educational training in the corresponding higher educational institution and a research program. It should be noted that in training of traditional Candidates and Doctors of Science the first of these components was actually absent, and it is the main factor of change. In order to obtain the academic degree of Doctor of Philosophy it is necessary to enter the doctorate program of the higher educational institution and to receive the corresponding training for at least three years, to carry out a number of research works, to prepare and defend a thesis. The Ph.D.

student is given a possibility to work in a foreign laboratory, in which case the student's work is supervised by a foreign advisor apart from the domestic research supervisor. It is a critical distinction of the doctorate program from the former post-graduate training, during which post-graduate students were actually left to their own devices for all three years.

The Law on Science adopted in Kazakhstan gave incentives for academic development via academic titles. Such new academic titles as Professor and Associated Professor are introduced. Only regular staff members of scientific organizations and higher educational institutions working full time qualify for these titles. The set of requirements for obtainment of the academic titles is developed. The most important among these requirements are mandatory published works in foreign high-rating journals, as well as single-handedly written teaching aids and monographs. It is impossible to achieve such results working part time.

Now if Candidates of Science have not received the title of Assistant Professor yet, they qualify for the title of Associated Professor, while those who are Assistant Professors already, qualify for the academic title of Professor. Previously the title of Professor used to accompany the diploma of Doctor of Science almost automatically. The accepted academic degrees of Professor and Associated Professor have a higher status and represent separate stages of the academic career.

Kazakhstan recognizes academic degrees awarded in other countries; however, the procedure of recognition is fully based on comparison of the state standard for training of Doctors of Philosophy in our country with the doctorate program in the country that awarded the academic degree. Special attention should be paid to the fact that, according to our state standard, training of Doctors of Philosophy is performed only full time and out-of-work, i.e. correspondence or part-time training is impossible. Therefore, the procedure of the academic degree recognition can be carried out only by those who defended candidate dissertations or obtained the academic degree in other countries as a result of completing full-time post-graduate or doctorate programs.

#### *Network of Higher Educational Institutions*

Whereas in developed countries there are up to six institutions of higher education per every million of inhabitants, there are currently 149 higher educational

institutions in Kazakhstan, which is nine per every million of Kazakhstani people. It is undoubtedly a high figure, which was even higher before the reduction.

There are discussions regarding a new classification of higher educational institutions, including national research universities; national higher educational institutions; research universities; universities; academies; and institutes. It is suggested that the number of national research universities cannot exceed three, the number of national universities in the country can be around ten, and there should be around forty other universities. If national universities fail to justify their educational level, which among other things includes the number of specialties at university, they will be transferred into the category of universities. Those failing to keep to the university standards will be transferred into the category of institutes. Educational institutions that do not comply with the criteria for higher educational institutions should be transferred into the category of colleges, training middle-level personnel. The regulatory and legal framework for these changes is stipulated in the Law on Science.

As noted above, new Nazarbaev University is open in Astana. The University is organized on a principally different conceptual basis as compared to other higher educational institutions operating in Kazakhstan. The strategy of its activities is focused on partnership with the leading higher educational institutions of the world and on interconnection between education, science, and production (research centers will be established at the university especially for the purpose). Corporate management with the Board of guardians in the lead is introduced at the university. The endowment fund will concentrate state and private contributions and ensure financial stability of the university.

Nazarbaev University is an example of effective use of financial funds and a new approach to extensive training of domestic highly qualified personnel involving foreign specialists. There is confidence that after a certain time period this university will become a flagship of the domestic higher education, the leader among the universities of Central Asia, and will be able to compete with the most prestigious universities of the world.

#### *Grant to the Best Teacher of Higher Educational Institution*

Starting from 2006 state grants to the best teachers of higher educational institutions have been awarded in



order to support the best teachers having high achievements in scientific and teaching activities. The grant is given on performance of research works and includes training abroad. Two hundred grants are awarded every year.

The teachers' achievements in scientific and teaching activities are evaluated according to the following criteria: research and development activity, including an academic degree or title; participation in fundamental and applied research, international research projects (programs and grants), and contractual works; scientific achievements (data on inventions and patents, certificate of state registration of intellectual property objects, scientific research results and published works, and participation in the Republican and international conferences); academic supervision for Ph.D. and post-graduate students, assistant professors, candidates, and master students; supervision of students' research and creative activities; educational and methodological activities, including participation in development and publication of textbooks, teaching aids, and educational-methodical complexes for different disciplines; application of innovative teaching technologies in the educational process; and evaluation of the competition participants' teaching excellence by students.

What is really wonderful in our country is the great demand for education from the young people of Kazakhstan, the support they get from their parents and the country leaders, the government, the Ministry of Education and Science, and the deputies. It is hoped that the performed reforms and modernization of education, including transition to twelve-year education, implementation of the principles of the Bologna Process, extensive development of international links in the sphere of education and science, creative adaptation of foreign experience, transition to the three-level system of personnel training, and other innovations will lead to significant improvement of the quality of education in our country in the near future.

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