December, 2012

The Kazakh-American Free University Academic Journal

BBK 74.04
J 38

Articles in the Kazakh-American Free University Academic Journal examine instruction and learning issues, legislation issues, issues of business administration and the development of society, linguistics and cross-culture communication issues, key issues in psychology, information technology and applied research.

Materials included in the journal are addressed to scientists, researchers, university faculty, university students, and educators.

The frequency of publication is once per year.

Chief Editor – Christensen M.

Deputy Chief Editor – Ballast D.

Technical Editor – Levina T.

J 38 The Kazakh-American Free University Academic Journal. – USA, Oregon, 2012. – 267 p.

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44490 SE Phelps Road
Sandy, OR 97055

Signed off to publisher on 29.12.2012

PERFORMANCE EVALUATION OF UNIVERSITY COMPETITIVENESS IN THE FIELD OF INTERNATIONAL PARTNERSHIP

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The process of globalization of international cooperation in the field of education is a necessary condition for Kazakhstan to join the global education community, as it determines the way of integration with national systems of education of the most developed countries, provides mutual recognition of educational achievements and serves as the basis for equal cooperation in the other areas of international relations.

The international partnership is one of the main components of the reform of the education system of Kazakhstan, as it promotes the definition of reform's final goals and objectives through consideration of generally recognized global trends and standards of education. Realization and development of international relations rises additional funding in the form of grants and technical assistance, which increases the attractiveness of the higher education institution, improves its image and, as a consequence, increases its competitiveness [1, 2].

Let us examine the evolution of the international educational activities. Since the late 40's of the XX century, developed world countries started positioning international educational exchange programs as a part of their foreign policy, putting them by importance in one line with military and economic aid to the developing countries. By the end of the last century, there had been formed a separate branch of the global economy - the international education market, with tens of billions dollars in sales and the flow of international academic mobility of students numbering several million people a year. According to the Organization of Economic Cooperation and Development, more than half a million foreign students study annually at different universities all over the world. The leader in this area is the United States, with 500,000 foreign students studying there every year approximately.

Development of the international activities of universities of Kazakhstan is closely connected with the development of international activities of the Republic of Kazakhstan in general, and education in particular. Today, Kazakhstan promotes the open door policy, by welcoming a variety of local initiatives to attract foreign capital and the most valuable experience, advanced foreign technology and equipment to assist transformations in our society. The most popular and actively functioning international grant programs in Kazakhstan are:

- Erasmus Mundus CASIA;
- "Research visit" program of the "Prague development center" (Czech Republic);
- UNESCO joint program with the Government of Japan;
- The program of JSC "Center of International Programs" - administrator of "Bolashak" international scholarship of the President of Kazakhstan
- MUSKIE - Muskie Scholarship Program (Muskie), administered by the American Council for International Research and Exchanges (IREX)
- UGRAD - another program administrated by American Council of International Research and Exchanges (IREX);
- DAAD - German Academic exchange program. Central Asian Scholarship Fund - a program administered by the Advisory Centre of Education Abroad by organization "Bilim - Central Asia".

Kazakhstan does not support isolationism and actively continues to cooperate in different international financial, so-

cial and other organizations, demonstrating desire to play a leading political role in the world community. Kazakhstan continues its integration into the world of higher education, actively developing new educational technologies, solving organizational issues of accessibility and structuring of higher education, and convertibility of national diplomas. The government proved its intention by providing support to foundation in the 90s of such universities as Kazakhstan Institute of Management, Economics and Strategic Research, Kazakh-American Free University, Kazakh-Turkish University; later, in the 2000th - to Kazakh-British Technical University (KBTU) and, finally, "Nazarbayev University", designed to be a model of a national university, which uses international standards and experience in its teaching.

In practice, it is difficult to separately evaluate the impact of international partnership on change in university competitiveness. Rather, you can set the connection between international education programs and organizational development of the university. However, such an assessment is possible.

Study of the problem of indicators of higher education institution competitiveness in general, and international partnership activities, in particular, showed that there is no unanimous understanding of this issue in theoretical sources, which contain both identical and distinct approaches [3, 4, 5, 6, 7].

Indicators used in legal acts of the Ministry of Education and Science are not up to date and cannot serve as indicators of program goals in this area, specified in the State Program of Education Development of Kazakhstan for 2011-2020 [8].

Better indicators of the international cooperation can be found in current techniques of high schools ranking used by Kazakhstan accrediting bodies, but still, they are also insufficient and do not contain indicators sufficient value achievement.

Assessment of international partnership involves not only the generalization of the factors affecting the formation of the competitive advantage of a higher education institution in a particular field. It is also necessary to make a competent, full and well-grounded choice of accepted and clear evaluation criteria of the factors that allow studying the entire cause-effect relationship process. An assessment mechanism is required that would ensure reliable, objective, regular, transparent and optimal results. The system of indicators must secure information needed for making effective management decisions.

To take into account dominant quality, little known elements of the international partnership it is advisable to use a system of indicators, which is strictly subordinated to the specifics of evaluating competitiveness in international partnerships and will be an information basis for monitoring and ranking, as well as identification and utilization of existing reserves to reinforce competitive the position of the university in the field of international cooperation.

Thus, for the assessment of the competitiveness we suggest using the following system of indicators, the application of which increases its analytical capabilities.

The peculiarity of this system is in having interconnected indicators , based on the criteria and standards used in the organization of the international educational activities worldwide and, which is most important, relevant and reflecting modern processes of education internationalization .

Moreover this system is characterized by the ability to adapt to certain conditions, which is especially important when it comes to differentiating from existing competitors.

The suggested system of estimation includes a set of key indicators of the most significant results of the international ac-

tivities of the university, which form competitiveness of education services provided.

However, using only this system of indicators has the following drawbacks, as it implies:

1) Only internal evaluation based on the source of information for data collection.

2) Use mostly quantitative indicators.

3) Considering the opinion of only one member of the education market - the higher education institution.

Before determining the best approach to the assessment of the competitiveness of the university in the field of international partnerships, it is important to determine the parties interested in the assessment, and the purposes for which the assessment may be used. In our opinion, the results of this assessment may be interesting for the following parties:

- the Ministry of Education and Science, while considering the placement of state order, and funding of public university;

- the employers, while considering information about the institution in the process of staff selection and hiring;

- Students and their parents, when choosing a school;

- University, for analytical work and effective management decisions.

Therefore, an integrated approach to assessing the competitiveness of the international education services of the university is recommended which integrates the parameters of internal and external evaluation.

Speaking of competitiveness of educational services, including that in the field of international cooperation, it is imperative to consider the fact that it is largely determined by the assessment of the degree of customer satisfaction, which involves, primarily, the conformity of knowledge and skills of public and professional nature to the needs and expectations of the environment.

Thus, to evaluate the competitiveness of international cooperation it is appropriate to use a methodological approach that includes:

1) Consideration of internal and external evaluation.

2) Evaluation of both quantitative and qualitative indicators.

3) Involvement of participants of not only the education market, but also employers.

As a result of this methodological approach, the integrated value of the results can be obtained. The procedure of a comprehensive assessment of competitiveness in the sphere of international partnership involves:

1) Defining the purpose of evaluation. The purpose of evaluation is sustainable increase in the university's competitiveness in the field of international partnership based on the study and analysis of the needs of the environment, processing the results and creating a plan of strategic and tactical activities. Higher education institution itself is a subject of assessment; it has access to the information, collects the information, analyses it and gets the results.

2) Planning the assessment procedure in the field of international partnership includes setting appropriate objectives, determining the sources of information, doers and terms of performance.

Among the required set of objectives the priorities are: identifying components, positive or negative influence on the subject of evaluation, identification of key resource reserves to increase competitiveness, development of the action plan.

The sources of information for the evaluation are both internal (documentation in accordance with the approved list of documents) and external (derived from the survey) data.

3) Collection and processing of in-

formation using all possible sources and validation of information, information processing and grouping by components (depending on the method of evaluation).

4) Analytical work, the calculation of the integral index of competitiveness and the analysis of the results.

5) Development of the recommendations based on the performed analysis: determining factors that contributed to these results, designing measures to improve competitiveness of international partnership and defining promising areas of the university activity to ensure its achievement.

As for the methods of assessment, they require having two necessary components:

- Quantitative internal evaluation in accordance with the system of balanced indicators we developed;

- High-quality external evaluation based on a customer survey.

There are the following priorities in the field of international partnership in higher education at the present stage of development of the educational system in Kazakhstan:

1) Implementation of public policies to promote international cooperation in the field of education, in accordance with the laws and other legal acts of the Republic of Kazakhstan, international (interstate, intergovernmental and interdepartmental) treaties in the field of education.

2) Development and implementation of comprehensive programs on improving international cooperation in the field of education.

3) Preparation of highly qualified personnel from among the most talented Kazakh youth in the best foreign universities.

4) Education and training of specialists for foreign countries from among foreign citizens and stateless persons.

5) Assistance in meeting the educational needs of young people from foreign Kazakh Diaspora.

6) Exchange of scientific-technical and scientific-pedagogical achievements.

Strategic objectives in the field of international cooperation between higher education institutions should include:

- Increasing the number of the existing international treaties, agreements, memoranda and partnerships, as well as improving their effectiveness;

- Achievement of international competitiveness of the results of educational and research activity;

- Increasing the competitiveness of the university at the regional, national and international education market;

- Attraction of funds to the university budget for the development of international activities and generation of income from international partnerships.

The above mentioned strategic goals lead to setting the following strategic objectives of higher education in the field of international partnerships:

- Promoting academic mobility of students and teachers in accordance with the principles of the Bologna Declaration and the establishment of a common European educational space;

- Expansion of cooperation with foreign universities and organizations in the traditional areas of partnership and the creation of new forms of cooperation;

- Use of the achievements of foreign scientific schools and international research and methodological expertise;

- Creation of international research groups and consortia to conduct collaborative research in basic and applied problems;

- Distribution of information on advances and capabilities of universities in the field of joint educational and research activities;

- Activization of export of educational services [9].

Obstacles to the development of international relations are:

1) Insufficient funding of international activities of the university.

2) Insufficient level of R & D facilities.

3) Lack of financial attractiveness of the university for foreign scholars.

4) Bureaucratic obstacles in the process of attracting foreign teachers for long-term periods.

5) Low level of teacher motivation to participate in the programs of international partnership.

6) Difference in domestic and foreign educational standards.

7) Language barrier.

Thus, implementation of the measures described above to promote international co-operation will contribute to the competitiveness of the university, to improving its image, both in the local and international markets of educational services, will increase attractiveness of the institution of higher learning for international educational and research institutions. They will increase its attractiveness to students from other countries, will promote the integration of the university into the international educational space, which is an indisputable priority for the university in the context of globalization.

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THE DEVELOPMENT OF ENTREPRENEURIAL UNIVERSITIES IN UKRAINE

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The meaning of the term "entrepreneurial" lies in conscious effort directed toward the construction and development of an organization, which presupposes not only hard work but also a special approach to the task. Not being afraid of taking risks when the outcome is unknown is one of the main principles of this approach, and is

also the key to success. An entrepreneurial university actively looks for new opportunities and ways of accomplishing even its major functions. Such a university attempts implementation of meaningful organizational changes in order to create a better future. Entrepreneurial universities want to be different from others and act according to their own rules. Earlier, the term "entrepreneurial" and the term "innovative" were used interchangeably and were considered as synonyms. The concept of an "innovative" university is more attractive – it is gentler in comparison with an "entrepreneurial" university and it lets viewing entrepreneurial activity of a university as a new type of activity. The concept of an innovative university helps reducing and abolishing that negative attitude which most of representatives of academia have toward entrepreneurs, (they view them as aggressive business people who are profit-oriented only). The entrepreneurial-innovative transformation of a higher education establishment is not a one-time event and does not happen by chance or when one entrepreneur ceases organizational power to rule over the organization (this would be an exception to the rule). If this happens, such an individual encounters enormous all-level opposition, which ultimately leads to the failure of his endeavor.

The real transformation takes place when a group of people in every university unit introduces innovative changes during a number of years, which changes the structure and orientation of this educational establishment. Collective entrepreneurial activity on the basic university levels is at the heart of the transformation phenomena [2-4]. Project oriented universities are also of great interest and are quite promising [1; 6].

Many higher educational establishments all over the world are undergoing significant transformation with the aim of establishing themselves as entrepreneurial universities. The causes of this transformation are as follows: the cutback in state financial support, increasing competition in the education market, diminishing of the state control over university activity, the loss of competitiveness of numerous higher education establishments, reduction in the number of prospective students and so on. Entrepreneurial activity can significantly improve this situation, which is why discussing the issue of the development of entrepreneurial universities is so important. It is especially important in Ukraine, as Ukrainian higher education establishments need to find ways to deal with the mentioned above factors, which are especially pronounced in the country.

The aim of the paper. Entrepreneurship may be an important part of the activity of any higher education establishment, as it aims improvement of the financial state of the university, widening of the spectrum of the services it provides, and formation of the corporate entrepreneurial culture of the university. Recent research has shown impressive results achieved by entrepreneurial universities abroad, such as improvement of the quality of their research activity as well as of educational services that they provide, improvement of the state of their financial affairs, sharp increase in their competitiveness thanks to utilization of entrepreneurial approach in their activity [2-5; 8].

The Triple Helix model of H. Etzkowitz is well known around the world [4]. However, in post-Soviet countries the impact of not only universities, but also the establishment of the Academy of Sciences should be considered. It is therefore important to develop a model that takes into consideration specific features of these countries.

Research issues raised by the paper. This paper analyses necessary conditions and peculiarities of implementation and development of entrepreneurship in higher education establishments, as well as estab-

lishes their mission and the main directions of their entrepreneurial activity.

In the post-Soviet countries, a system of national and other types of academies of sciences still exists. They consist of scientific-research establishments – scientific-research institutes (including scientific academic units – departments, laboratories, groups). Also, the state industrial scientific-research and manufacturing units operate. Their task is to develop prototypes and commercial production of the new technology. As a result the most substantial part of the state budget financing of the research is distributed between the academies of sciences and industry research and production units (complexes). Higher education institutions receive a smaller portion of the funding for scientific research and development activities (R&D). It refers to basic and applied scientific research, scientific work for the government (commercial, industrial) and other businesses.

In this respect, it is necessary to coordinate teaching and research activities of higher education institutions, institutions of academies of sciences and industrial research and production structures.

The main conclusions of this paper. According to this research, necessary conditions of implementation of entrepreneurship in higher education establishments are as follows:

1. Entrepreneurial mentality of people in a society (American entrepreneurial society is a great example here).

2. Favorable national law that does not serve as an obstacle of transformation of a university into an entrepreneurial university. The best national law allows for great freedom and independence of higher education establishments and does not limit initiatives of the establishments of higher education.

3. The level of independence of colleges and universities in the system of national higher education, as well as their independence on the local level.

4. Ownership type and the will and desire of the leadership and employees to take part in innovative entrepreneurial activity.

5. Existence of leaders who possess entrepreneurial qualities at each level of the hierarchical structure of the establishment as well as possession of such qualities by employees.

6. Existence of strong corporate entrepreneurial culture [2-4]. Formation of a strong team by the employees and leaders with entrepreneurial qualities.

The distinguishing feature of higher education establishments is their academic content, which creates their main goal of creation and dissemination of new knowledge in a society. This presupposes the following mission that colleges and universities need to fulfill:

1. Educational: different forms, types and methods of education (such as professional preparation of undergraduate and graduate students, life learning etc).

2. Scientific and research activity: conducting fundamental research and obtaining new results in all knowledge fields; new discoveries.

3. Scientific and technical activity: development of new types of products, technologies and know-how.

4. Publishing: publishing of fundamental research as well as popular scientific literature, text-books and periodicals, as well as development and publication of high quality art and fiction literature.

5. Expert-patent and library activities: provision of expert evaluations in all knowledge fields; activities in patents and copy rights protection; library formation.

6. Information services, implementation of internet technologies and provision of distance methods of information and education access; distance learning support.

7. Enlightenment: organization of various events (lectures, seminars, presen-

tations in classrooms and via mass media) with the goal of popularization and spreading of knowledge and new discoveries in science and technology, as well as health care education of population.

8. Leading of bringing-up processes: Students and employees of the higher education establishment are taught patriotism and moral qualities via their participation in charitable activities (organization of camps, kindergartens for campus employees' kids, help to the elderly and disable people, orphanages, etc).

9. Athletic activities: students and employees of the higher education establishment participate in athletic events of various kinds of sports; necessary conditions are provided for the athletes' participation in local, regional, national and international competitions.

10. Health care (university health care centers and medical departments in universities and colleges): provision of healthcare services to students, faculty, employees and all community members.

11. Cultural: preservation of cultural artifacts; educating of national cultural elites, development of arts; cultural student activity under the supervision of faculty; theatre activities on campus, etc.

12. Socio-economic: increase of the level of intellectual level of all community members as well as increase of the level of national scientific and economic potential.

13. Entrepreneurial and production activities: helping people develop economic way of thinking and entrepreneurial mentality; helping people obtain necessary professional knowledge; improvement of social processes in support of small and medium business, etc.

As to Ukraine in addition to the R&D entrepreneurial activities the following activities also may be considered as entrepreneurial activities of a university or another higher education establishment:

1. Student enrolment (local, national and international students).

2. External communication, including international communication. This activity includes faculty search (national and international); membership participation in professional groups and associations; international education.

3. Search for partners nationally and internationally.

4. Planning of such educational programs, which are in high demand in the country and internationally.

5. Conducting research activity and its distribution for a fee. Income generation via patents, royalty payments, new discoveries and know-how.

6. Planning and development of new forms of educational activities (academic education, internship, etc), new forms of enterprises and new forms of entrepreneurship.

7. Planning and organization of publishing activities.

8. Organization of conferences and faculty participation in these events.

9. Extracurricular activities.

10. Organization of community - useful events.

11. Receiving profit via renting out premises, providing services and via the operation of campus.

Furthermore, there are other activities that may be viewed as entrepreneurial activities of a higher education establishment. They are as follows:

• Contracting out certain services and doing contract research;

• Preparation and vending educational materials, such as textbooks;

• Providing expert opinion and conducting professional expert evaluations (medical, judicial, patent, archeological, art, etc); educating high level professionals (Master's and Doctoral levels);

• Organization of different entertaining events both – nationally and internationally.

• Pre-school and K-12 education;

• Organization of various cultural,

athletic, education events by the staff, faculty and students of the higher education establishment; renting out the establishment's facilities for such events conducted by other organizations;

• Prospective and current student services (internship, job search, assistance to international students in terms of dealing with immigration services).

Promising potential entrepreneurial activities may be such activities as foundation and operation of private colleges and universities, private K-12 schools and kindergartens; experimental enterprise production utilizing new scientific-technical discoveries of the higher education establishment; private publishing houses; PR agencies; student cafeterias, internet-cafes, etc.

Let us consider the experience of the US entrepreneurial university model development and entrepreneurship in the UK higher education.

The US Entrepreneurial University Model Development

The activities of continuous improvement of the US university represent an equally sustained effort of the teaching personnel and of the university staff, as well as the students and the businessmen – the potential employers of the university graduates. In this respect, the university actively supports the participation in the educational process of the students, the course attendees and their parents, on one side, as well as of the alumni and businessmen, on the other side [7].

The quality of the educational services offered by the US university depends upon the quality of the people working at the university – faculty members, students, researchers and administration. The evaluation of the competences and abilities of all parties involved in the university's educational process (done by specialized bodies, large audience, media, etc.) is important for development and strengthening of the university prestige. The same importance is given to the evaluation of the study programs offered, the curricula and the syllabi, the supplied material resources and other processes' evaluation at university level.

The profile of students has changed significantly within the past years and this transformation will take place further on. Today's students have access to an enormous information volume concerning the opportunities of applying to university or post-university programs, as well as employment opportunities throughout the studies period. Consequently, the US universities show continuous interest in making the students' voice be heard and listened and actively involving them in the university's internal processes [7].

The universities in the US have made some changes regarding the relationship between the faculty, the students and the business environment with the purpose of further development and strengthening of university and business co-operation. These changes were caused by the following factors:

• the increase in the number of candidates that wish to take university studies, but whose educational background does not meet the requirements of the academic level;

• the lack of selective and differentiated admission criteria, depending on the nature of the study program, the specificity of the study domain, the candidates' profile, etc.;

• diversifying the students' requests concerning the quality and efficiency of the teaching and learning process;

• some students' incapacity to better coordinate the time split between course attendance, fulfillment of university tasks, working part-time, and, moreover, involvement in academic evaluation processes;

• some students' choice of adopting the strategy that allows them to obtain, in

the shortest time span, a university degree so as to apply for a job;

• increase of the number of students that break off their studies in order to integrate in the manpower field;

• employing students with limited material resources and, consequently, reducing the study time;

• limited knowledge regarding educational processes within the university, as well as regarding the functioning of the institution in general;

• lack of enthusiasm regarding active involvement and taking responsibilities for processes within the university;

• increase in students' freedom of movement from one educational process to another, etc. [7].

Entrepreneurship and UK Higher Education

It is globally accepted that entrepreneurship is greatly influencing the structure and competitiveness of western economies. Taking into consideration the US experience and positive results of supporting and development of entrepreneurship in higher education, the European Union and the UK government are paying great attention to this issue.

It has been proved that entrepreneurship in its business understanding is closely connected and associated with the development and growth of economics, small businesses and helps to solve employment problems. In future society personal, business, community and social entrepreneurial behavior and organizations will be the most important. This view is very popular in the US, especially in leading foundations. The concepts of 'Intellectual Entrepreneurship' and of the 'citizen scholar' present a visionary challenge to the higher education sector [5]. The wide understanding of entrepreneurship has major implications for the way in which education in general and higher education in particular prepares individuals for the life in the real non-stable world of uncertainty, complexity, opportunity and challenge. Drawing down from this analysis the visionary challenges to the higher education sector include those of: "creating" its own autonomy in acceptance of the notion that less and less of its funding will come from the state; acceptance of the "idea" of a university embracing relevance and integration of knowledge and sharing with, and learning from, the wider community; internal re-organization to provide a stronger steer to entrepreneurial endeavor while building on the natural autonomy of individual academics. Externally there would need to be: wider engagement with the stakeholder community as apart of an organizational learning strategy; recognition that the creation of science parks, incubators, technology transfer offices, patent protection arrangements are not as important as opening up and integrating into the university activity-based relationships with the relevant stakeholders in both a formal and informal institutional manner. This in turn would mean: encouragement of a wider range of interdisciplinary activity and degrees and creation of related centers; wider recognition of responsibility for the personal development of students and staff, career and lifelong learning experiences; the recruitment of entrepreneurial staff and entrepreneurial leaders as change agents including the opening up of academic posts to a wider constituency via adjunct and visiting appointments; the building of rewards systems well beyond the current research, publication and teaching criteria; and overall, ensuring that the concept of entrepreneurship education is embedded in the faculties, owned by key staff and integrated into the curriculum [5].

The Features and Practices of the US Entrepreneurial University Model

The US model of an entrepreneurial university, that the majority of the univer-

sities all over the world try to use, is characterized by a clear orientation towards its internal and external clients' demands, including those of the business environment. This model is interconnected and interdependent with wide development and strengthening of partnerships with all partners, who prove to be interested in the university's educational process, academic and research results. The entrepreneurial type of university is greatly interested in the quality and the result of its activities, as well as in achievement outcomes obtained both from a scientific-research or technological investigations and from the employability and labor market.

Therefore, the business environment in the US is deeply involved in and collaborating with the academic environment regarding the content of the study plans, methods of teaching and passing newly acquired knowledge, as well as the competences that students must have acquired at graduation. There is a stated interest, declared by both parties, in correctly identifying the problems today's society is dealing with, but also in identifying its requirements, and a clear wish to take the necessary steps in order to correct the deficiencies and non-conformities is manifested, so that both parties get the desired results.

The practices that the US model of entrepreneurial university is pursuing are concerned with the following: university's clients; leadership system; strategic planning; process management; human resource management; and performances evaluation. The paper [7] further addresses these practices.

1) Special attention is given to the university's clients. In the US business educational system, a student is looked at from several points of view: as beneficiary of the information and knowledge that the teacher passes; as a partner or an active participant in the teaching and learning process; as well as a shareholder of the university directly involved in the material support of the academic environment, with all the subsequent rights and responsibilities. The current reform of the university educational system in the USA awards the rightful importance to the continuous improvement of the system of communication and passing the information and new knowledge to the students, to the development of correct evaluation of students' performance systems, to the improvement of the students' financial support system, but also to the extension of the internationalization effort and increase of the students' mobility.

It is possible to group all university clients in two main categories:

• internal clients – students, teaching staff, administration personnel;

• external clients – potential employers, students' parents, alumni, the university community, and the business community.

Because evaluation of client satisfaction represents a permanent activity of the university and a way to evaluate its performances, annually (or half-yearly) a series of data from clients is collected, both through direct research, and through indirect research – polls, interviews, focus group, parent meetings, meetings with business environment representatives, etc. This data is then analyzed and transformed into information and knowledge, valuable for the participants in the educational process that can further insure reaching the planned objectives and the continuous improvement of performances. For instance, as a result of the analysis of data regarding student satisfaction concerning the courses offered, some of the decisions taken and implemented are aimed at: redesigning the curriculum, revising the syllabi, promoting the teaching staff, distributing the budgetary funds, etc.

2) As far as the leadership system is concerned, various work committees debating specific issues are organized within

universities, such as: The Strategic Planning Committee, The Promotion and Title Committee, The Curriculum Planning Committee, etc. Among permanent members of these committees there are students, graduates and business environment representatives, together with the teaching staff and the administration personnel.

3) In elaborating the annual strategic plans, a series of specific stages are taken into account, such as: defining the mission, the vision and key values the university promotes; establishing the objectives and prioritizing them; identifying the action plans to reach the objectives; identifying and allocating the necessary resources, granting responsibilities to the human resources; identifying the evaluation and progress tracking methods; disseminating results by placing them at the disposal of the interested parties.

4) Across the universities in the US, special attention is awarded to the process management, respectively to:

• identifying key processes that add value to the university's products and services, such as curriculum planning, planning and revising the courses' content, programming and supplying the courses, student assistance, student evaluation;

• identifying support processes that do not contribute directly through adding value, but support the key processes, such as student counseling, selecting and evaluating teaching staff's performance, attracting funds, etc.

A third category of processes kept under control within the US universities is represented by the process referring to the relationship with external partners and clients of the university, processes such as: recruiting students, acquiring equipment, developing efficient infrastructure, etc.

The research in the educational field demonstrates the fact that, nowadays, the learning process – as main tool of knowledge supply which develops the students' real competences – is topping the teaching process as subject of interest that has represented until recently the favorite subject in the paradigm of the educational process. Adopting new strategies of teaching and learning that would lead to wider student responsibility concerning acquiring competences truly requested on the labor market, but also the evaluation of one's own achievements and professional evolution has gained more importance.

5) Human resources management represents yet another interest focus point of the leadership of American universities oriented towards quality, concerning: planning and describing the working system – description of jobs, performance recognition and reward, human resource planning, etc.; identifying the necessity of professional improvement – education, training, qualification, improvement, etc.; and identifying the requests concerning the insurance of the entire personnel's welfare and satisfaction.

6) Few results that the American universities oriented towards quality and excellences obtained are presented below:

• Results concerning the students' performance and satisfaction evaluation, such as: degree of graduation, student satisfaction level regarding the assistance, with the resources they benefited by, with the educational programs offered, student satisfaction concerning the acquired competences, etc.

• Results concerning the human resource performance, such as: number of publications in specialized magazines with reviews, participation of teaching staff in editorial groups or in the activity of different work committees set up at institutional level, supplying community services, etc.

• Results concerning the financial results, such as: number and nature of grants earned through competition, number of research contracts, number of personal contributions on internal and external level, volume of funds attracted from the alumni etc.

• Results concerning the market performance, such as: positioning of educational programs at local, national and international level.

• Results concerning the university's global efficiency, such as: student profile, bachelor degree grade, salary received upon employment, etc. [7].

As far as Ukraine, secondary school students study for 11 years, not 12 as in other countries. Therefore, they come to study in universities usually at 17 years of age. The average age of graduates of undergraduate programs are usually 21-22 years. It is too early to start a meaningful life-long career.

Also the big problem is the exodus of young people of college age to study in the European Union and other economically developed countries.

The Universal Module System of Entrepreneurial University

We offer such module architectures of entrepreneurial universities:

Research entrepreneurial university, which has in its structure: training colleges (or faculties), which include departments and academic laboratories; research institutes (RI) or research complexes (RC), which include scientific-research laboratories and departments or branches; supplementary modules and production and technological modules (Fig. 1).

Innovation entrepreneurial project-oriented university of research type, which has in its structure: academic programs; scientific-research projects; supplementary projects and production and technological projects (Fig. 2).

The architecture of the entrepreneurial universities modules of the following types is as follows:

1) Board of Founders / Board of Directors or the President / Rector of the University: marked as  .

2) Administrative management modules – Academic Council of the university (with sections of basic directions of the university), Scientific Councils, Council of Entrepreneurs, Professional Association of Faculty and Academic Staff, Students and other Community Advisory Councils.

These modules are marked as  .

3) Academic module (academic structural unit) – the Department (Chair). Let us mark it as  .

4) Research and Development (R&D) Module (a research structural unit) – Scientific Research Laboratory (SRL). These modules are marked as  .

5) Supplementary modules (structural units) to support academic activities (training programs) and scientific research (research projects) – Academic Department, the Research Department (with Postgraduate and Doctorate Departments), Experimental Workshops (engineering, technical, repairing, metalwork and mechanical), libraries, various foundations with patent funds of academic and scientific-technical production, computer centers and complexes, systems of Internet and Intranet support, dining rooms (cafeteria), sports facilities, medical centers, health camps, construction and renovate services, analytical accounting and fund-raising departments.

We will mark them as  .

6). Production and technological modules (structural units, or departments) – experimental production facilities (which develop the results of research into experimental models with further development and introduction into specialized industrial production), educational and experimental-industrial economy (agriculture, forestry, livestock, fishing, etc.), clinics, hospitals, business firms (companies) and other institutions belonging to the uni-

versities. Let us mark them as .

7) Entrepreneurial module (group of entrepreneurs): let us mark it as

8) Entrepreneurial Council of Founders / Board of Directors or the President / Rector of the University (with the entrepreneurial vision, entrepreneurial features and entrepreneurial character) will be marked as .

9) All modules have a direct interconnection to each other and with all of them simultaneously through the information channels that are further marked as lines —— and communication centers (marked as dots).

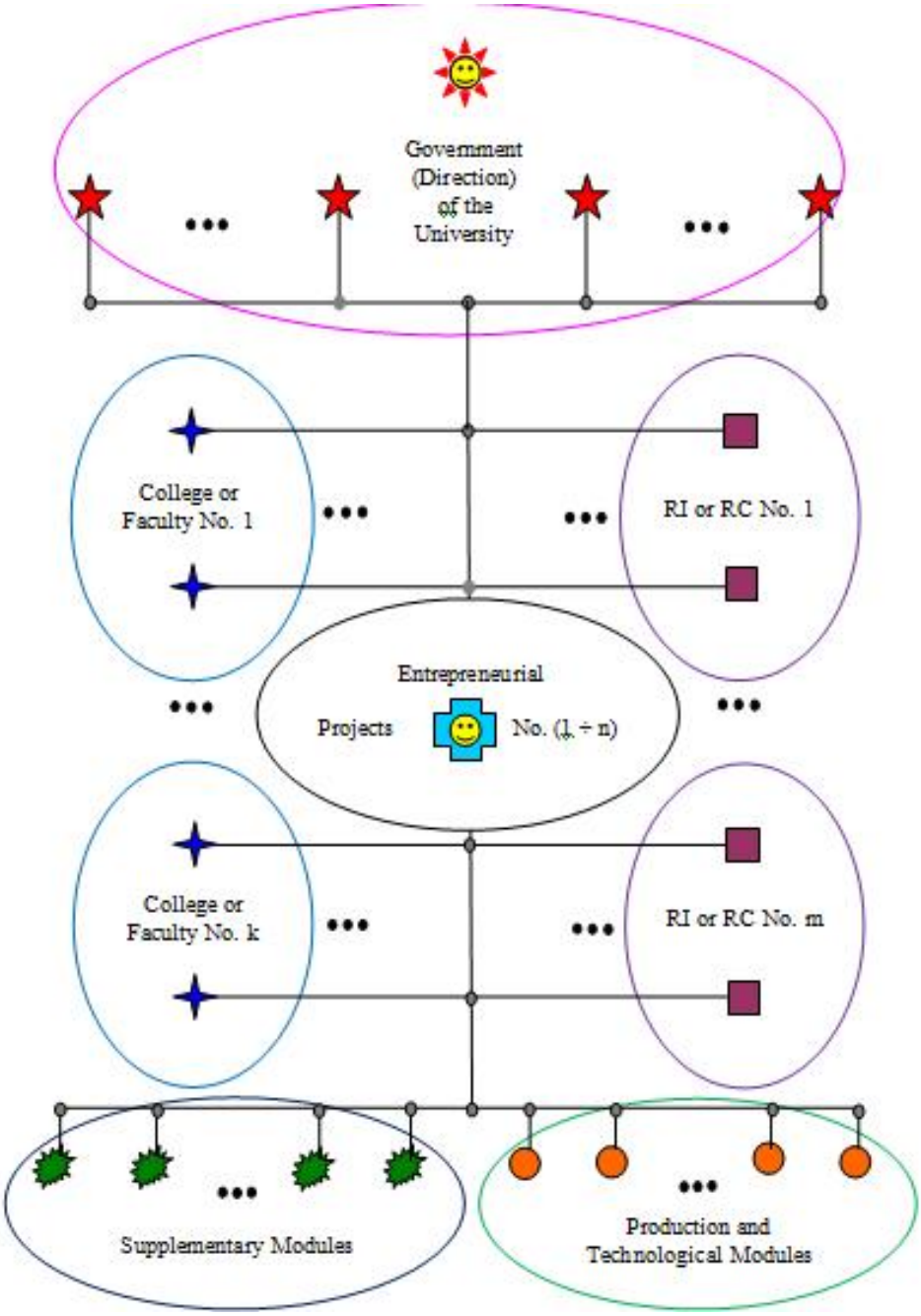

Fig.1. Research entrepreneurial university

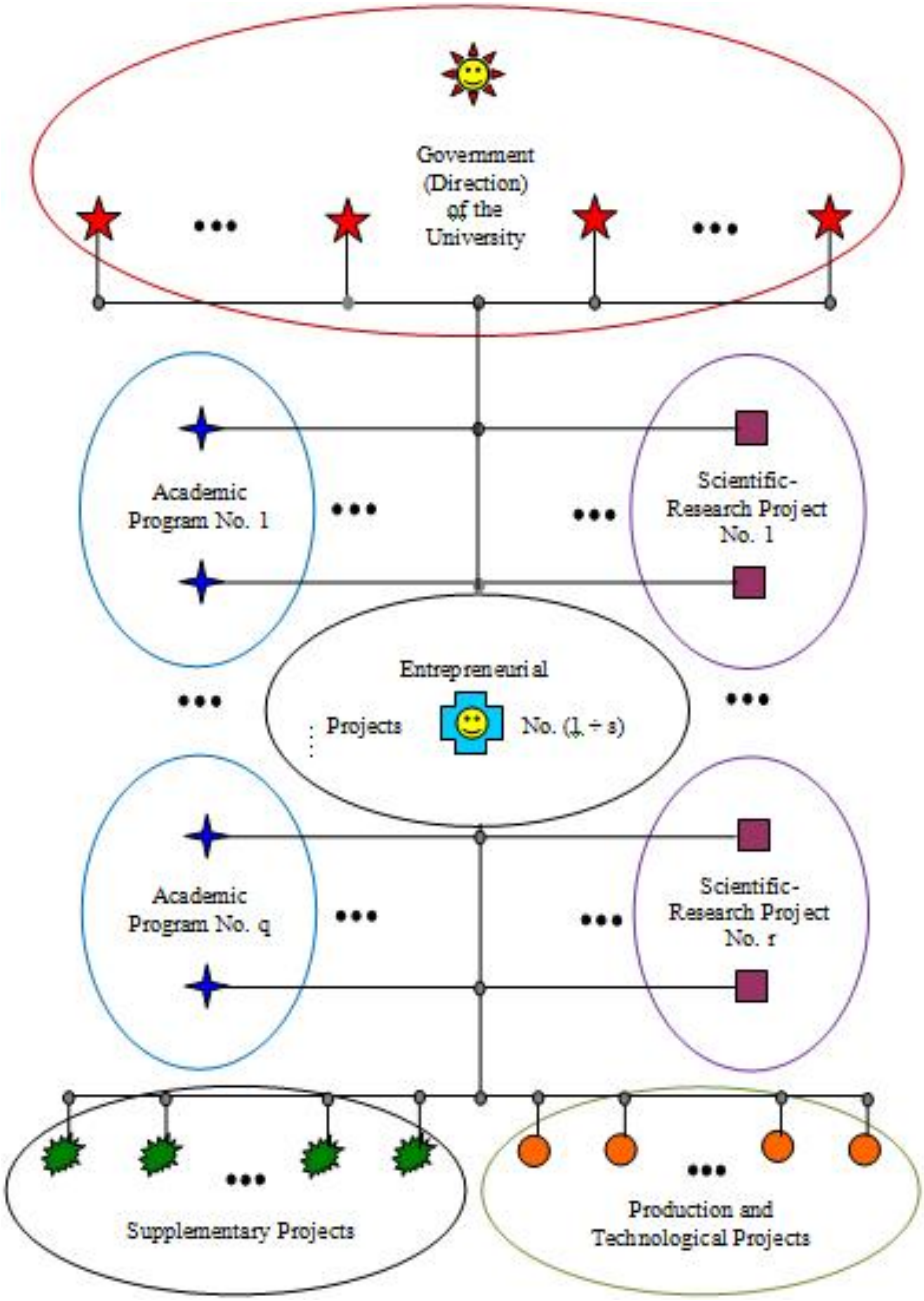

Fig.2. Innovation entrepreneurial project-oriented university of research type

Using the above elements, we can build the module structure of any university (higher educational institution), research institution, scientific-industrial organization or industrial complex. All of these types of organizations more or less perform educational, research, design and production activities.

Combining academic modules (academic structural units) – departments of the college or faculty, and research and development (R&D) modules (a research structural units) – scientific research laboratory (SRL) in scientific research institutes (SRI) or scientific research centers (SRC), support services and manufacturing and technological units we can provide such universal modular architecture (structure) of modern research (teaching and research) entrepreneurial university (Fig. 1).

Utilizing A. Groudzinski's project-

oriented professional University idea [6] let us propose a universal modular program-project architecture (structure) of a modern entrepreneurial research university, which includes educational programs, research and other projects (Fig. 2).

Indeed entrepreneurial universities are characterized by including the following main factors:

1. Top management (owners, Board of Directors, President, Chief Executive Officer) with entrepreneurial vision and preferably with business inclinations.

2. The group of core entrepreneurs that

• generate entrepreneurial ideas;

• participate in the development of entrepreneurial projects;

• have unlimited degree of freedom in their creative entrepreneurial search;

• rely on the support of the team.

3. Availability of staff with high professional qualifications will act out in life innovative entrepreneurial programs in market conditions.

4. Integrated entrepreneurial culture where each employee (or the vast majority of team members) share the views of entrepreneurial leadership and really support entrepreneurial policies and programs of the organization, conscientiously work and feel responsible for the results.

5. The existence of the liberal values, democratic views, freedom, high moral and ethical standards, honesty, openness, transparency, behavior and conduct any and all team members ("top-down").

6. Using of innovative teaching methods, new educational and vocational programs, a variety of courses and disciplines, interdisciplinary and multidisciplinary approaches to learning, advanced equipment, advanced techniques and technologies, training of different educational levels, maximum involvement of students (graduates, doctoral students) to research and teaching.

7. The existence of friendly environment for entrepreneurship, private small and medium business, of real support of the society and government of the entrepreneurial activity and projects.

It should be noted that the “triple Helix” model of innovative development proposed by H. Etzkowitz proved its viability and efficiency in developed countries and is now widely used in the Russian Federation, Brazil, PR of China and others countries. This model is appropriate for use in conditions of Ukraine.

Conclusions

Experience of the U.S. and other economically developed countries shows significant progress and achievement of entrepreneurial universities and colleges. The contribution of entrepreneurial universities into science, technology and economic development of their regions and countries as a whole are quite significant. The result of entrepreneurial activity of the leading universities is their high ranking and competitiveness in the market of educational and scientific services. Entrepreneurial universities are self-sufficient, perform important research and engineering development, implement new technologies, and promote cultural and spiritual development of both their students and faculty, and residents of the region. Fruitful and intelligent cooperation of entrepreneurial universities with business supported by the government provides the highest efficiency of their independent and mutually beneficial activities.

Globalization and internationalization processes, reduction of state funding, as well as commercialization of the field of higher education – all these factors lead to inevitable transformation of colleges and universities into entrepreneurial educational business structures, entrepreneurial universities. The problem of surviving of Ukrainian higher education establishments in the difficult post-world crisis

conditions strongly demands introduction of effective entrepreneurship in the field of higher education. Positive experience of such transformation in the leading world countries as well as in several national colleges and universities provides evidence for effectiveness of this approach. This approach may be a great way of helping Ukrainian universities and colleges become self-relying financially independent and highly competitive educational organizations.

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AN INFLUENCE OF EXTRACURRICULAR ACTIVITIES ON THE DEVELOPMENT OF COGNITIVE INTEREST IN CHEMISTRY IN STUDENTS OF THE 9TH GRADE OF THE SECONDARY SCHOOL

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Education in comprehensive schools of the Republic of Kazakhstan is realized because of the State Educational Standard of the general secondary education. “Chemistry” as a school subject is one of the components of the basic curriculum of the general secondary education in the Republic of Kazakhstan. In accordance with the State Educational Standard very important tasks are given to methodologists, teachers and psychologists. They include the need to improve methods of teaching, to activate process of learning, acquiring knowledge and working independently by

students, to teach how to apply acquired knowledge to solve practical, theoretical and calculating problems and to prepare students for their professional lives.

However the learning process will not be successful if a student does not take interest in it. Information that does not interest a student or was forced to learn will soon be forgotten, when information that interests him/her will be remembered for a long time and can be easily reproduced. Interest, however, defines not only the durability of the acquired knowledge, but also its efficiency, mobility and application in the future. A student's interest in learning helps him/her overcome difficulties and achieve success.

Having analyzed different sources, we found out that the issue of formation of cognitive interest is broadly covered. (G.I. Schukina, N.G. Morozova, A.K. Markova and others).

In our research we are using the term "cognitive interest" offered by G.I. Schukina. In methodical publications (such as written by L.B. Goatskin, V.M. Nazarenko, A.F. Hrustalev, E.I. Kozhanova, B.V. Martynenko, A.M. Radeckiy and others) the teachers specifically emphasize how to instill interest in Chemistry in students.

However, it should be noted that the level of students' interest in Chemistry is not high.

The results of survey conducted among students of the 9th grade in the secondary school showed that 23.8% of students were interested in learning, while 71.38% of respondents were sure that they could do even better at school.

One of the reasons why they were not motivated to do good at school was lack of interest (40.5%). Therefore, the students realized the influence of interest on effective learning.

We were curious what subjects the students considered to be their favorite. The majority of respondents preferred History (27.8%), Literature (20.25%), Algebra (18.98%). And only 9.5% indicated Chemistry.

It is somehow reflected in a small number of students choosing Chemistry as an elective subject in the Unified National Test.

There are more publications on the development of methods to form interest in the classroom than in a different environment (in particular in extracurricular activities on Chemistry).

Thus, all stated above reasons motivated us to research the influence of different kinds of extracurricular activities on the development of cognitive interest in students in learning Chemistry at a secondary school.

As a part of our research we conducted a survey among Chemistry teachers and students to identify the most popular kinds of extracurricular activities.

Having analyzed the data collected in the survey we came to a conclusion that teachers were more interested in giving individual tasks, while students preferred group work as an out-of-class activity. Probably, it could be explained by lack of interest in learning Chemistry.

So, the purpose of our research is to determine the influence of a group work as an extracurricular activity on the students' interest in learning Chemistry at the secondary school. The object of our research is the students' learning process at the secondary school while learning the course of inorganic and organic Chemistry. The subject of our research is a group work as an extracurricular activity – one of the ways to instill and develop cognitive interest. As a hypothesis of our research we expect that specially-organized group work as an extracurricular activity will develop cognitive interest in Chemistry in students.

The experiment was conducted in school - gymnasium №11 (Ust – Kamenogorsk city). The following groups took

part: experimental group - 30 students, focus group - 30 students. The teachers of gymnasium №11 participated in the research at the diagnostic stage.

To achieve the goal stated above, we used the following research methods: a questionnaire; pedagogical experiment; modeling; theoretical analysis and syntheses; proxy-metric methods; self-assessment; mathematical and statistical data processing.

The research was divided into four stages. The first stage was statistical.

At this stage we used a questionnaire to define the number of students (percentage ratio), who had interest in Chemistry in the experimental and focus groups.

Besides that, we defined the average grade of the students. It was 3.3 out of 5 possible.

The second stage was a theoretical modeling stage. At this stage we analyzed different sources to determine criteria of interest development.

The main criteria to assess increased interest in learning can be students' active participation and their emotional reactions towards the subject. We couldn't use the second criterion since our study did not include psychological aspects.

Concerning academic interest, there is data, relating it to the level of acquired knowledge and general learning skills. The ratio is 0.7 (close to strictly linear dependency). So, the higher the level of acquired knowledge is the higher is a cognitive interest.

Consequently, we can judge the level of the cognitive interest of a student by his/her grades. That is why from multiple components, defining active participation of a student, which is our interest criterion we will use only one – how well the students do in class, assessed in the form of a grade.

We will also use self-assessment of the students as the second criterion. Self-assessment will be defined by means of a survey.

In our research, we used the description of interest, given by N.G. Morozova. She suggests that an interest in all its types and at all stages of its development has three constant characteristics: positive attitude towards an activity, existence of a cognitive side of this attitude (joy from learning and obtaining the knowledge), presence of an ingenious motive, driven from the activity itself (the activity itself allures and encourages to learn).

Having analyzed several sources, we defined that learning in the form of a game is one of the most effective and frequently-practiced methods used to develop interest in students' learning.

It is quite obvious as the main characteristics of a game, such as "joy from a procedure", elated mood (S.A. Spmakov) coincide with the characteristics of an interest.

With the account of general principles of extracurricular activities (voluntariness, individual learner's needs) we suggested that arranging an extracurricular activity in the form of a game would favorably influence on the development of a cognitive interest. Besides, the important characteristic of a didactic game is that an absolute majority of the students (over 98%) are trying to participate actively in the learning process.

The following types of games can be used in teaching Chemistry to students: a game-exercise, game-journey, game-competition, simulation game (M.I. Rannik, A.A. Tyldsepp, N.E. Kuznetsova, B.P. Bolotinskaya) and etc. We used a game-competition and a simulation game. The students were encouraged to participate in organization of these games: drawing, preparation for experiments, tasks and so on.

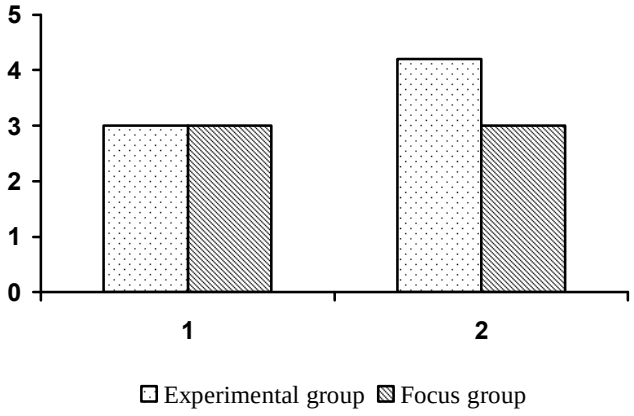
The third stage was experimental. At this stage we hold different extracurricular activities on Chemistry such as games called «Chemical quiz», «Court jury»,

«Parade of elements», «Chemical crossword» with the goal to define influence of a group-work as an extracurricular activity on the level of interest in the subject.

At the fourth stage we estimated influence of a group work as an extracurricular activity on the level of interest in learning Chemistry in the 9th grade.

Having analyzed the results of the experiment we can make a conclusion that the level of interest in the experimental group differs significantly from that of the focus group. (A complex coefficient of Student and a coefficient of Fisher were calculated).

Change in the students' level of interest in the subject before and after the pedagogical experiment is reflected in figure 1.



1 - before the experiment 2 - after the experiment

Figure 1 - Diagram depicting dynamics of the students' interest in the subject

After the experiment the level of interest in the subject increased and turned out to be the following (at P = 0.95): average ($\overline{X} = 4{,}0$; $S_x^2 = 1{,}62$) - in the experimental group, low ($\overline{X} = 3{,}5$; $S_x^2 = 2{,}42$) - in the focus group. As variance in the experimental group decreased after the pedagogical experiment, it shows that these methods are more favorable to even out individual differences in developing students' interest than employment of traditional learning styles.

Having analyzed the results of a survey we made a conclusion that the level of students' interest in Chemistry in the experimental group increased by 24 %, while in the focus group it remained unchanged.

Summarizing the results of the theoretical and experimental parts of the research we can draw the following conclusions:

1) There is a difference in preferences of Chemistry teachers and students in the type of extracurricular activities they like. Students prefer to be engaged in group work, while teachers prefer to give individual tasks.

2) Several group-work activities were designed aiming to increase students' interest in Chemistry.

3) Having used an experiment, we proved that group work as an extracurricular activity while learning Chemistry in the 9^{th} grade gave the following positive results:

a) it developed an interest in the subject;

b) it increased general progress in the subject.

In conclusion, on the grounds of the data obtained in this pedagogical experi-

ment we can state that we proved our hypothesis and that extracurricular activities we developed were productive and we could answer the stated question.

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REVISITED PARADIGM OF SUBJECTIVE PEDAGOGICS

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At present subjective approach becomes a priority direction in the research of psychological and pedagogical reality. However, as subjectness has acquired the status of a methodological principle it creates definite conditions for comprehensive study of this phenomenon.

Psychological and pedagogical research is devoted to different aspects of personality subjectness. Thus in V.A. Petrovski's research works different subjectness phenomena are studied. A.V. Zaharova, D.I. Feldshtein and G.A. Tsukerman have studied objective laws of human subjective beginning in ontogenesis. A.A. Davydov has developed the principles of educational systems organization, developing subjectness. Y.N. Volkova has analyzed ontological status of subjectness as a personal characteristic.

The idea of a subject-subject approach in pedagogical science began to develop intensively both in Russia and Kazakhstan and also other CIS countries at the beginning of the XX century and gradually began to turn into a pedagogic paradigm. At present subjective approach has acquired the status of a methodological approach in a pedagogical science, the main objective of which is to develop methods, forms and principles of interaction of the participants of an educational process.

Having analyzed research findings devoted to the problem of building subject-subject relationship in the educational process, we can conclude that there is no a general concept that would allow to cover and present multiple facts in a single paradigm, collected in the course of teaching and up bringing practice. First, it is connected with complexity and insufficient development of such phenomenon as a subject-subject interaction in theory and practice of education and pedagogy.

Transition from authoritative (subject-object) to humanistic educational paradigm (subject-subject and poly subject) means, first of all, denial to percept education as receiving ready knowledge

and role of a teacher as a knowledge interpreter and central "figure" of pedagogical process, i.e. the main source of activity. It is replaced by an understanding of education as an achievement where subjective experience of every person is taken into account as a means of his/her self realization and self actualization in life, building personal career that in its turn changes educational and up bringing goals, its motives, norms, forms, methods, teacher's role, etc. Basic components of educational paradigm in authoritative and subject-subject pedagogy are compared in Table 1.

Table 1 – Paradigms of authoritative and subject-subject pedagogy

Paradigm components	Authoritative pedagogy (subject-object)	Subject-subject pedagogy
Goals	-education aimed at scientific knowledge acquisition; - knowledge in young age taken as a "whole life supply";	- education aimed at acquisition of the basic human culture; - life-long learning; - education aimed at preservation, up bringing and development of a free, independent and self actualizing person with formed subjectness.
Values	- education for public production	- education for a person's self-realization and self actualization in life.
Motives	- education of school children is an obligation; - the teacher is performing his/her professional duty;	- school children are interested in learning, taking pleasure from their achievements; - the teacher is interested in development of school children, likes to communicate with them
Norms	- the teacher bears the responsibility for teaching students; - the teacher's reputation is created because he/she is keeping distance, demanding discipline and hard work from students.	- students bear responsibility for their own learning; - the teacher's reputation is created by his/her personal and professional qualities.
Roles of the participant of an educational process	-the teacher passes on knowledge; - the teacher is in the centre of pedagogical process; - the teacher is the subject that directs his actions at the object, i.e. the student; - the teacher is positioned higher than the students; - as a rule the teacher is active himself.	- the teacher creates conditions for independent learning, for self realization and self actualization; - both participants of the educational process are active; - the teacher and the student are equal subjects of the educational process; - the teacher in cooperation with the students creates, researches, interacts. They are equal partners.
Forms and methods of learning	- hierarchical and authoritative methods; - conservative structure of subjects; - conservative organization of the educational process; - focus on a lesson under teacher's guidance.	- democratic and egalitarian (built on equality) methods; - dynamic structure of subjects; - dynamic forms of organization of the educational process; - focus on students' independent work.

Teaching means	- the main educational means is a traditional textbook.	- the textbook goes together with other additional sources of information, powerful IT and media resources.
Control and assessment	- control and assessment is done mostly by the teacher.	- focus on students' self-monitoring and self assessment.

The table vividly demonstrates the fact that the educational process requires corresponding changes to be introduced into the goals, motives, values, forms, methods and means of learning in the framework of subject-subject pedagogy. However, this is a complicated and long-term process, requiring deep transformations in school consciousness, aimed at gradual shift of emphasis from teacher's teaching function to students' active cognitive activity.

The main idea of the subject-subject approach is to establish a model of learning, oriented to preserve, bring up and develop a free, independent, self actualizing person with the formed subjectness. Concept of subject-subject approach has to solve the following problems: implementation and development of the ways to overcome authoritative traditions of the Soviet school and pedagogy in the relationships of teachers and students , creation of conditions for self realization, self actualization and self identity, development of subjectness of all the participants of the educational process and raising a person responsible for the whole society, capable to collaborate and cooperate in creative work with other people.

A necessary precondition of subject-subject approach formation is availability of a subjective environment for development of subjectness of all participants of the educational process.

Under "subjectness" of a person we mean the ability of a person to initiate his/her own activity, put and correct goals, realize his/her motives, make independent decisions, plan his/her life.

Subjectness as a personal quality needs to be formed and developed. An important role in this is given to a teacher as a student until a definite age (the level of his social maturity) can not set goals concerning his own studies consciously and clearly (there are some exceptions). The goal of a teacher is to choose various forms, methods and technologies to develop, bring up and stimulate development of subjectness. However, it does not matter how high the level of a student's subjectness developed, the student actively (more often unconsciously) influences on another participant of the educational process, i.e. the teacher and also on an educational goal, the choice of means, methods, techniques and it depends on the age, level of education and up bringing and individual peculiarities, personal subjective experience. By this the student changes the strategy and tactics of the chosen interaction that undoubtedly influences the final result of learning.

In our opinion, subjective approach in pedagogy is on the one hand a requirement to the teacher to be active, participate consciously and willingly in his own professional and pedagogical process, actively learn, and on the other hand, it is a requirement to the student to participate consciously and actively in his own learning. However, the notion of the subjective approach in pedagogy is wider that just conscious and voluntary activity of a future teacher and bigger than just considering a student to be an "object" of pedagogical influence.

The model of learning based on the paradigm of subject-subject pedagogy is principally different from conservative "authoritative" approaches to students

teaching, as the main objective of the teacher is to choose and use methods, means and technologies of interaction with children for their self realization, self actualization, independent problem-solving and application of their own subjective experiences. Subjective pedagogy is directed to help the learners to explore themselves, to find unique qualities, develop active subjective position, and be able to make a plan of further educational and professional life.

The teacher's functions under the conditions of subject-subject pedagogy can be realized in several directions: firstly, to help a student understand his/her educational opportunities, his/her own potential and professional interests on the basis of his/her own subjective experience and ideas.

Secondly, acting in the framework of the subjective paradigm, the teacher can help the student put into use something that interests him/her that might be "here and now" and be of temporary nature but possess potential possibilities for development of subjectness of a person. Thirdly, the teacher directs the student to identify problems, find possible ways of their solution, set goals, objectives, find ways, methods, create conditions to achieve them.

Thus, in the framework of subject-subject paradigm the educational goal is set as a result of mutual cooperation of the participants of the educational process and is a product of collaborative work of all the participants of the educational process (i.e. the teacher and the student). The paradigm of subject-subject pedagogy excludes possibility of the teacher's pedagogical goals not to be accepted by the student as the teacher does not force them.

When subjective pedagogy paradigm is implemented requirements to the teacher's personal and professional qualities change completely. The teacher should be able to realize his/her professional identity, constantly learn, be able to actualize, express him/herself, do reflexive analysis of his/her work, make plans of his/her own professional practice, design projects to develop students' subjectness, taking into account their subjective experiences, create and constantly fill the subjective environment with pedagogically justified technologies and methods.

When the paradigm of subject-subject pedagogy is implemented, the teacher and the student are equal partners and the relationship between them has genuinely subjective nature. The teacher acts as a subject as it completely depends on him if a model of learning focusing on a subject-subject interaction is chosen. The teacher should consciously strive to develop the student's subjectness, based on his/her personal subjective experience of a child. However, the teacher himself should intentionally and systematically develop his own subjectness, choosing in the course of communication and mutual learning what direction to move in the framework of an educational environment.

With this approach the student becomes a true subject of the educational process, as education goals as well as means and methods of their achievement depend on his/her potential opportunities, initiative, interest and his/her active participation.

Thus, in the framework of implementation of the subject-subject paradigm the student turns from a tool of achievement of the teacher's educational goals into an active, equal subject, independently setting goals that become goals of his own development.

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RESEARCH ON THE DEVELOPMENT OF CIVIL AWARENESS IN HIGH SCHOOL STUDENTS IN RUSSIA AND KAZAKHSTAN

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Under the conditions of the emerging democratic society, contemporary social and political realias, integration of the CIS countries into an international community, issues of civil awareness development as an integrative personal quality have acquired particular importance, when a person feels socially, morally, legally and politically capable. It is emphasized a lot in state documents of Russia and Kazakhstan.

In the President's Message to the People of Kazakhstan "Kazakhstan-2030. Prosperity, Security and Ever-Growing Welfare of all the Kazakhstanis" N.A. Nazarbayev has pointed out that without unity and strive for independence, civil awareness and patriotism other parts of the strategy focused on independence establishment will be very difficult to implement. The goal of the State Program "Patriotic Up-brining of Russian Citizens for 2006-2010" is to improve the system of patriotic education, to develop Russia as a free democratic state, to instill high patriotic awareness, civil consciousness, loyalty to the Motherland and readiness to fulfill constitutional duties in the Russian citizens. A priority course of development of the Program is patriotic upbringing of the younger generation – children and youth. In this respect the main focus is on the work of educational institutions as integral centers of joint educational activities of the school, family and social organizations.

In the laws "About Education" of the Russian Federation and the Republic of Kazakhstan up bringing of civil awareness, patriotism, respect to human rights and freedoms, love to environment, Motherland, family is emphasized among main principles of the state policy in the area of education. In current conditions it is impossible to apply them if high school students do not consider themselves citizens with certain rights and obligations, i.e. if students of secondary schools lack civil awareness. The difficulty of implementation of this principle is stipulated by the fact that due to insufficient resources and savings, the CIS countries, including Kazakhstan and Russia, became even more dependent from foreign investors, private and international financial institutions. Hardships that took place at the end of the

20th – beginning of the 21st century: decline in earnings and life standard of the most citizens, poverty, crime, unemployment, inflation caused by recession and transition from central planning to a free market have led to the growth of socially dangerous phenomena, such as neglect of universal human values, preference of material values over spiritual, demoralization, political apathy, aggression, violence, nationalistic misconceptions, attempts to solve social tensions by using power, alcoholism, drug addiction. It happened at the same time when community and recreation centers started to collect admission fees, non-profit organizations for small children and youngsters disappeared, educational institutions lost their self-government functions, when the old forms of upbringing were still in place and there was no connection between classroom and extracurricular activities on teaching civil awareness in the majority of schools.

Development of the basic personality characteristics of a high school graduate, his/her social activism and responsibility requires new positioning of the system of civil education, renewal and improvement of its forms, methods and means. In this connection professionally organized civil education of the younger generation, its solid citizenship and public stance in the framework of combined classroom and extracurricular activities are becoming the issues of current concern. They also include such issues as reopening of social organizations for young people, propaganda of legal knowledge and healthy lifestyle, preventive measures of alcoholism and drug addiction. According to the model that we developed, civil consciousness of high school graduates is considered through the perception of himself/herself as a personality, the citizen of his own family, school, Motherland, planet. These social spheres have direct influence on the development of civil awareness in high school students. As one of the components of civil consciousness and consciousness in the whole is knowledge and perception of himself/herself, we think it is appropriate to use such methods of data collection as analysis of documents and results of activities (in this case it is students' essays), a questionnaire and an interview to study the development of civil awareness. We think using these methods we can reach our goal because only a person himself can fully express his self consciousness through his own judgments, evaluations, thoughts, definitions and his own attitude. Every person is not just a son or a daughter of his parents but also of his/her Motherland. A true citizen of his Motherland is characterized by civil awareness, patriotism, when he/she is proud for his country's achievements, gets upset if it fails, respects its historical past, carefully keeps the nation's memory, national traditions, willfully works in favor of the state, is ready to protect it. We used answers of the high school students to the questionnaire and interview, conducted content-analysis of their essays to determine the degree of development of their civil awareness. 326 students of the 10-11th grades of Ust-Kamenogorsk schools (Kazakhstan) and 287 students of Novosibirsk city (Russia) participated in our research. 67.2% of respondents answered positively to the question "Do you consider yourself a citizen of Kazakhstan, a patriot of your Motherland?" It was difficult for 17% of the students to answer the question, 15.8% of the students answered negatively. The number of students who do not consider themselves as Kazakhstan citizens is quite high, however it is reassuring, that 67.2% of the participants point out that they consider Kazakhstan their Motherland and themselves as citizens and patriots of their state. Besides, 31% of the students to the question: "Which rules do you try to follow in your life?" gave the following answer: "The most important is to be useful to the people in your own

country". To prove that most high school students consider themselves Kazakhstan citizens we would like to give quotes from 56 mini essays on the topic: "What do you think about patriotism in Kazakhstan". Analysis of the essays has shown that only 2 people pointed out that they did not consider themselves as Kazakhstan citizens. While 54 students think of themselves as citizens of their Republic and show solid citizenship through their attitude to their country and civil consciousness through realization of good points of their Motherland, pride for their country and their President, confidence in the fact that in the future Kazakhstan will become one of the greatest countries of the world. Analysis has shown that there are many statements as the following: "It seems to me that there are real preconditions for Kazakhstan to become a powerful empire", "I am proud of my Motherland and President", "Our country has many merits that we can be proud of", "Kazakhstani patriotism exists. Many Kazakhstani people consider themselves patriots. I also belong to them. Patriotism is love to your Motherland and duty to the country. I love my Motherland, my city. My goal in life is to make Kazakhstan better place", "Now Kazakhstan is quite young, independent and free state, and all difficulties and problems that exist are temporary. We are proud of our Motherland! Our future is in our hands!" and etc. To the question of the questionnaire: "Do you consider yourself a citizen of Russia, a patriot of your Motherland?" 86% of the respondents answered "yes", 8% had some difficulties in answering this question and 6% answered "no".

In the model that we developed among the main factors of civil awareness we distinguished readiness and ability to protect and defend our Motherland. It is encouraging that in spite of existing problems and growing unpopularity of the military service only 22.1% of respondents do not want to serve in the army and will try to avoid it. At the same time others who were questioned have positive attitude to military service. ("I will go to the army with pleasure", "I will perform my duty as a citizen", "I consider military service as my duty to my Motherland", etc.), excluding 16.2% of young men who consider military service a heavy duty, however they agree to fulfill it as it is still their duty.

Among the basic characteristics of loyalty to the country and Motherland we pointed out knowledge and respect to the history, culture, traditions of his/her own country and will to study them; knowledge and respect of the country's constitution, symbols, knowledge and perception of his/her own duties and obligations of the citizen and readiness to fulfill them. Though the number of positive answers to the question on these points was quite high – 61.7%, in our opinion, the fact that 21% of the students had difficulties in answering them and 17.3% answered negatively, accentuates the need in ethno cultural education of the young people in these two countries, putting the emphasis on up bringing for the formation of a poly cultural personality.

To the question of the questionnaire: "How well do you know the constitution of your country, basic rights and obligations of the citizens?" – 34% answered "Very well", 35.7% "Well enough", "23.2%" "Not well", 7.1% - "Almost do not know".

In the essays on the topic "If I were the President of my country" civil awareness was demonstrated in realization of the country's problems, in the worry for the country's future, empathy for the surrounding people, and pride for the state's achievements.

Besides, students' civil awareness was expressed in the interest to the past and future of their country, its culture: in the need to renew traditions, restore cultural monuments; in the aspiration to do

something for their country's prosperity, citizens' welfare. Having done content analysis of the essays we received the following results: 43.6% were concerned with the problems of secondary and higher education, 23% were suggesting to increase the amount of pension, salary to doctors and teachers ("Our country's future depend on them"); 57.1% were suggesting to solve poverty and unemployment problems (It is necessary to create new jobs, build new plants and enterprises"). 21% of high school students were suggesting to change government officials, deceiving the country and its people, replace them by honest people; 27.3% were offering to introduce new laws that would not violate the rights and freedoms of the citizens; 54.6% of students expressed concern over ecological problems; 36.5% were suggesting to develop culture and traditions of the country. Drug addiction, AIDS, crime problems concerned 41.4% of the respondents: 47% suggested the necessity to develop national industry ("It is necessary to develop those areas of industry which are vitally important, stop export of metals abroad), 78.8% of students in their essays wrote about promotion of peace in the Republic ("Kazakhstan (Russia) is our mutual home and we should live peacefully in it").

We used content-analysis method while studying essays on the topic: "What pleases me and what worries me" of the students of the 10-11th grades of Novosibirsk and Ust-Kamenogorsk city. According to the accepted technique of content analysis (determination of units of analysis, allocation of their indicators in the text, statistic processing), we started to analyze the texts from allocation of conceptual units. We defined the students' attitude to the country (Motherland) as a conceptual unit. As one and the same meaning can be expressed by different words we had to find all possible forms of expression of the same meaning in the texts, i.e. to find the characteristics or indicators of this unit of analysis. As indicators we used collocations, expressing certain meaning, for example, such as "concern over ecological problems", "concerned with the position of retired people", etc.

The final stage of content-analysis is statistical processing, when the frequency of usage of allocated indicators is calculated. We compared data collected from analysis of essays with the results of the questionnaire. Calculation was made according to the formula: $K= C*100\% /\Sigma$, where K is "the weight" of the conceptual unit, C is the number of indicators of the conceptual unit, Σ - is the number of essays.

Having conducted content analysis of the essays we have calculated that the number of indicators of the allocated conceptual unit (attitude to Motherland) is 159. Consequently, $K= 159*100\% / 287$, "the weight" of the conceptual unit is K= 55.4%. As we see, 55.4% of high school students demonstrated their civil awareness in their attitude to their Motherland and country in the essays which are not directly connected with such concepts as the country, Motherland. They showed their civil awareness through writing about problems existing in the country, concerns over the future of their country, empathy to the people surrounding them: "I am concerned with the crime rate in Russia, terrorism, bribery, corruption, hazing in the army, low level of medicine and education"; "My concern is an environment pollution", "I am disturbed that there are too many homeless people without a family or home"; "More and more students worry about drug addiction problem. It is impossible to get to your own apartment – syringes are everywhere on the stairs". Besides high school students are aware of the problems existing in Russia and Kazakhstan and even offer some variants of their solution.

The research has shown that cognitive and emotional components of civil awareness in high school students are developed in higher degree than practical component, the evidence of which is low participation of the students in certain tasks and to some extent can be explained by the absence of organizations for young people and weak involvement of students in student government.

Thus we can make a conclusion that it is necessary to continue research in this field, focusing on the educational methods that will optimally contribute to the development of civil awareness in high school students.

Results of our research prove that civil awareness to some degree is developed in Russian and Kazakhstani high school students. In the framework of our research we have defined three levels of civil awareness development: the first level is low, the second level is medium and the third level is high. In accordance with the developed model of civil consciousness of high school students these levels combine cognitive, emotional and practical components. This data will be published later.

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INCLUSIVE EDUCATION IN KAZAKHSTAN: LEGAL, SOCIAL, PSYCHOLOGICAL AND PEDAGOGICAL ASPECTS

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One of the main problems of education in Kazakhstan is the problem of inclusive education. Inclusive education is the involvement for all children of all religious and ethnic backgrounds, with any features in their physical development, of any economic or social status in the studying. The main objective of the introduction and development of inclusive education is the adaptation to the various needs of children in order to achieve full access to high-quality education.

On the one hand, inclusive education is the principle of education system forming, and, on the other hand, it is a process. The essence of this process is that schools, educational institutions, kindergartens, must accept children regardless of their peculiar characteristics. We are talking not only about children with physical disabilities, but also about healthy children, for example, very clever ones. All children are different, every child is unique in his abilities, and the education system should be based on the principle of distinction of children. All children belong to the society, and we should have an individual approach to each child, in order to consider and meet all their educational needs.

The basic principle of inclusive education is teaching children with special educational needs in ordinary educational institutions. The requirement for educational institutions is to provide all conditions for children.

Inclusive education is based on the following principles:

1. Value of a person doesn't depend on his (her) abilities and achievements;

2. Every person is able to feel and to

think;

3. Every person has the right to communicate and to be heard;

4. All people need each other;

5. Genuine education can be implemented only in the context of real relations;

6. All people need support and friendship of age mates;

7. For each student the progress means reaching for success, not failure.

8. Diversity intensifies all aspects of human life.

The system of inclusive education involves primary, secondary and higher educational institutions. The set of measures assumes both technical equipping of educational institutions and development of the curriculum for educators and students aimed at the development of disabled people and interaction with them. There is also an obvious necessity in special programs developed to facilitate the adaptation of physically challenged children at educational institutions.

The educational system of Kazakhstan is still in the process of democratization. This is the stage of the strengthening of humanistic approaches to upbringing, development and education of the rising generation. This imparts a special relevance to the issue of creating conditions favorable for creative development, self-education and vocational self-determination of all children, including physically challenged ones.

Education as a process of knowledge and skill acquisition is an integral part of social and psychological adaptation and integration of disabled children in the society. It has a purpose of providing them with the access to the gnosiological basis and cultural-historic heritage of the humanity.

The educational environment prepares these children to professional activity and stimulates their personality potential development. Inclusive education is also considered to be the best form of establishing optimal interactions with surrounding people as coeducation itself allows improving the quality of everyday communications among children that have vital functional limitations.

Legislation of the Republic of Kazakhstan and other fundamental international documents on human rights provide the principle of equal rights to education for all children in the country.

Moving from equal rights to equal opportunities in access to quality education for all children the Government of the Republic of Kazakhstan in the "State Program of Development of Education in the Republic of Kazakhstan for 2011-2020" identifies development of inclusive education as one of the important goals. The program includes measures of creating a legal framework for all children and also children with developmental disabilities to be involved in the general education area.

The process of creating and including of the regulatory and legal framework for the implementation of inclusive education in Kazakhstan is based on sociological and scientific studies that were made last decade by the experts of the National Research Centre for Special Education.

This project studied international experience and the point of view on inclusive education of various social groups. And also the analysis of statistical data on children with special needs across the regions of the country was made in four areas: health, education, social security, internal affairs.

With regional psychological, medical and educational consultations the scale of "spontaneous" inclusion of children with disabilities in mass pre-school and school organizations was determined. Such experience has a good influence on different regions of our country during the course of these studies and reviews.

All the needs of students and teachers to succeed are taken into account by

inclusion. An inclusive school considers every student as an important part of a group which gives them a sense of confidence that can be the reason for the children to be responsive and kind. Disabled students are supported by their classmates. Nowadays there are a lot of schools that use inclusive education system, but there are still many problems for inclusive education to become mass. Here are the main points:

- Problems in architectural structure of educational institutions;
- In most cases disabled students are considered to be uneducable;
- The majority of school teachers and directors do not have proper education in the area of teaching disabled students, so they are not ready to involve disabled students into education process;
- Disabled students' parents don't know how to defend their children's rights to education.

Many specialists believe that inclusive education is a new stage in the development of education. State educational establishments in most cases do not consider the abilities of every child. The reasons of this may be overcrowding of classes - teachers just have no time to find individual approach to every student. But inclusive education gives a new opportunity to teach disabled children, which takes social support of this category of children to the next level.

Inclusive education is a progressive way in education that has big opportunities to develop in the modern society. To make it nationwide we need to consider the experience of foreign countries, which can be carried out by specialists, as most of current teachers are not able to change their approach to educational system.

Inclusive education is based on the idea that all the children should be treated in the same way, but disabled children should get special attention. About 15% of students are expelled because of system's inability to meet their needs. We should understand that it is the system to be blamed, not the children. Inclusive approach will give them a chance for a better life. Common education system is a process of general education, which means that every child is able to get knowledge. The main point of inclusive education is developing a methodology where every child is an individual that has different needs. And if teaching became more effective due to changes that introduce inclusive education it would have positive effect on all the students.

Inclusive school teaches children an idea of human rights which leads to decrease in discrimination so children learn to communicate to each other and recognize the feeling of other mates.

Disabled students first of all need an environment different from their family environments, communication with other students and mediator whose role is assigned to the teacher. Inclusive educational environment is formed by teachers that work altogether. Today development of inclusive educational system is the teachers' duty. There is no doubt that the inclusive educational environment is formed by a teacher, not just a teacher, but a team of teachers and specialists – a team working in interdisciplinary cooperation. Today primary school teachers, subject teachers, speech therapists, educational psychologists, teachers, speech pathologists, physical therapy instructors, teachers, teacher educators and tutors take part in the development of an inclusive educational environment.

As a result of their joint work we will get:

- Development of child's abilities;
- Creation of social relations system;
- Compensation of special needs;
- Creation of a comprehensive support system;
- Functional approach to teaching and treatment;

- Taking part in public activities;
- Development of self-sufficiency.

Inclusive education is trying to develop a new method of teaching that would be more flexible to meet the needs of different students. And if education becomes more effective due to changes that inclusive education adopts, all students will benefit from it.

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PROBLEMS AND PERSPECTIVES OF TEACHING CHEMISTRY IN THE ENGLISH LANGUAGE AT THE EAST KAZAKHSTAN STATE UNIVERSITY IN HONOR OF S. AMANZHOLOV

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The new stage in the development of Kazakhstan is focused on fast advancement of the state in the international community. In this connection, the policy in the field of education is directed on formation of a national model, ensuring preparation of highly skilled specialists, competitive in the international labor market. One of the priorities in the given area, according to the Message of the President of the Republic of Kazakhstan is the transition to trilingualism.

On this account comprehensive work is conducted at the chemistry department of the East Kazakhstan State University in honor of S. Amanzholov.

In 2009-2012 academic years a number of lessons in disciplines such as "Inorganic chemistry", "Constriction of matter", "Quantum mechanics and computer chemistry", "Chemistry of nature compounds" were lectured in English.

The lectures were supported by multimedia presentations. Tasks were presented both in English and Russian. At the beginning only easy topics were chosen for this purpose. For example, a short thesis for the 1st year students majoring in "Chemistry" was related to atomic orbital and was delivered in two languages (table 1).

Table 1 – The material to the topic “Atomic orbital” in English and Russian

Quantum numbers	Квантовые числа
The atomic orbital is the mathematical function describing the behavior of the electron in the atom. The atomic orbital is defined by four quantum numbers. It is the principal quantum number, orbital quantum number, magnetic quantum number, spin quantum number.	Атомная орбиталь – это математическая функция, которая описывает поведение электрона в атоме. Атомная орбиталь характеризуется 4 квантовыми числами. Это главное квантовое число, орбитальное квантовое число, магнитное квантовое число, спиновое квантовое число.
Task: To organize data and fill in the following table. Quantum numbers Name | Symbol | Orbital meaning | Range of values	Задание: Систематизируйте данные и составьте следующую таблицу Квантовые числа Назва-ние | Символ | Орбитальное значение | Интервал величин

The Laboratory work is also prepared in the English and Russian languages.

Table 2 - An extract from the laboratory work “Determination of structural formula of substances”

English text	Текст на русском языке
Topic: Determination of structural formula of substances	Тема: Определение структурной формулы вещества
Purpose: The purpose of the work is to study a refractometric method and to determine structural formula of substances	Цель: Цель данной работы изучить рефрактометрический метод и определение структурной формулы вещества
Theoretical part: Molecular refraction is the unit of measurement of the total polarizability of a mole of a substance, depending on the temperature, the index of refraction, and the pressure.	Теоретическая часть: Молекулярная рефракция есть единица измерения общей поляризации 1 моля вещества, и зависит от температуры, показателя преломления, и давления.

Before the lesson we introduce a new vocabulary to the topic of a lecture. The new words are given to the students to learn by heart at home and checked verbally for 2-3 minutes in the beginning of the lesson.

Table 3 –Scheme of vocabulary to the topic “Atomic theory”

№	English Word or word combination	Transcription	Russian Word or word combination
Меню Build			
1.	Add H &ModelBuild	[æd haɪdrəʤən ænd 'mɔd(ə)l bɪld]	Добавить Н и построить модель
2.	All atoms	[ɔ:l 'ætəms]	Все атомы

Huge attention has been given to a good layout and presentation of the material in the form of figures, schemes, tables (fig.1).

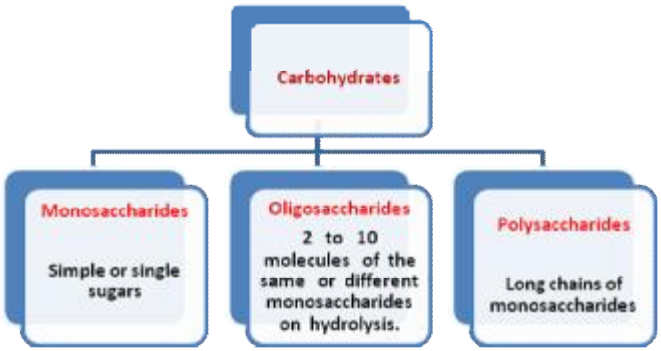
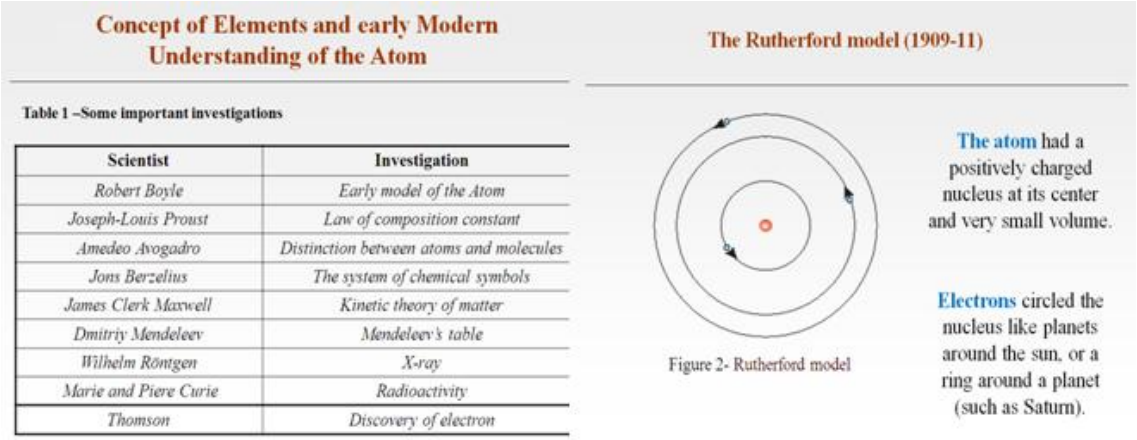


Fig 1 – The diagram from the practical work to the lecture "Carbohydrates"

An important aspect here is the structural layout of the material presented in information blocks including the most important data necessary for understanding.



Concept of Elements and early Modern Understanding of the Atom

Table 1 –Some important investigations

Scientist	Investigation
Robert Boyle	*Early model of the Atom*
Joseph-Louis Proust	*Law of composition constant*
Amedeo Avogadro	*Distinction between atoms and molecules*
Jons Berzelius	*The system of chemical symbols*
James Clerk Maxwell	*Kinetic theory of matter*
Dmitriy Mendeleev	*Mendeleev's table*
Wilhelm Röntgen	*X-ray*
Marie and Piere Curie	*Radioactivity*
Thomson	*Discovery of electron*

Fig 2 – Slides from the presentation of the lecture "Atomic theory"

Software used in Chemistry is also introduced in English. For example, demonstration of the program called HyperChem. HyperChem is a molecular modeling program. HyperChem provides chemical calculations, drawing and database capabilities, 3D visualization and animation. See in fig 3.

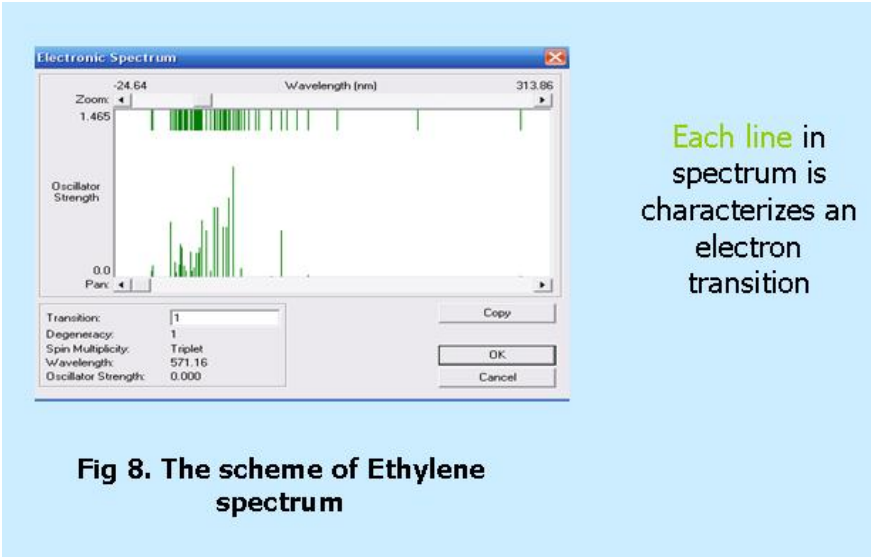


Fig 3 – Construction of ethylene's electronic spectrum by the HyperChem program

To assess the level of the students' knowledge we used tests with open-ended and closed-ended questions. For example:

Please answer the questions:

1. The particles in an atomic nucleus are collectively known as…

2. The total number of electrons in the 4th energy level is…

3. Atomic orbital is a…

4. How many quantum numbers are necessary to describe the atomic orbital?

Having analyzed data, it is necessary to emphasize the necessity of application of the following principles while teaching chemical disciplines in English:

1. Studying a new vocabulary before lectures;

2. Systematizing and structuring of the material;

3. Complex use of various methods and teaching techniques;

4. Combination of bilingual training

5. Continuity and sequence

At the same time, while teaching chemical disciplines in English we faced such problems as insufficient language competence of students majoring in Chemistry for comprehension of lectures. It is necessary to develop training techniques for students majoring in technical disciplines to be taught in English and introduce additional language disciplines. Development of a new major «Ecological chemistry» with an extensive learning of foreign languages is being considered for the students of the specialty «5B060600-Chemistry».

The students are admitted to the specialization lectured in English if they answered correctly on 70% of questions in the test. The test contains different questions and assesses 4 types of the skills: reading, writing, speaking, listening.

Fig 4 - Main skills in the English Test for Students Majoring in Chemistry

Example of the test is shown below in figure 5.

TEST FOR CHEMISTS

1. Give the names of the following compounds: PI_3, P_2O_5, $Ca(NO_3)_2$, $Ca(NO_2)_2$, NaOH, H_2SO_4, CH_4, C_6H_5, $C_6H_{12}O_6$, HCl

2. Give English equivalents for these words.

отрасль	условие	состав	производство	анализ
развитие	выделение	свойство	химия	строение
исследование	открытие	наука	достигать	кислота
электролиз	метод	теория	символ	оборудование
формула	уравнение	часть	скорость	реакция

3. Match tin word with its definition.

1) tunnel
2)beaker
3) microscope
4) slides
5) electric balance 6)tongs
7) mortar
8) pestle
9) tripod
10) rubber tubing
11) gas tap
12) matches
13) measuring cylinder

a) a tool that consists of two movable bars joined at one end used to pick up an object
b) a scientific instrument that makes extremely small things look larger
c) a short stick with a heavy round end
d) the science that is concerned with studying the structure of substances and the way they change
e) a round piece of rubber or wood used to close the top of a container
f) a round pipe made of rubber for liquids to go through

Fig 5- An extract from the test for students, majoring in Chemistry

The elective disciplines such as «Translation theory», «Bilingual translation of technical documentation» are included into the curriculum for the 2nd year students. This way it will be possible to develop language competence in students.

We also included elective chemical disciplines lectured in English for the 3d year students.

Difficulties here are caused by absence of methodical material in English.

We think that nowadays the problem of training specialists in English requires detailed research, which should be consecutive and substantial.

To do productive work in this direction it is necessary to actively apply both local and foreign higher education practices, and also invite foreign professors with the purpose of delivering certain lectures in English.

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STUDENT INFORMATION CULTURE: CONDITIONS AND FEATURES OF FORMATION

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In the modern social and economic terms of growth of meaningfulness of the role of information, informatization of educational establishments grows the actuality of using of information technologies. Progress of society trends induce a person to access the knowledge. There is a huge increase of volume of necessary for mastering information, which conflicts with the limited possibilities of individual. Inevitable dispersion of information, caused by integration and differentiation of sciences, complicates its search. Outdated knowledge appears because of the speed-up rates of development of scientific and technical progress, which determine continuous education and self-education, the ability to reclassification for support of social status of personality etc.

In such terms, it is not enough for a future specialist to be just competent in the sphere of information technologies: to own wide range knowledge about information processes and to be able to apply them at high professional level within the framework of the specialty. He needs objective personality qualities which enable to refer to information as to the absolute value; to estimate it critically, keeping the controlled openness at an information exchange; to resist the manipulation of information that acts in society and to avoid manipulation of others; to understand force, possibilities and limitations of application of information technologies; to foresee the consequences of the information operating on social surroundings and to be ready to carry responsibility for it

As marks N. G. Dzhincharadze, "… today the actuality is determined by the necessity of forming for the modern people of culture of cognition and knowledge of culture. This paradigm creates the certain integral system determined by the degree of correlation of estimation and interpretation of values in the context of research of intercommunications between scientific, technical, social and cultural development of society. For this reason a comprehension of social and cultural consequences of informatization, computerization society is actual and provides not only the research of substantial connections between an information culture and modern computer technologies but also research of common to mankind knowledge, world culture, consolidation of its valued maintenance in the modern information culture of personality" [4, p. 6].

Speaking about education, it can be stated that a process of forming of information culture of students is inalienable part of a general educational process of higher educational establishments. Efficiency of pedagogical process appropriately depends on terms which it flows

[1]in, and efficiency of forming of information culture of students depends on certain pedagogical terms.

Let consider terms "condition" and "pedagogical condition". In the explanatory dictionary of Ukrainian a "condition" is interpreted as: "regulations, requirements, implementation of which provides something" or "circumstances, features of the reality, at which something is carried out", or a "circumstance, which makes it possible to realize, create, educate or promote something" and others like that [5, c. 617]. It is written in a large soviet encyclopedia, that condition – is a thing what something other (conditioned) depends on, substantial component of complex of objects (things, their state, co-operations), from the presence of which existence of the certain phenomenon follows with a necessity. This entire complex on the whole is named sufficient [2]. More frequent terms are examined as something external for the phenomenon, unlike the wider concept of reason which covers both external and internal factors.

By a factor in science named "reason, motive force of some process, which determines its character or its separate lines" [3, c. 245]. In philosophical research of M. . Parnyuka [6] a factor is force which operates actively, causes a positive or negative change in a state of object of analysis. He distinguishes a factor-condition and a factor-reason. A factor-condition is a factor on the presence of which an origin or disappearance of investigation depends, whatever of it itself draws. A factor-reason in relation to investigation comes forward simultaneously and as reason of transformation of investigation, and as a condition, necessary for its origin. Between factors and terms there is dialectical intercommunication which expressed in common connections. Therefore factors perform the function of terms quite often. However unlike a factor which directly generates this or other phenomenon, a condition makes the environment, where the phenomenon arises, exists and develops.

Smirnov S. D. [9] determines pedagogical terms, as pedagogical circumstances, which assist (or resist) the display of pedagogical factors, conditioned by an actions. After M. Parnyukom [6, c. 93-94] pedagogical terms are an environment, circumstances where pedagogical factors are realized.

It can be stated that following tasks as search and ground of pedagogical terms of the successful forming of information culture of students in domestic pedagogical science was not enough solved.

During the exposure of complex of pedagogical terms we will take into account the structure of an educational process of higher educational pedagogical establishment and, in particular, the structure of process of forming of information culture of students.

A process of forming of information culture of students in the ordinary terms of an educational process of higher pedagogical establishment, as any pedagogical process has the system of component, namely – principal, semantic, effective.

Determining them, it is possible to mark that the purpose of this process is forming of information culture of students. Being a general purpose, it disintegrates on structurally less units in accordance with logic of forming separate components of this culture, namely – base, motivational, intellectual and the obtained level of their formation.

Yes, forming of base component of information culture of students forecasts the forming of information literacy, and also forming of the logical, successive system of knowledge of information technologies, in particular computer skills and forming of abilities and skills of any activity, related to information abilities and skills of planning of the activity, construction of information models, communica-

tion, discipline of intercourse and structuring of reports, using of modern technical facilities in life.

Forming of motivational component of information culture of students conforms to forming of reasons which induce a person to continuous education. Forming of intellectual component of information culture of students is assumed by formed operations of mental activity (analysis, comparison, selection basic, synthesis, establishing casual connections, abstracting and others like that), vision of problems and a choice of ways of their decision.

Semantic component of the process of information culture of students is the knowledge, abilities, skills, reasons, which provide formed information culture of students, and also special style of thinking, which we have described as independent and creative.

Effective component of the process of information culture of students, representing efficiency of its flowing, characterizes the obtained changes in accordance with desired goal.

During the selection of levels of formation of information culture of students, taking into account activity of this concept, leaning works of scientists (L. S. Vigotskogo, P. Ya. Gal'perina etc.), who developed the productive theory of activity. The essence of it: any activity in the process of learning is related to semantic cognition, and cognition always has levels. The degrees of the successive getting up in cognition of educational information determine character of activity: reproductive or productive. In the process of reproductive activity a person only reproduces the knowledge mastered before, without getting new information from the activity, and vice versa, – in the process of productive activity a student gets new knowledge: facts, phenomena, processes or methods of activity. These activities can be performed by personality both independently and with a certain help from outside. Character of independent reproductive and productive activities is not identical. In the process of independent reproductive activity students act "with a prompt" (instruction, reference book and others like that), or independently – without a "book". In productive independent activity students work after initial or similar algorithms (help from outside), transforming them in a new situation, they get the algorithm of action, discovering for themselves subjectively new information.

Thus, it is possible to select three levels of formations of information culture of students:

– high – spiritual and practical;

– middle – reflective and transformative;

– low – informative and sign.

These levels coordinate with levels of formation to understand if personality is ready for the self-education [8].

For the spiritual and practical level of formation of information culture of students such components as base, motivational and intellectual are typical. Moreover, it is unlimited, as there are not limits for perfection of personality properties, his knowledge and abilities. It should be noticed the lower limit of this formation of culture:

– deep understanding of the role of the logical, successive system of knowledge of information and communication technologies;

– formed abilities and skills of any activity, related to information, in particular abilities and skills of planning of the activity, construction of information models, communication, discipline of communication and structuring of reports;

– motivation of personality in satisfaction of the information necessities on the base of knowledge of information computer technologies, increasing of the cultural and professional world view, development of abilities and skills of information activity and information inter-

course realized on the basis of the using computer information technologies;

– Formed, independent, creative style of thinking. Reflective and transformative level is characterized by formed information literacy of student, aspiration independently to make a goal, in relation to mastering of modern information computer technologies, abilities and skills, related to their use. Information necessities of students depend on the information activity which they are engaged in and reasons of their realization are recognized as they are formed on the base of:

– satisfaction of the information necessities is on the ground of knowledge of information computer technologies;

– increase of the cultural, general and professional world view;

– development of abilities and skills of information activity and information communication on the basis of using of computer information technologies.

But not always students find the decision independently, so ask teacher for help and follow his instructions.

Informative and sign level of formation of information culture of students is characterized by such indicators: reasons of mastering of new knowledge, knowledge of new information computer technologies. Students do not connect the information necessities with their advantage in information activity. Abilities and skills that belong to informative and cultural person are not systematized, so a lot of types of information activity cannot be made by student independently. And as a result of it – the way of students' thinking do not differ by independency and creativity.

Consequently, to teach personality to think independently it is necessary to displace priorities in studies in behalf of preparation of person to the self-education. In such organization of an educational process literacy outgrows in a culture and becomes the form of mastering of reality. Therefore organizational and administrative component of the process of information culture of students reflects cooperation of teachers and students, their collaboration, organization and control of process, without which it is impossible to obtain final result. Exactly due to this component, pedagogical terms that give possibility to form the information culture of students of higher educational pedagogical establishments will be achieved.

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TYPES AND FEATURES OF THE INNOVATIONS IN THE SYSTEM OF HIGHER EDUCATION

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Significant attention has been paid recently to creation and implementation of new methods, techniques and technologies in education. Effective management of innovative activities is important for the successful development and introduction of new technologies, and for further development of science and technology and economic growth of the nation. The questions of implementation of innovations in the system of education and the system of higher education, as well as the issues of innovative technologies in education and higher education and the questions of innovative developments in the USA [2; 3;9], U.K. [1; 4; 8], Russia and Ukraine the following publication are dedicated [6; 7]. The processes of formation and development of innovation in higher education, innovation and entrepreneurial activities of the higher education establishments as well as the innovative policies of the higher education establishments, innovative management of universities and university management principles in the innovative economy, management of innovation in education and the innovative models of distance learning and innovation in information technology the following book is dedicated [7].

Analyzing innovative activities in the field of education one should take into consideration that it lies not only in the practical use of the latest scientific, scholarly and technological achievements and the results from the sphere of education and rich intellectual potential of educators with the aim of developing (producing) of the new or radically improved scientific knowledge, scientific and educational technology, high-quality educational services, and effective satisfaction of consumer demand in Ukraine and other countries for high-quality education. Educational innovative activity is also a process aimed at the development and introduction of new completed (received) results of national and international research and development of other scientific and technical achievements in the field of education, science and culture for their implementation on Ukrainian and the global education market, improvement of the educational process, of the structure of the education system, encouragement of further scholarly search research in this area.

The problem of the innovations in the system of higher education development

The problems of scientific management of the innovative processes in the educational activity belong to the scope of educational innovation [6]. Innovative processes in education which are viewed through the socio-economic, psychological, pedagogical, organizational and managerial lenses are the subjects of the innovative management. These contexts are the ones that determine the conditions in which innovation processes occur and which character they have - spontaneous or deliberately guided.

Innovative activity as a package of measures to ensure the effectiveness of the innovative process at different levels and in different areas of educational and research activities leads to changes in such components of the teaching and research process as the meaning, purpose, content, ways of new knowledge search and their comprehension (fundamental research), transformation and transfer of new knowledge (use of new knowledge in applied research, development of the new tech-

niques and designs of new technologies), forms, methods, learning tools, and scientific research, management teaching process and research and so on. It is important for socio-economic growth of the society to promote and support entrepreneurship, organization and provision of business education.

It is known that the subject of pedagogical innovation in the higher education is a system of relations that arise in the innovative educational activities with the aim of establishing individual distinguishing features of the subjects of education: students, graduate students, trainees, teachers, professors and scientists, teachers, managers, and administrators. We think that the subject of the scientific and technological innovation in the field of higher education should be the study of the relationships and mechanisms that arise in the process of scientific and technological innovative activity with the active participation of professors and teachers, scientists, researchers, students, graduate students, engineers and technicians, support staff – on the one hand and customers and consumers (production and business) – on the other. In this case, obviously, the innovative changes occur in the following ways (Fig. 1). Be noted, that the scientific and technical innovations (the word based on the English word innovations) – is the continuous process of creative activity, aimed at creation of new products and services, technology and materials, technical solutions and of new organizational forms, which possess scientific and technological newness and those which allow for the fullest satisfaction of public and individual needs. Materialization and the industrial appropriation of novelties, which are based and established on scientific-technical activity and market research on identification of the unmet needs and demand, are the end-result of the scientific-technical novelties. Scientific-technical innovations, as a rule, come to fruition in three phases and pass the following stages: 1) Research → creation of the first industrial samples.

2) Creation of the trial set → extensive production in the volumes which are determined by the market demand (market needs).

3) Production → creation of distribution channels → utilization by the end consumers (customers, users) → creation of the repair service.

It is important to note that while scientific-technical activity is evaluated by the number of discoveries and innovations (the number of registered patents and issued licenses), their scientific-technical importance is determined by the depth of the conducted research, innovative activity is characterized, first of all, by its commercial value – profit and economic effectiveness, competitiveness of the products and services of the enterprise as a whole.

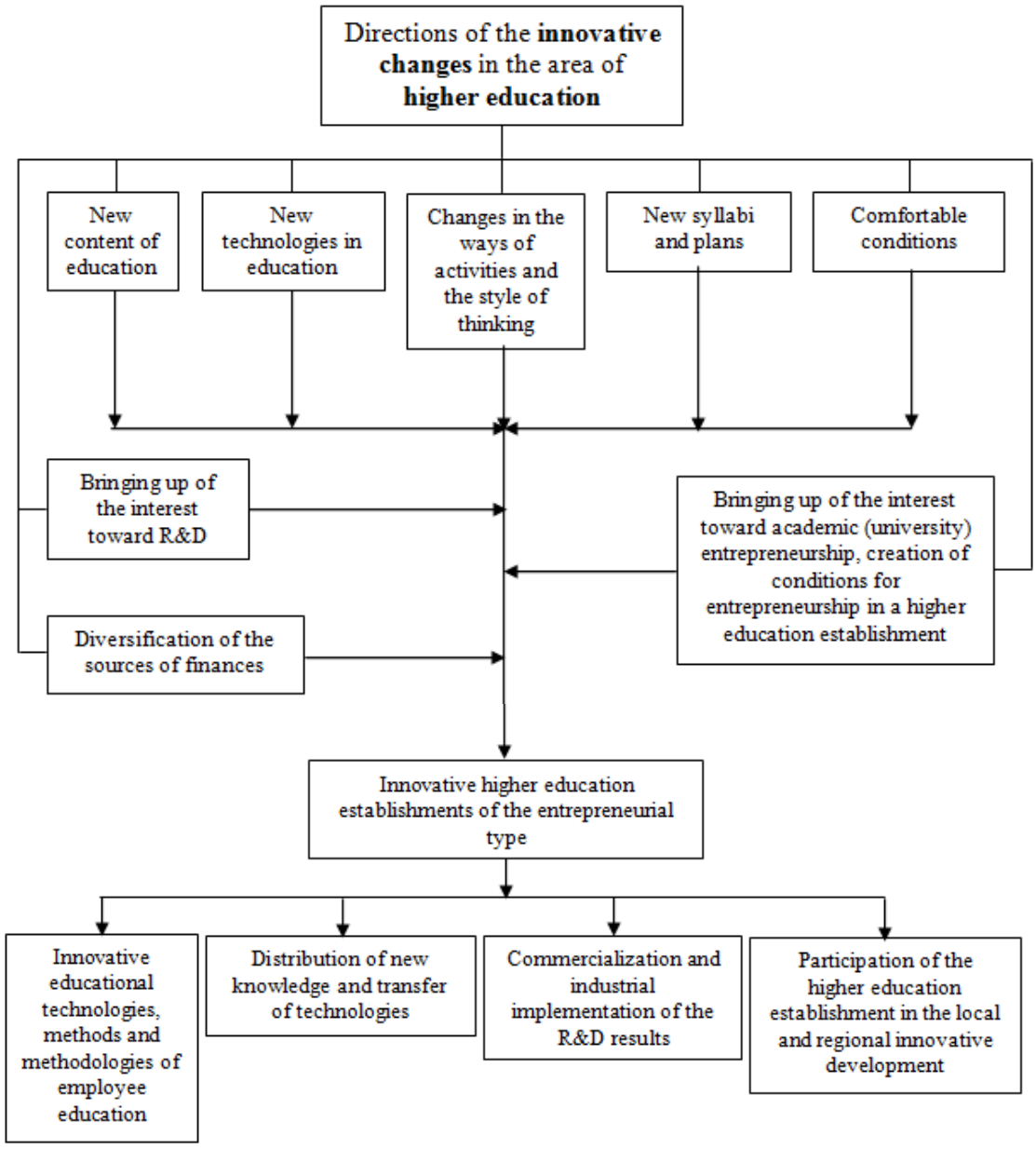

Figure 1. Directions of innovative changes in the area of higher education

The following types of Innovations exist:

1) Radical (foundational) innovations – revolutionary Changes in the development of technology and society, formation of new industries

2) Growth (changing) innovations – improvement of properties of existing appliances and technologies

Let us consider areas where innovative changes taking place in higher education, and desired outcomes of these innovations (Fig. 1).

1) New educational content: the formation of a new curriculum aimed at training people to self-actualization and independent life in society.

2) New technologies in education: development, creation and implementation of innovative technologies in education, total and comprehensive entrepreneurial and environmental education (training).

3) New training programs and plans: utilization of methods, techniques, tools of

implementation of new training programs and plans.

4) Comfort conditions: creation of favorable conditions for self-determination of the individual in the learning process.

5) Changes in the way ways of activities and style of thinking: the motivation to change the way of thinking and styles as teachers, instructors, pupils and students, changes in the relationship between them, the creation and development of innovative community in all levels of educational institutions.

6) Bringing up (Rising) of interest toward research and development: education of youth' interest in research and design activities through involvement in research and design work, the desire to search, inventions and discoveries.

7) Diversification of the sources of financing: diversification of the sources and ways of financing of education, search for new ways for financial support of education, creation of innovative funds of financial-economic and material-technical support of education.

8) Bringing up of interest toward academic (university) entrepreneurship, creation of conditions for entrepreneurship in universities: educating and encouraging all members of the university staff to be interested in academic (university) entrepreneurship, educating and encouraging them to be interested in the commercialization of the results of educational, research and engineering activities, creating the necessary conditions (logistical, legal, system of incentives and rewards) for motivation and practical implementation of educational, scientific, technical and technological entrepreneurship in universities.

9) Innovative higher education establishments of the entrepreneurial type: creating innovative universities and colleges (other universities) of the entrepreneurial type as the result of mentioned above innovative changes and transformational change in higher education (Fig. 1). The following factors should be the results of activity of the universities and colleges of entrepreneurial type:

• Innovative educational technologies, techniques and methods of training

• Dissemination of new knowledge, technology transfer.

• Commercialization and industrial implementation of results of R & D.

• The participation of universities and research institutes in the local and regional innovative development.

Consider further types of innovations in higher education, which can lead to innovative changes. They can be classified as technological, structural - pedagogical, educational-pedagogical, organizational-educational and economic (Fig. 2, 3 and 4).

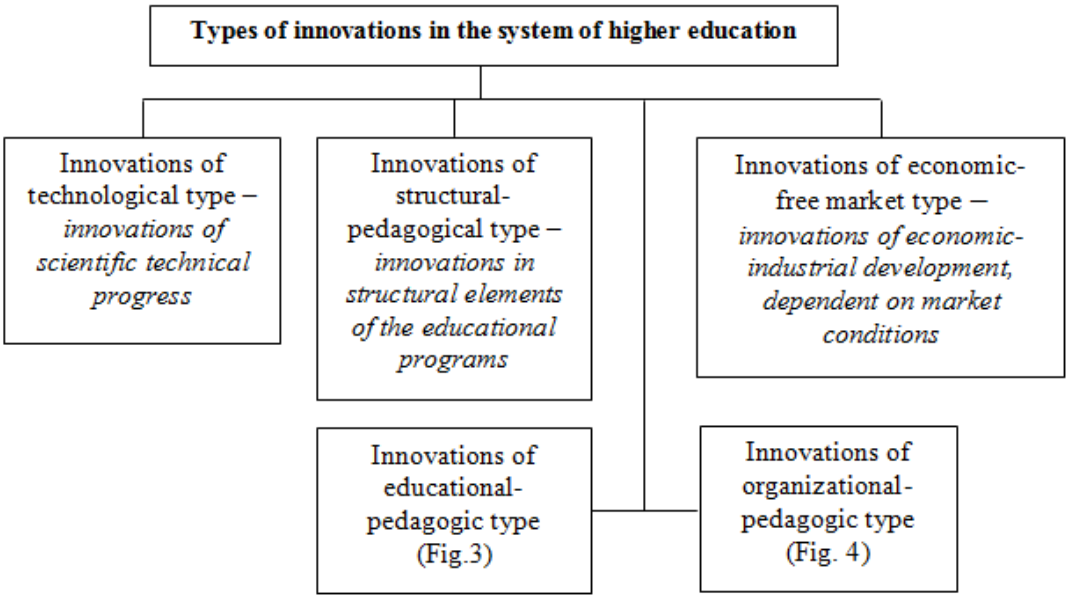

Fig. 2. Types of innovations in the system of higher education, which can lead to innovative changes

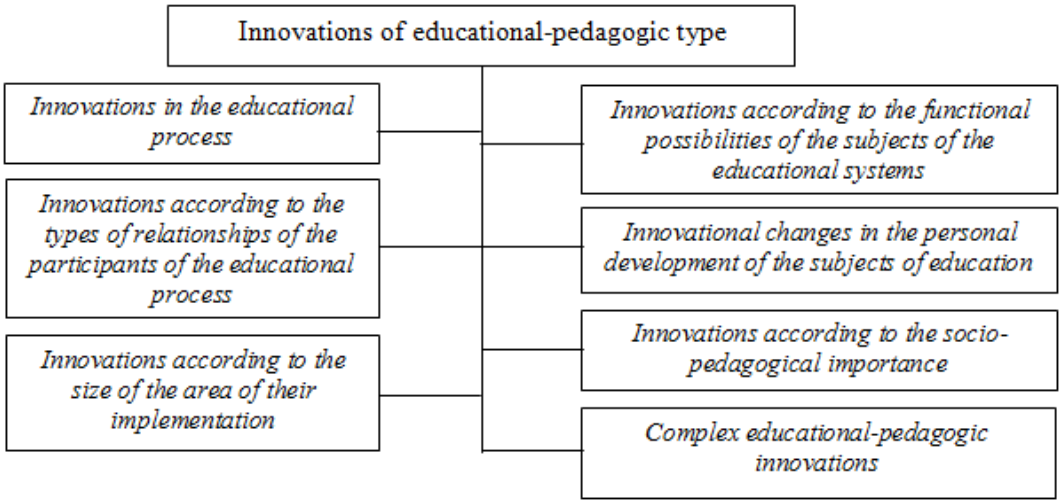

Fig. 3. Types of innovations of the educational-pedagogic type in the system of higher education

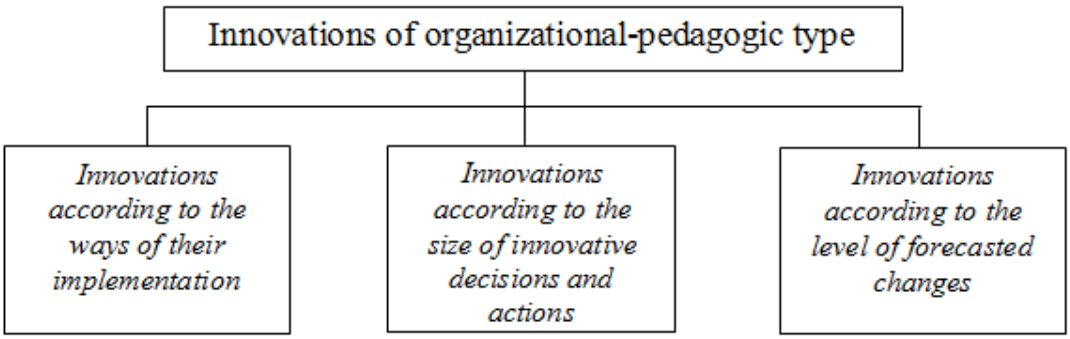

Fig. 4. Types of innovations of the organizational-pedagogic type in the system of higher education

Innovations of the Technological type – these are new introductions in the system of education and teaching activities caused by the development of science, technology and technology: finding and acquiring new knowledge dissemination (transfer) and the implementation of new knowledge and new technologies, distance-learning, web-design, the use of innovative information technology, computing, information and communication networks, the Internet and Intranet, as well as innovative marketing (innovations of scientific and technological progress).

Innovations of the structural-pedagogical type – these are innovations in shaping the goals, objectives and content of education (training and bringing-up), in the forms, methods, techniques, technologies of education, in the diagnosis system, in control, evaluation of results etc. (innovations in the structural elements of educational systems).

Innovations of educational-pedagogical types are the following types of innovations:

• Innovations in the education process, educational course, in the education sector, at the level of the system of education, in management of the education process (education), etc. (innovations in the pedagogical process).

• Innovations in the community and group learning, in individual types of learning (under the guidance of a teacher), tutoring, alternative family education, etc. (innovations according to the types of interaction of the participants of the process).

• Innovations to develop talents of students, teachers, instructors, namely the development and improvement of their knowledge, skills, ways of life and competencies etc. (innovative changes in the personal development of the subjects of the educational process).

• Innovations-conditions for updating of the educational environment, socio-cultural environment etc.; innovations - are educational products (pedagogical tools, projects, technology, etc.), management innovations - new decisions in the structure of educational systems and procedures of management to ensure their performance (innovation by functionalities of the subjects educational systems).

• Innovations in the activity of one teacher, methodical association of teachers, in one school, in a group of schools, in the region, on the state level and the international level etc. Innovations in the activity of one faculty members, of the department, of the university, of all universities in the region, state, on the level of international higher education (innovation according to the size of their distribution).

• Innovations in the educational institutions of a certain type, for specific vocational and typological groups of educators and teachers (innovations according to the level of socio-pedagogical significance).

• Innovations that combine different types of pedagogical innovations in the educational system (complex educational-pedagogical innovation).

Innovations of the organizational-pedagogic type are the types of innovations which are distinguished by the following:

• Planned, systematic, spontaneous innovations (innovations according to the ways of their implementation).

• Innovations: local, massive, global, etc. (innovations according to the size of innovative decisions and actions).

• Innovations: corrective, improvement-oriented, radical, revolutionary, etc. (innovations according to the level of forecasted changes).

Innovations of the economic and free market-oriented type – they are the types of innovations which unite all innovations caused by scientific-technological and industrial and economic development of society: types and forms of education

financing of educational services: educational institutions of various types, of educational services, of statutory (including - educational, scientific and educational and cultural) activity of education establishments; development of academic (university) entrepreneurship; commercialization of the results of educational (contractual forms of education, consulting, expert and other services), scientific and technical activities (R & D, technology transfer) etc. (innovations of economically-industrial development, depending on market requirements).

In the management of innovation in education innovative informational technologies, information and innovation management as well as innovation marketing are used [7]. They can occur almost in all types of the above mentioned innovations in the education system that can lead to innovative changes to achieve new quantity and quality levels of education. Information technologies use computers, the Internet and Intranet, distance methods of organization and management of educational activities, used to develop a variety of other information-retrieval systems, information and advertising and marketing materials (with web-design utilization).

Information management in education, which is based on the use of information technologies, is a subsystem of decision making and is aimed at management of the processes of creating, processing and distribution of information in the field of education. One of the main functions of information management in the sphere of education is the development of such organizational structure that would allow for timely and objective useful information in the right place at the right time and in a convenient form for effective decision-making. Implementation of the information management in education is dictated by the following circumstances: scientific and technical development of society, integration and effective utilization of funds for the development, implementation and effective use of information technology (aggregate information resources, tools, and technologies that contribute to the right conducting of the whole process if management in education); necessity to integrate all the data that determine the effectiveness and efficiency of the education system as a whole and each educational entity separately (its components).

Information management in education is a system of strategic guidance of the innovative processes with the goal of studying of the major directions of educational, scientific-technical and industrial activity and finding reasons for existence of the system of actions toward realization of the innovative strategy. Its aims are the following:

• Development of plans and programs of innovative activity in education;

• Development and implementation of a single innovation policy in education;

• Preparation of scientific and educational experts and ensuring covering of all areas of education;

• Providing educational activities with necessary resources (material, labor, financial);

• Planning and selection of the best projects of world innovations (innovation) and control for its implementation;

• Creation of special groups of management and control for innovation activity at all stages.

Innovative marketing in education – ensures the effectiveness of the activity of the education system and educational institutions on the market innovations in education aimed at the formation or researching the demand for educational services aiming maximum satisfaction of the needs and demands of the society. Innovative Marketing is based on the use of new ideas and technologies that best contribute to the achievement of the purposes of the entire educational system and individual institutions. Innovative marketing in edu-

cation is a function of innovation management in education. It starts with the stage of looking for new ideas toward new educational services and technologies that can best satisfy existing and potential demand with the future materialization and commercialization that ends at the stage of saturation.

Conducting market studies is necessary because: they help explore market conditions of educational services, identify requests, tastes and desires of consumers of educational services; forecast of the dynamics of demand for educational innovation, development of marketing strategies for innovations in education and more. The purpose of innovation marketing in education is achieving result of obtaining of the end practical result of the innovation. This result:

• is oriented toward gaining of the certain market share of educational innovations under a long-term goal, under which the innovative product was developed;

• Integrates research, production and marketing activity in educational management system;

• Is long-term oriented, which is why needs market research, which is the foundation for creation of innovations, which insure highly effective economic activity in the sphere of education;

• conforms to the requirements of potential consumers of innovation in education with simultaneous directed impact on their interests.

Let us consider the content of innovations in more details, as well as some possible ways of practical innovative activity in education.

Innovations of scientific-technical progress. They may include:

• Utilization of information technology in the process of innovation management of the educational system (including higher education establishments): information and innovation management as well as innovation marketing.

• Organization of Distance Education - implementation of distance courses (subjects of curriculum), automated control of student knowledge, telebridges and internet conferences and seminars based on on-line information technology, program platforms of type Blackboard type and so on; utilization of intranet communication systems and so on.

• The use of information technology in the educational process: learning how to conduct web-design and how to use IT technologies at work. These include: electronic business (e-business), automation of scientific research and projects, automation and decision-making and industrial processes, information technologies in entrepreneurship, management, marketing and more.

• Organization of distance courses as follows: the invitation of foreign experts – professors from foreign higher education establishments in order to teach introductory lectures → distance teaching of the main body of the course → distance conducting of 3-4 intermediary tests in the presence of the Dean representative → final exam conducted by the Dean (Assistant Dean) → exam evaluation and grade entry to the electronic records (transcript) of the student.

• Utilization of the latest techniques and technologies while conducting foundational and applied scientific research by universities and other higher education institutions and research institutes, interpretation and dissemination of new knowledge, design and construction of new techniques, the development and transfer of advanced technology, the introduction of R & D results for local, regional and national socio-economic innovative performance.

• Creation and launch of new spin-off and start-up companies by the innovative entrepreneurial universities.

Innovations in the structural ele-

ments of educational systems. The main purpose of such innovations is preparation (bringing up and education) of the modern professional of the international level who:

• Is fluent in the national (Ukrainian) language as well as in foreign languages – English and another foreign language (European or Eastern), and Russian language;

• Has the necessary professional knowledge and skills;

• Knows how to use a computer, information technology, and software;

• Is a good team player and knows how to work in a team;

• Has high moral and ethical principles and humanitarian values and beliefs;

• Is focused on healthy life-style and ecological behavior;

• Is patriotic and is ready to integrate with the international community.

For the continued improvement and increase of the effectiveness of preparation of professionals such new progressive tendencies in forms, methods, approaches and technologies of education are important:

• Organization of included training – study abroad; study of the courses (subjects) according to the curriculum of American universities at international higher education establishments, theoretical and practical internship in foreign (overseas) and joint (with foreign and Ukrainian capital scrap) companies, firms, corporations, financial institutions and enterprises.

• Organization of theoretical and practical seminars on the questions of business administration, leadership in social and economic activities for students, scholars, instructors and employees with invitation of foreign experts.

• Invitation of experts from foreign countries for giving individual lectures, or lecture series as well as teaching entire courses (subjects) from the curriculum of the higher education establishment in English (German) language.

For integration of scientific - pedagogical and material-technical strength as well as introduction of innovations in education, science and technology, developing of new technologies and obtaining of new knowledge it is also important to cultivate the practice of combining of the different types of universities in teaching and research and production systems and creation of techno-parks.

Innovations in the pedagogical process. The following innovations may be included here:

• Introduction of the system of credit - module education, intermediary (3-4 times during a semester) testing in each course, with the final grade being the combination of all grades during the course.

• Implementation of electronic transcript for each student, cancelling of the opportunity for test retaking with proving students with an option of retaking the course.

• Organization of the education process according to the principles of interdisciplinary and multidisciplinary. It allows students of higher education establishments to plan their academic load and timing of completion of their studies in such a way so as to receive knowledge to the fullest amount and choose additional courses according to their desires.

Innovations according to the types of interaction between participants of the educational process. Utilization of the latest information technologies, of the Internet and Intranet systems, and of the distance learning systems lead to reformatting of the division of students from academic educational groups, courses (in their usual sense) to the virtual time units (according to an individual student's choice). Depending on students' preferences they can study remotely or by themselves (individually) or in a group (collectively). Distance learning can take place both at universities and at home (if neces-

sary technical means are available).

Innovative changes in personal establishment of the subjects of education. The following examples may belong to this type of innovations:

• new forms and methods of testing of the knowledge, skills, and abilities of students and instructors;

• continuous improvement of knowledge of graduates, staff and instructors through continuous training and increase of professional qualification during life;

• organizing of regular exchange of students and teachers between domestic and foreign universities as well sharing of experience between universities in different countries;

• Inviting well-known scientists, high-level professionals from different branches of industry and successful entrepreneurs for lecturing at universities.

• organization of theoretical and practical preparation of students in the real conditions of the economy, scientific, research and business conditions.

Innovations according to the functional opportunities of the subjects of educational systems.

Conditions for renewal of the educational environment, social and cultural conditions, may include the following innovative conditions:

• Organization of educational process according to the plans and programs of the leading universities from economically developed countries. Business, marketing and management (including management of international business) is advised to be studied utilizing primarily American syllabi of BBA and MBA programs, as well as university programs from other countries (Germany France, Spain, Scandinavian countries, Benelux, etc.).

• The combination of Ukrainian educational standard educational plans with the educational plans and curricula from excellent international universities to integrate the best in a particular field of knowledge, science and technology.

• The democratization of the educational process, allowing students greater opportunities for free choice of academic disciplines, expansion of the curriculum to include the subjects of free choice for students and educational establishments.

• Engagement of Student Government of universities in the process of improvement of the educational process and statutory activities of the institution.

Innovations according to the size of their distribution. It is desired so that the professional activity of each individual instructor will include innovations, as well as the activity of each educational establishment. It is desired for this to take place at the individual level, at the level of a department, the entire university, all universities and colleges in a region, in a country and in the international overall system.

Types of innovations according to their socio-pedagogical importance. At the present stage of economic and social globalization processes it is important to create innovative temporary teams of teachers. First of all, it concerns Ukrainian universities. Invitation of renowned specialists in different fields of knowledge, science and technology will enhance the quality of the educational process, will encourage students to study English language (the international language of business, science and technology) and other foreign languages, will allow them to further communicate with colleagues from abroad, read foreign literature in its original version, study global scientific and technological achievements by themselves.

The following innovations belong to the type of Complex educational - pedagogical innovations. Such innovations unite different types of innovations in the system of education:

• creation of innovative Educational institutions: virtual HEIs, open HEIs, international (joint) institutions, including institutions of international education;

• creation of programs of international education based on combination of foreign and national plans and programs with teaching the subject at native national language and foreign (English or other) language;

• Creation of innovative educational programs based on new information technologies, remote and open learning, interdisciplinary and multidisciplinary curricular, individualization and intensification of learning.

Types of innovations according to the ways of their implementation. It is advised to conduct planned, systematic and periodic innovations, i.e.:

• Implementation of new technologies and improvement of basic available educational technologies, organization of educational and bringing-up process processes and research activities in universities.

• Development of new forms, methods and contents of education, flexible response to social development issues, education market, and the requirements of the industrial economics.

Types of innovations according to the size and scale of innovative decisions and actions. Innovations should take place not only in separate departments of educational institutions, but also in the entire institutions. Innovations in the state, communal and private HEIs positively affect spreading of innovations in the entire educational system.

As far as innovations according to the level of forecasted changes, it will be right to state that all types of innovations that lead to further development of science and technology, formation of the modern professional of the high level are desired.

Innovations economic and industrial level depended on market demands, form new opportunities, forms and sources for further development and support of the education system and its structures, opening of new majors in educational establishments, serve increase of corresponding of education, research and service to the requirements of the modern society. These should include:

• Participation of private capital in creation and financing of educational establishments of all levels, of educational programs, providing loans for education for students and researchers.

• Creation of new private educational establishments for continuous learning, increases of professional qualifications and provision of opportunities to receive a joint profession by corporations, companies and enterprises.

• Creation of new educational and scientific-production complexes (with different types of universities, research institutions and enterprises), parks and more.

• Development of academic (university) Entrepreneurship: promotion of scientific research, discoveries and inventions, the disclosure of the results of R & D, their patenting and licensing for further implementation among researchers and instructors.

• The commercialization of the results of educational activities: contractual forms of education, consulting, expert and other professional services.

• Commercialization of research results and scientific and technical activities of an HEI through: patenting and licensing of discoveries, inventions, and other important results of R & D, technology transfer, education and launching together with industry (businesses) of new companies (spin-offs, start-ups) and others.

Innovative approach to the organization of entrepreneurial education (teaching and trainings of entrepreneurs).

The nature of the entrepreneurial education and professional training in entrepreneurship. Individuals can get entrepreneurial education and participate in teaching entrepreneurship and entrepreneurial training of staff in different periods

of their lives, and that education, learning and training can be implemented in various ways (take a variety of forms). For example, all primary school pupils in Scotland have a class on "Entrepreneurship education", which is not a specific preparation for the opening of business. It focuses on what it means to be entrepreneurial and tuned to the business; it teachers the basic concepts of entrepreneurship in more general terms. In some universities, students can get education in "about entrepreneurship" [5, p. 11].

This education is designed to teach how to open and run a business. Instead of the formation of a new company the main goal is in the context of academic studies devoted to entrepreneurship. Some students gain knowledge and study the experience of entrepreneurship, learning about entrepreneurship itself and exactly how and under what conditions it can be started. To provide the same practical assistance to employees who lost their jobs and became unemployed, employers or government agencies can offer training on opening an own business.

Entrepreneurship education can be defined broadly as the creation of general knowledge and skills "about entrepreneurship" or "about the goals of an entrepreneurial enterprise" in general. Entrepreneurship education can be provided as part of a recognized educational programs for primary (primary school), secondary (high school) or tertiary (university) level studies in educational establishments of various levels. Teaching Entrepreneurship is defined as the construction of knowledge and skills to prepare for starting a business. Thus, the purpose of teaching entrepreneurship is very specific, as opposed to the goal of entrepreneurship education, which may be much wider.

In addition to the opportunities for further training in entrepreneurship people can get education "on entrepreneurship" or "for entrepreneurship activity" and / or education in starting business in elementary and high school, college or university.

These courses can either be part of the formal education programs leading to a certificate or degree, or can include non-credit courses. Other programs of informal education, operating outside the formal education system may include courses, seminars, workshops and other training offered by local business organizations, employers or government agencies.

Some experts argue that the earlier people get involved in entrepreneurship, the more likely it is that they will become entrepreneurs in one form or another in their lives [10; 11]. Evidence of this can be seen in a greater prevalence of entrepreneurial activity among those individuals whose parents were private entrepreneurs or ran (opened) their own private business. We can assume that children of entrepreneurs are developing specific ideas, perceptions and entrepreneurship skills by watching their parents work and participating in the activities of the family business [5, p. 11].

Perhaps some education and training programs can replace this training. A question of what types of business skills and approaches to training work best arises. This may depend on the educational context, for example, on whether the teaching takes place in elementary or secondary school, college or university, or as an extra-curricular educational program. Many authors agree that experiential learning, or "learning by doing" is the most effective for the development of entrepreneurial skills and attitudes than traditional methods (such as lectures or distance learning courses). Several studies conducted in the innovation-oriented countries - Singapore, Sweden and the UK show that the experimental approach to learning is the best approach to teaching entrepreneurs [5, p. 11].

What should be taught? Business surveys have identified the ten most de-

sired topics for achieving and managing rapid growth. First of all, those were business problems, such as: sales, finance growth, cash flow management, and the problems of hiring and training employees. However, education and skills training in entrepreneurship, should be much wider and influence attitudes towards entrepreneurship, they should help people recognize and understand business opportunities and think creatively, create opportunities for them to develop leadership skills and provide confidence in their abilities [5, p. 11].

Thus, the purpose of entrepreneurship training should be encouragement of creativity, innovativeness and self-employment (entrepreneurship). Therefore, entrepreneurial education and skills training in entrepreneurship involve something more than just development of specific skills of running a business. This can affect the motivation of people to look for something that might seem impossible or too risky. In short, entrepreneurial education and professional training in entrepreneurship can create a positive perception and willingness of individuals to start a business (see, for example: European Commission, 2008. Entrepreneurship in Higher Education, Especially Within Non-Business Studies: Final Report of the Expert Group. Belgium: Brussels, 2008. – 68 p., from URL: http://ec.europa.eu/ enterprise/ policies/ sme/ files/ support_ measures/ training_education/ entr_highed_ en.pdf).

Where to teach entrepreneurship. Entrepreneurship is essentially interdisciplinary. Since entrepreneurial education, professional training in entrepreneurship and preparation of entrepreneurship personnel require learning of numerous business skills, students of other non-entrepreneurial and non-business majors can benefit and benefit from such training. Now, many experts have begun to doubt whether business schools are the best places to learn entrepreneurship. This is because the most innovative and potentially promising ideas, those that can be really implemented, often appear in the fields of technical and creative disciplines and not in business [5, p. 11].

Requirements of education "toward learning entrepreneurship" question the usefulness of the traditional practice of education (training), implying a shift of thinking on key areas of education and training procedures [10; 11]. New pedagogical methods of teaching and interdisciplinary content represent new opportunities (challenges) for teachers and schools. A considerable amount of research indicates lag or unwillingness of school business education and teachers to meet today's requirements [5, p. 11-12].

Multidisciplinary business content and empirical approach require integration into basic training. Today the "education of trainers (coaches)" can require the same great effort as developing training programs.

Creative computer applications can attract and retain the interest of some people, influence their attitudes towards entrepreneurship and their understanding of entrepreneurship.

Although the needs and problems of entrepreneurship education and entrepreneurship training are numerous, there are also many opportunities to influence the perception and the development of skills and ambitions in existing and potential entrepreneurs.

Relationship of the entrepreneurship education (and training) and economic development. As already noted, GEM research has divided countries into three groups depending on their level of economic development. Then, the GEM theoretical model presents three sets of basic economic framework (conditions) that affect business in a country - namely, those that:

- represent the basic requirements

for economic activities;

• increase efficiency and are accelerators (amplifiers) of efficiency;

• develop innovations and entrepreneurship.

As the GEM model presents, entrepreneurial education and training are presented in a form of specific entrepreneurial framework (basic) conditions which affect the entrepreneurial attitude, activity and aspirations (desires), and as a result, economic development [5, p. 13-14]. Many people in innovation-oriented countries believed that entrepreneurship could not be taught. Many people today still believe that education and training are not required to start a business. They cite the example of Bill Gates and Steve Jobs, who dropped out of college after a few years of school and achieved stunning success in business. However, it became apparent that these people do not represent a typical entrepreneur, especially for companies that produce products based on knowledge and services. Many governments in countries with innovation-oriented economy since then have declared their commitment to teaching entrepreneurship, identifying it as a key priority.

In these rich economies entrepreneurial education is properly set up, organized and developed, attention is paid to the evaluation of existing programs, sharing best practices, identifying problems and making recommendations.

CONCLUSIONS

Effective management of innovative activities is important for the successful development and introduction of new technologies, and for further development of science and technology and social and economic growth of the nation. The problems of implementation of innovations in the system of education and the system of higher education are very important for innovative technologies in education and higher education developments not only in Ukraine but in other countries of post-Soviet space.

Development of innovative approach in entrepreneurship, entrepreneurial education and training of the entrepreneurs and their impact on the economic situation of the countries is usually measured in terms of the following parameters:

• School entrepreneurship education and training in entrepreneurship.

• Transfer (implementation) of the results of R & D.

• Laws and regulations in the field of entrepreneurship, taxes.

• Government programs to support entrepreneurship.

• Financial support of entrepreneurship.

• Internal burden (load) of markets.

• Policy of support of entrepreneurship.

• After-school entrepreneurship education and training in entrepreneurship.

• Cultural and social norms.

• Professional infrastructure.

• The internal market dynamics.

• Physical infrastructure.

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LEGAL BASIS OF COUNTERACTIONS AGAINST CORRUPTION IN KAZAKHSTAN

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In the list of important issues of ensuring national security the President of Kazakhstan especially emphasizes the problem of fighting corruption in interrelation with general problems of counteraction against organized and economic crime and terrorism.

According to Doctor of Law professor Habibulin A.G. "corruption is one of the most dangerous factors in the social life, destructively affecting not only national security as a whole, but all its component parts" [1].

Like any other complex social phenomenon, corruption does not have one particular definition which explains a variety of approaches to its study. Historically, the first definition of corruption related to the field of law. From a legal point of view, corruption is anything which coincides with the definition of corruption in the criminal law of a country or what is prohibited by professional codes of ethics. The advantage of this approach is clarity and certainty. Permits and prohibitions described in the law define behavioral limits for society as a whole and for an individual (a citizen and a public servant), to compensate absence of individual or collective ethics.

It should be mentioned that there is a constant change of the meaning of "corruption" under the influence of the international criminal law, which recognizes the spread of corruption in the world and they tries to find new approaches to the problem, including the changes in the meaning.

We can talk about corruption both in a wide and a narrow sense. Considering corruption in a wide sense, which is its characteristic as a social phenomenon, we should note that in this aspect corruption has some quality characteristics, allowing it to be different from other social phenomena.

Research literature concerning this problem distinguishes the following social features of corruption:

- Deviation of behavior of the corrupt elite from the public interest of the majority;
- Use by the corrupted elite of the coercion method to achieve the powerful economic domination;
- Informal character of activity of participants of corruption relations;
- Illegitimacy of usage by the participants of corrupt relations of tangible and intangible benefits owned by the Company and the state, as well as the means to achieve them.

N.A. Shaikenov in his work called “Theses on corruption” points out that corruption in a narrow sense is a phenomenon in which officials deliberately neglect their duties or act against those duties for certain remuneration. Corruption always involves both parties those who buy and those who, being bribed, act contrary to their official duties. Along with corruption in a narrow sense there is bribery and bureaucratic self-entrepreneurship. Bribery is different from corruption because officials are bribed not for violation of their duties but for the sake of their execution. Bribery originates from uncertainty of duties of the official, deficiency (often artificially created) of administrative and financial capacity of the state.

Therefore corruption as a social phenomenon is an informal deviant behavior of the governing elite manifested in the illegitimate use of their social benefits. The essence of corruption is in the fact that it distorts social relations, destroys normal order of things in the community,

resulting in the damage and "corrosion of power."

Summarizing everything above, it is necessary to repeat that corruption has all features for being a social phenomenon, because it effects the interests of the society as a whole, of different social groups and individuals; corruption influences the domestic and foreign policies; corruption affects the state and legal mechanisms, and impacts public and private views, creates certain moral criteria and patterns in the society, etc. [2].

While developing more effective methods of preventing and combating corruption in the public service we must consider the social nature of this phenomenon. But a study of the corruption phenomenon should not be limited only to studying its social facets. Multidimensional and multifaceted nature of corruption makes it necessary to highlight its institutional and legal component [3].

It seems that the most appropriate condition is viewing corruption as any actions that disrupt the normal regulation and development of an industry, country as a whole through the usage of public opportunities for the realization of personal or corporate interests to the detriment of the society.

In 1990 VIII Congress of the United Nations declared that corruption is an abuse of public power for private gain, it is a comprehensive and global problem that significantly violates the principles of democracy and governance, equity and social justice, impedes competitiveness, hinders economic development and threatens the stability of democratic institutions and morals of the society.

The main damage of corruption is that it "corrodes" the state power, making it weak, feeble and fictitious. The main resource of power - trust the population - is deteriorating. Without it the government cannot carry out any sound policy or reform.

As a result, undermining confidence in the government and its authority, corruption eventually hinders the implementation of the public interest, freedom of the individual, causes damage to cooperation with other countries, social and investment policy etc. Corruption is a phenomenon which largely determines the political, economic and cultural development of the society.

As a social phenomenon corruption arises and exists at the level of informal social ties that make up the foundation of the society. It can be found at all levels of political and economic institutions as well as in the systems providing its self regulation. It’s not an exaggeration to say that corruption in Kazakhstan has generally become a part of the lifestyle of our citizens. All of them regardless of their social status and position live under conditions of implementation of certain corrupt practices and procedures, which most often are forced by authority. But sometimes the citizens themselves are willing to use corruption to solve a variety of problems. At the level of ordinary public it is usually bribes used for personal, family or clan interests or other social benefits. Opportunities for corruption among officials and public policy and acts of corruption are a lot more different.

The problem of combating corruption is most acute for Kazakhstan. The Criminal Code provides a list of offenses recognized as corruption and offers tough criminal penalties for bribery. The President of Kazakhstan initiated a ban on holding any positions in the state authorities and organizations for people who have previously been dismissed for corruption offenses; those who have committed any illegal act should lose all their privileges. In order to reduce the level of corruption in the judicial system responsibility of judges for committing offenses and disregard of judicial ethics was raised.

Anti-corruption measures are in-

cluded in some of legislative acts, regulating government purchases, taxation, customs, licensing, and other areas.

The complexity of fight against this social phenomenon is in the fact that corruption is not only of hidden, but also of contractual nature. In most cases it does not lead to complaints as both sides benefit from the illegal deal. Even extortion of a bribe is not always appealed against because people do not always have confidence in the process of combating corruption. And for that there is some justification, both objective and subjective factors relating to both domestic and foreign experience.

Problems connected with corruption in the institutions of public authority since the 90's of the 20th century to the present days more and more often become the object of attention of many local and foreign lawyers.

Special attention to this issue was given in many speeches by Nursultan Nazarbayev, the President of Kazakhstan.

Analysis of corruption control in some countries shows the gap between the declared principles of equality of all citizens before the law and criminal responsibility, a noticeable shift of criminal law control from criminal authorities, intelligence, wealth and poverty to crime, primitivism and poorly adapted subjects from the crimes of the ruling elite and servicemen to the crimes committed by the people whom they manage.

The value of these strains shows the extent of the national hypocrisy in a particular country. The scope of corruption, its specificity and dynamics is a consequence of the general political, social and economic problems. Corruption always increases when the country is in the process of modernization, not just going through the modernization but through revolutionization of public state and economic foundations. It is not surprising that it follows the general laws of development, including negative ones.

In the light of this, a special role is assigned to legislation in the field of combating corruption.

The fight against corruption has an extensive, rapidly growing international legal basis. Currently a number of international legal documents against corruption has been adopted: Recommendation of 32 members of Senior Experts Group on Transnational Organized Crime accepted by the Political Group of Eight countries in Lyon on June 29, 1996; The International Code of Conduct for Public Officials (Resolution 51/59 Assembly as of December 12, 1996, appendix), the United Nations Declaration against Corruption and Bribery in International commercial Transactions (resolution 51/191 of the General Assembly as of December 16, 1996, appendix), Resolution 51/59 of the UN as of January 28, 1997 "Fight against corruption"; The Organization of Economic collaboration and development convention on Combating the Bribery of Foreign Public Officials in the international Business Transactions as of November 21, 1997, the Criminal Law and Civil Law Convention on Corruption, adopted by the Council of Europe on May 1, 1999, Resolution 54/128 Assembly as of January 28, 2000, "Actions against corruption", the UN Convention against Transnational organized Crime as of November 15, 2000, the UN Convention against corruption as of October 31, 2003, and so on.

The legal basis for the counteractions against corruption has been created and is still being improving in Kazakhstan.

The situation in Kazakhstan society processes is accompanied by measures aimed at combating corruption.

The complex nature of this phenomenon and its connection with other criminal activities requires not only focusing attention but also clear sequence and a political will.

In July 1998 the President of Kazakhstan Nursultan Nazarbayev initiated adoption of the "On fighting against corruption". The law marks the beginning of a large-scale phase of the fight against corruption [4]. Subsequently in order to fulfill the Act, a number of government programs to combat corruption were initiated.

Anti corruption measures have also been identified in the Strategy of Development of Kazakhstan till 2030. They are associated with the creation of the legal professional state by forming an efficient and modern body of civil servants. The strategy was created to improve the Institute of Civil Service, providing the national system of managing the human resource with a powerful and effective training in the country and abroad with a fair career development, single information system, guaranteed social security system, and with respect to a basic resource - human capital management.

In order to improve the anti corruption law the draft law "On Combating Corruption" (10/25/2012) was developed, which is the top priority of the state policy of Kazakhstan, which contains examples from the world practice [5].

The draft law includes the content of the current Law “On Combating Corruption”. However, one of the main ideas of the draft law is to turn anticorruption into a national phenomenon based on the partnership principles of subjects of anti corruption policy, the priority measures to prevent corruption and moral principles in the fight against this phenomenon.

It is necessary to notice that the draft law causes censure. After the content analyses of the draft law, the following recommendations are offered:

1) Article 14 of the draft law "Participation in the fight against corruption of civil society. Paragraph 1 of the article provides the right of associations of citizens and their members or authorized representatives as well as individuals in the prevention, detection, and anti-corruption offenses (except in cases where the law is referred to the exclusive competence of the authorized subjects in the field of anti-corruption) to request and receive information on the prevention and fight against corruption from authorities of the state power and local self government.

For the purpose of a smooth execution of this right it is recommended to define terms of providing information about activities to prevent and control corruption, degree of responsibility of public authorities and officials for the delays or refusal to provide such information.

According to article 5 of the draft law noncompliance of state authorities with deadlines for providing or refusal to provide information on activities to prevent and fight against corruption should be seen as the corruption factor (a phenomenon or combination of phenomena that generates corruption offenses or promotes their spreading).

That in turn will increase the effectiveness of the rights of citizens associations, their members, delegates as well as individual persons in obtaining information.

2) The draft law provides the possibility for the participation of civil society in the fight against corruption (Article 14). Yet the mechanism of the implementation of this law is not provided. That is why we must carefully regulate the law forms, methods and guarantees of the powers of citizens and their associations, provided for in Article 14 of the draft law.

3) Article 57 of the draft law "Responsibility of persons who deliberately reported false information about corruption offenses."

This article provides responsibility of people who have reported false information about corruption offenses.

In this case, as a subject responsible for the false information about the corruption offenses in relation to a particular per-

son, if their actions do not constitute a criminal offense the article defines only government officials and staff of law enforcement agencies.

Thus, this article does not provide responsibility of Kazakhstan citizens, foreign citizens and stateless people for false information about corruption offenses in relation to a particular person if their actions did not constitute a criminal offense. Article 57 allows those people to avoid punishment.

In order to prevent such actions from the citizens of Kazakhstan, foreign citizens and stateless people it is recommended to develop and provide a mechanism of responsibility for those people within this article.

Thus, corruption is a phenomenon which has multi structured and multi level content, the development of measures to combat it requires a complex approach as well as active involvement in the process of combating corruption of all stakeholders including the public and public institutions. The main directions of modern anti corruption strategy must be defined by preventive measures focused on the effective neutralization of corrupt activity in the country.

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SPECIALIZATION OF COURTS AND ITS IMPACT ON FURTHER PROFESSIONALIZATION OF JUDGES IN THE REPUBLIC OF KAZAKHSTAN

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The judiciary at the present stage of constitutional development in the Republic of Kazakhstan is based on the ideas of legal state, placing the emphasis on democratic principles of the judicial system’s perspective development. One of such urgent tendency of development and reforming of the court system of Kazakhstan is the further course of the courts’ specialization. These regulations are provided by the Concept of Legal Policy of the Republic of Kazakhstan for the period from 2010 to 2020, which states that "the main thrust of the judicial system is a specialization of courts and judges..."

Specialization of courts at the world level develops dynamically, which proves the necessity of implementation and operation of such courts. Specialized courts are the special courts, within the competence of which it is to the consider certain categories of cases withdrawn from the competence of the general jurisdiction courts.

Paragraph 4 of art. 75 of the Constitution of the Republic of Kazakhstan prohibits establishment of the special and emergency courts establishment, under whatever name. At the same time, the analysis of section VII «Courts and Jus-

tice" of the Constitution of the Republic of Kazakhstan shows that the activities of the specialized courts are not banned, because there is no such provision for them. Therefore, solution to this issue is provided for by the constitutional laws. And, above all, the Constitutional Law "On the Judicial System and Status of Judges of the Republic of Kazakhstan" allows the creation of specialized courts, which must conform to requirements that provide the unity of the judicial system of the Republic.

Clarification of paragraph 4 of Art. 75 of the Constitution is given in the judgment of the Constitutional Council of the Republic of Kazakhstan on April 14, 2006, № 1 "On the official interpretation of paragraph 4 of Article 75 of the Constitution of the Republic of Kazakhstan", which defines the characteristics of specialized courts, and clearly delineates the concept of "special courts" and "emergency courts". Unlike the special courts, specialized courts provided in paragraph 3 of article 3 of the Constitutional Law of Kazakhstan "On the Judicial System and Status of Judges of the Republic of Kazakhstan" are part of a single judicial system of the Republic of Kazakhstan [1].

The Constitutional Law "On the Judicial System and Status of Judges of the Republic of Kazakhstan" does not provide an exhaustive list of specialized courts that may be established in Kazakhstan. This fact indicates the opportunity for further development and improvement of the judicial system specialization in order to improve the administration of justice.

According to Dauletiyar A.Z. Kazakhstan currently has a number of specialized courts:

- Special military courts, the Military Court of the Republic of Kazakhstan and military courts of garrisons;
- Specialized Inter-district Economic Courts;
- Specialized Inter-district Administrative courts;
- Regional Financial Court of Almaty;
- Specialized Inter-district juvenile courts of Almaty and Astana;
- Specialized courts for criminal cases (established on January 1, 2010).

At present day, Kazakhstan plans further development of the juvenile justice system, including the establishment of juvenile courts in all regions of Kazakhstan, as well as the establishment of a specialized tax court.

In the matter of the further development of courts' specialization one of the fundamental factors is the continuity and gradual specialization with a clear organizational and legal basis, which, in turn, subsequently affect the quality of justice. The quality of justice depends on many factors ranging from recruitment to information and technical support.

Establishment of new specialized courts requires taking in account the huge international experience in this issue. Analysis of the constitutional and legal status of specialized courts in foreign countries provides the ability to apply an adequate adaptation of international experience in the judicial system of the Republic of Kazakhstan [2].

For example, in Germany there are administrative, financial, patent courts, which consider labor and social disputes, in the U.S. there are courts for cases of insolvency, drugs, tax, juvenile, labor, land courts, and others, in France - commercial, administrative, military, land courts, for social security and agricultural lease, etc.

The existence of the specialized courts' judicial system creates some concerns. There are fears that division of the judiciary can weaken it, and it will be not an easy task to distribute competences between the courts of different autonomous systems; courts of different types will be compete for priority in the judicial system. From our point of view, the creation of

specialized courts promotes strengthening judicial system, because this allows relieving the general courts of some issues and ensuring qualified court procedures. Currently, the most pressing issues are the unity of law enforcement courts of different systems and the clear delineation of jurisdiction. All things of a certain category should be considered only by the court, which specializes in treating this type of case and, therefore, has the opportunity to consider them in the most qualified manner. Solving these problems is one of the primary tasks of the current stage of the judicial reform.

Application of rules of procedural and substantive law in the resolution of cases, different in their legal nature, requires of Judges a profound knowledge of the laws in all categories of cases. Legal framework in Kazakhstan is voluminous, moreover, in recent years, the existing laws introduced many changes, additions and amendments, affecting the legal basis for relations, which creates difficulties in enforcement.

The initial phase of specialization of the courts of Kazakhstan is connected with the creation of military courts. The history of the military courts in Kazakhstan dates back to 1992, when the Presidium's Decree of the Supreme Soviet of the Republic of Kazakhstan on January 20, 1992, acting on the territory of Kazakh SSR military tribunals were placed under the jurisdiction of the Republic of Kazakhstan. The system of military tribunals was established by the Resolution of the President of the Republic of Kazakhstan № 802 of 11 June 1992 "On the military courts and the military prosecution authorities of Kazakhstan." Military courts of garrisons investigate criminal cases against soldiers and citizens working in military units and military command and address civil, administrative affairs of the garrison's territory, where one of the parties is military units, military authorities or military personnel [3].

One of the priorities of the judicial and legal reform in Kazakhstan was the formation of specialized economic and administrative courts. Previous history of their creation was the abolition of the structure of the district and equivalent administrative court judges, the authority of which was related to cases referred as the materials on administrative offenses to at that time.

By the Law of Kazakhstan of January 30, 2001 the administrative courts were established in all regional centers and major cities, which annually consider a great number of administrative cases, and therefore, greatly reduce the load on the judges of the courts of general jurisdiction.

The belief that the specialized administrative courts should only deal with the consideration of administrative cases, significantly limits the scope of the administrative justice. The effectiveness of the administrative court showed that their jurisdiction can also include considering cases arising from administrative legal relations that are currently considered by the general courts.

It should be noted that one of the most important steps in the specialization of the courts in Kazakhstan is the creation and functioning of the economic courts.

At a certain period of development of the judicial system of the country, after the elimination of arbitration courts the area of economic disputes did not receive a proper legal authorization. Economic disputes were essentially resolved by the courts of law at the level of each district. But it became clear that such a solution was not quite sufficient. No one diminishes the role of courts of general jurisdiction in the administration of justice, but it should be noted that they were not ready to efficiently and professionally resolve these disputes. It brought some confusion and elements of localism in the case law; businesses experienced insufficiency of

local administrative office. In order to correct this imbalance in 2001 in Almaty and Karaganda experimental inter-district economic courts were established. These courts were established on the basis of Presidential Decree № 535 as of 16.01.2001. Their successful work allowed establishing specialized interregional courts in other regional centers in 2002 [4].

Steady course for specialization courts in Kazakhstan continued intensively. Thus, the project was initiated by the President of Kazakhstan Nursultan Nazarbayev and envolved establishment of a Regional Financial Centre in Almaty (RFCA) and it was suggested in his speech at the Congress of Financiers of Kazakhstan in November 2004. The Decress of the Government of the Republic of Kazakhstan dated December 24, 2004 № 1364 approved the Concept of creation of international (regional) financial center in Almaty. This Concept initiated a focused work to create a financial center in the southern capital, similar to financial centers in Dubai, Dublin, Labuan, Singapore.

According the paragraph 2 of Article 3 of the Constitutional Law of Kazakhstan "On the Judicial System and Status of Judges of the Republic of Kazakhstan" specialized courts may be established in the status equal to regional courts, which also follows from the decision of the Constitutional Council as of April 14, 2006 "On the official interpretation of paragraph 4 of article 75 of the Constitution of the Republic of Kazakhstan. " On June 5, 2006, the Law "On regional financial center of Almaty city" was passed, Article 9 of which states that disputes between members of the financial center are considered by the specialized financial court in accordance with the laws of the Republic of Kazakhstan. Since this law defines the legal status of the participants of the Regional Financial Center of Almaty, which is assigned to management of the public agency, directly responsible and accountable to the President of the Republic of Kazakhstan, Article 11 of mentioned Act provides that members of the financial center are professional participants of the equity market, those involved in the brokering and (or) dealer activities and have:

1) The certificate of state on registration (re-registration) of a legal entity, issued by the authorized body;

2) A license to operate in the equity market issued by the authorized state body for regulation and supervision of the financial market and financial organizations.

In this regard, the Law of the Republic of Kazakhstan dated June 5, 2006 "On amendments and additions to some legislative acts of the Republic of Kazakhstan on the establishment of the Regional Financial Center of Almaty", article 28 of the Civil Procedure Code of the Republic of Kazakhstan, devoted to issues of jurisdiction of civil cases, and equivalent to them regional courts was amended with a provision that a specialized financial court should consider the cases concerning appealing of the parties the Regional Financial center of Almaty of officials and bodies RFCA' actions (inaction), and other civil cases, if one of the parties is a member of the Regional Financial Center of Almaty [5].

The cooperation work and technical assistance to financial court continues. Special training program for judges and court staff are aimed at studying the experience of similar international institutions in Malaysia, the United Arab Emirates and some other countries.

We would like to note that the uniqueness of this court is that it is of equal status with the Regional Court, but is to consider civil disputes of RFCA participants as the trial court, accordingly, appellate instance for this court is the Supreme Court. Thus, the main result is achieved - the maximum summary judg-

ment for the participants of the RFCA. Any investor who may wish to register with RFCA will initially be aware that in case of a dispute, it will be resolved by the soon, affordable and competent court.

The next phase of courts' specialization is connected with the courts, which in one way or another; consider the interests of the minors. All countries around the world make an strong emphasis on developing a definition of minors and designing a mechanisms to protect them. On July 8, 1994 Kazakhstan ratified the Convention of the Rights of the Child adopted on November 20, 1989 by a resolution of the UN General Assembly. According to article 44 of the Convention, member states are encouraged to submit reports on the measures taken to secure the rights recognized in the Convention and on the progress made in the implementation of these rights. The initial report of Kazakhstan to the Convention of the Rights of the Child was discussed by the International Committee of the Rights of the Child, on June 4-6, 2003 [6].

In this regard, the question of active development of specialized juvenile courts in Kazakhstan is very relevant today.

For the first time in the world history, "children's court" was established in 1899 in the United States. These courts considered cases involving crimes committed by minors, the cases of crimes in which the victim is a minor, the cases related to the failure of duties of the minor's parents etc.

It should be noted that the specialization of judges who consider cases addressing the interests of minors will improve the quality of justice in these cases, will accelerate the adoption of decisions on them to restore the violated rights of the child, which is very important for juveniles. Furthermore, the establishment of specialized juvenile courts will match the development of children's rights enshrined in these international acts [7].

Today the Institute of juvenile courts is relatively new in Kazakhstan. In accordance with the Presidential Decree "On the formation of specialized juvenile courts" as of August 23, 2007, inter-regional specialized juvenile courts (juvenile courts) have been established as pilot projects in the cities of Astana and Almaty.

Thus it should be noted that juvenile justice should not be punitive, but recovery, as well as contributing to the minors' taking responsibility in order to correct damages caused by their actions. Thus, the purpose of the juvenile court is to be rather the correction than punishment of juvenile offenders, the means of determining main causes of offensive behavior [8].

Along with the existing specialized court's jurisdiction, there is an urgent issue of formation and development of environmental courts.

As noted by Alenov M.A., the main criterion for inclusion of litigation to the category of environmental standards should be an appointment of the norm that justifies the stated requirements. Indemnification for environmental damage should be referred to such cases, and no matter who caused the damage and who was subjected to damage. Even the state can be sued and there should not be any exceptions. Functioning of the special ecological jurisdiction's courts will provide an opportunity to receive systematic information for a detailed compilation and preparation of the regulatory decisions of the Supreme Court in the sphere of environmental law application. The operation of such courts can become a legal barrier for violators of environmental laws, who often manage to escape responsibility [9].

This study allows us to draw some conclusions about the impact of courts' specialization on the professional activities of judges in Kazakhstan. In indicated areas of the courts' specialization in the Republic of Kazakhstan, positive tendencies are traced in the development and improve-

ment of professional level of judges, which is projected directly to the quality of justice.

The judicial system of the Republic of Kazakhstan, in the absence of specialized court's jurisdiction overloaded the courts of general jurisdiction with cases of different nature, which naturally affected the level of decisions handed down by judges. Judges often encountered certain difficulties in the resolution of cases of a specific nature, as the knowledge and skills in narrow fields of individual subjects were required. In general, courts specialization in RK "unloaded" the courts of general jurisdiction, and significantly increased the level of decisions made by the judges of such courts. Summarizing everything mentioned above it should be noted that the further professionalization of judges is in close relationship with the specialization of the judicial system of Kazakhstan.

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GENERAL THEORETIC ASPECTS OF INSTITUTION OF LEGAL LIABILITY FOR INFRINGEMENT OF INVESTMENT LAW OF THE REPUBLIC OF KAZAKHSTAN

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It is a trustworthy fact that one of the current directions of the state policy in economic development of the country is attracting national and international investment. It's an overall observation that the Republic of Kazakhstan has created and is consolidating a complex of economic, legal and organizational measures for protection of national and foreign investments, which is formalized as a set of rules and norms and is declaring a favorable regimen for mutual investments.

As it is known, the notion of legal liability was introduced into domestic general law theory in the early 60s, mostly in a retrospective aspect. Theoretical development of legal liability in this area was supported by many soviet researchers and lawyers. It is likely that up to date legal liability in local theory still comes to reac-

tion to infringement of the law. This way it is fixed in textbooks, research articles, legislation and law enforcement.

The paradox is that the scientists haven't yet determined the notion and meaning of retrospective legal liability. A variety of conflicting attitudes towards this issue is reflected in modern dictionaries, encyclopedias and monographs. Some determine legal liability as "state enforcement to execute law requirements, legal relationship, in which each party shall be accountable for its actions to the other party, state and society" [1, p. 503]. Others claim that "legal liability is stipulated by the law responsibility of the delinquency subject to go though unfavorable consequences". One more opinion is that "legal liability proper is application by the authoritative state agencies of law enforcement norms sanctions, which is manifested in negative consequences for infringer of the law as deprivations or limitations of personal and property character" [2, p. 694].

D.A. Lipinskiy not without reason says that "all researchers definitely admit the existence of legal liability for infringement of the law. But this is the only pint where their opinions coincide. All this despite the fact that the notion of "legal liability for the infringement of the law" has been discussed in the general theory of law for more than fifty years".

Legal liability should be of positive character only, being a valuable legal characteristic of any subject of law. Outwardly, it is manifested in socially active and habitual legitimate behavior of subjects of the law. Its inner (psychological) aspect relates to conscious understanding by the subjects (both in the present and past) of active and habitual legitimate behavior, determined by regulatory norms of the law patterns of appropriate behavior, their positive emotional and perceptional evaluation and volitional actions in accordance with legal patterns [3, p. 25].

Legal liability antipode is a legal irresponsibility of the subjects of the law, manifested outwardly in their illegitimate behavior (infringements of the law). Internal (psychological) aspect of legal irresponsibility of the subjects of law is manifested in their not knowing or insufficient understanding of values of standards of law determined by obliging and prohibiting rules of law, in their neglecting these laws, or, at times, in a direct negative attitude towards law and volitional unlawful actions.

As a part of legal culture, legal liability of the law subjects ensures internal control over legality of their behavior, based on their internationalization of obliging and restricting legal standards due to recognition of their personal and social value. In this case the demand for external control and law enforcement activity in the country goes down.

Today in Kazakhstan, the importance of legal liability of every subject of law increases and demands extra attention to be paid to its purposeful formation both by the state and by the whole society. Here, we need to consider the fact that legal liability of the subjects of law in a legal life of the society is formed by different ways: a) directly through application of encouraging sanctions and indirectly through observation of patterns of legitimate behavior, especially when it is effectively supported by encouraging sanctions; b) directly and negatively through inevitable and timely punishment of infringers of the law and indirectly through punishing observers of these punishing processes, negatively supporting their legal liability; c) directly through scientifically organized system of legal education of the population.

Kazakhstan society and state should stir to activity all mentioned ways of forming legal liability among the population. First of all, we need to pay a special attention to rewarding every important for the

society legitimate behavior of the subjects of law with encouraging sanctions stipulated by the legal norms. There is a demand for utmost development of encouraging norms within the modern Kazakhstan law system. These encouraging norms, as it is mentioned by many researchers, are, in many cases, more effective in shaping legitimate behavior with the subjects of law, than protective (coercive) norms.

Legal liability institution within the scope of investment law is still at the stage of its development, although it belongs to intersect oral legal institutions, along with the property institution. [4, p. 177]. There are a number of reasons of theoretical and practical character for that. Thus, the general law theory does not provide unambiguous answer to two major questions: about positive legal liability and about specialized types of legal liability.

In the theory of socialist law there was a widely spread point of view according to which along with the negative-retrospective aspect of legal liability there is a positive-perspective aspect of liability. Positive liability represents a wider interpretation of the notion of legal liability according to which along with the liability for infringement of the law there exists a liability for positive actions which meet the objective requirements of a certain situation and ideals of the time. It is worth while mentioning that positive liability had more opponents than supporters. It is quite understandable since positive liability denies the very essence of legal liability as a form of state accusation for non-fulfillment of legal regulations and imposition of relevant sanctions directly stipulated by the law. In general, this supposition is of farfetched character and is conditioned by trends and aspirations of the epoch of developed socialism and communist society development.

However, if the first question, in our opinion, has lost its relevance under present-day conditions, the second question, on the contrary, under conditions of transition to market economy is gaining importance. In fact, the scope of accepted as of today classic types of legal liability (civil legal, material, disciplinary, administrative and criminal) cannot embrace all existing ways of effect on infringers of active law. Also, dividing types of liability by a sectoral feature does not indeed coincide with sectoral structure of the law (there are more branches of law than types of liability; material and disciplinary liability are inherent in one branch of law – labor law; one and the same type of legal liability can be applied for contempt of different branches of law). Finally, one of the main reasons for the sectoral division of liability types to become traditional was thorough readiness and elaboration of civil, administrative and criminal laws, which were recognized as fundamental (major) law branches.

Multiplicity of types of legal liability is a quite logical phenomenon, and there were multiple attempts in legal literature to single out and define the essence of specialized types of liability. Most sound and preferable in our opinion are the estimates about existence of specialized (special) types of liability in the field of nature management - mountain, soil, water, forest and ecological rights in particular. Consequently, along with sectoral (traditional) types of legal liability we can distinguish mountain-legal, soil-legal, forest-legal and ecological-legal liabilities. For example, such ways of effect on infringers of the subsoil usage law as suspension or termination of works in case of breaches of the requirements set for geological subsoil exploration, minerals exploration or mining can serve as examples of mining legal liability, though, as a rule, they are manifested as administrative and legal.

On the whole, we need to mention, that the legislation still underestimates the role and importance of legal liability as a

way to increase effectiveness of investment law. Thus, the Investment Law gives a rather general description of liability of a legal person of the Republic of Kazakhstan, who made a contract, for reimbursement of the underpaid sum of tax money and custom duty in consequence of provided by the contract investment preferences with application of relevant vindictive damages, stipulated by the active law. Norms of liability of equity market professional participants fixed in equity market legislation are so unspecific and ambiguous that their realization in practice is either impossible or formal [5, p. 47]. In particular, if a professional participant breaches fixed activity norms, then, at worst, National Equity Commission will suspend the license, and, in case the found breaches are eliminated, the license is resumed and, as a result, the infringer incurs no material liability.

Consequently, lawmakers contemplate the possibility of occurrence of contractual and non-contractual liability of investors and other subjects of investment activity. In the first case, the liability is held in accordance with the signed agreement (contract), that is it should be the matter of civil law liability, but applied sanctions are of administrative legal character, besides vindictive sanctions are applied simultaneously. Administrative Offence Code of the Republic of Kazakhstan as of January 30, 2001 has a new article 134-1 "Violation of terms of repay of the state full-scale grant" stipulating the liability for violation of terms of repay of the state full-scale grants: 500 to 1000 monthly estimate indicators for legal entities - subjects of small and medium size business; 1000 to 2000 monthly estimate indicators for legal entities – subjects of large-scale enterprise. It is also worth mentioning that lawmakers give the authority to Investment Committee of the Ministry of Industry and New Technologies to consider administrative offence cases stipulated by Article 134-1 "Violation of terms of repay of the state full-scale grant" of Administrative Offence Code and to apply administrative sanctions to the law violators.

Professional players on the equity market incur liability which cannot be recognized unequivocally as administrative and (or) material, as administrative law does not provide for such type of penalty as license renewal, and what concerns liability for damage done it is possible to apply of material and civil law liability. This makes it possible to draw a conclusion about the emergence of a new specialized type of legal liability – investment legal liability.

Special character of legal liability of investors in the field of subsoil usage is manifested in the fact that Subsoil and Subsoil Usage Law does not describe norms stipulating certain types of infringement of the law and types of liability for such infringements.

There is a general principle fixed in Ecological Code of the Republic of Kazakhstan as of January 9, 2007 # 212-III, according to which violation of Ecological Law of the Republic of Kazakhstan entails liability in accordance with the Law of the Republic of Kazakhstan (art. 320). Consequently, it is supposed that making somebody liable for violation of norms, say, in the field of subsoil usage is realized in accordance with the special legislation (the same way it should work when it concerns violation of legal norms, regulating using other natural resources).

Types of legal liability that can seriously influence effectiveness of subsoil usage under market economy conditions include civil law liability. As the main characteristics of civil law liability we can mention: 1) civil law liability is just one of the forms of state-legal influence on the infringer of the law; 2) civil law liability has a property character and influences property of the infringer of the law; 3)

civil law liability is laying of unfavorable property consequences on a person who violated civil rights and obligations; 4) civil law liability is the type of laying of unfavorable property consequences on a person who violated civil rights and obligations, which application of sanctions; 5) property and compensation (restoration) character of civil law liability.

Civil law liability for obligation violation can be manifested in the following forms: payment of damages; penalty payment; loss of deposit or payment of additional deposit over the returned deposit; expropriation of entire deal income in favor of the state if the deal is aimed at achieving criminal intent; loss of property right for property pledged and for property retained in accordance with the right of retention; etc. For all that, the most widely spread, though not exclusive, types of liability for violation of obligations are payment of damage and penalty payment.

We have to admit that civil law liability in the field of nature management on the whole and subsoil usage in particular is still not effective enough. In the sphere of civil legal regulations there should be no dictate of the state, state agencies or state officials. However, such facts still take place, which is why we think it is necessary to use more actively all leverages capable of suppressing lawless and illegal actions of certain representatives of the state agencies. Another important circumstance capable of increasing effectiveness of civil law is maintaining contractual discipline by the parties of civil circulation. Therefore establishment of the institution of arbitration tribunal (including international commercial arbitration) may have a positive effect.

Speaking about material liability we need to mention that it is closely connected with civil law liability considering the fact that in both cases the matter is in compensation for damage done.

Material liability and civil law liability are two independent types of legal liability and institutions of different branches of law (labor law and civil law respectively). Besides traditional differences existing between these two types of legal liability described in literature we can also mention other types of liability: civil law liability presupposes compensation for real damage and loss of profit, while material liability is limited by the sizes of direct (real) damage; unlike material liability, civil law liability presupposes compensation for moral damage. Consequently, civil law liability is based on the principle of full damage compensation, and material liability can be limited. In particular, in accordance with the active law, employees incur material liability for all damage they cause to their employer, if: 1) the employer and the employee signed a contract about bearing full material responsibility for failure to maintain safety of the property and other valuables handed over to the employee; 2) in accordance with the law the employee incurs full material responsibility for damage caused to the employer in the process of job performance; 3) property and other valuables were received by the employee to be accountable for by a one-time proxy or other one-time documents; 4) the damage caused by the employee in a state of alcohol, drug and toxic intoxication; 5) the damage is caused by shortage, deliberate destruction or deliberate spoiling of materials, semi-finished products, products (goods), including damaged caused during manufacture, and also damage of tools, meters, uniforms and other things loaned by the employer to the employee; 6) damage is caused as a result of disclosure of a commercial secret; 7) the damage is caused by the employee actions with the signs of actions prosecuted at law. This enumeration is a closed one, which means that in any other cases material liability of the employee will be limited.

We believe that under present-day

conditions importance and significance of material liability as the means of ensuring rational and complex subsoil usage is underestimated. Under market economy conditions material liability of working people and office employees, as well as disciplinary liability may prove to be far more effective than other types of other types of legal liability.

Disciplinary liability of working people and office workers occurs only when disciplinary misdemeanor takes place and is of purely individual character; also peculiarities of disciplinary liability are determined by the fact that it can be applied efficiently and to all categories of workers.

Disciplinary liability in the field of subsoil usage presupposes committing disciplinary offense in the sphere of subsoil usage. Disciplinary offense in this case can take a form of non-fulfillment or inadequate fulfillment by the workers (working people and office workers) of their job responsibilities, connected with rational and complex subsoil usage, and also with their protection.

Labor law establishes the following types of disciplinary penalties: reprimand, rebuke, severe reprimand, termination of the employment contract (discharge). On the whole, disciplinary liability can be applied both at state and private enterprises (including ones with foreign interest), in accordance with the employment contract signed or other contract concerning officials (managers) and other categories of workers (working people and office workers).

At present time the type of legal liability in the field of subsoil usage, which is characterized by the most developed regulation in active law, is administrative legal liability. Administrative liability occurs in case when administrative offence, i.e. unlawful, delinquent (deliberate or careless) act (action or inaction), infringing upon the state and social system, property or life and health of the citizens takes place. The Code of the Republic of Kazakhstan (articles 259-275; article 266 is eliminated) describes sixteen elements of administrative offence in the field of subsoil usage and protection. In particular, geologic subsoil exploration without signing a contract; violation of right to geologic subsoil exploration; violation of rules of production waste and sewage disposal; violation of rules in development of projects by mineral mining and processing organizations; failure to secure norms of subsoil protection during construction and putting into operation of mineral mining and processing organizations; violation of ecological norms and rules during subsoil usage and minerals processing, and others [6, p. 80].

When characterizing administrative liability we should mention its following peculiarities: 1) aadministrative liability is applied for infringements of the law, which are of little danger to the society; 2) administrative law liability is always a consequence of unlawful action (inaction) of a legal or a private person; 3) administrative liability occurs as a result of infringement of the law in the field of national interests, not private legal interests; 4) administrative law liability is efficient; 5) administrative liability is administered by different authorized state agencies (their officials); 6) administrative liability occurs in accordance with the administrative legislation norms and is of preventive character (i.e. it prevents perpetration of a more dangerous act - crime).

A special way of guaranteeing of appropriate subsoil usage by national and international investors is a criminal liability. Traditionally, criminal liability is associated with the state coercion and is treated as the most severe disciplinary action (towards the infringer of the law). Besides, criminal liability is characterized by certain deprivations, which the guilty person is obliged to endure (deprivation of

certain welfare is an objective feature of liability, reaction of the state to the damage caused by the criminal).

Criminal code of the Republic of Kazakhstan as of July 16, 1997 contains two special parts dedicated to infringements in the field of subsoil usage and protection: article 245 (violation of safety rules during mining and construction operations) and article 286 (violation of subsoil protection and usage rules). Among crimes, which are not connected directly with violation of norms of subsoil protection and usage, but are related to them in a certain way, we can name three more crimes: violation of ecologic requirements for economic and other activity (art. 277 of the Criminal Code of the republic of Kazakhstan); marine environment pollution (art. 283 of the Criminal Code of the Republic of Kazakhstan) and violation of Continental Shelf Law and Exclusive Economic Zone Law of the Republic of Kazakhstan (art. 284 of the Criminal Code of the Republic of Kazakhstan).

Speaking about criminal liability in the field of subsoil usage we need to remember that not only national investors can be the subjects of this type of liability, but foreign investors as well.

Advancement of the society towards democracy and freedom, recognition of an absolute priority of human dignity condition the necessity of changes in legal regulation – increase in the role of permissions, encouragements, which allow satisfying a variety of interests and needs, making by positive means a stimulating influence on will and mind. Besides all that, in Kazakhstan, where the amount of committed infringements of the law is very high, it is impractical to weaken compulsory legal influence on the subjects of law, performing these infringements. It is especially important to increase percentage of law infringements solved, which is quite low in the country at the moment. It is known that it is not the severity of punishment that keeps from infringing the law, but its inevitability. It is also of no small importance to form based on a scientific basis a system of legal education of citizens of Kazakhstan, which is missing in the country at the moment.

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PECULIARITIES OF JUVENILES' RELEASE FROM CRIMINAL RESPONSIBILITY

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One of the essential issues of contemporary legal literature is a problem of juveniles' release from criminal responsibility and punishment for a committed

crime.

There are plenty of factors affecting establishment of responsibility under criminal law. However, the most important among them are age specific and psychological traits of juvenile, thus, it is rightful that criminal legislation determined a special (VI) Section of criminal juveniles' responsibility.

In the first instance, Criminal Code of the Republic of Kazakhstan defined age for criminal responsibility. Juveniles covered by the Articles of the said Section are those who at the time of commission of the criminal offence has attained fourteen years of age and has not attained eighteen years of age (Article 78, part 1). A person is considered to attain definite age in the day following his/her birthday rather than in his/her birthday.

In considering problems of subject of crime it is specified that in general, age for criminal responsibility is sixteen as defined by the law. Nevertheless, in some cases involving a serious crime, criminal responsibility is imposed to persons of fourteen and elder.

Along with that, part 3 of Article 15 of Criminal Code of the Republic of Kazakhstan alerts that if a juvenile attained the age of criminal discretion but due to disadvantage of mental development not related to psychic disorder at the moment of minor crime commission could not fully realize nature and social danger of his/her actions (omissions) or control them, he/she is not subject to criminal responsibility [1].

Criminal Code of the Republic of Kazakhstan in terms of sanctions emphasizes two peculiarities with regards to juveniles. The first is not all sanctions are imposed to juvenile offenders. Thus, Article 79 of Criminal Code of the Republic of Kazakhstan states punishments that can be imposed to juvenile offenders are a fine, deprivation of right to conduct definite activities, community service, correctional labor, restriction and deprivation of liberty. The second feature of juvenile criminal sanctions consists in the fact that abovementioned punishments by themselves with regards to juvenile offenders are limited.

As a general rule, criminal responsibility is implemented as a sanction the court imposes to persons found guilty in a crime. However, in a number of cases the purpose of crime control can be achieved without criminal prosecution of persons found guilty in a crime or without actual service of sentence in case of their conviction, or with early relief from punishment or substitution of unserved term to a different, milder sentence.

The criminal sentences are not aimed at requital (talion) towards a criminal. Its main mission is to correct, reform a lawbreaker, prevent him/her from committing new crimes. If this humane purpose requires no administration of rigid legal measures, the law stipulates possibility of a convict's sentence mitigation down to absolute relief from punishment. The relief from punishment refers to state waiver to administer sanctions stipulated by criminal law to a convict.

Reasons for such relief may be different. Particularly, it is allowed if the convict was reeducated and reformed, and due to this, punishment purposes can be achieved without its actual execution; or if there are other facts bearing evidence that sentence administration is inappropriate (e.g., a devastating disease).

Convict's relief of serving punishment as well as its mitigation by means of oblivion or free pardon may be administered by court only in those cases and under those procedures that are stipulated by the law.

Legal nature of release from criminal responsibility is closely related to criminal responsibility itself.

Thus, on the one hand, theoretical solution of the issue on concept, essence

and content of criminal responsibility serves as a basis for solution of its release nature issue. On the other hand, it is legislative solution of issues on release from criminal responsibility that material based on which we can learn the law-maker's opinion on content of criminal responsibility and stages of its implementation.

Absence of shared vision of criminal responsibility and of its essence is the bottleneck in the process of learning legal nature of release from criminal responsibility.

There are two main tendencies in this problem solution. The advocates of the first point of view solve this problem by means of identification of criminal responsibility and punishment and, correspondingly, identification of release from criminal responsibility and relief from punishment. The second point of view is based on the concepts of both criminal responsibility and other unfavorable consequences stipulated by the law for a person who committed a crime. So, release from criminal responsibility is not limited to relief from punishment but involves relief from other unfavorable consequences such as disapproval [2].

There exist many advocates of both points of view. Such scholars as Y. Kairzhanov, U. Dzhekebayev believe 'criminal responsibility is an obligation of a person found guilty to undergo all unfavorable consequences of the committed crime as stipulated by the law' [5,6], whereas others (V. Kudryavtsev, I. Galperin) adhere to a different statement – criminal responsibility is suffering of punishment.

We hold to the first vision, i.e. we believe criminal responsibility is not limited to sole suffering of punishment.

Firstly, if we accept other point of view then we will have to acknowledge criminal law distinguishes concepts of release from criminal responsibility and relief from punishment but this distinction is groundless.

Secondly, then we will have to acknowledge that the stage where release from criminal responsibility takes place is of no importance. Nevertheless, according to criminal and criminal procedural laws there are grounds to claim that legal effect and legal consequence are by no means equal in release from criminal responsibility prior to naming a person as convict, after naming him/her as convict, prior to trial or during trial but prior to rendering judgment of conviction, during relief from sentence serving in case of conviction and during relief from further sentence serving. Volume of enforcement measures administered to a person is different in different cases.

Thirdly, relief from suffering punishment is possible exclusively in the case when a person has already been suffering it, punishment has been imposed and is under execution. Here we should speak about cases where a person convicted to imprisonment has already been imprisoned.

Therefore, we are of the opinion that release from criminal responsibility is relief from obligation to suffer a punishment rather than relief from a punishment suffering itself.

One can object saying that a person found guilty but not brought to criminal responsibility bears no unfavorable consequences except for fear of possible requital and that such state of things undermines the significance of obligation to answer for a crime.

However, we believe that this obligation should not be considered only in an abnormal variant when a person found guilty flows from prosecution. Basically, this obligation in regular case becomes a punishment suffering. And this process is nothing but development and satisfaction of an obligation to suffer punishment.

Therefore, obligation to answer for one's actions committed should be satisfied and the court is designated for this;

the situations when the court fails to bring a criminal to responsibility undermine its authority but not authority of the criminal law.

What does 'relief from responsibility' mean? The word 'relief' implies some kind of existing abridgements. Release from criminal responsibility is applicable solely to a person who committed a crime and responsible to answer for it. Then relief from obligations means that the person is discharged from the obligations imposed earlier. Responsibility means an obligation, liability to answer for something.

If a person is not responsible to answer then he/she needs no relief from responsibility. If a person committed no criminal acts, there is no need to discharge him/her from criminal responsibility. If this is the case, it is better to say 'a person is not subject to criminal responsibility". Consequently, the person who committed a crime is subject to criminal responsibility, and the one who did not commit a crime is not subject to it.

Some scholars (V. Filimonov, S. Kelina) emphasize that in order to discharge a person from criminal responsibility it is necessary to prove nature of crimes. According to V.Filimonov, 'existence of various types of release from criminal responsibility in our legislation does not mean at all that in case of implementation of at least some of them there are no grounds for criminal responsibility. On the contrary, their existence is an evidence of the fact that there were grounds for this. Should there were no grounds to bring a person to criminal responsibility, the issue of relief from such responsibility by itself would be inappropriate, since we raise no question of release from criminal responsibility in case of justifiable defense or extreme necessity. We do not raise it due to the fact that in such cases there are no grounds for criminal responsibility or in other words there are no elements of a crime'[7].

A juvenile who committed a crime of minor or average gravity for the first time can be discharged from criminal responsibility, if it is acknowledged that his/her correction can be achieved by means of educational enforcement.

Criminal Code of the Republic of Kazakhstan stipulated the types of educational enforcement as follows:

a) warning;

b) placing under increased supervision of parents or persons replacing them or an authorized state body;

c) imposing obligation to compensate for the damage caused;

d) abridging leisure time and imposing special requirements to the behavior of the juvenile.

e) placing the person in specially designated institution or educational clinic for juveniles.

Placing under increased supervision consists in imposing on parents or persons replacing them or authorized state body an obligation of educational impact on a juvenile and increased supervision of his behavior. While implementing this enforcement, parents have abridgement in the ways to execute this obligation; a parent's obligation is specified and he/she instructed to, for example, control leisure time of the child, not to permit him/her to leave house after definite hour, etc. This measure serves as a definite caution for parents and other persons on possible bringing of their child (person under care) to responsibility in order to impel them to more active educational activity [4]. When parents and other persons do not agree to assume this obligation of increased supervision or are not capable to perform this obligation properly, a authorized state body is preferable.

Obligation to compensate for the damage caused is imposed with due consideration of property status and labor skills of the juvenile. Civil legislation stipulates property compensation of moral

harm, however in some cases when an injured person agrees, moral damage may be compensated by violator's apologies.

Abridgement of leisure time and special requirements to a juvenile's behavior may involve prohibition to visit definite places, enjoy some types of leisure activities, including those connected to driving motor vehicles, spend limited time outside the house after definite hours, visit some distant locations without permission issued by an authorized state body. A juvenile may be required to return to a general education institution or obtain employment from an authorized state body. Some other requirements necessary for correction of the juvenile may be imposed to him/her. These requirements should be expedient, not cruel, should not hurt the juvenile and should not be aimed at abasement of the juvenile's dignity.

Since educational enforcements are not divided into principal and supplementary, several educational measures may be imposed contemporaneously.

System of educational enforcements stipulated by law provides the basis for release of juveniles from criminal responsibility and punishment and their substitution by educational enforcement. Educational enforcement actions may be based on the juvenile's commission of crime of minor and average gravity for the first time, possibility to achieve correction aims by means of an educational enforcement.

As a general rule, a crime committed by a person can be established only by a court verdict that took legal effect. Since in this case exception from general principle is allowed, a particular emphasis is given to establishment of a crime. Such measure is inappropriate for a person who did not admit his/her guilt in the committed crime, though it should be taken into account that admission of offence as any other evidence should be reviewed with due attention. A juvenile may have grounded reasons for self-inculpation (for instance, fear of criminal sanction or of a real criminal).

Possibility of a juvenile's correction can be established on the basis of nature and danger level of the definite crime, personality of a person found guilty, conditions of his/her life and upbringing and other facts of the case.

Criminal Code of the Republic of Kazakhstan stipulates regulation on a juvenile's relief from punishment with their substitution by educational enforcement.

Also Criminal Code of the Republic of Kazakhstan stipulates possibility of placing the juvenile in specially designated institution or educational clinic for juveniles. This measure is also an educational enforcement. Criminal law in Article 83 stipulates special procedure and grounds for administration of this measure.

Lodgment in specially designated institutions and educational clinics may be terminated before the end of the term (maximum punishment term), when the person reaches majority provided that according to the statement of an authorized state body enforcing correction, the juvenile does not need more corrective measures for his/her correction. Prolongation of the term of the juvenile's lodgment in specially designated institution or clinic is allowed exceptionally when there is need to finish educational or professional training [5].

If a person committed a crime and was discharged from punishment under Criminal Code of the Republic of Kazakhstan, this does not involve criminal record and it can be unconsidered in awarding a punishment and case classification in the event of a new crime, but under the Criminal Code the fact of a crime commission after relief from punishment is a circumstance that characterizes personality of the criminal which is considered in both awarding punishment and deciding of possibility and type of the person's release

from criminal responsibility or punishment.

Both juvenile-specialized types of release from criminal responsibility and punishment and general ones are applicable to juvenile offenders.

A juvenile may be discharged from criminal responsibility under general regulations due to active repentance, reconciliation with an injured person (due to change of circumstance, expiry of limitation periods).

A juvenile may be discharged from punishment under general regulations on conditional sentences and relief from punishment due to disease.

It is reasonable to award conditional sentences to persons of majority age or those close to them in age who committed a crime prior to reaching majority provided that the court will decide that convict's correction can be realized without service of sentence and will administer punishment in the form of imprisonment or correctional labor.

Criminal Code of the Republic of Kazakhstan states shortened terms after serving which a juvenile may be convicted on parole from serving a sentence. Parole from serving a sentence may be administered to juveniles sentenced to correctional labor or imprisonment after actual service of:

a) minimum one third of the term of the sentence administered by the court for a crime of minor or average gravity;

b) minimum half of the term of the sentence administered by the court for a serious crime;

c) minimum two thirds the term of the sentence administered by the court for a high crime.

Juveniles are subject to general regulations on grounds for parole stipulated by Criminal Code of the Republic of Kazakhstan (Criminal Code of the Republic of Kazakhstan goes as follows: 'A person serving correctional labor, limitation in military service, restriction of liberty, lodgment in a disciplinary military unit or imprisonment can be discharged on a parole provided that the court acknowledges that for his/her correction he/she does not need to serve full term of the punishment administered by the court. [4] If this is the case, a person can be fully or partialy discharged from serving additional punishment type.'), to placing definite duties on a convict on parole, to obligatory minimal service term and to parole for the persons who were on parole earlier (Paragraph b of Part 3), to behavior control of a convict on parole, cancellation of parole and administration of a sentence in the event of a new crime commission by a convict on parole during an unserved part of punishment.

According to Criminal Code of the Republic of Kazakhstan, limitation period in case of a juvenile's release from criminal responsibility or relief from punishment is reduced by half. Since no sentences in the form of death penalty and life imprisonment are administered to juveniles, maximum limitation term of a juvenile's criminal responsibility is 7.5 years. Expiry of limitation terms stipulated in the abovementioned article with regards to a juvenile make no hinders to initiation of a criminal case due to crime commission and performance of actions necessary for establishing the truth, particularly, possible participation of mature persons in the crime.

Shortened limitation periods stipulated by Criminal Code of the Republic of Kazakhstan may be applied when there are grounds provided for persons of 18 to 20 years of age. If this is the case, the court should take under deliberation the fact that the crime is committed by a person who is mentally and socially immature due to his/her age.

While awarding punishment to a juvenile, in addition to universal circumstances mitigating criminal responsibility, conditions of life and upbringing, mental

development level, other personal traits as well as influence of other older persons are considered.

Juvenility as a mitigating circumstance is considered together with other mitigating and aggravating circumstances.

Moreover, juvenile convicted for the crime of minor or average gravity for the first time may be discharged from punishment by court provided that it is established that his/her correction is achievable by means of educational enforcement.

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PECULIARITIES OF LEGAL REGULATION OF TRANSNATIONAL CORPORATIONS

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Interrelated reaction of rapid growth of direct investment, the interrelation of scientific, commercial and industrial activities of economic branches and national borders is connected to establishment of giant international companies with branches in different countries and continents. In English speaking countries, the term "Corporation" is defined as a joint-stock company.

Transnational corporations (hereinafter: TNC) have become the main driving force of economic globalization.

Validating the place of transnational corporations in the process of economic globalization, we would like to highlight the importance of these subjects on the international level, the concept, character-

istics, types of TNC, and the need to study and improve the legal regulation of their activities.

The role of TNC in the process of globalization is ambiguous. On the one hand, they are important in the improvement of the world economy, giving a chance to developing countries to raise national economy, acting as a host country, on the other hand, TNC sharpen contradiction between these levels of the economy; encourage the growth of monopolies through mergers and acquisitions. As a result, the competition comes to a rivalry of commercial and industrial giants, making it difficult to new producers to enter the world market.

According to the statistics of UNCTAD, transnational corporations control 50.7% of the production of electrical and electronic equipment and computers in the world, 48.4% of automobile industry, 53.3% of oil and mining, 78.9% of food production, beverages and tobacco; 58.4% of chemical industry, 62.4% of pharmaceutical industry, 43.5% of iron and steel industry, 73.2% of construction sector [1].

The problem of legal regulation of TNC is topical issue in Kazakhstan. The President of the Republic of Kazakhstan Nursultan Nazarbayev emphasized that large foreign transnational corporations are expanding their operation in the country. "In this connection it is necessary to pay special attention to the protection of rights of working Kazakhstani citizens. Companies operating on the territory of our country must respect its laws and trade unions should be actively involved in issues of working hours and pay equity" [2].

Scheglov S.S. defined the concept of TNC as the following: a transnational corporation is a group of related entities, their offices and affiliates, established and operating under the laws of several (two or more) countries, characterized by the presence of the central structure, which provides a single management of its members by participating in the property relations over prevailing equity capital stake (parent enterprises and their foreign affiliates), the merger agreement of assets in order to create a group or functioning of an investment fund of a company [3].

The country where a head office is located or where the corporation was initially established is a home country.

The characteristic of TNC is a combination of central management with a certain degree of self-sufficiency of affiliates located in different countries but in their turn being an integral part of a corporation.

Taking into account that the definition of the concept "transnational corporation" affect the interests of many countries, a compromise version of the definition of "TNC" in the Commission on Transnational Corporations of the United Nations says that TNC is a company comprising affiliates in two or more countries, regardless the legal form and fields of activity , which operates within the framework of making decisions and is able to conduct policy and implement a common strategy by one or more centers, where the individual units are connected by ownership or otherwise, so that one or more of them may have a significant influence over the others, and in particular to share knowledge, resources and responsibility with others [4].

Thus, TNC is a huge network of enterprises, related by industrial and commercial characteristics, controlled by the head office, the operation of which is beyond the national regulation, under the impact of the legal systems of different countries, contributing to the increase of internationalization of the world.

Among economists, there is no single concept of transnational corporations. There are three schools based on different factors and facts determining the different ways of establishments and development

of TNC.

Concepts (Schools):

– School of stage development.

– School of direct investment.

– School of global development.

It should be mentioned that each concept has its drawbacks. This is one of the reasons that scientists are still trying to develop new theories to explain the development, formation of corporations on the basis of the analysis of other previously unexamined factors [5]. Velyaminov G.M. identified the following features of TNC, regarding legal aspects: firstly, formally it is an enterprise controlling its foreign affiliates, and which is under the national jurisdiction of the respective countries. In fact, TNC is a multinational and transnational enterprise.

Secondly, another feature is that the foreign offices of TNC, its affiliates, subsidiaries, under the jurisdiction of the receiving country registered there formally and is an enterprise of the receiving country, but in fact, is foreign, as its connection, the dependence on foreign head of TNC is much more complex and important than the receiving country.

Thirdly, special feature of TNC is the fact that in many cases, usually the parent company of TNC conducts negotiations directly with the host countries, or potentially host, or just countries as business partners [6].

After Lunts L.A., Boguslavsky M.M. distinguished and characterized three types of TNC.

The first group includes national societies, trusts, companies with numerous foreign affiliates and subsidiaries. This means monopolies with national capital and global market.

The second group of transnational corporations is trusts and concerns, which are international, not only by industries, but also by the capital. In contrast to the monopoly of the first group, they belong to the capital of several countries.

A common feature of these two groups is that both monopolies are established as a legal entity of one country. In other countries, both monopolies have numerous branches, affiliates, and subsidiaries.

Finally, the third group includes numerous international monopolies and cartels, syndicates and associations of industrial and scientific-technical, non-legal entities [7].

The following types of transnational corporations are distinguished:

- Horizontally integrated corporations with enterprises which produce most of the products. For example, automobile manufacture in the U.S., or enterprise network "Fast Food".

- Vertically integrated corporations that are under one owner, and under the control of a single most important areas in the production of the final product. In particular, in the oil industry crude production is often carried out in one country, refining - in another, and the sale of finished petroleum products - in third countries.

- Diversified transnational corporations, which include national companies with vertical and horizontal integration. A typical example of this type of corporation is a Swedish corporation Nestle, which has 95% of its production abroad and carries on restaurant business, food production, sales of cosmetics, wines etc. The number of such companies in recent years is growing rapidly [8].

Directly covering the aspect of legal regulation of TNC, it seems that the most successful model is that one proposed by Dmitriyeva G.K., which distinguishes three levels: national legislation, bilateral and multilateral agreements [9].

Domestic regulation implies that branches and subsidiaries of TNC comply with national legislation of the host country. In most cases, this is an investment legislation to define the legal status of the foreign investor: a person or entity. How-

ever, the most vulnerable point in the unilateral regulation of TNC is that, thanks to its organizational structure, it is able to avoid control by a single country. Therefore, national law of this country is not enough for the regulation of TNC.

Meanwhile, at this level, there is another problem. As the affiliates of TNC implement policies of the parent enterprise, it is necessary to take into account the impact of the legislation of the country where they are based. So national legislation of receiving countries regulate operation of TNC, not making much distinction between TNC and national companies. National companies make attempts to extend the application of domestic legislation to the company offices abroad.

Thus, there are problems of domestic regulation of TNC, firstly, the desire of TNC to extend domestic law to overseas affiliates and secondly, insufficiency of national legislation of receiving countries.

The second level of regulation is bilateral investment agreements concluded between the countries.

In addition, it should be emphasized that the specific nature of TNC complicates supervision by separate countries or groups of countries. Today, no country can claim that it has jurisdiction over all parts of the same transnational company overall. It is therefore evident that the effective management of the operation of transnational corporations requires joint action by all countries.

Finally, the third level of regulation of TNC is the multilateral treaties, which can be universal, regional and subregional, depending on the number of participating countries [10].

In practice, a parent enterprise controls its affiliates in the following ways:

- prevailing equity capital stake. In foreign affiliates of TNC the parent company's share is more than 10% of the shares or their equivalent;

- Possession of the necessary resources (technology, natural resources, etc.);

- The appointment of staff in key positions;

- Information (marketing, science and technology, etc.);

- Special arrangements, such as sale market guarantee;

- Informal mechanisms [11].

Legal regulation of TNC is at the national level of the country of placement. But it should be taken into account that TNC is alliance of legal entities of different countries, and they are endowed with legal personality under the laws of different countries. Consequently, the TNC cannot be the object of the regulation of certain national legislation, neither where the parent company and the headquarters are nor where affiliates and branches of TNC are. On this basis, concept of legal regulation of TNC should be carried out not only on the national but also international level. TNC should be considered not just as an ordinary commercial enterprise, but a special kind of international institution, if not legally but in fact, have the same power as a country does.

International regulation of TNC as special institutions is only possible because of the specific features of the operation of such corporations, while covering several countries. Therefore, there is a need to grant TNC the status of international entities, which will automatically exclude them out of national jurisdiction. But it is impossible, as the international legal entities are those established on the basis of an international treaty or on the basis of national legislation adopted in accordance with the international agreement. The two do not meet the criteria for TNC, therefore, cannot have the status of an international legal entity.

If national legislation is insufficient and international standards cannot be applied to regulate the operation of transnational corporations, it is worthwhile to es-

tablish the third legal system, along with international and domestic law, for example, the international transnational law. The theory of this branch of law already exists. The meaning of the concept of transnational law, according to a famous lawyer on international relations Shumilova V.M., is that the parties of international relations regulate their norms of behavior that are beyond the scope of domestic law and not covered by domestic or international law. Because of the international nature of TNC it is appropriate to regulate operation of TNC on the international level, which will have a number of advantages [12].

The draft Code of Conduct for TNC has been worked out in the United Nations for a quarter century but not adopted yet. Taking legal and procedural steps to adopt the Code of Conduct on Transnational Corporations of the United Nations has failed in the 1980s.

In the 1999 "Global Compact", the Secretary General of the United Nations has a different view. This "Agreement" is not a legal document or a regulatory Code of Conduct, but a platform based on a common set of values and designed to promote the exchange of institutional knowledge.

This "Agreement" is the basis for improving interaction between TNC and receiving countries by means of transparency and dialogue to find out and extend practice based on universal principles.

This "Agreement" includes nine principles drawn from the Universal Declaration of Human Rights, the Declaration of Fundamental Principles and Rights, ILO Employment, and the Declaration of Environment and Development, comprising the Rio de Janeiro principles. In this "Agreement", companies are encouraged to adopt these principles in their corporate areas. “Agreement " also encourages efforts to increase the contribution of FDI development [13].

Today, TNC control one third of the world industrial production and give one third of world exports. The main part of TNC and investments are owned by the U.S., EU and Japan.

The leaders of the world's capital markets are the U.S., UK, Japan, Germany, France and other EU countries, Canada, Hong Kong, Australia, Taiwan [14].

A strong base to oppose financial and economic shocks is formed thanks to TNC. Unique corporate strategies, extending with great success is due to the ability to be a leader on the global stage in the economic and political spheres, the dynamics of innovation, dedication of skilled labour and effective work of the governing bodies.

Giant companies act as a center, a core of a new area of the world post-industrial economy.

However, the impact of TNC on the economy of countries increases quite rapidly, which, of course, leads to the fact that having a huge financial accountability and powerful political support, large corporations are able to dictate terms to competitors in their field, as well as to countries.

Monopolization undeniably has a detrimental effect on any economy, and the only solution, in our point of view, is the work of competition authorities at all levels of the political structure of the world, the adoption of the Code of Conduct for TNC and regulation of operation of large enterprises both at the international and at the national level in order to prevent abuse of the benefits of the industrial giants.

To sum up, taking into account both positive and negative influences of transnational corporations on the world economy in a globalized world, the need to improve the legal regulation of these giants should not be neglected.

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INTERNATIONAL INVESTMENT LAW PRINCIPLES: NATURE AND RELATIONSHIP

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Investment resources are always limited and consequently demand their purposeful expenditure which is very important in the context of economic crisis. In this regard their target use is one of the necessary factors of economy stabilization and increasing. Being one of the instruments of negative economic circumstances overcoming, investment policy should play an important role in the economy management and solve the issues of financial flows according to the state interests in existing social and economic conditions. The state defines investment policy as it has a political power and possesses the ability to realize its will in the regulatory legal acts concerning investment flows. The state's influence on the process is necessary as the state should be able to defend its interests i.e. the interests of all

population [1, p. 15].

The specific character of investment regulation is caused by the fact that investment is a difficult and multifaceted category. The provisions for investment relations regulation principles are of great interest in respect of investment legislation improvement. As a whole, the basic principles of investment regulation can be the following: the non-discrimination principle (equal rights of investors), the principle of investment freedom, the principle of the state non-interference in the economic activity of the investor, the principle of investment conditions stability ensuring, the principle of investments protection, the principle of full recovery of investor's losses, and the principle of the state support of investments. In the majority of countries the concept of investments is revealed by enumeration of property put into the objects of business or other activity. It indicates the legislator's approach to the category of investments from positions of the investor's property by which the range of investment objects is not limited that quite corresponds to the principle of investment freedom legally established in these countries. Thus, individuals and legal entities, the state, and organizations of public character can act as investors. It is necessary to note that in the laws of such countries as Belarus, Moldova, Azerbaijan, etc. there are sections devoted to the activity of enterprises with foreign investments.

Investment relationship cannot be revealed without key base concepts such as "investments" and "investment activity". The analysis of legislative definition of the concept "investments" allowed to reveal the following signs of investments: 1) this property is intended for business activity; 2) being put into the objects of business activity this property is exposed to an assessment for the purpose of its definition as a contribution and its cost; 3) this property is considered as a part of investments from the moment of its investing into the objects of business activity; 4) the process of investing can be carried out in the following ways: by contribution (assets) transferring to the authorized capital of the legal entity (commercial organization); by property use for increase in the fixed assets used for business activity; by property use for work or increase in the fixed assets within the contract of concession by the concessionaire (assignee); 5) investing is to be carried out with a view of income (profit) receiving; 6) as object of investment are respectively considered: a) the authorized capital of the legal entity; b) the fixed assets used for business activity; c) the fixed assets made and received within the contract of concession. There exist different classifications of investments types. The most significant ones are the division of investments in capital and intellectual, state and private, foreign and national. Other types of investments, in their turn, fall under the main division and enter in any of them, i.e. have secondary character, and are additional in relation to the main types. They are direct and portfolio investments, real and financial, long-term and short-term, high-risky and low-risky investments, etc. Investment activity is a type of business activity. The analysis of its legislative definition allowed to reveal the following signs of investment activity: 1) it is an initiative activity of the businessman; 2) individuals and legal entities irrespective of ownership forms can be its subjects; 3) it is based on the property of the businessman (property independence); 4) it is carried out on behalf of the businessman; 5) it is based on the risk of the businessman; 6) it is based on the property responsibility of the businessman; 7) it is directed on income receiving; 8) it is carried out by satisfaction of the demand for goods (works, services).

The concept "investment activity" is defined generally as a set of actions on investments implementation (realization).

Thus, these actions are not limited to certain legal forms. The rights of investors and a guarantee of their protection are defined when establishing a legal regime. The guarantees are presented by legislative, state, governmental, and additional guarantees. As a whole, all basic guarantees are the following: 1) the guarantee of protection against nationalization, requisition and other similar measures (in some countries some of these measures are forbidden or allowed only in an exclusive order on the principles of adequate, immediate, and full recovery of investor's losses); 2) the guarantees of protection against changes in the legislation (it is not turned into to the guarantee of contract conditions stability, it provides the stability of investment activity conditions); 3) the guarantees of protection against illegal actions of state authorities (provides for the ban on intervention in economic activity of investors and the indemnification for intervention in economic activity). In our opinion, the relations arising in international investment activity are the subject of legal regulation of various branches of law both public and private. In a domestic legal science E. Abdrakhmanova, S. Abdykarimova, G. Akhmadiyeva, Y. Basin, A. Dzhakishev, A. Dzhanaleeva, A. Didenko, R. Dosybayeva, I. Zhanaydarov, E. Zhusupov, K. Maulenov, S. Moroz, N. Mukhitdinov, A. Nukusheva, M. Sarsembayev, M. Suleymenov, M. Taimov, Sh. Tashmukhambetova and others considered the given problem including the questions of international legal regulation of investment relations.

The mechanism of legal regulation of international investments makes set of principles, norms, and rules of international and internal law which defines the legal status of foreign investments from the moment of their establishment till their elimination. Principles and norms of the international investment law occur either from non-contractual sources, especially from general principles of international law, or from conventional sources: both multilateral and bilateral contracts and agreements.

As to the principles and norms of the national law they are developed by the state - the recipient of the capital. Legislative documents or bylaws reflect the choice of the state policy concerning foreign investments. Each country tries to build the investment policy proceeding from a number of reasons. During the international law evolution there was a transformation of principles and norms within the law itself. In the 60-70s of the XX century the international investment law leaned, first of all, on general principles of international law [2, p. 112]. At the period when developing countries tried to approve their unconditional right to international investments regulation under the lack of the conventional system of foreign investments legal protection the developed countries had nothing to do but address to the basic principles of international law. The characteristic feature of modern normative system is the existence of basic principles in it. The basic principles are understood as socially caused generalized norms and ideas reflecting characteristic tendencies and nature of the normative system. Taking into account the importance of the carried-out functions they are of the highest authority. As it was already mentioned, in the second half of the XX century the international investment law, urged to provide a favorable mode of foreign investments, developed in a zigzag fashion that was caused by basic contradictions between the North countries, exporters of investments, and the South countries, their importers. This development had three stages within conditional temporary framework. During the first stage, the countries of the North validated the general principles of international law in the sphere of foreign investments regulation. The second stage was the time of

non-recognition (rejecting) of the general principles of international law in the sphere of the international investments status by the countries of the South. The third stage was a period of restoration of general principles concerning the legal mode of foreign investments. Compound and interdependent elements of the general principles of international law in the considered sphere are the following: First, the national norms regulating a mode of investments, in case of need should be brought into accord with the international norms. Secondly, the international law doesn't impede the international investments to be given the preferable in comparison with national investments mode. Thirdly, the international law forbids some differentiated modes putting foreign investments into less advantageous position than national. Developing countries hardly allow existence of the general principles of international law obliging the host state to respect the international standards irrespectively of any convention. General principles were established only under the influence of the developed countries when the developing states did not achieve the international recognition of their sovereignty. Actually, these principles do not reflect the will of all members of the world community as they are adverse for developing countries. The purposes and principles of the international investment law are defined by the purposes and principles of international law as a whole. The United Nations Charter gave particular attention to the economic cooperation with a considerable part made by the international investment cooperation. According to the UN Charter the purposes of the international economic cooperation are designated as the following: assistance to economic and social progress of all countries and peoples; creation of conditions for stability and wellbeing necessary for peace and constructive cooperation between countries; and increase of general and material well-being of people. All general principles of international law are acceptable for the international regulation of investment cooperation but some of them received additional contents in this sphere. According to the principle of states sovereign equality all countries have the right to choose freely the economic system and to carry out economic development. According to the principles of non-use of force and non-interference the use of force or threat by force and all other forms of intervention directed against economic bases of the states are forbidden. All investment disputes should be solved only by peaceful means. According to the principle of cooperation countries are obliged to cooperate with each other for the purpose of assistance to economic stability and progress of the general welfare of the people on the basis of free movement of capitals, goods, and services. The principle of diligent implementation of obligations also refers to the international investment relations as the international investment cooperation completely has a contract binding character [3, p. 55]. Fundamental international purposes and principles of international economic cooperation are stipulated, for example, in Geneva “principles defining the international trade relations and the trade policy promoting development” (accepted at the first United Nations Conference on Trade and Development in 1964), the Declaration for the Establishment of a New International Economic Order and the Charter of Economic Rights and Duties of States accepted in the form of resolutions. The Resolutions of the General Assembly of the United Nations “Confidence-Building in International Economic Relations» (1984), “International Economic Security” (1985), and others accentuate the importance of general principles for the new international economic order which basis is made by civilized forms of the international investment cooperation. The princi-

ple of permanent sovereignty of the state over its natural resources and all economic activity including the right of the state on possession, use and operation of natural resources, the right to regulate and supervise foreign investments and multinational corporation activity within its national jurisdiction should also be referred to the general principles of the international investment law. With a certain share of convention and a number of reservations it is possible to deduce some basic principles of the international investment law. They include the principle of investments export freedom; the principle of free protective measures application when importing investments; the principle of investments protection; the principle of "territoriality" of foreign investments regulation; the principle of state and international control over investments movement; the principle of non-damaging the economy of the host country; the principle of prevention of expropriation/nationalization of foreign investments without a corresponding compensation; the principle of free transition of income and dividends from investments out of borders of the basing country; subrogation principle, i.e. transition of the private insurant's right to compensation for damage to the state of the investor; the principle of the double taxation elimination; the non-discrimination principle; the principle of the most favored nation; and the principle of a national regime granting.

The principle giving the right to provide national security and to punish the citizens and the legal entities for breaking the norms of internal and international law during the foreign investment implementation on the territory of another state is of great importance too. According to the antimonopoly law of the majority of the countries their legal entities do not have the right to conduct in a foreign state the economic activity breaking the provisions of the antimonopoly law of the domestic state.

The principle of freedom of protective measures application when investments importing assumes that each state owing to its sovereignty has the right to dispose freely of the natural and other resources; to allow or not to allow the foreign capital to investigation and operation of natural resources; to limit or stop activity of the foreign capital in the territory; to regulate and supervise all economic activity in the territory of the country, including the activity of foreign corporations and the mode of foreign investments on the basis of internal and international law. According to the European model of the bilateral investment agreement the international legal protection is provided only to foreign investments approved by the host country. In other words, some countries divide foreign investments into two categories: having international legal protection owing to their preliminary approval by the host country and not having such status. The monitoring system over the foreign investments admission according to the national legislation does not contradict the theory and practice of international law. At the same time, not all countries demand passing of the approval procedure for all foreign investments. A lot of countries pursue the "open-doors" policy but the officially approved investments get various advantages [4, p.138]. A special procedure of foreign investments approval is directed on involving the investments favorable to the host country and meeting all its conditions.

The principle of foreign investments regulation territoriality means that if a foreign investor is allowed on the territory of another's state, its activity automatically falls under the host country exclusive jurisdiction. In this light, all forms and methods of state control concerning the foreign investor admit lawful according to the existing international legal norms.

The theory and practice of international law consider the principle of coun-

try sovereignty as one of the bases of existing in the modern world law and order. The international community considers each sovereign state carrying out its supremacy within its territory to be an axiom. The sovereignty of the state assumes implementation of all completeness of legislative, executive, judicial and other power in its own territory without the intervention from the outside. The supremacy of the state also means the higher authority of the country on the relation to all individuals and organizations being in limits of the territory, and besides, in the territory of the country the public power of another state is excluded [4, p. 150].

The principle of state sovereignty also means an exclusive right of the country to adopt acts obligatory to execution in its territory. Owing to it the tax legislation of each country has its own features leading to certain collisions, in particular, to double taxation when two or more countries consider the same subject their taxpayer or when according to the legislation of both countries the taxation object at the same time is the taxation object of both counties.

The principle of non-damaging the economy of the host country provides that the country-capital exporter must not make negative impact on social and economic development of the host country. Jurisdiction of the state is the manifestation of the state sovereignty, and initial base of national jurisdiction is the state territory. Only within its territory the jurisdiction of the state is unconditionally full and exclusive. It acts as the integral and main element of territorial supremacy [3, p. 94].

The principle of investments protection assumes state protection of a private investor's property in the host country. Originally the protection of foreign property and foreign citizens was carried out mainly through diplomatic channels. Nowadays with the purpose of appropriate legal protection countries make bilateral and multilateral agreements on mutual protection of foreign investments. From the legal point of view the foreign investments protection means creation by the host country of the long-term stable legislation providing non-use of discrimination measures, state guarantees for complete and unconditional protection of the foreign investor's rights and interests, and the right to carry out investment activity in the territory of the country in any forms not forbidden by the law.

The principle of state and international control over investments movement consists in the fact that each country has the right to regulate and supervise foreign investments within its national jurisdiction, according to its own laws, national purposes, and priorities. In the modern world market countries are not able to protect their interests according only to the principle of territorial jurisdiction. Rapid development of telecommunication and transcontinental air flights simplified business relationship of people from different countries. Besides, today capitals can move instantly worldwide in an electronic form. Despite difficulties arising in this regard, countries aspire to supervise the movement of investments from other countries.

The principle of free export of investments is fundamental. According to the basic international legal documents in the sphere of the international investment law, countries are obliged to eliminate national barriers on the way of capitals movement and not to establish ban and restrictions on export of private investments into other countries.

From the point of view of the international investment law the principle of the double taxation elimination provides avoidance of simultaneous taxation in two and more countries of one taxpayer concerning the same object. At the same time under modern conditions the so-called

Theory of Universal Jurisdiction is becoming widely spread. According to this theory in the international law there are the highest principles having a priority over the sovereignty of other countries. The world community recognizes supremacy of these new principles though they are not fixed in the United Nations Charter among the basic principles of international law. First of all, it is a question of the international protection of human rights. The Theory of Universal Jurisdiction also finds its application in the sphere of international legal regulation of investments. Need of natural resources protection in the course of foreign investment activity implementation in developing countries promoted progressive international development and establishment of a new economic order. The new system of international legal norms demands recognition of higher moral principles of the world community development, for example, such as the offer of the developed countries of "the fair price" for natural resources of developing countries. It is possible to mention also the provisions of codes drafts for multinational corporations' behavior demanding corporations acting according to economic targets of the developing country. Proceeding from the theory and practice of the international law, each country is obliged to respect and protect the property of other countries' citizens. The obligations of fair and favorable relation to foreign private property and its protection are traditional if meaning bilateral and multilateral agreements. Countries must not undertake any measures directly or indirectly directed on deprivation of foreign investors property. If necessary they should be carried out only in public interests and at observance of lawful procedure. The international investment law demands the nationalization to be accompanied by payment of fair compensation corresponding to real cost of the property at the moment of nationalization. The payment of the compensatory sums is carried out with granting possibility of transfer in the corresponding currency. Thus, the international practice allows the sovereign right of the country to nationalization of the foreign private property being in its territory but demands fair, full, and effective compensation.

For many decades the most-favored-nation principle has been acting as one of the most important legal instruments of normal implementation of the international trade and economic relations including investment. G. Tunkin notes that the doctrine of international law and countries practice recognize as the principles of international law the norms differing from other international norms in their more general character. They only touch upon the main issues of international relations. But there is no accurate differentiation between principles and norms [3, p.109]. The basic principles of modern international law are the conventional norms which are most important for ensuring of normal functioning of interstate system and, therefore, for the solution of the international problems. According to the most-favored-nation principle foreign persons - citizens and organizations - of this country have the same rights, advantages, and privileges established for the subjects belonging to the third country during realization of mutual cooperation. The most-favored-nation principle unlike the principle of the national regime established both in the national act and in the international treaty can be fixed only by international agreements. The legal maintenance of this principle is consolidated to equalizing of conditions and the rights for all foreigners acting in the territory of the concrete country owing to signed international legal agreements with the considered state. It means that if one state provides another a most favored nation treatment both citizens and legal entities and organizations of the latter use so favorable conditions

which are already provided or will be provided to any third state. The most-favored-nation principle essence in international trade and economic relations consists in the right to demand the optimum, preferential, exclusive terms provided to any third state. The basic purpose of the most-favored-nation principle consists not only in discrimination prohibition within a certain number of countries but also, first of all, in mutual granting of the most preferential terms in the field of the external economic relations. The most-favored-nation principle establishes an equality of the widest rights and possibilities of partners and creates the fairest conditions for international trade. Nowadays the application of this principle in trade and economic relations became almost universal promoted by the wide experience of its use.

In present the most-favored-nation principle is applied practically by all countries, forms a basis for the bilateral relations, and is established in multilateral contracts. This fact proves to be true that the given principle, being the major branch principle of the international economic law, is in the modern world a necessary condition for effective development of economic relationship of countries. According to E. Usenko the importance of the most-favored-nation principle in the field of international trade "is so great that without its establishment and observance normal trade relations between the respective countries are almost impossible" [4, p. 133]. As one of the features of the most-favored-nation treatment at the present stage is reciprocity, the most widespread legal act containing a clause about the most favored regime is considered the bilateral contract. But the cases of unilateral granting of the most-favored-nation treatment are known to have taken place in the world practice. In this regard there is a question – is it possible to consider a unilateral clause about the most-favored regime corresponding to the principle of sovereign equality? Unilateral granting a most-favored-nation treatment is allowed only under the conditions compensating the absence of formal reciprocity and providing observance of the principle of mutual benefit. The most-favored-nation principle application in multilateral contracts has its specifics. The example of such multilateral contract, with key principle of mutual granting a most-favored-nation treatment, is General Agreement on Tariffs and Trade (GATT). It is of great importance in the system of international legal regulation of economic relations between countries. The mode of the most-favored-treatment characterizes a special level and character of relations between countries. More often they are either the relations within integration cooperation or relations between border states or intraregional relations possessing both signs (the CIS, EU, and EURASEC). Regardless of it, it is necessary to distinguish the most-favored-nation treatment from the preferential mode which can be established for a certain group of the countries in the investment sphere of cooperation. Along with it, there exist particular types of treatments concerning the conditions of foreign individuals and organizations activity in the territory of the concrete state. In particular, according to the CIS Convention on Investors' Rights Protection the parties have the right to revise the list of withdrawals from the sphere of national treatment towards the improvement of a legal status of investors from the agreeing countries. They have the right to define lists of priorities concerning branches, kinds of activity and regions for which more preferential terms of investments attraction are introduced. In the conditions of accruing free movement of the capitals the internal law is more cooperating with the international investment law. The latter acts as a guarantor and as a general "legal standard" for national investment legisla-

tions. It is thus important that the implementation of the international investment norms in the national law is possible only when the investment legislation of a country corresponds to the international investment law. The realization of the international and investment norms accepted on the multilateral and bilateral basis demands close and similar legal rules in the national investment legislation. In its turn such interaction promotes to rapprochement and unification of interstate investment norms. By the way, speaking about the international contractual unification of law, it is necessary to note that this form of interaction of the international and national law is one of the important conditions of global economic integration implementation. National financial rules of law and institutions capable effectively to act under the present conditions of the world economy globalization are of great importance during the implementation of foreign investment activity. One of the reasons of not enough appeal to foreign investors of the countries of the so-called "transition economy" is an inefficiency of their financial and economic institutions in the conditions of more active functioning of the world financial system. Thus, universal rules and provisions directly or indirectly regulating a legal mode of foreign investments are stipulated, in particular, in international legal acts of the World Trade Organization, in the International Monetary Fund Charter, the World bank Charter, OECD Model Codes, in documents of the non-governmental financial organizations under the aegis of the London and Parisian clubs, and also in universal financial conventions adopted within the international economic organizations, such, as UNIDROIT, UNCITRAL, UNIDO, UNCTAD, etc. Thus, the basis of the international investment law is made by a set of national and international legal norms regulating the relations between various participants of investment activity in the territory of another state. The especially important factor is that the subject of foreign investments regulation was and remains uniform and indissoluble in the conditions of the interconnected globalized world economy. Legal regulation of foreign investments visually confirms the objectivity and interdependence of investment process and domestic and foreign investment policy.

The legal nature of relationship in the sphere of foreign investments consists in creation of the corresponding conditions and guarantees for investors-owners and in definition of the corresponding organizational and legal forms of investment. First of all, the national law in the form of special investment legislation and in general regulatory legal acts (civil, financial, tax, bank, and customs legislation) stipulates the norms defining legal forms of foreign investments regulation in the country. On the other hand, the international legal investment norms fixed in the international universal and bilateral treaties and being a component of national legal systems, act as a legal standard for the domestic investment legislation. This process occurs not by withdrawal of the corresponding internal principles and norms from the existing national legislation and their replacement with international legal contractual norms but by means of harmonization of joint legal regulation when providing legal guarantees of foreign investments.

It is considered that the Republic of Kazakhstan created the complex of economic, legal, and organizational measures for protection of national and foreign capital investments, issued in the form of norms and rules according to which the favorable mode of mutual investment is declared. The Republic of Kazakhstan defined the basic international principles of investments attraction to be observed on its territory. They are the following: stability and predictability; accurate, transparent, and unequivocal norms of investment

activity regulation meeting the international standards; protection of legitimate rights of investors; equal conditions for activity of foreign and domestic investors; observance of conditions of contracts and international treaties; profitability and productivity of direct investments; stimulation of direct investments in priority sectors of economy; ensuring information transparency of domestic stock market and equal conditions for various groups of investors; environment preservation [5, p.62]. The sphere of international investment regulation demands special approaches to public administration and creations of special mechanisms to successfully perform the major function of the state on capital investments attraction. At the modern stage the presented conditions predetermine the carried-out reforms in the sphere of investments concerning the changes of principles and the mechanism of acts performance, with the state support establishing of the special structures for increase of the international investment activity efficiency.

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THE FORMATION AND DEVELOPMENT PROBLEMS OF THE NATIONAL INNOVATION SYSTEM OF THE REPUBLIC OF KAZAKHSTAN

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The problem. Nowadays the economy based on knowledge is gradually succeeding the economy, which is grounded on exhaustible resources.

The new knowledge, being transformed into new technologies, is the stable source of new competitive advantage. Furthermore, the term "knowledge" is regarded in a broad sense as the ability to accumulate intangible assets, to create new technologies, "know-how", to adapt theory and practice of the corporate management to the conditions of the certain company, to initiate and conduct business research, to take correct investment decisions, to assess their effectiveness under uncertainty, to avoid various risks, etc.

Development of fundamental and applied scientific research and development work, qualification and experience of the scientific and technological workforce, which are necessary for generation of ideas and development of new products, technologies and business processes promote the formation of the knowledge system. Innovations are the results of "technological progress", or the results of influence of the market demand, as confirmed by the appearance of new products and technologies conceptions in the Research and Advanced Development departments of the enterprise, or as a result of conducted market research [1, 2].

Thereby the analysis of problems, appearing when the systems are generated, and the identification of the resolving methods gain special importance.

Analysis of the recent research and publications. Various aspects of the formation and development problems of national innovative systems are investigated by scientists from the far-abroad countries, among which the works of such authors as G. Dosi, P.F. Drucker, Ch. Edguist, C. Freeman [2-6] and others stand out.

The works of many scientists from Kazakhstan and the far-abroad countries, in particular the works of N.N. Barlybaeva, J.V. Batalov, S.J. Glazev, P.M. Dnishev, E.A. Koloss, O.S. Sabden [1,2, 7-9] and others, deal with the topical problems of industrial-innovative development and competitive recovery of the national economy.

The research objective. The objective of the conducted research is to develop recommendations about the efficiency improvement of the innovative process in the Republic of Kazakhstan.

Research findings. New knowledge and innovations haven't yet become the essential factor of the social and economic development of Kazakhstan, as evidenced by the statistics given in Table 1.

Table 1 – Characteristics of the innovation process in the Republic of Kazakhstan.

Activities	2005	2006	2007	2008	2009	2010	2011
1 The innovative activity level of enterprises, %	3,4	4,8	4,8	4,0	4,0	4,3	5,7
2 Expenditures for technological innovation,	67088,9	79985,9	83523,4	113460,1	61050,9	235501,7	194990,9

mln. tenge							
including technological innovation in industry	56016,5	71513,4	76264,9	97463,7	31034,8	219571,2	170174,3
among them:							
- food	15144,3	29521,4	8922,5	11630,9	4617,9	17162,1	106284,0
- process	40872,2	41992,0	67342,4	85832,8	26416,9	202409	63890,3
3 R&D financing, % of GNP	0,25	0,25	0,28	0,25	0,29	0,30	0,32
4 Innovative production rate, mln. tenge	120408,4	156039,9	152500,6	111531,1	82597,4	142166,8	235962,7
5 Innovative production share in GDP, %	1,58	1,53	1,19	0,69	0,51	0,66	0,86
6 Internal current costs for scientific and technical works, mln. tenge	20036,0	23236,0	25737,5	33685,9	38538,0	40414,5	44513,3
among them:							
fundamental research	3089,8	3744,4	3468,1	3846,5	4107,5	4490,4	7475,9
applied research	7249,0	9354,3	9692,2	13320,2	17373,5	18088,0	20864,3
development work	9697,2	7944,0	5454,8	6704,9	6009,4	9536,4	9867,3
scientific and technical services	-	2193,3	7122,4	9814,3	7599,6	8299,7	6305,7
other works (services)	-	-	-	-	3448,1	-	-
7 Number of organizations, which conducted research and development	390	437	438	421	416	424	412
8 Number of workers, employed by research and development, person.	18912	19563	17774	16304	15793	17021	18003
Note – composed by the author according to the information of the Agency of Statistics of the Republic of Kazakhstan.							

According to this table, in spite of the tendency to rise, innovative activity level of Kazakhstan enterprises still remains low – 5.7%, while in industrialized countries about 70% of enterprises carry out innovations connected with production diversification with the purpose of new market segment development.

Outdated production and management technologies negatively affect social

labor productivity with the level in Kazakhstan 1.5 times lower than in Russia, and four-five times lower than in the countries of Western Europe and the USA. Besides, there is a reduction of innovative production share in GDP from 1.58% in 2005 to 0.86% in 2011.

Specifically, the reason for this is underfunding of innovative activity. At the present time the amount of R&D financing accounts for 0.32 % from the country's GDP, while in Russia it is 1.18%, and in 15 leading European Union countries it amounts to 1.96% [9].

In 2010 costs for technological innovations reached a maximum level (235.5 billion tenge), it is 3.5 times higher than they were in 2005. However, in 2011 level of costs for R&D reduced by 17.2%.

In 2011 87.2% of total costs for technological innovations was the share of industry, which gave its 62.5 % (106.3 billion tenge) to product innovations, and 37.5% (63.9 billion tenge) to process innovations.

16.8% of internal current costs for scientific and technical works, which accounted for 44.5 billion tenge in 2011, was the share of basic research, 46.9% – applied research, 22.2% – scientific and technical development, 14.1% – scientific and technical service.

In 2006-2007, a number of the organizations carrying out research and development increased to 438, thereafter it reduced to 412 by 2011. A number of employees, performing research and development, reduced by 8% in 2011, in comparison with a maximum level of 2006, and made up 18 thousand people.

In the Republic of Kazakhstan the National Innovative System Development Program (NISDP) is realized [10] to increase effectiveness of innovative potential use.

National innovative system represents a set of institutions, relating to the state and private economic sectors, which independently and interactively creates new knowledge, abilities, skills and scientific and engineering activity results, defining emergence, development and distribution of new technologies.

Components of NIS are:

1 The scientific potential, which includes:

– state scientific organizations – national scientific centers, research institutes, higher schools, design institutes;

– scientific organizations under national companies, laboratories under large enterprises;

– private research and design institutes;

– small and medium-sized enterprises, carrying out scientific research;

– scientific manpower of organizations and individual inventors;

– material and technical base.

2 Innovative entrepreneurship, which have binding (intermediary) functions between scientific-technical and production spheres. The ultimate objective of innovative entrepreneurship is development of enterprises, which able to react efficiently to the current state of the market, to organize a mass production of competitive science intensive production of new generation and increased demand at the level of the international standards. The innovative entrepreneurship includes:

– angel investors;

– enterprises;

– innovative managers.

3 Multilevel innovative infrastructure, that defines a complex of interconnected production, consulting, educational and information structures, serving and providing conditions for realization of innovative activity. The innovative infrastructure consists of the following elements:

– national technological parks;

– regional technological parks;

– technological business incubators;

– science cities, etc.

4 Financial infrastructure providing complex financing of research- production and educational processes in the sphere of innovative technological development, based on a combination of various mechanisms of direct and indirect state support relative to innovative entrepreneurship and infrastructure. The financial infrastructure includes the following elements:

– state institutes of development;
– venture funds;
– enterprises;
– individual entrepreneurs;
– second level banks, etc. [10].

To solve issues regarding technical and economic modernization of Kazakhstan one of two main economic development models can be used.

One of the two main models of economic development can be used to solve problems of technical and economic modernization of Kazakhstan.

The leading countries succeeding in technological and economic progress follow the pioneer model development, in which they create the most advanced production technology and the most effective (in terms of the rate of growth of national wealth) economic mechanisms. Another model – is catching up with development. It is typical for countries that are in lower levels of technical and economic progress, and even on its last levels. The main difference of this model is that here the development is based on the development of technology and economic mechanisms that have already been created in the leading countries.

It is considered that country, solving the problem of reducing the backlogs from the leading countries in the economic development and welfare of the population, must hold the catch-up strategy. According to this strategy, the country taken the path of progressive structural and technological transformation of its economy goes through a series of sequential levels:

- Extraction and processing of raw materials;
- Production of material and labor-intensive commodity;
- Production of capital commodity;
- Research and development.

There is no need for Kazakhstan to repeat all of these levels in the same sequence, as other countries did. In spite of insufficient range of competitive products produced in the country at present (excluding raw materials and primary materials), in Kazakhstan there are all of these steps, which may become the points of economic growth on the assumption of modernization in conjunction with new construction. Revenues from exports of raw materials and foreign investment should become the source of reconstruction financing and modernization of the national productive mechanism.

As a result of the acquisition of foreign technology can simultaneously and quickly organize competitive production and material-intensive goods (rolled steel, construction materials, etc.). There are also opportunities in production of technology-intensive products - machines, test and measurement instruments.

The foundation can become their own research in the production of high-tech products, along with foreign capital (assembly plants). The development of small business and joint ventures by conversion can provide a core of high-tech industries on the basis of available cells for the production of equipment, automation equipment and radio engineering. Import of technology should be used to organize the assembly plants are relatively less complex kinds of high technology products (such as household appliances). Also, scientific reserve in biotechnology, radiation and laser technology should be found industrial application available in the republic. In this case, the majority of goods should be focused mainly on exports.

In the process of formation and de-

velopment of the NIC it is necessary to develop and implement an innovative industrial policy, including a system of measures for selective support of strategic sectors of the national economy of Kazakhstan, providing economic growth, structural changes in the economy, including innovation sphere.

As a result of the author's participation in foresight studies it was found that the priority directions of scientific and technological activities in the Republic of Kazakhstan for the next five to ten years will be R&D in the following areas [11]:

1 Agro-industrial complex and agricultural production

2 Development of the construction industry

3 Petroleum refining and infrastructure oil and gas sector

4 Metallurgy

5 Development of the chemical, pharmaceutical and defense industries

6 Energy, including the development of clean energy

7 Development of transport and telecommunications infrastructure

8 The development of information - communications technologies.

Cancellation of strict following catching up model is possible not only due to the simultaneous transmission of the stages of technological ladder from raw materials to high-tech goods. To be on the same level with the leaders in some positions can be achieved by setting the preconditions for the advanced formation of the latest technology for the world economy structure. Biotechnology, space technology, fine chemical technology will be the core of it. The electoral concentration of scientific research in promising areas of probable becoming the sixth technological structure, training the necessary qualifications are related to such preconditions.

The strategy of technological development of Kazakhstan should include a combination of several types of development [12].

The first type should be subordinated to the tasks of the fourth electoral technological system, the core of which in the world economy includes auto- and tractor construction, synthetics, organic chemistry, manufacturing, and oil refining.

The second type should be used for the development of highly selective fifth technological system, the core of which in the world economy includes auto- and tractor construction, non-ferrous metals, production of durable goods, synthetics, organic chemistry, production and refining of oil, agriculture, telecommunications, optical fibers, robotics industry, production and consumption of natural gas, information services.

Nursultan Nazarbayev, the president of Kazakhstan, making a speech at Nazarbayev University, pointed out, that one of the main priorities in improving the efficiency and competitiveness of the national economy was the creation of an innovative cluster network.

Innovative cluster is the consolidation of a scientific-technical (or scientific) activity and of the elements of the industrially innovative infrastructure, that are intended to stimulate the industrially-innovative activity by interacting and sharing of available opportunities, as well as by exchange of knowledge and experience, where effective technology transfer, firm partners connection and information dissemination are of considerable importance.

The necessity of the transition from the traditional clusters to the innovative ones is explained by different tendencies in the previous and current centuries: the XX century was the era of high industrial technologies, and the XXI century is expected to be the age of high innovative technologies directed at the human capital development. This conclusion is confirmed by the fact that nowadays the national wealth of the developed states of the

world depends on natural resources only on 5%, on manufactured capital only on 18% and the rest 77% is for their effective distribution and knowledge.

As opposed to the traditional sector clusters, the innovative clusters represent a system of close interconnections not only between the companies within the cluster, their suppliers and consumers, but also between major research centers and universities, which, being new knowledge and innovations generators, provide the entire region with the opportunity for a person to get a high level education.

This makes possible coordination of the effort and financial resources to create and release to the market a new product or technology. As a result, an exclusive process flow, starting with the creation of an innovative product and up to its market release, can be established within the cluster.

The other difference of the innovative clusters from the traditional industrial ones is the creation within the clusters frames mainly export-oriented production and technologies, as on an international scale, introclusteral competitive advantages become valuable.

The cluster form of organization of innovative activity results in the creation of an aggregate innovative product, which is a specific form of innovation and, at the same time, a combined efforts product of several companies or research institutes. This allows expediting spread of innovation in the regional economic space. Moreover, the consolidation of cluster participants on the basis of vertical integration results not in the formation of spontaneous concentration of various technological inventions, but promotes the creation of a particular system of new knowledge and technologies spreading. Besides, the most important condition of the effective transformation of inventions into innovations and of innovations into competitive advantages is the creation of a firm connections network between all the cluster participants.

Industrial parks, along with the innovational clusters, are the objects of support and placement of innovations. The creation and activity of the industrial parks is based on the modern European pattern, which is characterized by the presence of the building that contain tens of minor innovative enterprises and by the service support system for them.

Recently, a two-level industrial park system has been formed in the republic, which is currently active. This system includes the national industrial parks and the network of major regional industrial parks in the cities of Almaty, Karaganda, Uralsk, Chimkent, Ust-Kamenogorsk, Petropavlovsk and Astana.

The national technological parks, such as Park of Innovative Technologies (Alatau Town), National Industrial Petrochemical Technology Park “Tokamak” (Kurchatov City) and Space Monitoring Park (the cities of Almaty, Astana and Priozersk) are focused on the creation of new hi-tech industries that are intended to promote strengthening of national economy competitiveness. The distinctive characteristic of the technology parks of our country is their industrial orientation and the existence of specific economic area with tax exemption.

The other peculiarity of domestic industrial parks is their location on the territory of major enterprises and the attraction of leading educational establishments and research institutes.

As an example, let us consider the university industrial parks created on the basis of Al-Farabi Kazakh National University, K. Satpaev Kazakh National Technical University and D. Serikbayev East-Kazakhstan Technical University. These universities have three basic principles: education, research and innovation. The result of their activity is the transition to a brand new economic-organizing way

of human resource development, as well as experimental educational programs design and the development of the strategic partnership system of scientifically educational centers with government bodies and enterprises.

It is impossible to solve the task of overcoming scientific and technological gap and entering the top 50 most competitive countries without training the innovation-oriented experts, that are willing to continue life-long learning and have the necessary skills that would allow them not only to apply their knowledge, but also to create new knowledge with the purpose of profit generation, that is to capitalize.

Higher educational institutions combining principles of education, research and production must realize advanced training of world class specialists. The graduates of such institutions must be able to conduct technological research, manage technological processes both in the society and production facilities and solve research tasks and problems throughout the life cycle of creation and implementation of the scientific product [2].

Conclusion. This research paper has defined ways to overcome technological gap in Kazakhstan in comparison with the other industrialized countries based on formation and development of effective national innovative system.

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THE HOUSING PROBLEM OF THE NEW STAGE OF DEVELOPMENT OF THE HOUSING RELATIONS IN RUSSIA

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Since ancient times dwelling has been not only the center of the private life of a man but also backbone factor of his environment. Comfortable home is an overriding necessity of every family. When it's not satisfied it's impossible to speak about people's positive mental and physical health and, therefore, about their political assessments and about the desire to work for the benefit of the country.

The housing problem didn't appear in Russia all of a sudden. Its birth can be relatively dated back to the end of XIX – beginning of XX century, when the great mass of Russian empire population lived in unacceptable conditions. Just then, in

the beginning of XX century, in 1913 the famous term “the poverty formula” appeared in Saint-Petersburg. It denoted the poorest settlements of workmen who lived in the cellars, barns, basements and flop-houses not far from noble, luxurious mansions [6, p. 32].

In 1917 Civil revolution destroyed the institution of private property. According to the decree of Council of People's Commissars from December 14th, 1917 "On prohibition of real estate business", the land and immovable property ceased to be the object of sale. The management system in housing services was based on the principle of dual subordination: to the central government authority and local Soviets represented by the respective executive committees of cities and regions. The most important resources and the real levers of power were in the hands of the government which dealt with them via system of departments under the control and management of communist party.

More than 70 million m^2 of housing space were completely lost during the Great Patriotic War of USSR. 25 million people found themselves without hearth and home. For example, Leningrad underwent the following during the siege: 840 enterprises were destroyed, serious damage to property of more than 3 thousands buildings was caused, 78% of medical establishments were phased out, 85% of rolling stock of passenger transport and almost ½ of school buildings. From every 100 m^2 of living area 27 m^2 had to be rebuilt or repaired.

Postwar years were dedicated to the reconstruction of industry. That’s why the housing needs of the population have reduced to the acquisition of one separate room [1, p.7].

Housing policy of Soviet Union was characterized by balancing approach. At the expense of these organizations the major portion of flats was distributed free of charge among the persons on the waiting list and also among enterprise workers, taking part in the house building. Level of housing and public utilities was low and the housing made just 7 m^2 of total acres per capita in 1950. It conformed to the level of housing in 1917 and didn’t meet the needs of citizens.

The building boom broke out in the country after 1957 resolution of the CPSU Central Committee about the conversion to the standard design and construction. New cities were appearing along with the objects of municipal facilities. However, this stage can be described as the stage of extremely inefficient usage of tight resources, lack of real economic relations between management system, housing sphere producers and consumers. Authorities of the country made attempts to improve the construction system in Soviet Union but in vain, because they had influence only on separate elements of economic mechanism and didn’t change it fundamentally.

In the end of 80s the decision about the transition from planned economy to market economy was taken. Organizations began to function on the principles of self-financing. Public revenues began to be formed from tax proceeds. The necessity of housing sphere reforming was stipulated not only by political-ideological but also economic changes in the country.

It is known that market can’t function without the developed institution of private property. That’s why the question about the transition from the public domain to private property was inevitable as far back as at the stage of perestroika, when Soviet Union economy came to grips with the necessity of gradual transition from single public domain to the diversity of its forms. At this conjuncture new approaches to the housing problem have been developed:

• soviet system of housing distribution has been abolished;

• community facilities were given to

the private organizations and it has resulted in the increasing of utility bills rates;

• population has got opportunity to buy and sell immovable property;

• privatization of housing stock has begun.

• functions of government control of housing sphere have been reduced.

In 1991 the law "On privatization of housing stock in Russian Federation" was adopted. It became really a momentous event in the real estate market. Just then official market of housing buying and selling arose.

Privatization (from Latin "privatus" – private) is the paid or free process of transferring public or municipal property to the property of private persons or organizations. Under conditions of market economy citizens acquired independence in choice of housing and its acquisition. New housing policy presupposed that citizens should have their own incomes for the purchasing and building of housing and its maintenance. In these new conditions the government was obliged to implement support of disadvantaged population. It was adopted by legislation and fixed in Constitution of Russian Federation: according to the article 40, stated that everyone has a right on housing. Low-income people and people in need of housing are granted with social housing from state, municipal and other housing stocks for free or at charge [2, p. 74]).

Privatization program has been lasting in Russia more than 18 years and should finish by March 1st 2015.

By the end of 2011 Russian Federation housing stock made up 3288 mln m^2, which includes 2374 mln m^2 (72% of total acres) in urban settlement, 912 mln m^2 (28% of total acres) in the countryside. Total acres of living accommodation per capita in the end of 2011 in Russian Federation was 23,0 m^2. It has grown on 19% in comparison with 2000 [4]. But its growth is partly provoked not only by quantity of housing but also by population decrease. By the end of 2011 86,3% of housing stock was in private property, 82,9% of which transited to the citizen's private property as the result of privatization.

On the assumption of the improvement level of the housing stock, by the January 1st 2012 housing stock considered as dilapidated and dangerous was 99,0 mln m^2. It is 1,5 times more than in the year 2000. Its share also increased from 2,4% to 3,0% (table 1).

To some extent, the problem of ramshackle housing stock can be solved by its complete overhaul and reconstruction. By the beginning of 2011 282,2 thousands blocks of flats (8,8% of the total amount) needed complete overhaul. During 2011 35,8 thousands of block of flats were repaired and it's 12,7% of demand. Repair works of blocks of flats were carried out with financial support from the Fund of housing and public utilities.

Table 1- Dilapidated and dangerous housing stock of Russian Federation

Showing	2000	2009	2010	2011	2011 as % for		
					2000	2009	2010
Whole dilapidated and dangerous housing stock, mln. m2	65,6	99,5	99,4	99,0	150,8	99,5	99,6
particularly: dilapidated	56,1	80,1	78,9	78,4	139,8	97,9	99,4
Dangerous	9,5	19,4	20,5	20,6	in 2,2t.	106,2	100,5

Specific weight of dilapidated and dangerous housing stock,%	2,4	3,1	3,1	3,0	-	-	-

As a result of privatization, Russia became an owner of high share in housing property - 86.3% [4]. Free privatization determined present diffi-culties with the housing market:

• Un readiness of citizens to the legal consequences of privatization: not all owners of housing can afford maintenance of their property;

• deep ownership inequality: limited part of the population got housing of high quality, the floor space of which exceeds social norm few times, while the majority of the population became proprietors of dilapidated housing and should pay for the capital repairs;

• purchasing of ready housing by citizens having surplus of cash assets with the aim of hoarding. no more than 19% of population has enough financial means to buy housing under existing prices and more than 60% of families are not satisfied with their housing conditions.

According to the Housing Code, Russian citizens admitted needy in housing should get housing due to the Municipal Housing Agreement. Municipal Housing Agreement in Russian Federation is an agreement according to which residential properties belonging to government and municipal housing stock are given to citizens in need of housing improvement for permanent residence.

In a number of developed countries housing rights ensuring responsibility is laid on the government bodies. In other countries government body solves two problems at the same time. Firstly, it works out terms of housing provision for every citizen. Secondly, it carries out measures, encouraging population to buy housing on their own [7, p.11].

Depending on the share of social housing in the total volume of housing stock, member states of the European Union can be divided into three groups:

1. States with the share of social housing no more than 30%. The Netherlands fell into this category.

2. States with the share of social housing ranged from 15 to 25%. This category includes: Sweden, Austria, Poland, Great Britain, Denmark, France and some other countries.

3. States with law level of social housing 1-7%. As an example we can name Belgium, Ireland, Italy, Germany, and Hungary.

This situation is demonstrated in figure 1

In Russian Federation 2,82 mln. families were registered as in need of housing at the beginning of 2011 (5,1% of total number of families). 181 thousands families (6,4% of registered families at the beginning of 2011) got residential properties and improved housing conditions for the last year. Total number of families registered as in need of housing in 2011 reduced on 0,7% and made up 2,8 million by January 1.01. 2012 [4].

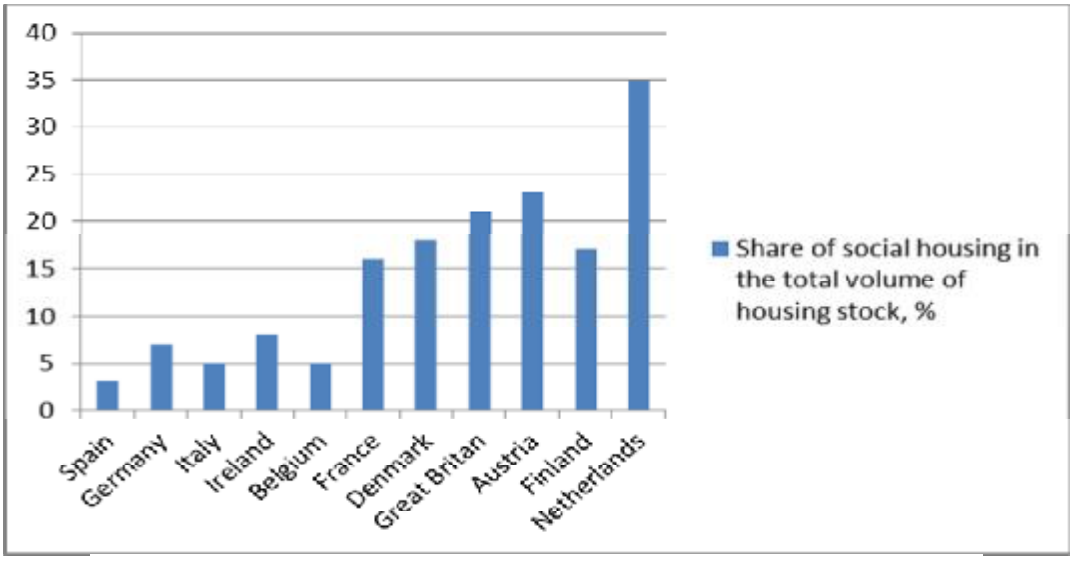

Figure 1. Share of social housing in the total volume of housing stock in some countries

Currently, 10% of Russian citizens are in the housing waiting list but time of waiting can exceed 20 years. More than 70% of country citizens can't afford to buy housing or take a mortgage due to the low incomes. After approval of Housing Code citizens' income began to be taken into account to put them on the list for housing conditions improvement, while previously they were put on the waiting list on the basis of square meters number for one person. Thus, more than 60% of population in need of housing conditions improvement found themselves in difficult situation: a person can't be considered indigent due to the level of his incomes but to rent a flat from private individual is too expensive for him.

The hope for housing problem solving appeared owing to signed in May 2012 presidential decree on measures of ensuring citizens with affordable and comfortable housing. The government was charged to ensure affordable leased housing market grouping and development of noncommercial housing stock for people with low incomes. In August 2012 the government of Russian Federation approved list of measures for creating of noncommercial lease system. Mr Minregion's conception suggests building of noncommercial housing stock. Noncommercial lease can became effective substitute for existing social rent which doesn't meet the needs of population. In total from 2013 to 2030 it is intended to build 76,3 mln m^2 of leased housing, or 1,8 mln of flats with the area of 42m^2 [5, p. 1].

In December 2012 there was developed Project of Federal law "On introduction of amendments to the Housing Code of RF and separate legislative acts of RF in the section about regulation of relations in noncommercial rent of residential properties" (hereinafter referred to as draft law). Draft law was necessary to correct a deficiency of legal regulations connected with noncommercial rent of residential properties. Enactment of such a bill is indispensable condition of mentioned measures realization and corresponds to assignments, contained in statutory legal acts of the president and government of RF. The draft law introduced to government for response offers to add the idea of rent of block of flats to the Housing Code. In such building all flats will belong to one owner and he will be able to lodge tenants on the ground of contracts of short-term, noncommercial or social contract of en-

gagement.

The purpose of this draft law is carrying out of the following tasks:

- Improvement of general legislative regulation of rent of residential properties institution, which includes introducing of institution of rent house and rent relations regulation in such a house.

- Improvement of conceptual and terminological framework and classification of housing stock depending on the purpose, in connection with introducing of new housing stock (housing stock of noncommercial use) and new kind of contract (contract of noncommercial rent of residential properties);

- Legislative control of noncommercial rent of residential properties and corresponding new type of noncommercial rent contract.

Standard contract of noncommercial rent will be made for the term from three to ten years; short-termed contract for temporal housing – for one year or less. One will have to register in waiting list in the municipality to rent a flat in such a block of flats. It is not allowed to inherit the tenant-right. One more difference between noncommercial and social rent is that in the case of contract repudiation, a family will be evicted without giving other housing.

Thus, we can give the following definition of the term "noncommercial rent". Noncommercial rent is a housing rent for the term from three to ten years, assigned for people with low incomes but who don't belong to low-income groups

Noncommercial rent contract of housing renter can be defined as:

- Noncommercial organizations being owners of these housings, created by the government body or local government body.

- Government body, local government body or organizations authorized to be renters of housing from government or municipal housing stock on behalf of proprietor of such housing.

- Other persons, in cases fixed by law.

There are few types of landlords in the developed European countries. Table 2 shows characteristics of social landlords in individual countries [8].

Table 2 - Characteristics of 'social' landlords in individual countries

Country	Owner	% of housing stock	Ownership	Control	Financial goal
1	2	3	4	5	6
Belgium	Housing association	5	Private	Public	Non-profit
	Public landlord	1	Public	Public	Non-profit
	Private person or company	<0,5	Private	Private	Profit
France	Public landlord	7	Public	Public	Non-profit
	Public-private landlords	10	Private	Public	Limited profit
	Private person or company	21	Private	Public	Profit
Ireland	Local authority	7	Public	Public	Non-profit
	Housing association	4	Private	Private	Non-profit

	Private person or company	<0,1	Private	Private	Profit
Netherlands	Housing association	33	Private	Private	Non-profit
England	Local authority	10	Public	Public	Non-profit
	Housing association	8	Private	Private	Non-profit
	Private person or company	Not available	Private	Private	Profit
Germany	Cooperative	6	Private	Private	Non-profit
	Municipal housing company	7	Public	Public	Non-profit
	Private person or company	Not available	Private	Private	Profit

Some social rented dwellings is almost all countries are owned by public landlords such as local authorities and private non-profit (or limited profit) organizations like housing associations. It is only the Netherlands that there are no longer any public landlords in the social sector. The Dutch municipal housing sector underwent a process of privatization during the last decades of the 20th century. This involved the transfer of the housing owned by the municipal housing companies to the private non-profit housing association sector.

In England and the Netherlands, the actives of housing associations are not necessarily restricted to social renting. In both countries, the unregistered subsidiaries of housing associations many also operate commercially. Additionally, housing associations in the Netherlands rent out more expensive dwellings to higher-income groups.

In our opinion, in Russia municipal Housing and Utility Sector, as well as specialized noncommercial organizations, controlled by special federal low and profit organization with bounded norm of benefit can act as owners of rent houses. Public authorities, local authorities and big enterprises and organizations can be founders of as specialized noncommercial organizations.

Realization of the draft low in Russia will require government's participation in noncommercial lease fund, main aspects of which can be defined as:

- Change of Russian Federation legal framework (Civil, Housing, Tax Codes of RF and other federal lows).
- Regulation of rental payment.
- Provision of social and noncommercial lease to disadvantaged groups.
- Backing of lessons providing housing of noncommercial and social lease.
- Attraction of public and private organizations for leased social housing control.
- Free connection of social and noncommercial rented houses to infrastructure.
- Backing of rented housing building.
- Allocation of free plots of land for block of flats building for social and commercial rent.
- Attracting of private investors to the building of rented housing.
- Organization of financing funds of housing building and renting.
- Amendment to the tax laws with the aim of utility bills reducing for the tenants of noncommercial rent.

According to the data from the Institute of city's economy, if the state take upon itself financing of 40% investment

expenditures on the building of houses and interest payment, budgets of all levels will spend on rented housing creation 1,44 trillions roubles for 27 years. Rent payment for two-room flat with an area of about 40 meters in Saint-Petersburg should average 8300 roubles. If the state deposit only indirect investments (for example, it provides land for free), rent payment will be approximately 13500 roubles a month [3].

From our point of view, realization of major investment projects and programs is possible within the frameworks of social development programs. It's connected with the following circumstances:

- Every investment program is carried out in the frameworks of economic, legal and organizational system of the region. Therefore, they can't be considered out of its investment structure, social and economic environment.

- Organizational and investment problems of the project or program can't be solved without regional authorities support and use of tax and legal instruments of regional authority bodies.

- Investment programs can present real mechanism of region's economy reformation and its surmounting the crisis.

- Economic, investment and social priorities formed and accepted by regional legal and executive bodies of Russian Federation, can not only give a support to investment projects but also secure by warrants of the respective level.

- Let's define the main problems, impeding the development of housing sphere and sector of noncommercial rent in Russia:

- Mass and free privatization of housing, which put emphasis on appearing of housing owners class and change population's preferences in the favor of housing ownership.

- Weak crediting of housing building and developer's financing at the expense of direct investments of future owners of the flats in the blocks of flats.

- Sector of rent housing switched over to shadowy tax zone.

- Upsetting parity between charges of living space owner and living space rent charges, worsening of structures of property categories and, consequently, lack of economic incentives for commercial economic sector development.

- Delay of the free privatization end and, as consequence, the lack of motivation to build municipal noncommercial rent housing.

The process of housing privatization will end in March 2015. In our opinion, this event will be additional motivation for the development of building of noncommercial rent houses.

Development of rent housing market is profitable not only for the state but also for property developers. Last few years dramatic reduction of effective demand on flats is evinced. It can result in market collapse when there will be nobody to buy housing.

That's why the variant of noncommercial rent market development will allow to build millions of square meters of housing necessary for population and will reduce social tension.

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SMALL AND MEDIUM SIZE BUSINESSES IN KAZAKHSTAN: CURRENT STATE AND PERSPECTIVES FOR DEVELOPMENT

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Strategic policy of the republic's leadership aimed at being reckoned among the fifty most competitive countries in the world leads to the development of small business as a powerful economic force. In the implementation of the Concept of Transition of Kazakhstan to Sustainable Development for the period of 2007-2024 particularly importance is placed on efficiency and sustainability of small businesses, the establishment with their participation of new economic relations, including the foreign economic relations, activation of the production and innovation.

Small businesses receive this close attention of the state due to the desire to achieve positive economic, political and social impact on society.

The economic result is that small businesses form a competitive environment, help fill the market with domestic goods and services, and become the foundation for development of medium-sized and large businesses.

The political result is that small businesses form the middle class as the basis of social stability.

Social result is that small businesses contribute to solving the problem of unemployment.

In the countries with market economy the state does not set an objective to create and develop small businesses, as they have formed in a natural way over hundreds of years. In Kazakhstan, the economy sector has formed almost in several years. Thanks to the initiative of the active and business-oriented people, granting guarantees of the state support of entrepreneurship have paid off which is evidenced by the growing dynamics of small businesses and their contribution to the economy over the years.

Like many other countries, Kazakhstan signed the UN Millennium Declaration and assumed certain liabilities, in particular, the fight against poverty. No one denies the fact that in recent years there have been positive changes in economic and social spheres of the country. The UN report said about this: "There is sufficient capacity to solve socio-economic issues of the country." However, the report recognized that "this potential should be used in a more productive way; the labor market situation remains tense and does not have adequately contribute to reducing poverty despite the overall growth in employment and incomes." Small businesses help to break the vicious circle of poverty and raise the cost of work force. It feeds, in the literal and figurative sense, millions of Kazakhstanis, giving them a sense of stability and independence.

In all civilized countries, the economy rests on the middle class, and that, in its turn, on the small and middle-sized business (hereinafter – SMB). Prosperity of the state depends on its "stability". The Strategy of Industrial and Innovation Development of Kazakhstan for 2003-2015 provides for the economic growth of at least by 8.8 - 9.2% per year. This will in-

crease the volume of GDP 3.5-3.8 times in 2015 compared to 2000.

Small and middle-sized enterprises in the Republic of Kazakhstan have become a mass and relatively dynamic phenomenon. Over the past seven years, the number of registered SMBs increased by more than 70% compared to 2005 and by the end of 2011 to 1.3 million units, accounting for about 95% of all businesses in the country. In addition, the share of registered SMBs in the total number of business entities increased to 95% in 2010-2011.

The annual rate of growth of registered SMB entities prior to 2009 averaged 12%. In 2009, there was a reduction in the number of registered SMB entities by 9%. But in 2010-2011 the increase in the number of SMB resumed. Growth in the number of active SMBs in 2005-2009 occurred at almost the same rate as growth in the number of registered ones. But in 2009, it also had a negative dynamics (-6%). In 2010 the number of active SMB entities remained virtually unchanged. 2011 witnessed a considerable increase in the number of active SMB (by 13%) which was accompanied by the general recovery processes.

In absolute terms, the number of active SMBs at the end of 2011 increased by 242 thousand units compared to 2005 while the share of active SMBs in the total number of registered SMBs decreased from 68% in 2005 to 56% in 2011.

If we consider the structure of active SMBs we shall note that the dominant form is an individual one - it is an individual entrepreneur, the number of which amounted to 500.6 thousand units or 67% of the total number of active SMBs by the 1st of January, 2012. The number of individual farms was 174.7 thousand, or 23%, and legal entities - enterprises of SMB - 73.5 thousand entities, or 10% of the total number of active SMBs.

The dynamics of active SMBs in the context of business form in the period from 2005 to 2011 can be traced in the following trends:

1. The number of individual entrepreneurs increased by 68%. The share of entrepreneurs in the structure of active SMBs has gradually grown from 59% in 2005 to 67% in 2011.

2. The number of farms has increased by 11%. Herewith the participatory share of farms in the structure of active SMB has the tendency for decreasing (31% in 2005; 23% in 2011).

3. The number of SMB has increased by 38% since 2005. Since 2005 the participatory share of SMB in the structure of active SMB remained stable and in 2011 it constituted 10%.

The analysis of employment index in SMB characterizes the importance of Kazakhstani enterprises in employment issues. Specific density of population actively participating in SMB constituted 32% of general population participating in economy in 2011. The dynamics of this index within 2005 to 2011 has a tendency to increase. The participatory share of population in SMB in relation to 2005 increased by 6%.

In overall figures the population engaged in SMB is permanently increasing and it constituted 2 674 people in 2011 which is 42 % higher than it was in 2005.

Flow of output produced by active subjects of SMB in absolute money terms demonstrates general tendency to grow during the last years. An expansive growth was observed in 2008, it was twice as much in comparison with the previous year. It happened due to the alteration in legislation concerning private enterprises. New criteria defining medium enterprises were developed. Due to this fact some enterprises earlier considered to be large now was involved in them.

Since 2009 the participatory share of output flow of SMB in Gross National Product (GNP) has remained approxi-

mately stable and constituted 30-33%. Herewith the bigger part of SMB output was produced by SMB enterprises (88%).

According to the National Bank of the Republic of Kazakhstan in 2011 the volume of credit funds lent by the banks of the second level to economy and to the small enterprises showed positive dynamics of growth. In 2011 the volume of credit funds to the economy constituted 5 778 billion tenge. That is higher than in 2010 and 2009. The same situation is observed in small enterprises, their volume constituted 794 billions tenge.

Industrial enterprises supply diversified economy of the country.

In Kazakhstan the bigger part of active subjects of SMB are involved in trade (41%) and in farming (26%). According to the data of 2005 the share of subjects of SMB in trade increased by 5% and in farming decreased by 6%. There are 7% of active subjects of SMB in transport and communication, and 3% in engineering and industry.

Thus, the analysis of sectoral structure of SMB active subjects' quantity does not reveal the tendency for national economy diversification. The history of private enterprises in Kazakhstan is shorter than 20 years, the majority of enterprisers started working in trade and services which is characterized by low risk and small initial capital. With the growth of businesses the entrepreneurs began to open up in manufacturing, this happens when business becomes bigger. That`s why they all are potential manufacturers. The employment volume index shows the role of SMB subjects in solving the problem with unemployment. The growth of SMB active subjects proportionally solves employment problems. In 2010 the dynamic also shows tendency in decreasing in SMB involved in farming in comparison to 2005 by 10%. Otherwise there is 4% of growth in engineering, and 1% in industrial, transport and communication spheres. This circumstance proclaims the expansion of SMB activity in the last three spheres of economy. Thus trade and farming reveal their ineffectiveness in Gross National Product growth even if their output increases.

SMBs engaged in transport and communication might solve the economic problem of GDP growth by increasing production. Development and normal functioning of the business sector is closely related to credit, the main source of working capital. Financing reduction of private businesses leads to reduction of the rate of GDP growth. State support of the priority sectors of the economy does not allow the portfolio reduction and even leads to increase of its size in such sectors as industry, transport, communication and services.

Private enterprise is the "keystone of development" of economical processes and sustainable development in most developed countries. Peculiarity of SMB is creation and implementation of innovation, which become a key factor of competition in the world market. For example, in the EU, U.S., Japan the share of innovative enterprises is about 40% of the total number of SMB companies. Comparative analysis of the development of the SMB sector in Kazakhstan and other countries demonstrates a noticeable lag in contribution of SMB to GDP and employment of our country. In the U.S., the EU countries there are over 20 million businesses, in China there are about 40 million SMBs, while in Kazakhstan - twenty times less.

The share of the annual output of SMBs in the United States, the European Union and Asia (China) ranges from 52% to 67%. In Kazakhstan it is almost half as much and accounts for 32%. In Kazakhstan, the share of the population employed in the SMB sector in total employment figures is also much lower than in developed countries. Thus, in comparison with developed countries there is a small con-

tribution of medium business of Kazakhstan in the production of value added and job creation due to the current sectoral structure of production.

In the EU the largest number of SMBs is concentrated in the service sector - 23%, while in the construction industry and commerce - 33%, and in the industry it accounts for 7%.

We need to reconsider drastically the economical paradigm, where small and medium-sized businesses performed a role of economic drivers. Thereafter, one of the key issues is competitive relationship and conditions favorable for business. Such reforms would succeed if we changed society's attitude to entrepreneurship. It is necessary to make an analysis of region's economy to find out their opportunities. With the goal of Kazakhstan innovation system improvement the following things should be done: involvement of highly skilled specialists for innovations, state order for innovative production development, and etc.

The SMB sector development is uneven on account of socio-economic and demographic peculiarities. According to the statistics concerning SMBs active subject number as of 01.01.2012 the situation with the amount of SMBs in Kazakhstan is the following: the leading regions are: Southern Kazakhstan (124.000), Almaty region (109.000) and Almaty city (81.000), while Kyzylorda (19.000), North Kazakhstan (22.000) and Mangystau (24.000) regions are at the bottom of the list. 70% of all SMBs registered subjects are active, so, 300.000 of subjects remain passive. As regards to business stability there is the following statistics: Almaty (70%), Northern Kazakhstan (60%) and Zhambyl (60%) regions.

The analysis shows that the higher is the share of active SMB entities in the region, the better are the conditions for their stable development. The highest performance indicator here as of 01.01.2012 belongs to Almaty (25%) followed by Astana (9%), East Kazakhstan (8%), and South Kazakhstan (8%) regions.

Individual enterprises dominate in Almaty (12%), South Kazakhstan (12%), and Almaty regions (11%). The best available conditions for development of farming are made in South Kazakhstan (35%) and Almaty (28%) regions. They account for 63% of all Republic's agriculture.

Making an analysis of SMBs development level in regions, it is necessary to take into account the size of the population. A number of proactive subjects per 1.000 people of economically active population in 2011 shows the following: Almaty region (115), Almaty (109), South Kazakhstan region (92), and Astana (102).

The total number of population employed by SMBs in 2011 accounted for 2 674 people, 6% more than in 2010.

SMBs subjects of Almaty and Astana make the biggest contribution to production output: 1 958 and 887 billion tenge respectively in 2011. At large, these 2 cities production output is one third of the country's total output. Among the other regions the biggest production output level was provided by West Kazakhstan (622 bln.tenge) and Almaty (584bln.tenge) regions.

Among SMBs registered in Astana the share of private enterprises (hereinafter – PE) accounts for 67, 7% (58, 7 thousands), the share of SSB – 32, 3% (28 thousands). There are 14 farms registered in the city, that is an insignificant share in the given structure. In the structure of the current operating SMB in Astana the share of PE amounts for 83% (33, 8 thousands), SSB share - 17% (6, 9 thousands). Among registered farms only 1 farm is active.

The last seven years showed the following tendencies in the dynamics of active SMBs:

1) The number of SSB units after the decrease by 1.8 thousands in 2006 started to increase in a stable manner from 2006

to 2011. By the 1st of January 2012 it reached 6,9 thousands.

2) The number of PE had been increasing till the end of 2008, after that in 2009 it decreased sharply – by 25%. In 2010-2011 PE units growth resumed and reached its maximum in 2011 – 33, 8 thousands, that is two times as much compared to 2005.

3) The number of FE is insignificant in comparison to SMBs and PEs. At the same time, in 2006 there were 9 units, whereas in 2011 only 1 operating FE unit remained active.

The results of the given review highlight the necessity of the following SSB state coordination in order to correct and improve negative tendencies of the SSB development by using financial and other tools.

Fiscal and monetary tools can be concerned as the main financial mechanism of the SSB development. For the self-development the main non-financial tool is business-formation. That is why the SSB development in Kazakhstan in many ways depends on qualified staff in the organization of entrepreneurial business.

At present the system of Kazakhstan development follows the model of manpower development in business formation, taking into account the specificity of each region economic development. Also it is necessary to improve the structure of the specialist education in business sphere with the goal of increasing the quality preparation, re-training and advanced training.

In occurred situation the main aim of the staff preparation throughout economic specialties in S. Amanzholov EKSU University is to support correlation between theoretical and practical activities for the next generation of specialists. To solve the given problem on the basis of S. Amanzholov EKSU University new sub departments were introduced: “Business and administration”, “Entrepreneurship support center” jointly with joint-stock company “Entrepreneurship development fund «DAMU» and “Business-incubator” for students.

Sub departments, as the university in general, set high requirements to the content of educational programs, level of teaching, presence of learner’s guides, modern means and non-traditional forms of teaching in the educational process. This allows preparation of specialists in the sphere of business in line with the demands that market and region economy put forth.

ESC in S. Amanzholov East-Kazakhstan State University was opened on the 8th of October 2010. (Agreement #11/2010 as of 17.09.2010).

The aim of ESC is the arrangement of a department with informational and consulting services and knowledge in business development for the business class in order to support qualified SMB development. As the result of the given goal the university has to become the base of correlation of education, science and manufacturing.

Practical skills that teachers obtain in the course of interaction with small business owners are successfully integrated into the learning process. In the line with this students have an opportunity to realize their own business projects by means of business incubator and thus test their business ideas to determine whether they are ready or not to start their own enterprises.

Taking into account everything mentioned above we can conclude that the following steps should be taken to develop SMB:

1. Monitoring of factors that can possibly threaten local businesses under conditions of the Customs Union

2. Improvement of economic relations of small businesses in production with the purpose of ensuring their competitiveness in the global market.

3. Both state and market price regulation on products of small and medium size businesses with the goal to raise demand among the population and increase competitiveness of local businesses both on the domestic and foreign markets.

4. Implementation of the guaranteed minimum prices system, which can provide the sufficient level of profitability for small businesses.

5. Tax concession exemption for small businesses, which invest in the priority industries or are committed to the sustainable development principle observing ecological standards.

6. Moderate protectionist policy of small businesses advocacy.

7. Growth of small businesses' investment attractiveness, various privileges implementation, which promote re-equipment of material and technical base of small businesses.

8. Control over export and import turnover of the main strategic items produced by small businesses.

9. The priority industries reconstruction and development by means of special-purpose programs to make it possible for small businesses to take the largest part of market share.

10. Direct financing of the small businesses investment projects by the government.

11. The regional franchising pattern (when a parent enterprise deals with the certain territory) fits enterprises of Kazakhstan. The main franchising for this region is involved in division of payment and fees for common advertising fund. Also it pays license and advertising fees direct to the parent franchising company. It's necessary to change current law regarding the issues of franchising activity registration. In European countries the franchising registration is performed by the franchise buyer, while in Kazakhstan it is performed by the buyer. It is necessary to formalize in legislation the liability for unauthorized use and copying of trademarks and brands, because it undermines the general development tendency in Kazakhstan.

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ORACLE HYPERION FINANCIAL MANAGEMENT AS A MAIN WAY TO RUN INTERNAL AUDIT SOX

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"Unexpected guest worse than a Tatar (Russian proverb)" is an old proverb that is true for business. Company can benefit from arrival from the unexpected guest.

This article pays particular attention on SOX internal audit and solution Hyperion Financial Management of the Oracle Company, which provides the basic framework for the achieving compliance and regulatory rules, and reduces the cost of compliance with Sarbanes-Oxley.

So Sarbanes-Oxley Act (SOX) 2002 was adopted after a series of corporate scandals (primarily deal Enron, WorldCom) and aims at protecting the rights of

investors. The law Sarbanes-Oxley (SOX) is applied to all (including non-US) companies whose shares are quoted on the U.S. stock market since July 2005. Today, compliance Sarbanes-Oxley Act (SOX) is worldwide practice and many companies, including Russian, take SOX requirements to increase the investment attractiveness and business opportunities in the international market.

SOX - a new way to prevent risks. It makes a number of important requirements for internal control procedures, business processes, including to management accounting and budgeting. Sarbanes-Oxley Act refers to legislation aimed at regulating the functioning of the financial services, banking transparency and independence of the inspectors.Consider a few sections that deserve special attention:

Section 302 of the Sarbanes-Oxley Act requires the executive and chief financial officers to include their statements in the minutes of the audit in order to verify the correctness of the information contained therein. This is done in order to hold the heads of responsibility for information.

Section 404 of the Sarbanes-Oxley Act requires all JSC (Joint Stock Company) to include "internal" reports in its annual reports. Such system establishes a management responsibility for the implementation of internal control procedures, management accounting and budgeting. The rules also include an assessment of the effectiveness of internal controls by the management company. At the same time, the units within the internal control should include own assessment of management performance in the annual report of the company in accordance with accepted standards.

This section of the Sarbanes-Oxley Act is the most difficult to use, as most of JSC managed their cash flow without the use of detailed reporting. Companies should introduce a system of internal control, assess their vulnerabilities, to identify ways to test their effectiveness.

Section 409 of the Sarbanes-Oxley Actlimits the time of the report preparation, but also requires informing about changes in the business of a specific list of items. A list of these items probably will grow with time, but almost all of them reflect the events and information that cannot be reflected by most systems (eg, ERP).

International Institute of Internal Auditors (Institute of Internal Auditors, IIA) is the largest international organization of internal auditors. It gives the following definition: internal audit is an independent and objective activity to provide assurance and consulting designed to achieve specific results and improvement in organizations, helps organizations achieve goals through the implementation of a systematic, disciplined approach to evaluate and improve the effectiveness of governance, control and risk management.

Despite the rapid development of internal audit at the end of the XX century, its role and place in the U.S. and international companies are determined by the following scheme.

With a sufficient level of risk management training management works to the introduction of some key components of internal control, particularly in areas of high risk (eg, cash management, procurement, storage, sale).Herewith the company does not have full internal control or risk management at all levels of the organization, and despite the fact that some levels of control are developed and effectively implemented, they are not formally documented. Another characteristic of this stage is dependent on the control of people, less - from the processes. In turn, the internal audit is seen as the only service in the organization, able to assess the risks, and it is opposed by management of the activity.

It should be noted that with the pas-

sage of the Sarbanes-Oxley Act, many companies both domestic and foreign experienced huge difficulties in conducting internal audit according these standards. Discussions about the benefits of detailed control, defined by SOX, and the associated additional costs of its implementation, began immediately after the issuance of a draft law for discussion. Supporters of the bill argued that the necessary tightening of regulation would play a role in restoring confidence in the markets. Opponents objected that concomitant increase in costs of this process will reduce the competitiveness of the U.S. as a platform to raise capital compared with other countries. Now, five years later, we can say that both were right first and second.

After that, the company began to develop their own accompanying programs that facilitate internal audit SOX.

For example, Oracle, the world's largest developer of software for organizations and a major supplier of server equipment, has developed a basic framework for the achievement of compliance and regulatory rules, and reduces the cost of compliance with Sarbanes-Oxley.

Orientation of internal audit to verify compliance with the requirements of the Sarbanes-Oxley Act is gradually reduced. According to the latest study by the auditing firm PricewaterhouseCoopers (PwC), only 27% of respondents confirmed that emit more than half of the resources of the internal audit to verify compliance with the section 404 of the SOX. According to a similar study in 2007 the share of such companies in the response rate was 41%.

Let’s consider how the Sarbanes-Oxley Act affects the financial system of the company.

The Sarbanes-Oxley Act came into force in August 2002. It requires CEOs and CFOs to confirm financial results that in the event of non-compliance are subjected to the most severe civil and criminal penalties. Law implies a much greater degree of control over public companies than any previously created document. The Board Securities and Exchange Commission's Public Company Accounting Oversight Board (PCAOB) are mentioned in the law. PCAOB requires enterprises of all sizes to pay close attention to the integrity and consistency of financial reporting in the standard of audit No. 5 of the May 24, 2007.Internal control bodies should be fully involved in the process of financial reports, including the annual financial statements and quarterly reports, monitoring records of single and repeated adjustments of financial instruments (for example, to merge the changes, the combination of reports and repartition by groups).

The standard of audit states: "While the completeness of control is an important measure in assessing the control system, the focus of internal control should be paid to reports that may affect the material losses due to errors in the financial documents". What does it mean? Only auditor can answer to this question. Obviously, the SEC Commission, which formed after the introduction of SOX, requires prioritizing the financial statements, and using them to assess risk. The question arises - how the developed system of Oracle may affect these standards? According to foreign analysts, the answer is quite simple. Solution of the Oracle Hyperion Financial Management helps to manage financial information and gives managers the confidence to confirm the annual and quarterly results, including reporting procedures. Company Oracle and partners of consultants are able to help in the implementation of Oracle Hyperion Financial Management solutions, which will help easily improve internal controls and the flow of documents to the introduction of electronic signatures with comments, and to use data protection. Strictly documented process will be available after the completion of the implementation, which will be transparent and will provide documentation of

the process of the annual and quarterly reports for the audit general ledger.

In addition, employees of financial departments can deploy the solution of Oracle Hyperion Financial Management in a minimum time, thus accelerating the process of closing the financial period and the formation of the required reports. Also, it contributes to the rate of positive return on investment, but the most important thing that Oracle Hyperion Financial Management decision enables public companies to ensure compliance the critical aspects of SOX.

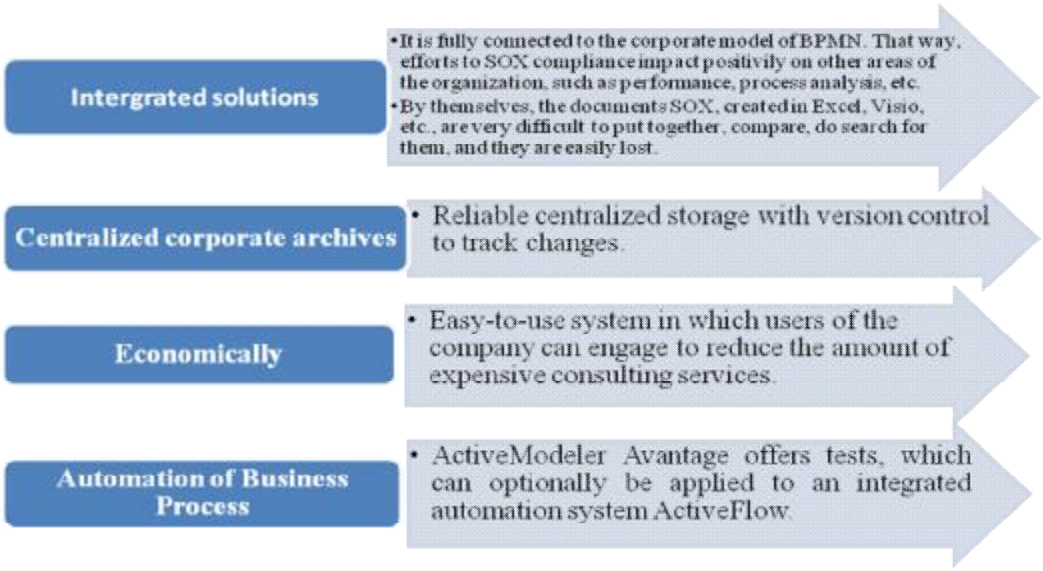
At the beginning of our article, we have identified the most important sections of the Sarbanes-Oxley Act, however, it is often difficult to determine what level of control actually required. SOX compliance may become unsupportable without due consideration of the following questions:

Which elements of control will we strengthen? How to achieve this control?

Consider another system which facilitates compliance with these standards and help to answer these questions.

Active Modeler Avantage SOX Inspector. Control system should be designed with the corporate business model to have everything in one place. Just imagine, you could define your business processes in accordance with international BPMN standard, and then add items of control to COSO standard to complement its business model.

Key advantages of Advantage SOX decisions



Avantage implies efficient and cost-effective solution:

- There were many cases where companies exceeded the budget for compliance SOX404. Now they are looking for less expensive ways to achieve optimal compliance SOX.

- Inspector SOX Avantage, based on corporate process model, helps both to reduce compliance costs, and gain instant access to more accurate information for the control.

The following operations were conducted during the work on compliance of SOX:

• Expensive outside consultants were hired in a particular field that is not in the company.

• Internal consultants were added to the SOX team in order to avoid overwork

of the internal resources.

• Accounting firms were used to work for compliance.

• Internal management was intensively involved, often due to the overall performance of the business.

• Standardized tools were not used often.

While this approach may have worked during the "honeymoon" of SOX compliance, now companies need a more stable long-term solution.

Despite the fact that we still need to raise the level of in-house expertise on SOX and, internal/external audit, Avantage approach allows you to turn the set of issues, which are dealt by a separate specialized team, into part of the daily total work. Thus, the owners of the process take responsibility most of the documentation for verification and compliance of monitoring. Internal audit and SOX specialist will monitor the compliance of SOX and be responsible for quality control of the process, conducting high-level tests to demonstrate the effectiveness of controls and procedures. Another advantage of this approach is that the owners of the process begin to better understand the business processes, and we introduce the concept of re-engineering and transformation of business processes.

It can be concluded after analyzing these approaches, that Avantage can be recommended as a standardized tool. To start, you must have a standardized tool to determine the process that would be convenient to install and use across the organization. This standardization ensures that the definition and control of the processes are understood similarly by different teams in the organization as well as responsibility for documentation/tests pass to process owners. Active Modeler Avantage is different in that it is a useful tool, 100% meets international standards BPMN, so all the documentation are developed by the company according to the accepted standard.

Managers should educate employees, so that process owners can document their processes, and do it at the appropriate level of detail. It is simple with Avantage. You will be sure that all employees document processes equally. After a one-day training course your employees will be able to maintain documentation due to international standards. All graphic elements are clearly defined and controlled. Documents and specifications may also be recorded.

The company should carry out a comprehensive document control with a well-defined process of checks to ensure that only those who have been granted permission, update and edit documents. It is important that the documentation of processes and checks always are framed correctly. If necessary, the documentation of the processes can be stored in the CVS archive to verify versions. Single set of electronic data is particularly needed in large organizations. Update of documentation strictly controlled and registered under close supervision. Avantage has a convenient interface to the archive of CVS with simple commands of input/output.

After the process of documentation is installed, it should be added function of instruments control. The internal SOX experts help with it, which will have to provide a step by step guide and training process owners for the choice of the type of control and testing of internal controls. It must be remembered that SOX provides work with control points, and not just procedure documentation. Avantage allows you to emphasize these points, and document control procedures. All control points can be labeled, for example, in red in the diagrams of the process.

In the past, many companies implemented too much control and evaluation of SOX. That is why it is needed a step-down approach to determine exactly what type of control is needed. Avantage allows run-

ning controls on the task level of the process or at a higher level objects.

After the training, the process owner can recognize good and weak internal controls or good/unsatisfactory documentation. They should have a clear understanding of all the requirements for documentation of processes and understanding of the internal control system of the process for which they are responsible. There should be a procedure for improving the process of compliance, typically checks involving internal auditor and expert on SOX. Education of process owners and team members should be automatically initiated while finding disadvantages in internal control of the process or after a period of time since the last study.

Avantage provides standard reports to monitor the process and the results of audits to ensure that the internal control checks are carried out regularly and equally in all the operations of the company. This is an important condition for a successful installation of process compliance in the company. Only authorized employees such as supervisors or managers of internal processes have the right to edit quizzes. If the test is changed, only the latest version can be used to check the internal control systems of any company's operations.

Avantage visually displays the results of internal controls in Excel that are below the permissible value. They can be automatically marked as a lack of control, and thus monitored by the company. Owners of key processes and internal controllers can clearly see where deficiencies were found.

The organization must keep track of all the action on correcting the values below the reference level to ensure correction of deficiencies in a timely manner.

The main functions of Inspector SOX Avantage module

High Functionality	Risks, Milestones, Assertions, Properties COSO, Ratings, Audits and Assessments can be fixed for the process of BPMN.
Risks at different levels of facilities	Risks can be defined on the chart, group, track or task.
Table editor	Rows of standards - Risks, Milestones, Assertions, Properties COSO, Assessments and Audits - can be edited and set exactly the way you want in your organization.
Color selection and additional marking	Problems, containing the level of risk, can be allocated your chosen color. You can use the additional marker (for the organization's departments and black and white printing).
Audit trail	Updates, as well as internal and external audits are recorded, stamped date / time, and these versions can be archived CVS.
Excel Risk Control Matrix	RCM is displayed in Excel. The analysis can be performed for one or more processes, depending on the point of the analysis, the selected on the tree of process.
Formatting Excel	You can create a list RCM formatting of your choice.

Largely decreased attention to SOX is defined by the fact that major U.S. and international companies have achieved good results in the implementation of a risk-based variety of vertical approach to the assessment of internal control over financial reporting in accordance with the mandatory implementation of auditing standards № 5 (AS5 PCAOB). For the same reason, PwC believes that in the next five years, the focus of internal audit for compliance with SOX company will remain the same or, more likely, to weaken. In addition, as noted above, regulators also

gradually weaken requirements for SOX.

Thus, it is expected that in the medium-term objective of internal audit is increasingly moving away from check of SOX compliance and move on to new issues. Internal Audit has incredible advantage over any other services of the company in its independence, providing a framework for submission and the specific relationship with management, including with senior management, as well as a unique base of knowledge and experience gained from years of auditing completely different business units. These advantages allow internal auditors as employees, acting solely in its interests and at the same time remains formal and de facto independent and in the assessments and recommendations, to look at the company as a single entity and perform routine work on risk assessment, vulnerability, identifying weaknesses and preparation of independent and objective recommendations to address them.

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NON-MONETARY MOTIVATION SYSTEM IN MODERN ORGANIZATIONS

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It is necessary to be precise, exact and understandable in defining the main goals to make the system of personnel motivation work effectively. Formalizing goals and objectives intensifies their impact and makes the personnel more responsible. Employees should clearly understand what activities will be rewarded.

When a motivation system is being developed and tested, money (financial incentives) is often considered to be the most important motive. However, if, despite the proper organization and the favorable image of an organization/enterprise, its efficient structure, ideal planning and strategies, the personnel do not want to work effectively, constant increase of salary is not the way out. Thus, at present the issue of developing non-monetary motivation systems is most relevant.

"Immaterial stimulation", "non-monetary motivation" is a set of factors stimulating the desirable labor behavior of the personnel in an organization/ enterprise. For many employees such motivation may be the strongest one [1].

According to I.A. Batkayeva, V.G. Konovalova, T. Yu. Bazarov, A. Ya. Kibanov, a person has a number of needs, financial needs being only one of them, i.e. indemnity payment of time and effort expenditures is only a part of satisfied desires of the personnel. Non-monetary motivation reveals other needs of a person, which are often more essential. The aim of

such stimulation is to reveal basic needs of an employee and, taking into consideration the mission, goals and objectives of the an organization/enterprise, to satisfy them in exchange for efficient work.

For the supervisor, the most difficult aspect of non-monetary motivation is to detect a kind of such motivation, most appropriate for the employee whom he is intended to stimulate [2].

This problem does not make development of non-monetary motivation system in an organization impossible, so let us consider basic rules of developing a non-monetary motivation system.

Non-monetary motivation system should be more excessive and diverse than material motivation. It is important not only to use various ways of motivation but do it, considering the motivational profile of the person to be motivated. As all of us have different needs, motivation "tools" will depend upon the state of the object of motivation [3]. The proposed system of non-monetary motivation has been developed to increase work productivity, attraction and keeping competent workers, avoidance of internal conflicts and social tension. Moreover, it implies establishing effective interaction between departments of an organization.

The system is based upon the following principles:

1) good organization (well-established work with auxiliaries and departments, i.e. work of the HR-department with other structural parts of the organization);

2) dynamism (the system is not static; it works in different situations when stimulation "in advance" or after some achievement is required, it presupposes a set of rewards which should be developed with consideration of the employees' personality characteristic features, awareness of degree of a reward impact on employees with different motivation types and corporation peculiarities);

3) realistic character (ccorrespondence of motivation "tools" to the environment in exact structural departments);

4) consistency, integrity.

Motivation as a continuous process is a cycle which includes the following stages:

1) Planning, a stage of designing methods, techniques and activities of non-monetary motivation of the personnel;

2) Implementation of the plan;

3) Coordinated actions, monitoring;

4) Analysis stage, when the impact of motivation "tools" on the employees and their reaction are analyzed.

Choosing non-monetary motivation techniques and monitoring the efficiency of the proposed system, one should take into consideration factors which can affect this system of personnel motivation.

1) Breach of the unpublished contract. When a person is being employed he and the company "bargain" that the person's free time, energy and intellectual abilities are exchanged for certain material remuneration, the possibility to realize his personal motives and some "environment". Personal motives can widely range from the possibility to come somewhere every day and socialize to work and see the results of one's work. However, the real "environment" in which a person will have to work is not much discussed, as the people who are being employed are intimidated and do not ask questions and HR managers keep "commercial secrets" or make the candidate see the employer company "through rose-colored spectacles". As a result, a new employee has overrated expectations, which cannot be met as the state of things in the organization/ enterprise is different;

2) Not using the skills of an employer which he himself values. Even the best candidate for a position may not have some skills or he is not skilled enough, but he may have some other skills not mentioned in the vacancy description. That is

why, an organization/ enterprise almost always teaches newcomers something (directly or indirectly, i.e. "in process"), putting aside the skills that are not used. In the course of time such indiscreet neglecting of such skills may result in serious demotivation if among them are skills valuable for the employee;

3) Ignoring ideas and initiative. Starting a new job, people tend to "splash about" with new ideas – from improving work to moving furniture in the office and providing a favorable impression on the customer. And these ideas are turned down – partly, because they do not trust newcomers, partly, because they do not want to change their routine work even if it is not effective;

4) Lack of the "being part of the company" feeling. This demotivator is more frequent in freelance employees and the assisting personnel. Such employees often have a sensation that for the managers they are "second class" people who work for the organization/ enterprise only for money;

5) Lack of the feeling of accomplishment, when results are not seen, there is no professional and personal advancement.

If the specificity of work does not give a chance to develop and achieve results, in some time the routine monotonous work will destroy internal motivation in the majority of employees, even in those, who do not like diversity. Pondering over the years spent in the organization/ enterprise an employee will understand that has got nothing but salary, given in time. Authors suffer from lack of interesting challenging work most of all.

In some other cases it is work done in such a way that its results are seen only after a long period of time that is a demotivator. Some years may pass till an employee sees the results of his work. Not every person has enough patience and persistence to work for such a long period of time without seeing results. People may quit halfway.

6) Lack of acknowledgement of achievements and results from the management and colleagues. It can reveal itself when an employee manages to negotiate a contract which is very beneficial for the company, but no one in the organization/ enterprise acknowledges it, taking it for granted. It may be connected with the organization's/ enterprise's practice of not speaking about one's own achievements or mark out an employee, or with the management's establishing too high standards of assessment the results of the personnel's work.

7) Lack of changes in an employee's position. Structural limitations are the most frequent cause of slow career development or its absence, exactly, the change of an employee's status in the company, which will give him power, enable him to settle new tasks and grow. The subjectivity of the management while making a decision about promotion is a demotivating factor. Imagine the reaction of an employee who has had a position for quite a time and "has grown" out of it when he learns that somebody else is promoted to a vacant position [4].

The above-mentioned non-monetary motivation system was tested at an industrial enterprise. After analysis of the personnel response on this or that motivation tool, motivation tools were either improved or changed. To do it we took into consideration the fact that the non-monetary motivation system is based upon three levels:

1) The basic level which is determined by the general desire of an employee in his job, satisfaction of his basic needs including personal safety. This level is characteristic of the majority of employees;

2) The level of the employee is characterized by his interest in production figures, responsibility and initiative;

3) The level of personal abilities is characterized by realization of a person's potential, innovation, creativity, level of motivation control.

Besides, we have singled out factors causing slow down of an employee's performance at all the above-mentioned levels. On the basic level we can note the following factors:

1) uncomfortable working conditions (poor light, lack of work clothes, humid /dry air, harmful working conditions, bad nutrition, etc.);

2) lack of information about the company's achievements;

3) lack of significant punishment for breach of work discipline and order;

4) lack of information about current events and the personnel management policy (no assuredness of one's personal safety, lowering of one's interest in his work, low/no results of the working activity (no move up the career ladder).

To avoid negative performance of an organization's/ enterprise's workers it is necessary to motivate the employees on the basic level, on which we singled out the following motivation tools:

1) Creation of good working conditions (hygiene and sanitary conditions, safety measures, nutrition, work clothes, rest, working hours, etc.);

2) Presentations and activities aimed at the demonstration of the organization's/enterprise's achievements;

3) Notes of thanks for the achievements of employees sent to their families;

4) Information about employees' achievements (punishments) on information stands;

5) sanatorium vouchers (rest, treatment);

6) Company's system of interaction of the organization's/ enterprise's employees (information about the organization's activities, events, achievements of other departments, boxes of suggestions and questions whish are publicly answered).

As a result of implementation of these motivation tools we expect increase of employees' interest in their jobs and the work done, of employees' enthusiasm and their feeling of significance as workers of the organization.

After implementation of each motivation tool monitoring of its efficiency and the employees' response on the activities is done which enables one to estimate the efficiency of each motivation tool.

Among factors decreasing an employee's motivation to do his job responsibilities at the organization human resources' level we single out:

- lack of confidence in the stability and development of an organization/ enterprise;
- lack of professional advancement opportunity;
- employees' confidence in lack of punishment for low quality of their performance;
- low level of personal responsibility before the organization and colleagues;
- devotion to the organization/ enterprise (division: "mine"/ "not mine).

Let us consider motivation at the level of an employee, i.e. his interest in his personal contribution to increasing production figures. The motivation tools at the employee's level are:

1) transfer of authority (both during promotion to some position and dismissal); status increasing, status rewards (both on the level of an employee's significance for the organization/ enterprise and in his position, e.g. the "best locksmith nomination", "breastplates", i.e. everything connected with production, specification figures, etc.; temporary practical training on a higher position)))

2) At the organization level – stability and rise of the organization/enterprise profit (an employee's responsible work, their high performance, matching his personal goals with those of the organization/enterprise should be shown in infor-

mation sheets where the contribution of an employee/ group of employees to the development/ rise of the organization/enterprise profit is given.

Implementation of the above-mentioned tools results in increase of labor discipline, interest in productivity, initiative of an employee.

Besides, to develop and, if it is necessary, to improve the held activities, their monitoring is done.

We would like to note some factors which reduce motivation at the personal level:

1) conflicts caused by underestimation of employees by the management;

2) lack of opportunity for an employee to use his knowledge and skills;

3) lack of desire in employees to further improve their professional skills and get new information;

4) frequent breach of labor discipline;

5) feeling that you are not understood, underestimated, insignificant;

6) low activity in solving problems on one's own, in prompt actions, low level of responsibility, aggression both towards colleagues and other employees.

To increase motivation or prevent factors reducing it, we suggest the following influence of motivating employees on the personal abilities level. Motivation tools on this level are:

1) Training (personal development and professional advancement), corporate events

2) Appreciation of an employee by the management (Оценка руководителем работника (at the corporate meeting));

3) Appraisal of work groups;

4) Competition of departments in the "best work group" nomination, the "innovative work group" nomination, etc.

5) Practical training for employees to see possibilities of their professional development;

6) Involvement employees in work of groups dealing with solution of problems.

Like with other motivation levels the monitoring of the obtained results is done.

Now let us consider the way the non-monetary motivation system works.

Based on the monitoring of the motivation peculiarities of the personnel, done by the HR department, before implementation of a motivation tool, at each level tools and activities which will motivate personnel in their professional activity are defined. After that heads of departments of an organization/enterprise individually and in group are acquainted with the inventory of the tools, their possibilities and limitations, are trained in using techniques and ways of motivating the personnel at different levels of personnel management as motivation should be done by the management or heads of the departments where these motivation tools are to be implemented. Further work is done by heads of the departments which spread the information and directions on use of the motivation tools to their middle managers, to those, who directly interact with workers of the departments.

The HR-department continually monitors use of motivation tools in order to correct or improve motivation tools, including monitoring of implementation of the motivation system at different management levels and the quality of activities held with the purpose of the personnel motivation.

To monitor the non-monetary motivation system we suggest the following criteria and methods of results assessment:

1) Satisfaction with the working conditions is detected with the help of a special questionnaire;

2) The quality of work is assessed by means of the expert judgment of the consumers of the services provided (with the help of KPI of the key activity indices. KPI is a system used for achieving goals of any business such as attraction and

keeping customers (consumers), professional development of the employees, increase of profit and decrease of expenditures);

3) Employees' readiness to work, which reveals itself in high quality of the given tasks, their timely fulfillment. To assess it, results obtained as a result of the done/ undone tasks and reports are analyzed;

4) Satisfaction with interpersonal relations in the organization/enterprise at different levels is assessed with the help of information boxes, questionnaires, meetings with the personnel, comments of the personnel or some of the employees on the held activities;

5) The personnel initiative is assessed by means of analysis work-improvement suggestions and innovation proposals, i.e. information boxes are used;

6) Labor discipline is studied with the help of documentation analysis (the number of disciplinary penalties, information stands on which information about breach of labor discipline in departments, work groups, etc. is given).

Thus, changing methods and techniques of this motivation type, one can achieve significant growth of working efficiency. Non-monetary motivation is a more flexible and advanced way of influencing personnel of an organization/ enterprise.

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NEW ECONOMIC POLICY INDICATED FOR KAZAKHSTAN WITHINTHE STRATEGY «KAZAKHSTAN 2050»

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In December 2012 the President of the Republic of Kazakhstan addressed new political course of the state to the people of Kazakhstan.

The new political course "Kazakhstan-2050" reflects a new level of long-term forecasting of the economy and politics. The third phase of the industrial revolution based on new factors of scientific and technological progress rapidly and widely covers all countries, objectively determines the integration of their economies and social life, modifies cultural identity of peoples and nations. Strategy "Kazakhstan-2050" for the first time brings global trends in scientific, technological and socio-economic progress at the country level: or the first time, not only in the CIS, but also in the leading developed countries of the world who are experiencing serious difficulties of the global financial crisis, and they have no time to setting such a long-term strategic objectives of global development. Well-known foreign experts from Europe, America and Asia have already confirmed it. Such a long-

term strategy defines the place and role of Kazakhstan in the future of the Eurasian Economic Union, and to a considerable extent appears to be guarantee of its political independence.

There are various examples of small and medium-sized states with a vast territory and small demographic potential, which reached the level of advanced, successful cooperation in today's globalized world and confidently defend its sovereignty: for example, Sweden, Norway, Finland, Taiwan, etc. The new strategy of Kazakhstan is the guarantee of the successful future of our country. The first half of the XXI century must become a passionate stage of economic development of Kazakhstan, its state and spiritual progress. Fundamental objectives of a new stage of development associated with the third industrial revolution based on information and nanotechnologies, based on sound economic potential created by the implementation of the Strategy for the years 2030 and within the framework of the Industrial and Innovation Program of the Republic of Kazakhstan.

One of the priority tasks set by the President of Kazakhstan has to be a new formulation of the strategic long-term planning as an attribute of a strong state, a developed economy and " society welfare ". In the coming post-crisis the incremental dynamics of social and economic processes will change and accelerate not only at the level of the advanced economies, but also of reaching and catching up.

Where is Kazakhstan going? According to the goals determined in the New political course, Kazakhstan must enter the top 30 club of most developed states in the world by 2050. The competition among developing countries for a place in its list will be intense. The nation must be ready to face changes in the global economic climate, realizing clearly that the desired spot is guaranteed only to those with the strongest economies.

The state must work with dedication and inspiration, not losing a sight of the primary objectives:

• Further developing and strengthening statehood;

• Transitioning to new principles of economic policy;

• Comprehensive support for entrepreneurship will be a leading force for the national economy;

• Forming the new social model;

• Creating modern and efficient education and healthcare systems;

• Increasing accountability, efficiency and functionality of the government;

• Setting adequate international and military policy that is responsive to new challenges.

In accordance with these tasks the Government will need to immediately develop the National action plan.

This important document must include all specific orders and provide for personal responsibility of the heads of executive, legislative and judicial branches of power. The Presidential Administration must take the preparation and further implementation of the strategy under special control.

The major directions identified by the Leader of the Nation are firstly concerned with determining a new economic course.

The economic policy of the new course is all around economic pragmatism based on the principles of profitability, return on investment and competitiveness

The essence of economic policy of the New course – is universal economic pragmatism. What does this mean?

Firstly, it means adopting all economic and managerial decisions based purely on economic feasibility and long term interests.

Secondly, it involves defining new markets where Kazakhstan can participate as an equal business partner and create

new sources of economic growth.

Thirdly, it infers creating a favorable investment climate to help build economic capacity, profitability and return on investments.

Fourthly, it implies creating an effective private sector economy and developing public private partnerships. Kazakhstan must do this by stimulating exports with state support.

Another key condition of success for our 2050 policy will be the right people to back it up. To ensure these people are in place the government of Kazakhstan must:

• Enhance the managerial resources and potential that we possess;

• Introduce modern management tools and principles of corporate governance in the public sector;

• Exploit the benefits of international divisions of labor. In particular, attract external cadre resource for implementation of some of the tasks of the New course via the outsourcing programs. Kazakhstan should also attract the best foreign specialists in the open market and invite them to work in our country.

• The use of managers with extensive international experience and knowledge will have a dual effect: the state will modernize management of our production and teach our own domestic human resources. This is a new practice for the state.

Another important step is concerned with modernization of the macroeconomic policy.

In order to implement an efficient budgetary policy, Kazakhstan should:

• Adopt new principles of budgeting policy. The government must spend only within its means and reduce the deficit as much as possible. It is necessary to build up reserves for a rainy day, ensuring Kazakhstan's safety in the long run;

• change its attitude towards budgeting processes - it must become as careful and thoughtful, as to private investments. In other words, not a single tenge from the budget should be wasted.

• should focus the budget of the state on long-term, productive national projects that include the diversification of the economy and development of infrastructure.

Projects for investments must be selected in a strict manner, based on feasibility and rate of return. Kazakhstan must keep in mind that even the most modern projects become a burden to our budget if they require expenditures for maintenance, but do not bring revenues and do not solve the problems of our citizens.

Tax policy of the state is to:

• introduce a favorable tax regime for those employed in areas of production and new technologies. Kazakhstan must conduct a revision of all existing tax preferences and maximize their efficiency;

• continue the policy on liberalization of the tax administration and on systemizing customs administration. It is necessary to simplify and minimize tax reporting;

• stimulate market participants to compete, instead of searching for new ways of tax avoidance;

• introduce pragmatic reduction of tax supervision that will minimize the dialogue between the economic entities and tax authorities. In the next five years everyone needs to move to electronic online reporting;

• introduce the practice of tax credits starting from 2020. In doing this our main goal will be to stimulate investment activity among entrepreneurs;

• be socially oriented. Starting from 2015 it will be necessary to develop a set of stimulating measures, including the practice of tax exemptions for companies and citizens who invest their own funds in education and medical insurance for themselves, their families and their employees.

Future tax policy must stimulate internal growth, domestic exports and stimu-

late individual's savings and investments.

Monetary policy of Kazakhstan will infer the following steps:

• Considering the unfavorable global economic environment the government must ensure the safety of the earnings of each of our citizens and maintain a reasonable inflation level with respect to economic growth. This is not simply a macroeconomic issue, this is an issue of social security of the country. This will be the major task for the National Bank and the Government starting from 2013.

• Kazakhstan's banks, in turn, must fulfill their purpose and meet the demand of the private sector for loans. At the same time we must not weaken our control over financial system. It is necessary to help clear banks from problematic loans and start active work on solving funding issues. For that the National Bank and the Government, under coordination from the Presidential Administration, need to develop a conceptually different and new system of monetary policy, aimed at providing economy with necessary monetary resources.

Policy of managing public and external debt

• Kazakhstan must constantly monitor the level of public debt and keep it under control. Public debt must remain at a moderate level. This is a crucial task, because only that way we will be able to ensure the stability of our budget and national security in conditions of global instability.

• the state must strictly control the level of quasi-public sector debt.

Touching the issues of the infrastructure development, Kazakhstan should:

• adopt a whole new approach towards infrastructure development. Infrastructure must expand the possibilities of economic growth in two key ways. First of all, the state should integrate the national economy into the global environment, and secondly move towards regions within the country;

• understand how important it is to focus attention on exit routes from the country and create transport and logistics facilities outside Kazakhstan. The nation must think outside the box and create joint ventures in the region and throughout the world - Europe, Asia, America - building ports in countries with direct access to the sea and developing transport and logistics hubs at nodal transit points. In that regard we need to develop a special program "Global infrastructural integration";

• develop its own transit potential. Today the government is implementing a number of large country-wide infrastructure projects that should lead to doubling the capacity of transit across Kazakhstan by 2020;

• be oriented towards one key goal – promoting exports to world markets where there will be long term demand for our goods and services;

• Infrastructure building must also meet the profitability criteria;

• Infrastructure should be built only in places where this leads to the development of new businesses and jobs;

• Within the country we must create "infrastructure centers", to ensure coverage of remote regions and places with low population density with vitally important and economically necessary infrastructure facilities. Ahead of that we need to ensure transport infrastructure.

When discussing the issue of modernization of the system of managing the state assets, Kazakhstan is not a large economy on a global scale. The state needs to manage it very effectively. The country must work as a single corporation, and the state must serve as its core.

The strength of corporate thinking lies in the fact that all processes are considered as a whole. Public sector managers at all levels must learn and adopt the same business thinking.

The quicker we build up the production potential of the country, the faster Kazakhstan will become a key player in the global market. The driver of this economic policy would be the National Fund. Resources of the National Fund should be directed at long term strategic projects. In 2013 the accrual of money in the National Fund must be continued, but the country needs to use those funds in a very rational and thoughtful manner. The state, represented by national companies must stimulate the development of the economy of the future and consider the sectors that will emerge as a result of the Third industrial revolution. Domestic industry must consume the newest composite materials that we must produce in our country. The state must stimulate development of transit potential in sphere of information technologies. The country must ensure that by 2030 at least 2-3% of global information flows go through Kazakhstan. This figure must double by 2050. It is necessary also to stimulate private companies to invest funds in research and innovation. The country can reap real benefits only where there is demand for our new technologies. In the worst case scenario innovation becomes just a waste of money. The policy of selective support of specific companies and industries needs to come to an end. The government must support only those industries that execute socially important, strategic functions and can demonstrate their effectiveness.

Introducing the new system of managing natural resources means that the state must exploit resources as important strategic advantage of Kazakhstan to provide for economic growth and large external political and economic agreements. It is necessary to accelerate the access for our commodities on international markets, which in the case of a new financial collapse would be destabilized. Kazakhstan's major importers might significantly reduce the purchases of commodities so that the prices could fall sharply. Kazakhstan's strategy will allow to stay ahead of the curve and accumulate resources before potential market destabilization begins. These resources will then help the country overcome the hard period. Technological revolution changes the structure of commodity consumption. For example, the introduction of composite technologies and new types of concrete - causes depreciation of iron ore and coal reserves. This is another factor for us to accelerate the pace of extraction and delivery to world commodity markets exploiting the current global demand. Maintaining the status of a big player on hydrocarbon commodity market, we must develop the production of alternative energy sources, actively seeking to introduce technologies using solar and wind power. By 2050 alternative and renewable energy sources must account for at least a half of country’s total energy consumption.

If the nation wishes to have revenues from commodities in 35 years, then it needs to start preparing now. Kazakhstan needs to develop a special strategy – defining priorities and partners, in order to plan out the work for years ahead, as this is done by all large corporations and conglomerates.

Main directions of strategy development are the following:

• To ensure that regions are interested in attracting investments, it is necessary to ban the moratorium on subsurface use permits.

• To move from simple delivery of commodities to forming partnerships in area of energy resource processing and exchange of new technologies. By 2025 we must fully satisfy our internal market with fuels and lubricants in accordance with new ecological standards.

• To attract investors to the country only on the conditions of transfer of modern technology for extraction and processing. Kazakhstan must allow investors to

extract and use our raw materials only in exchange for creating new production facilities on the territory of our country.

• Kazakhstan must become the regional magnet for investment. The country must become the most attractive place in Eurasia for Investments and technology transfer. This is crucially important. To do this Kazakhstan must demonstrate to investors its advantages.

Kazakhstan was the first CIS country actually initiated a policy of "green development path" at the level of state policy. "Energy of the Future" - a worldwide problem, and pushes the state with immense natural energy resources in the name of global security and stability. Movement of the "green revolution" acquires a new content not only as a product of the modern scientific and technological progress but also as an objective process of energy saving. It is at the same time it is an objective for sustainable development of the world community and the primary condition being of the population, not only of the industrialized developed states, but also of those that are still developing their economies that have alternative sources of non-conventional and renewable sources of energy.

The upcoming EXPO 2017 in Astana will provide a powerful impetus for transition of the country towards the “green” path of development. The world’s best achievements in science and technology will be presented in the capital of our country. Our citizens would be able to witness the “energy of the future” with their own eyes.

Theoretical, methodological, social and political development and justification of its stages, ways and means to strengthen the economic potential of Kazakhstan and its sovereignty at the new phase of the industrial revolution will require the joint efforts of scientists, political leaders, administrative and planning bodies.

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STUDY OF THE FEATURES OF LIVESTOCK SECTOR GROWTH OF THE WORLD MARKET

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Agriculture is considered to be one of the major sectors of the global economy. It is aimed to provide population with foodstuff and to supply light and food processing industry with raw materials. That is the only sector of material production which depends upon natural conditions.

However, its significance in the economy of different countries and regions varies much. The geography of agriculture has an extraordinary diversity of

forms of production and agrarian relations. All of them can be united in two groups:

- Commodity agriculture is characterized by high efficiency, intensive development, a high level of differentiation;
- Consumer agriculture is characterized by low efficiency, extensive development, and lack of differentiation.

Agriculture of developed countries is characterized by sharp predominance of commercial agriculture based on mechanization, chemicals, biotechnology, advanced selection methods. Agriculture in developing countries is plural and includes a traditional sector (mainly crop area with small farms) and a modern one (commodity agriculture with well-organized plantations and farms).

Livestock is a most important branch of agriculture providing population with high-protein and health food, and a number of industries with raw materials. Livestock industry provides 45% of total production, accumulates 75% of fixed production assets and 70% of manpower resources in agriculture, livestock value is also determined by the fact that it produces the most relevant and biologically valuable products in the human diet [1].

Livestock affords valuable raw materials for the industry: wool, leather, lambskin, etc. The development of livestock sector can make productive use of agricultural labor and material resources in the course of the year. Crop sector waste is used in livestock, valuable organic fertilizer such as manure and slurry are produced.

The main task in the livestock industry is to create proper conditions for manufacturing of products whose volume and quality conform to population size and nutritional standards and whose prices ensure profitability of their production and commensurability with the size of most people's income. In the past the main objective was to get more products, however now the main criterion of the industry is to achieve competitiveness and breakeven.

Livestock as a branch of agriculture is developing almost worldwide. The deployment of its branches depends first of all on the food reserve.

The contrasts in the development of animal husbandry over the world between developed and developing countries are even more than those in farming.

Animal husbandry comprises the following subsectors:

- livestock (cattle-breeding);
- swine-breeding;
- sheep-breeding;
- poultry keeping;
- horse-breeding;
- deer farming;
- fur animal breeding;
- bee keeping.

Cattle, pigs, sheep and poultry are the main subsectors among them.

The significance of cattle-breeding (1.3 billion animals per year) is in providing almost all the milk and more than one third of meat. The largest total number of livestock abroad is in Asia and Latin America.

There are three main areas in cattle-breeding:

- Dairy cattle (characteristic of densely populated areas of Europe and North America);
- Meat and dairy cattle (characteristic of forest and forest-steppe zones);
- Meat cattle (characteristic of dry areas of temperate and subtropical zones). India, Argentina, Brazil, the USA, China, and Russia have the largest number of cattle.

Cattle-breeding is spread relatively evenly through the world but its levels of productivity and differentiation vary in different zones. Meat and dairy cattle are ranched in forest and steppe temperate zones. Dairy cattle prevail with stalled and mixed keeping of cattle in suburban and other highly-populated areas. In arid zones with migratory cattle-breeding meat cattle

predominate. Most of the livestock population (almost 60%) is in developing countries.

Pig breeding is considered to be the most dynamic sector of the livestock (more than 0.8 million head per year). Advance in the development of this sector promoted the fact that pork became cheaper than beef. Pig breeding is available everywhere. In Muslim countries there are practically no pigs for religious reasons. This sector is close to densely populated areas and areas with intensive potato and sugar beet growing. Chine is the first country in the number of pigs (almost half of the world total) followed by the U.S., Russia, Germany, and Brazil.

Sheep farming is the third leading livestock industry, producing wool, astrakhan fur, sheepskin, meat, fat, and milk. This is one of the most traditional and extensive production in agriculture.

Sheep breeding (1.2 billion head per year) prevails in the countries and areas with extensive pastures. While fine-wooled sheep breeding is most often found in areas with an arid climate and in the steppe and semi-desert, semi fine-wooled sheep breeding, meat and wool sheep breeding prevail in areas with humid and mild climate. Steppe regions of Australia are the world's largest area of sheep breeding.

Sheep farming predominates in the countries and areas with extensive pastures. Several breeds of sheep are grown for different purposes. Australia and New Zealand have the largest number of sheep. Sheep breeding falls into meat and wool, wooly and fat-rumped sheep. Wooly sheep farming is subdivided into fine-wooled, semi fine-wooled and astrakhan. Fine-wooled farming developed in arid and semiarid regions (China, Argentina, Iran, and Uzbekistan) provides the highest quality fine-wool. Central and Western Asia are suppliers of valuable astrakhan (newborn sheep skins).

Goat breeding is close to sheep breeding. Generally it has local significance, except Angora goats breeding giving mohair.

Poultry farming is one of the most fast developing livestock industries. Highly mechanized poultry farms for eggs and poultry are located not far from cities and major grain producing areas.

Fishing is a very ancient craft of mankind. Currently it is an important sector of the world economy. In freshwater 0.1 of the world fish catch is fished out, the rest part is got in the oceans and seas.

Many countries develop fishery as a sector. But nearly half the world's fish catch is produced by six countries such as Japan, China, Russia, the USA, Chile, and Peru. The disastrous decline in industrial fish reserves in the ocean promotes fish farming development.

This means also fish farming and increasing and improving the quality of fish stocks in natural waters (various species of sturgeon, salmon, and herring), and in special artificial reservoirs (bream, carp, crucian carp, etc.). Japan has the most significant advances in fish farming and growing other seafood.

There are other narrow prominent sectors of livestock such as camel breeding, horse breeding, reindeer breeding, bombycid growing, rabbit breeding, bee keeping, and fur animal breeding.

The leaders of livestock production are economically developed countries; the USA, China and Russia are leading producers of meat, Russia, Germany, France are leading producers of butter, and the USA, India, Russia are the leaders of dairy industry.

The main exporters of livestock products are:

- Poultry – France, the USA, the Netherlands;
- Mutton – New Zealand, Australia, Great Britain;
- Pork - the Netherlands, Belgium,

Denmark, Canada;

- Beef – Australia, Germany, France;
- Butter - the Netherlands, Finland, and Germany;
- Wool – Australia, New Zealand, Argentine [2].

China has an average of 58.8 pounds of meat per person, which is high even for the world average. According to the Ministry of Agriculture of China its livestock sector achieved a stable delivery of milk, meat and eggs to the domestic market for five years from 2005 to 2010.

In 2010 meat production was 78.5 tons, milk production was more than 37 tons, and egg production reached 28 tons. For five years, the growth performance of milk production was 31%, meat and eggs - 13%. China has 21 pounds of eggs per capita, which exceeds the relevant data of any developed country.

In 2010 the number of pig and dairy farms among agricultural enterprises of this sector was 66% and 47% respectively. These figures increased more than 20% in comparison with 2005.

Over the last five years from 2005 to 2010 no state has allocated so much money to maintain and expand existing pastures as China. During this time the area of pastures increased by more than half. Expanding the natural forage for livestock is a breakthrough [3].

Table 1 - Geographic segmentation by livestock exporting countries [2]

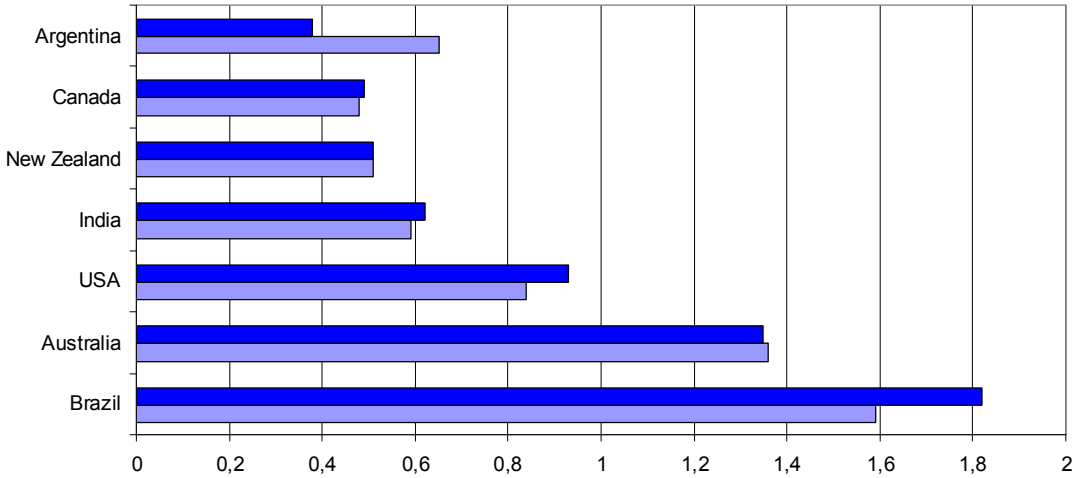
Livestock products and live cattle	Main exporting countries
Beef and veal	Australia, Germany, Finland, New Zealand, Ireland, the Netherlands, the USA, Hungary
Pork	The Netherlands, Belgium, Denmark, Canada, Hungary
Mutton	New Zealand, Australia, Great Britain
Poultry	France, the USA, the Netherlands, Brazil
Wool	Australia, New Zealand, Argentina, Uruguay, the Republic of South Africa
Cattle	Brazil, Argentina, Mexico
Swine	Ethiopia, China, the Netherlands, Canada
Sheep and goats	Australia, Turkey, Somalia, Ethiopia

The Table clearly characterizes the international trade of livestock products. It describes the leading position of the mature economies in trade and these are the first-rate exporters of meat and wool products. The percentage of the developing countries is somewhat higher in live cattle trade.

Livestock is a secondary sector in the most developing countries while it dominates over farming and is notable for intensive farming in the most developed countries. Industrialization, food supply improvement and progress in selection work in the developed countries promoted higher productivity in their livestock sector. Because of the common problems of livestock and farming in the developed countries e.g. economic glut, the governments of these countries pursue the policy of containment and cutback in production.

Economically developed countries

are far ahead in absolute indicators of developing livestock production. This is due to the lower productivity of livestock in Asia, Africa and Latin America. Suffice it to say that they produce only 25% of the world beef and 14% of milk.



	Brazil	Australia	USA	India	New Zealand	Canada	Argentina
2010	1,82	1,35	0,93	0,62	0,51	0,49	0,38
2009	1,59	1,36	0,84	0,59	0,51	0,48	0,65

Figure 1 – World dynamics of production by country for 2009 and 2010 (KZT million)

Per capita indicators of livestock products in the developed countries tend to be many times higher. Especially there are small countries with a highly intensive livestock sector (New Zealand, the Netherlands). But countries with smaller population such as Australia and with more extensive livestock might also have high per capita indicators.

Livestock is as widespread as crops, and grasslands and pastures occupy three times more land than agricultural land in the structure of land. The bulk of the country's livestock production comes from the temperate zone.

The geography of the world livestock is characterized by cattle placement.

Different countries have a diverse level of livestock sector development. In advanced developed countries e.g. Europe, North America, Japan, and former socialist countries with transition economy e.g. Central Europe and CIS countries, the livestock sector is a highly intensive and mechanized industry based on the same intensive and mechanized feed production. Its main subsectors are dairy cattle breeding, stalled breeding of cattle for meat, swine breeding, and highly mechanized poultry breeding.

The livestock in these countries is a highly marketable sector closely related to processing and value chain of agriculture. However, in the countries with large pastures, livestock combines features of extensive production (but well technically equipped) associated with the other components of the agricultural sector. Pastures are used to grow cattle for meat, and to breed sheep. This is a characteristic of South-West of the USA, Australia, New Zealand, South Africa, and to the less extent the South of Ukraine and Russia, Kazakhstan, etc.

An extensive livestock using grazing and very little related to other branches of the agriculture sector has been formed in developing countries. There are the most developed subsectors such as meat cattle, meat and dairy cattle breeding (with cattle

less productive in comparison with Europe or the U.S.), grazing sheep, horse breeding in some areas, camel breeding, etc.

Among developing countries, the most total number of livestock for meat is in Latin America (Brazil, Argentina, Mexico, Uruguay) and East Africa (Ethiopia), of sheep and goats - in South West and South Asia (Iran, Turkey, India, Pakistan).

Developing countries are going to increase wool production volume in the near future. Kazakhstan, India, Russia, China, and Turkey don't process the whole amount of wool up to now. Only streamlining the collection and classification of wool will promote the growth of the total production of wool.

Traditional leaders in wool production, however, will reduce the production of wool, as the market is saturated and overstocked with the products. Prices for the input wool are very low in the world market, and close to the price of production. Traditional leaders will cut down livestock population, and shift from wool to meat and dairy farming.

Land in Europe is constantly becoming more expensive, and requires the maintenance of sheep grazing, so the number of sheep and wool production in Europe will continue to decline.

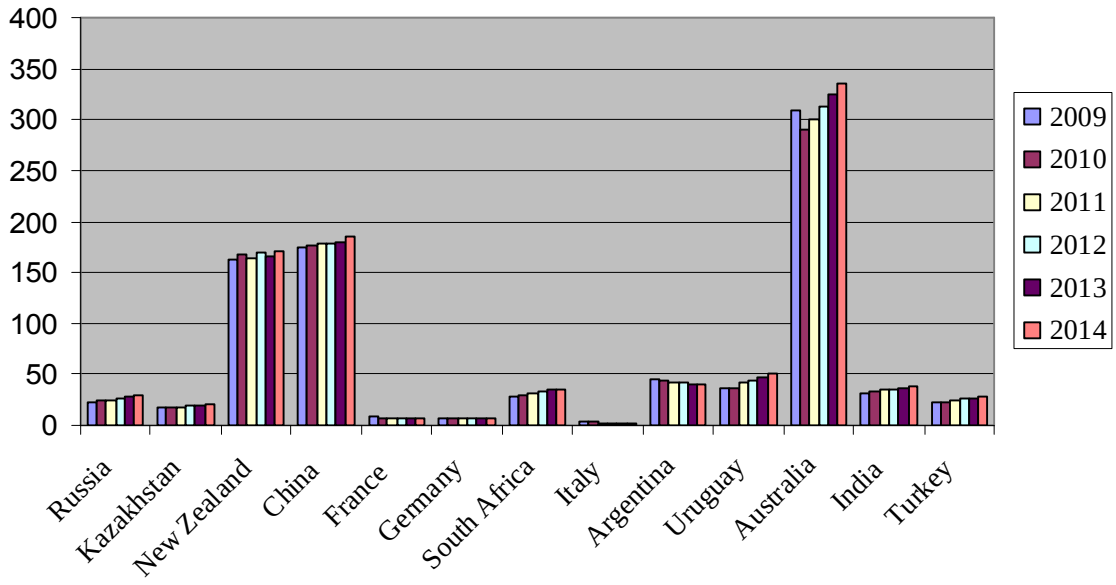


Figure 2 - Forecast of production of pure wool, by country, 2009-2014 (KZT, thousand)
Source: International Wool Textile Organization (I.W.T.O.)

Production of pure wool will increase stably in developing countries, where state supports its farmers and home processing of raw materials.

Wool production is also influenced by weather conditions. Weather affects more sheep than beef cattle. In recent years, unstable weather in Australia and South America also prompted breeders to reduce the number of sheep.

Large foreign buyers of wool, such as China and India, require large volumes of supply and prefer to work with traditional suppliers, New Zealand and Australia with established inexpensive marine logistics. European countries also prefer to work with reliable suppliers who provide carefully selected and processed wool.

The number of people in the world grows to about 70-80 million people a year. Never have so many people lived at the same time in the world. If you consider

agriculture and food, everyone tends to increase consuming, and therefore relative consuming increases together with absolute consuming due to population upsurge.

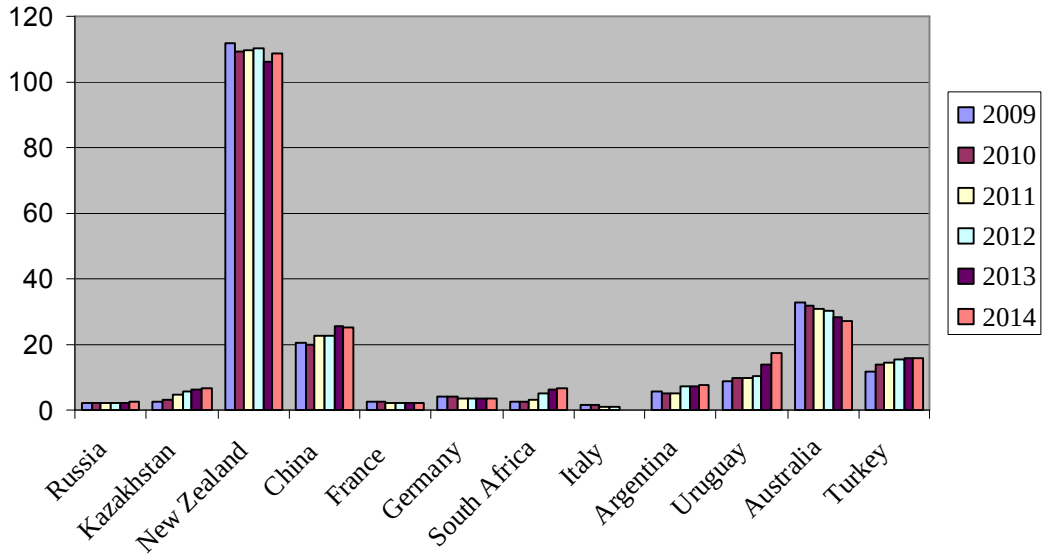


Figure 3 - Forecast of pure wool exports, by country, 2009-2014 (KZT, thousand)
Source: United Nations Statistical Division

Accordingly, more food will need to be produced by the same amount of land (or even by a smaller area) in the XXI century worldwide. Recent studies of future demand indicate that the world will have needed 70-100% more food by 2050.

When asked "What should be done to provide 10 billion food?" Ida Kubiszewski, professor at the University of Portland, the editor of The Solutions journal replied that there is absolutely enough food supply in the world today but about 30 to 50% of food in both developed and developing countries is wasted, though for very different reasons.

In developing countries, the loss is mainly due to the lack of infrastructure in the production chain, such as storage technology of food produced by farms, during transporting, storage prior to sale. Huge losses during storage are typical for developing countries, such as India, where 35-40% of fresh produce is lost because neither wholesale stores nor retail outlets are equipped with refrigerators.

Though rice can be stored without any special equipment there are its losses in South East Asia. So after harvest about a third of the crop is going to be lost due to pests and spoiling.

In developed countries, the food losses up to the retail stage are much lower, but the losses during retail trade, public catering and individual consumption are significant. For example, consumers are used to buying good looking products and, consequently, retailers have to throw a lot of edible, but slightly damaged products. For consumers in developed countries food is relatively cheap, which also promotes producing waste.

The world faces a triple problem in the XXI century from the point of view of world food security:

a) to satisfy growing demand for food;

b) to ensure sustainable food security in terms of the environment;

c) to cope with the problem of hunger.

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THE ECONOMICS OF EDUCATION IN THE REPUBLIC OF KAZAKHSTAN: THE ANALYSIS OF THE BASIC SOCIOECONOMIC INDICES

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Nowadays, the growth of general and professional education has become an important factor to increase the total production efficiency. The pecuniary valuation of educational potential allows estimating the series of important indices that characterize educational efficiency. One of these factors, first of all, is the index of educational found-forming activities. This is the quantity of produced gross domestic product (GDP) per country's educational fund unit expressed in money terms. It can be calculated with the formula:

EEE = GDP/EF

(EEE — economical education efficiency
EF — educational fund)

This index is calculated in 2 variants: per educational fund unit of the whole population and of its working force.

In the first case, the country's total produced wealth is divided by educational fund of the whole population. In the second one it is divided by that of the labor force.

As we can see the advance growth of GNP in relation to education fund per unit of the latter we can see the growth of GNP which means the increase in effectiveness of education. Another indicator which is somewhat opposite to the first one is an indicator of production's intellectual capacity. It shows how many money units accumulated in the educational fund goes to each production unit.

This Intellectual capacity indicator (Ic) is calculated as a ratio of the Education Fund (EF) to the Gross National Product (GNP) as shown in the formula:

Ic = EF / GNP, (2)

In order to determine the effectiveness of an investment into human capital in Kazakhstan in recent years it is reasonable to calculate the efficiency of education (EE) and intellectual capacity indicator (Ic) at the macro level:

1999: EE = 1672/74,4 = 22.4
2000: EE = 1733/101,4 = 17.1
2001: EE = 2016/ 128=15.7,
2002: EE =2599\141=18.4
2003: EE = 3250/ 131,4 = 28,0
2004: EE = 3776,3/ 131,4 = 28,7
2005: EE = 4611,9/ 159,7 = 28,9
2006: EE = 5542,4/ 185,8 = 29,8
2007: EE = 7457,1/ 256,9 = 29,0
2008: EE = 9853,1/ 3216,9 = 30,6
2009: EE = 12544,1/ 4489,9 = 27,9
2010: EE = 704180/33466,8 = 21,0
2011: EE = 886775,5/43351,6 = 20,5

Consequently, in the Republic of Kazakhstan there is an increase of GNP per 1 KZT of Education Fund.

1999: Ic = 74,4/1672/ = 0.044
2000: Ic = 101,4/1733 = 0.058
2001: Ic = 128/2016=0.063,
2002: Ic =141/2599=0.054
2003: Ic = 131,4/3250 = 0.040

2004: Ic = 131,4/ 3776,3 = 0,0347
2005: Ic = 159,7/ 4611,9 = 0,0346
2006: Ic = 185,8/ 5542,4 = 0,0336
2007: Ic = 256,9/ 7457,1 = 0,0344
2008: Ic = 3216,9/ 9853,9 = 0,0324
2009: Ic = 4489,9/ 12544,9 = 0,0354
2010: Ic = 33466,8/704180,6 = 0,047
2011: Ic = 43351,6/886775,5 = 0,049

Therefore, on average Education Fund reduces per each unit of GNP. This is a negative trend for the country, because developed countries are characterized by the increase of that index in its dynamics. This shows lack of attention to the development of the educational potential of our Republic.

It is also important to consider other major socioeconomic indices of the education market in the Republic of Kazakhstan.

The Republic of Kazakhstan is recognized by the international community as a country with a market economy. For a short period of independence the country has achieved significant growth in the economy. It integrates with the world community. In this context, the role and importance of education, human resources as the criteria of social development, economic strength and national security of country is increasing.

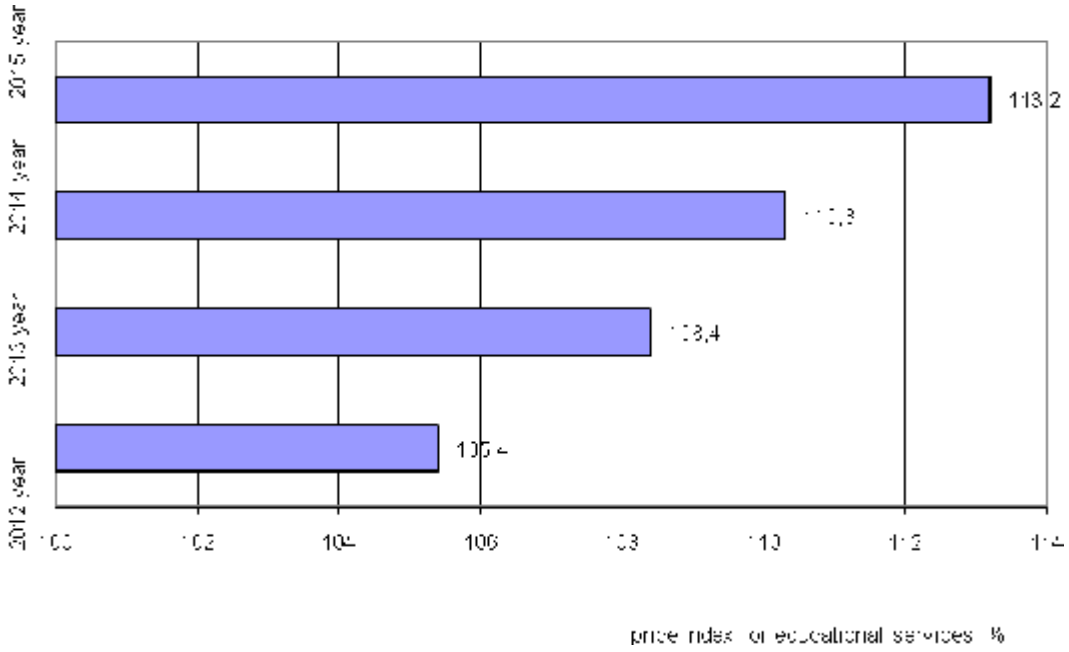
In our changing world under conditions of increasing flow of information the fundamental subject knowledge is not the only purpose of education. It is a lot more difficult and important to impart the students the ability to extract, analyze, structure and use the information for the purpose of the maximum self-realization and useful participation in life of the society.

There are 3 reasons that have a negative effect on the education management system: absence of unified system of education on the regional level, lack of experts in education departments, and constant rise in prices (see Table 1).

Table №1 - The price index on education services, in percentage to previous year.

Region	2008	2009	2010	2011
The Republic of Kazakhstan	105,4	108,4	110,3	113,2
Akmola region	104,1	100,0	109,6	105,7
Aktobe region	105,3	114,3	110,3	116,2
Almaty region	109,3	108,5	107,9	117,0
Atyrau region	113,1	105,9	103,7	115,0
East Kazakhstan region	104,4	108,5	111,6	115,1
Zhambyl region	103,0	112,4	125,1	108,6
West Kazakhstan region	105,3	104,4	108,1	108,2
Karagandy region	106,9	108,4	112,4	114,5
Kostanay region	102,5	112,1	106,7	105,2
Kyzylorda region	100,8	101,4	102,4	110,0
Mangystau region	112,9	111,1	112,0	113,5
Pavlodar region	104,8	109,1	110,3	112,5
North Kazakhstan region	104,1	107,0	111,5	105,0
South Kazakhstan region	102,7	111,4	111,5	127,3
Astana	111,9	112,0	109,7	111,6
Almaty	103,2	106,4	108,7	109,9

According to the table we can see that South Kazakhstan, Almaty, Aktobe, Atyrau and East Kazakhstan regions are leaders in growing prices for education services. Price index in these regions overgrows an average index of the republic. Table 1 also shows that price index of education service in the analyzed period increases and in 2012-2015 it is expected to get the highest index, which is shown in Picture 1.



Pic 1. The price index of educational services

Total share of the educational involvement of the population at the age between 6-24 (or total involvement index) is the ratio of number of students in different educational institutions (i.e. students of comprehensive secondary, vocational and high schools, colleges and universities) to the population at the age between 6-24.

The educational level in the Republic of Kazakhstan is clearly illustrated in Table #2. According to the information presented, 78.7% of the population at the age between 6-24 is involved in education. At the same time, there is an obvious disproportion between country and urban population involvement in education: 56.5% and 99.2% of involved people respectively.

The educational index in individual regions is considerably lower than the average educational index of the whole republic. The statistics where you can see the number of Kazakhstan secondary school students are given in Table #2 below.

Table #2: Number of Students in High Schools

Region	2009	2010	2011
The Republic of Kazakhstan	250935	336728	397631
Akmola region	10053	12440	16535

Aktobe region	17471	22613	26470
Almaty region	12856	19509	25461
Atyrau region	5522	8649	11231
East Kazakhstan region	25481	33127	35423
Zhambyl region	12918	19311	24156
West Kazakhstan region	11614	12769	13829
Karagandy region	23700	32534	36946
Kostanay region	14506	17095	18952
Kyzylorda region	9026	12944	16115
Mangystau region	8515	12450	15283
Pavlodar region	22014	25425	27367
North Kazakhstan region	10700	11899	12442
South Kazakhstan region	20351	31894	42805
Astana	14781	18904	20142
Almaty	31427	45165	54474

Table #3 – Number of Students in Institutes of Higher Education

Region	2008/2009	2009/2010	2010/2011
The Republic of Kazakhstan	180	181	174
Akmola region	8	8	8
Aktobe region	6	7	7
Almaty region	4	4	4
Atyrau region	3	3	3
East Kazakhstan region	9	11	10
Zhambyl region	4	5	5
West Kazakhstan region	6	6	7
Karagandy region	15	15	15
Kostanay region	8	9	9
Kyzylorda region	6	6	6
Mangystau region	5	4	3
Pavlodar region	4	5	4
North Kazakhstan region	4	4	4
South Kazakhstan region	19	18	19
Astana	10	10	11
Almaty	69	66	66

Table 3 shows that the number of educational institutions in 2010 -2011 decreased both in the Republic of Kazakhstan and in almost all regions which

should be regarded as a positive trend in the market of educational services.

Despite some positive dynamics of the education market, it should be noted that the achievements of recent years point out that the Program of education has not achieved its objectives. Under conditions of deterioration of economy further deterioration of the education market can be predicted. Publications in periodicals in eager rivalry report a large number of students expelled from the institutions of higher education, undeveloped educational loans and other negative trends.

The main trends of the education market are:

- Higher education is increasingly becoming mass.

- Another important trend is the diversification of higher education in the institutional forms, levels and content.

-The trend of internationalization of human capital based on the universality of knowledge, mobilizing collective efforts of the international scientific community is rapidly gaining strength. This is manifested in the increasing role of international cooperation in national educational institutions and organizations, and the emergence of supranational organizations, programs and funds. In higher education, there is a close approximation, not to say more, of trends, challenges and goals, making you forget about national and regional differences and specificities. There is the universalization of educational content that cannot be stopped in the era of the information revolution and the existing world of universal communication systems in the form of the Internet.

The internationalization of education is an objective, dynamic process. Many researchers think the internationalization of education acquires such features of a new stage as integration, which is evidenced by the appearance of an appropriate political and legal superstructure of an integrated complex.

The most acute problem of education is an expansion of higher education. Modern society needs well-educated and mobile professionals. And that society can and should stimulate quality higher education affecting the labor market of young professionals.

Growing magnitude of higher education funding is another acute problem. Increase in the number of students is forcing many schools to reduce costs for infrastructure, library resources, international cooperation, teaching staff.

Diversification of higher education has created a problem of its adequacy to current requirement and qualitative differences in the various types of educational institutions. For Kazakhstan, this problem is reflected in qualitative differences of student and teaching staff, and, consequently, the level of training in the public and nonprofit colleges.

The internationalization of higher education to meet the growing need for cross cultural understanding caused by the global nature of modern communications and consumer markets is certainly a welcome trend. However, the mobility of students and teachers under conditions of considerable difference in economic development in different countries leads to a negative trend of "brain drain." The loss of skilled human resources by developing countries and countries in transition is caused not only by academic mobility, but also by increased international migration, and the fact that the developed countries deliberately build their migration policies, provide more favorable conditions.

International cooperation is a powerful lever for the world of higher education. It is intended to address a number of actual problems:

- Compliance with the adequacy of the content and the level of higher education to the needs of the economy, politics, social and cultural spheres of society;

- Leveling of training in various

countries and regions;

- Strengthening international solidarity and partnership in the field of higher education;

- Sharing of knowledge and skills in different countries and on different continents;

- Promotion of higher education, especially in developing countries, including through funding from international foundations;

- Encouraging an overall increase in flexibility, coverage and quality of higher education that facilitates elimination of the causes of "brain drain";

- Promoting competition among science schools and educational systems in conjunction with academic solidarity and mutual assistance;

- Coordination of activities of educational institutions for the development of higher education.

Bilateral and multilateral scientific and educational partnership of universities, exchange of teachers and students, including those created with the assistance of EU supranational target programs (SOMETT, ERASMUS, LINGUA, SOCRATES) are widely developed.

The most important conditions of Kazakhstan's entering the world educational integration processes at this stage, which are essential for competitiveness and sustainable development of the innovative economy of education, are:

- Achievement of standards equivalent to those in international education and models of quality and level of education at all levels, using for this purpose the comparable procedures, tools, and measures of control of education quality of;

- Putting the content and structure of the national education system in line with international norms and standards;

- Development of a framework for the diplomas and qualifications in vocational education to be comparable that will promote the competitiveness of the vocational education system, a significant increase in academic mobility of teachers, pupils and students;

- Creating the conditions for a significant expansion of exports and imports of technology, knowledge, and educational services;

- Equal access to the state resources for various sectors of education;

- Computerization of all levels of education, increased access to educational resources online, introduction of distance learning programs, digital and e-learning of new generation.

The study results can be used to justify the cost for human resource development.

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MODEL OF A DIALOGUE AS THE FUNCTION OF SOCIAL CULTURAL CONTEXT

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People live not only in a biological and social medium. They live in the vocal surroundings, the surroundings of "the certain verbal culture". "Everyone is immersed into this storming ocean from birth till death, and everyone is searching for the truth or, at least, the cogency with the help of the words" [Михальская 1996, 40]. And as never before, this is very characteristic of the contemporary stage of the human history.

The fastness of life of the postindustrial society, the phenomena collectively known as "information burst", technological advancement and application of information technologies in mass communication, their huge and ever increasing influence on all spheres of human activity have changed social and cultural environment and "cultural awareness of the epoch" (I.P. Ilyin). Such changes witness the emergence of a new – harmonious – type. "Its orientation, which counterbalances the relations of a man and the surrounding world, results in understanding the ***dialogical*** principle of their existence and interrelation" [Михальская, 1990, 51]. We can observe the extended use of a dialogue to a scale which has never been so dimensional before. At the same time, strange as it is, isolation and estrangement of people, the feeling of "being lonely in a crowd", which is not characteristic of a man, who is sociable by the nature, increase. Professor Yevdokimov observes: "From inherent integrity of the civilization and spontaneous activity of the society the world turns to isolation and estrangement (mind that the amount of communication increases!)" [Евдокимов 2008, 145]. Archpriest Mikhail Dronov echoes: "Estrangement and egoistic solitude have become customary to us, while lie is no more viewed as an ethical torment depriving as of genuine emotional experience of meeting another man" [Дронов 2008, 30]. It's characteristic of a man to seek understanding and sympathy, and feel joy finding them. At the same time "one of the worst evils of the society is the fear to get into close interpersonal contact – people prefer a ritual lie of perfunctory relations" [same, 36]. One can see that a real-life dialogue is being substituted by reading: it lowers the risk of getting into conflict and is a lot more comfortable. Ideally a real-life dialogue is an interactive process of interpersonal communication.

According to A.K. Mikhalskaya a new cultural paradigm provides evidence that "practice of communication abounds in both unsettled problems and problems which were not raised or even not sensed by the science." [Михальская 1990, 51]. First of all, there is a need to re-evaluate the interpretation of the ***nature*** and ***results*** of communication [same, 56]; a "cultural specific" notion of "effective communication" also requires clarification. The notion of "being involved in a dialogue" is also quite ambiguous.

Conversation, characterized by a great variety of forms, also includes such form of verbal communication as a dialogue which is an interaction of communicants. It may happen in a real-time environment (the so called on-line dialogue) and/or be a part of literary communication (the off-line dialogue), which is an "author-reader" communication by means of a literary text.

In traditional rhetoric based on principles suggested by M.V. Lomonossov (who, in his turn, drew them from the protestant traditions) dialogue has a narrow interpretation of "exchange of re-

marks" or "elementary messages". A.A. Volkov expands this traditional definition: "Dialogue is a conversation between several people characterized by a sequence of remark and resulting in a common decision making"; "a dialogue may contain separate monologues which are seen as expanded and comprehensive remarks" [Волков 2001, 21].

However, the traditional Russian philology also suggests a different interpretation of a dialogue which is so broad that treats a dialogue as "the principle of existence", since, according to M.M. Bakhtin, "to exists means to be involved of a dialogue". The necessity to scrutinize the interpretation of a dialogue in various social and historical context, within various logical spheres is obvious. Clarified understanding of a notion of dialogue will help in determining its effectiveness.

The roots of different interpretation of a dialogue can be found in the antiquity. A.K. Mikhalskaya wrote: "Aristotle, who in his "Rhetoric" described communication as a trinomial act, which was later inherited by the theory of communication, linguistic pragmatics, theory of speech activity and speech culture, was a lot more attentive to the participants of communication – speaker and listener – than it is acceptable in contemporary science and practice. Nowadays the listener only has "the right" to decipher, decode information the speaker conveys and do it "adequately"; the effectiveness of the speaker is usually determined by the degree of completeness and lack of impediments the speaker manages to achieve in his attempt to convey the message to the listener, i.e. by the minimum hindrance in the transmission process. Such approach reflects the subject-object character of relationship between the speaker and the listener generated by the culture of a monological type" [Михальская 1990, 52]. According to A.K. Mikhalskaya such culture "resulted from within subject-object gnosiological model which reflects rationalistic west-European scientific paradigm" [Михальская 1992, 58], which is called "Cartesian". Then we can observe the following: "the theory of information and the theory of communication using the ancient rhetoric interpretation of the communication structure ("speaker-message-listener") brought it to the contemporary philology having filled it with the new content characteristic of a monological culture based on primacy of theoretical knowledge" [Михальская 1990, 52]. Development of such interpretation of communication brought up the idea of "effective communication" "as a maximum (most complete) transfer of information from the subject of communication (speaker) to the object of communication (listener)" [Михальская 1992, 58].

This approach is characteristic of the American rhetoric. O.P. Brynskaya calls it "the most perfect tool of manipulation of public opinion" [Брынская 1979, 22]. A.K. Mikhalskaya adds: "A passive role of the recipient who is manipulated by the author of the message is clearly observed in such sphere as advertising" [Михальская 1990, 52].

In the culture of monological type the "activity" of the recipient, if any, adds up to understanding, reproduction and analysis of the received information. To achieve this the speaker should provide "such "form" of the means of communication which could be adequately decoded by the listener". Despite the voiced call "to rehabilitate the recipient" and "not to exclude the recipient from the scope of our attention" (Ya. Sobol), subject-object relation of the speaker and the recipient have been prevailing for a long time (in particular, in the soviet linguistics). Thus, B.N. Golovin asserts that "the objective is to provoke in the speaker's (reader's) mind the same image or information that the speaker (writer) wanted to convey… And the higher is the level of similarity the

more effective is the communication" [Головин 1998, 23]. The author writes: "If the speech grasps different spheres of the listener's or reader's mind, ***subordinates it to the author*** (italics added – L.K.), such speech is effective" [same, 28] (in this context "efficacy" is to be considered synonymous to "effectiveness").

Thus, in the process of communication, it is necessary for the participants who received information to "comprehend it in the same way, treat and evaluate it similarly" which will result in reducing "to a minimum the difference in information which depends on mismatch in how people's minds work" [same, 36-37]. Thus it leads to the conclusion that in this paradigm "the perfect type of communication is the maximum assimilation of the information recipient to the speaker, when the speaker and the listener are integrated. In this "communication curve" there is a solitary piece – implementation of the monological world view and communication, and this "curve" naturally transforms into a vicious circle" [Михальская 1990, 54].

This monological "ideal" could emerge and develop, for example, in the period of "developed socialism". Only one speaker had "the right to speak" (i.e. had power); there was one standard way to express the standard content (think of perpetual quoting which turned into the norm)" [same]. The recipient only had a chance for "lengthy applause" or "reproduction". We agree with A.K. Mikhalskaya who once said that even accepting "pluralism" we, bearers of the socialist culture and corresponding to this culture communication model, "tend to interpret pluralism from the same monological point of view: ***admitting*** that there are different points of view on the subject, opportunity to speak freely, we are likely to perceive each utterance as complete and detached, unconsciously rejecting its potential openness, incompleteness, ability for development and interaction with other utterances. Thus, pluralism appears as a set of simultaneous uncoordinated monologues about the world" [same]. This realization influenced the character of the scientific discourse of the 20th century, which radically differs from the language of research written by Russian scientists of pre-revolution period and in the twenties of the 20th century: "Reference to the best research texts of pre-revolution period and the twenties of the 20th century (earlier the author speaks about the language of historical essays of Klyuchevsky and Solovyev and quotes A.F. Lossev (A.F. Lossev said: "I wish my editors stopped hunting for colloquial words and phrases and eradicating them as weeds. They just don't understand! Described in popular fiction style, the subject doesn't become less scientific" (Мастера красноречия. – M., 1991) – L.K.) is a surprise to the contemporary reader, ***trained by editing to average, leveled, abstract, expressionless pseudoscientific and pseudo academic speech*** (italics added – L.K.). "Editing", which used to bring scientific texts in compliance with the ideal of the society, was one of the manifestation of "purism" as a form of a language policy, cultivated in the epoch of totalitarianism and stagnation. A language policy is an activity of the state which cultivates the speech ideal corresponding to the type of the state. The state, "determining" people's lives, "takes care" of their speech" [Михальская, 1996, 46-47].

Such understanding of the speech communication process according to A.K. Mikhalskaya is "that type of culture which is being overcome by the humanity and which is based on the monological worldview and the monological description of this world" [same, 51]. This culture is about to be substituted with a new one, distinguished by the harmonizing character, marked by the dialogical principle of existence and interaction with the world.

"Gnosiological aspect of these changes can be characterized as a conscious transition from subject-object relations to subject-subject relations" [same].

Changes in social cultural situation lead to changes in the character of people's communication – it becomes more democratic and more "dialogical": "the ability to get into contact with the audience, evoke a warm response, arouse the response reflection concerning the topic of discussion is of great value. The speech (opposed to the traditional speaker's one-man play in the British Parliament – L.K.) now resembles the ancient diatribe – a monologue, which imitates the dialogue, directs the thoughts of the listeners and leads them to a decision" [same, 54].

The new culture is characterized by a maximum broad interpretation of the dialogue, which takes root in the M.M. Bakhtin's concept according to which "…dialogical relations is a phenomenon far broader than relations between the remarks of a composite dialogue, this is very much like a universal phenomenon that penetrates into the human speech and all relations and manifestations of the human life and everything that has sense and meaning" [Бахтин 1979, 56].

M.M. Bakhtin pondered on what F.M. Dostoevsky did in literature and what he himself called a "true dialogue". F.M. Dostoevsky "discovered" the world of a *true* dialogue. In his works the mind of the author "is aware of existence of other equitable minds [of the characters – L.K.], as endless and as infinite. It reflects and reconstructs not the world of objects, but these foreign minds with their worlds, reconstructs them in their true incompleteness (since this is their nature). But it is impossible to contemplate on, analyze and define foreign minds as objects – one can only converse with them. To think about them means to talk with them. (emphasis added – L.K.), otherwise they immediately turn their object side to us: they fall silent, close and get stiff as complete object images. The author of the polyphonic novel is required to demonstrate intense dialogical activity…" [same, 92]. Bakhtin admits such kind of author-reader relations: "Every true reader of Dostoevsky perceives his novels not as those of monological type, but can rise to the new author's stand and can feel a special active expansion of their mind, but not only in terms of mastering new objects (human types, characters, natural and social phenomena), but, first of all, a special, previously unknown conversation with other rightful minds and active penetration of the dialogue into depths of the human being" [same, 92-93]. In other words, a *true* dialogue (regardless of who participates in it) is an *interaction* of rightful *subjects,* but not the *influence* of one (author/speaker, the active participant) on the other (recipient/listener, the passive participant) as on the *object.*

The principal difference between a *true* dialogue and a dialogue, which can be called dialogue only due to its form, is in the model of the interrelations between its participants: subject-subject in the first case and subject-object in the second case. Dominance of any of them in certain cultural context has historical and social background. The idea of which model of speech communication is to be admitted ideal varies throughout history. A.K. Mikhalskaya sees their roots in the antiquity since there coexisted the two models – two rhetorical ideals having essentially different backgrounds. One of them belongs to Socrates, the other to sophists. "The ideal of speech "by Socrates" presupposes that the basic condition for a good speech is, first of all, its truth. Second, its morality, which was interpreted as good not for the personal but social welfare. Third, a strict order of speech in terms of meaning and words. The sophists' ideal was different. The first requirement to speech was its

"subordinating", manipulative power. The second is its formal verbal beauty and elegance. The third is its logical sophistication and formal logical correctness. There also was the forth, connected with the second and third, principle – the opportunity to self-express in the speech: for the sophist an effective speech is, first and foremost, a certain type of "self-advertisement", "self-assertion".

In contemporary Russian speaking environment there is a conflict between at least three rhetorical ideals of different origin and nature. The first, and the most widely spread since it is accepted by the mass media is the American or Americanized ideal. It takes root in the sophistic approach and is of similar nature. The second one is old Russian, eastern Christian, close to the ideals of Plato and Socrates [Михальская 1996, 42-43].

It is necessary to examine properties of each historically established rhetorical ideal, but this is the topic for a separate serious study, which is outside the scope of this article.

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PECULIARITIES OF DESIGNING CURRICULA FOR ADULT LEARNERS

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The issue of curriculum development has an important place in the entire field of education. Curriculum represents the framework of the educational process, and along with the philosophy of education, it underlies this process. The indispensable role of curriculum consists in that it provides all the necessary information about a particular program for which it is designed including its goals and objectives, the program policy, methodology and mode of instruction, evaluation techniques, and the program outcomes. That is why, curriculum, when effectively constructed, plays a very important role in setting the whole learning process on a better understanding of goals and objectives pursued in a program. Thus, if a curriculum is effectively designed, it can facilitate the educational process, enhance students' abilities to learn efficiently, and even help them overcome challenges that learners

face while learning (Diamond, 2008).

The problem of effective curriculum design is becoming more and more important in the field of adult education. This issue is important for several reasons. Adult learners tend to be more independent and self-reliant in their learning. "The learner is self-directing" (Knowles, 1984, p. 9). Besides, other educators such as Brookfield (1986) emphasized that being self-directing, adults are able to control their learning. Also, as adults mature and accumulate more life experience, they develop their self-concept. "Their self-concept becomes that of a self-directing personality. They see themselves as being able to make their own decisions and face the consequences, to manage their own lives" (Knowles, 1980, p. 45). Adults are more intrinsically motivated than traditional students, and they can therefore self-direct their learning process (Merriam, Caffarella, & Baumgartner, 2007). Thus, curriculum designed for adult students should be more learner-oriented and inclusive. Moreover, curriculum designed for adult learners should be more practice-oriented as adults have a wide range of personal experiences that can be a basis for, and incorporated into, their learning (Teachers of English to Speakers of Other Languages, 2003).

Evidence from research suggests that adult learners constitute a special category of learners that differentiates them from traditional college students. Various scholars and educators investigated adult learning process and hence pointed out adult learners' peculiarities. For example, Smith (1982) stated the following in regard to adult characteristics as learners:

Adults are characterized by a special orientation to life, living, education, and learning; a relatively rich experience base to draw on and cope with; different developmental changes and tasks than preadults; and their own brand of anxiety and ambivalence. These essential characteristics generate some optimum conditions for adult learning. (p. 47)

Merriam, Caffarella, and Baumgartner (2007) provided a holistic view on adults as learners as well as summarized other scholars' viewpoints characterizing adult learning. Adult learners are considered those who are twenty-five years old or older and nowadays this population is steadily growing among college students all over the world. Thus, the issues concerning adult education and adult learning are becoming more and more important in the educational system. Actually, this is the reason why adult education has been differentiated as a separate filed of educational sciences.

Before discussing the peculiarities of adult learners, I think it is necessary to delineate some philosophical foundations that underlie the process of adult learning. Elias and Merriam (2005) analyzed the philosophical foundations of adult education that can be used to determine what content should be included in the curriculum from a certain philosophical perspective. As I see it, the following philosophical theories can be best applied in adult learning. The first one is progressivism, which stresses the importance of the learner-centered approach and implementing theory in practice. Thus, according to Merriam and Brockett (2007), the progressive philosophy emphasizes “a focus on learners and their needs and experiences rather than on predetermined content” as well as “a shift from teacher as authority figure to teacher as facilitator of learning” (p. 36). The second educational philosophy is humanism. Humanistic education strives for developing a self-actualizing person. It is also learner-oriented and centered around individual freedom, the learner's responsibility and his / her self-directedness. In the humanistic learning process, the teacher plays a role of facilitator and guide. In other words, the educa-

tor's role is to provide favorable conditions in which learning takes place (Elias & Merriam, 2005). Moreover, the humanistic learning process highlights the significance of intrinsic motivation, which also reflects the nature of self-directed learning. Speaking about the intrinsic character of motivation in humanistic learning, Elias and Merriam (2005) stated that "motivation is not something put upon learners, it emanates from the learner" (p. 128). Finally, the third philosophical concept that can be effectively applied to adult learning is critical theory. This philosophy challenges the traditional way of the teaching-learning process. Therefore, according to the basic principles of critical theory, the main goal of education is to liberate, transform, and empower adult learners in order to make them mature citizens of their society (Elias & Merriam, 2005). In critical theory, the traditional role of the learner and teacher is challenged as well. Thus, the learner is not a passive object that acquires knowledge formulated and transmitted by the teacher. The learner is placed in the center of the educational process. Therefore, only in this case can education be effective bringing about liberation of and transformation in the learner's self.

Given the aforementioned philosophical tenets of adult education and learning, it becomes possible to identify the characteristics of adults as learners. The most distinct features of adult learners are autonomy and self-directedness. According to Tennant (1991), the idea of autonomous and self-directed learning is firmly established in the adult education literature. It implies that adult students are able to set goals and objectives, choose appropriate learning resources, determine their learning styles and strategies as well evaluate their learning outcomes individually. In other words, adult learners are more responsible for their learning than traditional college students and they are also self-reliant in choice of techniques and procedures for their learning. Further, adults are able to make critical judgments about their learning process (Chene, as cited in Merriam, Caffarella, & Baumgartner, 2007). Approaching their learning from the critical perspective, adults can identify and challenge their drawbacks as well as reinforce their strengths in the learning process. This enables adults to monitor and direct their learning.

Another characteristic that differentiates adults from traditional college students is life experience. In comparison with children and adolescents, adults have more experiences because they live longer. What is more, adults have different kinds of life experiences, which are organized differently depending on the age, educational, social, and other backgrounds of adults. In addition, adults construct their self-identity through experience. According to Knowles (as cited in Merriam, Caffarella, & Baumgartner, 2007), "Adults derive their self-identity from their experience. They define who they are in terms of the accumulation of their unique sets of experiences" (p. 423). Possessing richer life experiences, adult learners can represent a good source of knowledge and skills as well. Thus, they are able to contribute not only to their learning but also to other adults' learning. Following this idea, adult educators have an opportunity to base their explanations on adult learners' previous experiences. In this way, teachers can link the known with the unknown. Lastly, the experiences adults possess can be scrutinized from the critical perspective that allows for adult learners' critical thinking and reflection (Tennant, 1991).

Autonomy, self-directedness, and rich life experiences of adult learners are closely interrelated with their motivation. This is another important feature of adult learners that should be taken into account. Adults are more goal-oriented and self-

motivated, thus they know what they are supposed to learn and what they should know about a particular knowledge area in which they are interested. As adults in general are more mature than the young, they have developed a more elaborated set of attitudes, needs, and competences that ensure adults' better understanding of the reasons why they need to learn something new and how they will benefit from new knowledge and skills in the future. As stated by Wlodkowski (1985), attitudes can be a powerful means that determine human behavior and learning since with the help of attitudes adults are able to identify a particular behavior that can be most effective in dealing with a problem or challenge the adult learner faces. Also, adults' needs play the role of internal incentives that can be a driving force for a person to pursue a goal. Thus, adults' attitudes and needs are transformed into desires, which make a person aware of a particular goal he / she wants to achieve (Wlodkowski, 1985).

Overall, based on the aforementioned views, it can be concluded that adult education is perceived as a separate field of general education nowadays. Adult learners possess certain characteristics that differentiate them from traditional college students. Being autonomous, self-directed, intrinsically motivated and having life experiences enables them to greatly contribute to curriculum development. Given this perspective as well as the philosophical principles outlined above, adult educators will be able to construct more effective curriculum for adult learners.

The learner-centered approach to curriculum design is drawing more attention of adult educators nowadays. The reason is that more educators and scholars have to admit that today's education can be characterized as lacking coherence, poorly structured, and outdated (Diamond, 2008). Also, at the present time education functions as a market, it abides by the market rules and regulations and is influenced by the market. That is to say, it is not an exaggeration that education has become a commodity in the 21st century. In this case, to be more marketable and competitive, adult and higher education institutions have to reconsider their educational policies and be more learner-oriented in order to attract more students. Moreover, the shift towards student-centeredness will provide more effective and sustainable educational outcomes.

Following this idea, Diamond (2008) suggested a model of curriculum design, which starts with the assessment of learners' needs. According to this model, the first step in the process of curriculum development is needs assessment. Actually, learners' needs can be assessed in three domains: in terms of the student, community, and field of knowledge. The second step is stating the goals, which should be stated from general to specific. This way of goal setting provides a logical sequence and it can be gradually narrowed towards specific needs of particular learners. After goals and objectives of a program are set, the next step is designing instruction and assessment techniques. According to Diamond (2008), this stage of curriculum design is important to consider especially in terms of evaluation because "many of us [educators] feel to discuss assessment before we have agreed on the goals for the program or course" (p. 11). Further, the next step in this sequence of curriculum design is implementation and assessment that are referred back to the goal setting stage and proceed to the revision stage eventually. Referring implementation and assessment back to the statement of goals is a very important part of this process as it enables educators to adjust specific goals if needed and thus makes the curriculum more student-oriented.

Another curriculum model that can be successfully implemented in adult edu-

cation is Houle's curriculum model (as cited in Langenbach, 1993). According to this model, an educational activity is identified first. Second, the decision making process based on the identified activity includes goals and objectives setting which is followed by designing an appropriate learning format. Greater importance is stressed in terms of fitting a particular learning format into life patterns, therefore learning activities should be tied to the learner's life experiences. Overall, such a learning plan is put into effect and then the learning results are evaluated in the final stage of the learning process. Hence, coherent and logical, one of the advantages of this model is that it may be utilized in a broad variety of learning settings that can be both formal and non-formal.

Houle's curriculum model can be slightly modified by adding the stage of adult learners' needs assessment. Basically, the models outlined above represent a useful piece of information on curriculum development in the field of adult education. Indeed, one of the most important things in the process of curriculum development is focusing on meeting adult learners' needs. This aspect is meaningful to both planning and design of curriculum and sustaining learners' interest, hence keeping them motivated and inclusive in the teaching-learning process. In spite of the fact that there is a great diversity of adult learners which implies that they have different needs, Deci and Ryan (as cited in Sell, 2008) proposed the model of needs in terms of self-determination theory. This model is considered universal because it determines common needs of all adults. Following this, the model outlines the need for competence, autonomy, and relatedness.

Accordingly, in terms of competence adults tend to connect this need with self-efficacy as they believe they will be able to perform certain tasks upon achieving competence in a particular field in which they are interested. That is why, the need for competence is one of the basic needs adult strive to achieve caused by professional or personal incentives to develop. Also, competence is often associated with self-actualization of adults since becoming more competent, adults feel more independent of external societal circumstances. Thus, "effective educational programs for adults (a) build on competences that learners already possess and (b) focus objectives on knowledge and skills to be acquired or further developed" (Sell, 2008, p. 260).

As for the second universal need for autonomy, it stresses the importance of a learner's choices and the way they are organized in a sequence. In this case, adults by themselves can determine the reasons why they need to acquire certain knowledge and skills in order to improve their professional and personal characteristics. This fact implies that adult learners value flexibility in their choices, which also determines what, where, when, and how they want to be involved in the learning process. Therefore, an autonomous learner can be defined as being independent in their learning environment, able to make appropriate choices and then critically reflect on them, and also regulate their level of autonomy depending on a certain learning context and circumstances (Chene, as cited in Merriam, Caffarella, & Baumgartner, 2007).

The third basic need for relatedness "signifies a sense of belonging or affiliation with others" (Sell, 2008, p. 260). It is quite evident because a human is a social being and connections with other members of society in which a person lives and which secures his / her relationships with other people. This is especially valuable in the adult classroom as establishing connections with other classmates provides a basis for collaborative learning. As a result of collaborative learning, the adult learner has a great opportunity to engage in vari-

ous types of communication and develop friendship with other adults participating in learning projects. Moreover, if appropriately addressed, the need for relatedness can significantly contribute to enhancing the effectiveness of the learning process in case students are included in respectful learning environments and feel they are trusted and supported by other group members who are open-minded and welcome each individual's self-expression (Wlodkowski & Ginsberg, 2010).

As is known, an effective curriculum should be coherent and have a well-structured sequence of its constituents such as stating goals and objectives, developing appropriate learning tasks and techniques, establishing learning outcomes, and designing the program assessment. Diamond (2008) suggested that all the goals should be distributed into two categories: basic and specific. The basic goals represent those knowledge and skills that should be acquired by all the learners upon their graduation. Speaking about a particular program, basic goals are usually set for required courses. For example, based on my teaching experience, the EFL Teaching program requires that students be competent in English for basic language skills, i.e. they should be highly proficient in listening, speaking, reading, and writing abilities. Also, students should know methods of teaching English as a foreign language from the theoretical and practical perspectives, as well as they should possess good knowledge of pedagogy / andragogy and human psychology. As for the specific goals, they can be determined by individual learners based on their needs assessment. Thus, specific goals are usually outlined for elective courses. Again, I can provide an example from my teaching experience: students who major in the EFL Teaching program are allowed to gain additional knowledge in translation techniques, public speaking skills, English-speaking country studies (geography, history, economy, political systems, and culture of the English-speaking countries), and the like. Accordingly, depending on the specific fields students choose, they elaborate particular learning goals for each of the field. That is why, it is very important for an educator to ensure that the elements of the curriculum, both required and elective, combine to make all the goals achievable.

Moving from goals setting to the implementation of concrete instructional techniques, careful planning is important as well. For example, if a basic goal is to develop speaking skills, teaching public speaking also must be incorporated into the educational process (Diamond, 2008). Thus, goals should be linked to the content of a program in terms of its learning instructions, techniques, and procedures. Furthermore, it is necessary to arrange content in a logical sequence as failing to do so will lead to abrupt transitions in learning tasks, which results in the learner's distorted knowledge. Therefore, sequencing the content may be a challenging task since there are various ways to arrange it in a logical and coherent order (Wlodkowski & Ginsberg, 2010).

In a coherent curriculum, the statement of learning outcomes provides a detailed description of knowledge and skills the learner should be able to possess to achieve the goals outlined in a curriculum. It is important for educators in this case to take into account the learner's prerequisite knowledge and skills in order to better connect them with the present learning outcomes and facilitate the learning process. Further, ongoing assessment will be helpful in monitoring the effectiveness of the entire learning process. This kind of assessment is a useful tool as it provides a better insight into the program advantages that can be reinforced and on the other hand to minimize its negative aspects (Russ-Eft & Preskill, 2009).

To sum up, this article provided only

a brief description of some aspects of curriculum development for adult learners. They all stressed the importance of taking into account the learner-centered approach based on meeting learners' needs. Although curriculum developers still face challenges from various economic, political, and cultural domains, the field of adult teaching and learning is gradually shifting from traditional teacher-centered methods to structuring the educational process around the learner taking into account their personal, professional, and psychological characteristics. Overall, the literature review and its analysis along with the teaching experience provided in the article may serve as a source for further development of this field of study.

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FUNDAMENTAL ISSUES OF MODERN KAZAKH PHILOLOGY

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Alongside with other humanities, modern Kazakh philology is forming new cultural anthropology in the context of the nationwide idea. Responding to the challenges of the new era, the literature of sovereign Kazakhstan is based on the experience and traditions of literature and history of the past. The process of qualitative updating art systems in the last decade of XX - beginning of XXI is mainly owe to the release of a set of regulatory framework. In addition, the nation's cultural heritage, folk art traditions, stories and images remain a plentiful source of inspiration.

One of the founders of Kazakh folklore studies, S.A. Kaskabassov, was the first to identify and carry out the classificatory and typological research of verbal prose and Kazakh mythology. The works of folklorists of Bashkiria, Tatarstan, Turkmenistan, Kyrgyzstan and Uzbekistan confirmed the established laws of historical development of folklore prose from the archaic forms to highly artistic works.

The publication of academic collection of animals' fairy-tales in Russian, the "Kozy-Korpesh and Bayan Sulu", national lyric epos, unique folklore texts collected by local historians-researchers, XVII-XIX centuries' works of zhiraus was text work. The book of Kaskabassov "Gold Mine" is a peculiar cultural writing in which the scientific comment helps to value folklore monuments as a "source of intellectual culture". Pondering on the "international" nature of folklore story leads the philologist to the conclusion about the specifics of Kazakh plot, in particular, "optimistic love concept in Kazakh romance epos" [1, 23].

Folklore, verbal individual poetry, written literature, art of music, poetry of zhiraus, work of Bey-Sheshens, - here is an incomplete list of issues and aspects that determined the development of Kazakh folklore studies. Author's rhetoric in the characteristic of spiritual power of his nation is based on the high authority of the poet, when eloquence has been considered the highest level of art. Analysis of the zhiraus' works reveals their priestly character and functions of the public service. In addition, the poetry of professional akyns has freed literature from ideology and made its " contribution to democracy", the poetry "has come into the yurt of ordinary members of the society", to common folk" [1, 132].

Folklore and myths in Kazakhstan philology are considered to be the most important image and style basis of national literature. The genetic invariance of folklore texts stimulates ceaseless renewal by means of author's interpretations and metaphorically "folded" idea-formulae. The investigation of the national specificity of Kazakh folklore is parallel to the studies of the Slavic folklore in Kazakhstan, to its collection, systematization and publishing. The folklore and ethnography integration during folklore expeditions contributed invaluable material for scientific observations and conclusions about the modern state of verbal traditions, of Slavic folklore in the multiethnic Kazakhstan, of the influence of transformation processes, of genre "extinction" etc. [A.D. Tsvetkova].

The long-term research of Kazakhstan folklorists touch upon the subjects of interaction between literature and folklore, genrology, intertextuality, the poetry of folklore and myths, individual genre form typology and ritual folklore culture research [T.V. Krivoshchapova, G.I. Vlassova].

Much research is being conducted at

the junction of folklore and old Russian, Byzantine and Turkic literature (e.g. scientific observations [E.A. Kostyukhin]). The interest of the Kazakhstan science to the investigation of individual aspects of old Russian literature revived in the second part of the XX century after the publication of the "Old Russian Literature" reading book, in which literary monuments were accompanied by historical and philological commentaries [A.L. Zhovtis].

The appearance of Olzhas Suleimenov's book "AZ-i-IA" enhanced medieval history study. His marginal postmodernist research is an attempt to dispel the praising and the heroic view on Prince Igor and his Polovtsian March. The issue of "unseen turkisms" in the Old Russian literature monuments and in Slavic grammar as relevant for Kazakhstan philology in the aspect of Turkic-Slavic connections context was continued by the author in his book "Crossing Parallels".

Kazakhstan medievalists are starting to study the Old Russian literature fundamental monument "The Primary Chronicle" (also, "Tale of Bygone Years") in the aspect of folklore traditions (A.A. Shaykin, V.E. Khripkov, I.U. Khlyzova). Textual analysis by man depicting brings out the issues of literature integrity and genre-and-register peculiarity.

Abai study takes a special place in Kazakhstan philology. M. Auezov, a national literature classic, became the pioneer in studying Abai akyn heritage. His epic novel "Abai Zholy" (Abai's Way) is a sort of generalized fiction view of the centuries-old people's history. The poetic presentation of Abai's biography, introduced by Auezov, was developed by Z.A. Akhmetov Scientific School. The significance of the national poet who opened all the doors to all the writers of the "Great Steppe", makes the description of the development of Abai as a poet a scientific commentary. The text of Z.A. Akhmetov's book is a "doubled level" anthropology. In his epic novel "Abai Zholy" M.Auezov recreated the biography of the great akyn not as a real person but as a character made by a lyrical poet: "We can see a "secondary" person, who is recreated and understood by another person" [4, 6].

Akhmetov is identified as interpreter of Auezov's understanding of Abai's creative personality. He acts as a reader and a recipient. Fiction "doubled level" anthropology is shown in the attempt of Kazakhstan literature study classic to work his own way up to scientist by reading of Abai's precepts and Mukhtar Auezov's spiritual heritage interpretation.

The18th century Russian literature was not thoroughly studied in Kazakhstan as it was very specific and hard-to-get. For the first time in the studies of the late 20thcentury oriental and Central Asia motives were shown in Russian poetry and prose of the period [M.M. Bagizbayeva, K.Sh. Kanafiyeva]. Kazakhstan philologists' research is devoted to the following issues: making lyric song in poetry more literary- like, typological compatibility and similarity between certain classic and folklore genres, and principles of character representation.

In translation theory adequate/ free translation is seen by Kazakhstan research workers from the point of view of M.L. Gasparov, with the use of statistic methods and techniques of formal and functional thesaurus compiling. Numerous research works of A.L. Zhovtis were devoted to studying specificity of the poetic style, meter patterns of Russian poets and three-century development of Russian poetry [A.L. Zhovtis]. The Kazakhstan scholar doing research in Kazakh language and literature developed theory of the free verse and evolution of verse patterns, stages of verse libre development in Russian poetry, individual peculiarities of style and expressiveness. The works of Karaganda scientific school, published in prestigious Kazakhstan and Russian jour-

nals, are dedicated to research of the subject pattern of Russian lyric poems, specifics of the subject and addressee of speech, the author and the personage, the genre, language peculiarities of the verse [T.T. Savchenko].

Research of history of the Russian literature of the classical XIX century is in the focus of Kazakhstan philologists. Works of Russian classical writers are traditionally studied in several aspects: poetic manner and literary style; genre peculiarities; moral and aesthetic ideas of the author and his influence on classical Kazakh writers and development of the Kazakh novel.

In monographs of Kazakhstan scholars the way Kazakh classical writers took much of the genre, making imagery of the text, psychological insight, touching upon moral issues of Russian classical literature is considered. The school focuses much on A.S. Pushkin's works. Kazakhstan Pushkin studies was developed by N.A. Rayevsky in his works "When paintings will talk" ("Kogda Zagovoryat Portrety") and "The Portraits Have Talked" ("Portrety Zagovorili").

Modern scientific works dedicated to A.S. Pushkin touch upon a wide range of issues: from text and cultural interpretation to theoretical studies of folklore and archetype traditions. In studying the atmosphere of Pushkin epoch of special significance is gender aspect in the phenomenon of the lyrical novels of women-writers of 1830-40 [Author, L.I.].

The current dramatic development of history and culture has made description and observation of different forms of an artist's self-determination the focus of literary studies. A literary work, aimed at the dialogue both with the mass reader and professionals, gets a "double code" of the literary text. A striking change of the genre repertoire takes place because of the author's position in his dialogue with his literary character and the reader in the form of the direct address to the reader or as an aesthetic experiment model.

Poets and writers speak from literary rostrums acting as memoirists, essayists and publishers; they participate in open debates in periodicals, literary miscellanies and journals. Improvisation, characteristic of the Kazakh people, a special value of "word" is considered to be an ethnic peculiarity of Kazakhstan literature. The founder of Kazakhstan poetry, Abai, whose poems and songs were known to the whole steppe and were transferred like via the Internet from one aul to another, in the end of his life wrote the famous "Book of Words" ("Kniga Slov")which is often considered to be the greatest of his books. The genre created by Abai is the address of akyn to his people.

Being one of the main lines of contemporary Kazakhstan literature, form-making strategies of literature make a word material, creating a self-identification model of the author's personality. Responding to this peculiarity of the literary text, philology does "revision" of its scientific tools. Thus, literary anthropology technique developed by the Kazakhstan philologist V.V. Savelyeva has proved to be a universal one.

V.V. Savelyeva's works in interrelation of the literary world and literary anthropology aroused interest in secondary and higher educational institutions of the Kazakhstan cities of Almaty, Ust-Kamenogorsk, Astana, Taraz, Chimkent, Petropavlovsk, etc.; Russia (Moscow, Orenburg, Chelabinsk, Omsk, Barnaul, Orel, etc.), Poland, Canada. Being an interdisciplinary science, human anthropology (cultural, linguistic, psychological, legal, historical, etc.) is actively used in modern research. However, literary anthropology is not systematically mentioned in textbooks.

The future of further research in this field is based on the necessity of developing general literary anthropology both in

art history and theory of literature. In the post-modernism, post- and neo-realism period anthropological research in literature and culture is still relevant and further development of terminology for studying image of a person in art is of great importance.

The new trend in Kazakhstan literary studies is research of poetry and prose within Central Asia literary process.

The methodology is based on continuation of the technique of integral analysis of image semantics, symbols and myth poetic meaning of poetic texts. The systemic and thematic as well as structural studies of nature in the poetic reality have let S.D. Abisheva determine typological similarities not only within Russian poetry, but also between Russian and Kazakh poetry.

Traditionally, novel as a genre is paid particular attention, and both theory and history of the classical Russian novel as well as marginal novels are studied.

Whereas the Russian prose of the first half of the XIX century became classical, the poetry and prose of the second half of the XIX century –the beginning of the XX century requires literary criticism and theoretical and historical research. The narration analysis includes methodology and techniques of psychoanalytical interpretation of the literary text. The chronotype issues, peculiarities of arrangement of time and space in literary texts give a possibility to reveal some typological aesthetic similarities in the development of the world literary prose.

The latest literature approaches let one determine specific features of postmodernism prose, explain peculiarities of the author's position representation and the readers' comprehension problems.

The Kazakh poetry written in the Russian language which appeared in the late XX century and 2000's is characterized by the genre and style diversity. The research of Kazakhstan philologists is dedicated to typology and imagery of lyrical works, main and subsidiary genres of Russian and Kazakh poetry [Zh.Zh. Tolysbayeva].

The ideas of the theoretical branch of Kazakhstan literary studies school correlate with those of their Russian colleagues. One can consider publishing the "Literature of Kazakhstan Peoples" anthology compiled by M.O. Auyezov Institute of Art and Literature to be a landmark of studying Russian literature in Kazakhstan. In the "Russian Literature" section the historical and literary overview of thematic, genre and stylistic diversity of the literary works written in the XX century is given.

A priority of Kazakhstan philology is research in regional historical and literary process and literary regional studies. In the world the borders of which are constantly changing, mobility is an essential feature of any person's life. Globalization makes a person think of his attitude to the place where he was born and lives. Consequently, there is an interest of literary studies to studying the "territory" phenomenon, focused on the nature of the literary text, its spatio-temporal characteristics. Literary-regional studies should start with the notion "regionalism" as an outlook cultural value including maintaining and developing lifestyle, culture, language, nature, self-awareness of the region. In the third millennium the maintenance of polycultural dialogue is, probably, the most important of human priority and, simultaneously, an indispensable component of the state policy of our Republic. Kazakhstan, located to live in both Europe and Asia is a country uniting dozens cultures with unique traditions and customs.

In search for new aesthetic paradigm modern Kazakh literature, on the one hand, is striving to continue the dialogue of Eastern and Western cultures, on the other hand, it is trying to maintain its eth-

nic uniqueness.

Rich mythological imagery, conceptual multidimensionality, deep psychological insight, genre and inter-genre experiments – these and other characteristics are typical of modern literary Kazakh prose.

Literary-aesthetic inventions, good genre and stylistic “findings” enhance work at defining and scientific explanation of the “new paradigm” in history and modern theory and methodology of Kazakh literature and art. According to the well-known philologist A.S. Ismakova, “ it has become evident that one cannot continually include more and more new names, literary works, facts of not only quantitatively but also qualitatively different potential”. In modern Kazakh prose the genre and style modification issues form a very important branch of Kazakhstan philology.

Research of the features of modern literary situation in Kazakhstan is based on the identification, creative comprehension and analysis of the main trends of the modern Kazakh prose, the most productive prose genres, the style of the most striking of them, the study of interrelation of tradition and innovation, etc. Anuar Alimzhanov, Rollan Seyssenbaev, Kanat Kabrakhmanov, Auyezhan Kodar, Dyusenbek Nakipov, Hassen Adibaev, Aslan Zhaksylykov and other writers think and write professionally in the Kazakh and Russian languages. Theirs books represent Kazakh literature of independence (1991-2010) in which there is a variety of ideas and themes, search of original compositional, genre and stylistic, ideological and thematic decisions related to the world and global order problems.

Modern literature is well represented in Kazakhstan publishing projects of Bakhytzhan Kanapyanov (Director of the "Zhibek Zholy" Kazakhstan Publishing House), Roland Seyssenbaev (President of the International Abay House in London). A sort of literary rostrum are Kazakhstan literary and art periodicals "Prostor," "Niva", "Apollinariy", published by the Musaget Social Fund for the culture and humanities development, "Tamyr" (Auezhan Kodar’s project), "Amanat" (Abay International House), and also the popular Kazakhstan magazine "Knigolub" with book reviews in which literary events of Kazakhstan and international book markets are covered.

The literature of Kazakhstan is developing rapidly, and this is reflected in the production of high-quality books. The dialogue at the round table on the copyright issues in literature and art is evidence of some progress in the literary sphere; contests of playwrights, poets and writers held by the Soros-Kazakhstan Foundation, master classes for young writers arranged by the Musaget Social Fund and creative meetings also improve the situation in the sphere of literature. Increasingly, foreign publishers are increasingly interested in signing author’s contracts with the most talented local writers. Kazakhstan sponsors organized the annual Tarlan literary award.

University science, focused on the specificity of higher education and student audience, does research of the comparative studies process. This study analyzes interdependence, interrelation and mutual contribution of Russian and Kazakh literature. Kazakhstan experts in literature keep continuity in the study of Russian literature. Scientific conferences are dedicated to issues of studying individual writer’s work and Russian literature in the context of world literary process, Kazakh literature and literature of the East, Eurasian contribution to the world historic and literary process. And the study of Russian literature as an individual macrocosm units polylingual continuum of sovereign Kazakhstan and promotes humanistic priorities and the development of modern scientific conception.

Globalization is dangerous as it can destroy the uniqueness of the world cultures.

However, the world historic process has opposite but equally strong tendencies: on the on hand, to maintain intercultural contacts; on the other hand, to preserve ethnic cultures which diminishes the risk of losing ethnic uniqueness and cultural identity.

The current increase of the scientific interest to specific ethnic factors predetermined development of such sciences as ethno-psychology, ethnolinguistics, ethnoculturology, ethno-musicology. The comparative analysis of typological similarities in different literatures enables us to define tendencies of ethnic poetry peculiarities, their specific "accent". The "ethnopoetics" notion comprises this system of such dominant features of some ethnic poetics.

The conducted analytical review enables Author to make some preliminary conclusions as to the main aspects of modern Kazakhstan philology. Owing to bilingualism of the majority of Kazakhstan authors the development of multiculturalism of modern Kazakhstan literature helps meet challenges of the time: ethnic images reflecting ethnic self-determination in the light of universal values in the changed world.

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BASIC PRINCIPLES OF ADULT LEARNING

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The differences between an adult and a child are quite obvious. From the point of view of learning, children are more eager to wonder at new things and new insights. It is natural for children to focus on the physical world which they are slowly discovering. Adults, on the other hand, who for the most part already know what things are, tend to look for meaning and deeper insight. Most instruction, by necessity and tradition, has been focused on children and young adults – from elementary to college education. From a teacher's perspective, the issue is how one approaches an adult when it comes to instruction. It is only logical to think that adults have an outlook and needs different from those of children, hence the need for a different approach. For centuries, there was no distinction between the education of adults and of children, although the content may have been slightly different. Everyone was taught in the same manner regardless of age, prior experience, or developmental level. The scant literature or investigation in adult education has led to the notion that the adult learner is a "neglected species" (Knowles, 1978).

During the middle of the last century, experience and research has shown the need for an alternative approach in the practice of adult education (Godbey, 1978). It was in Europe that the term andragogy was first used to refer to some form of adult learning. Malcolm Knowles, who is considered to be the central figure in the US adult education during the latter half of the 20th century, learned of the term from a Yugoslavian adult educator and introduced it into American adult education literature in 1968 (Holton, 2001). Knowles defined andragogy as the "art and science of helping adults learn" (Knowles, 1968).

Andragogy focuses on the issues concerning the need for a different approach to teaching adults. The underlying foundation of the theory is that adults are different and so a different style of teaching and of learning should be studied.

The term "adult" can mean different things to different people. Knowles clarifies what we mean by the word "adult" from four different perspectives: biological, legal, social, and psychological (Knowles, 1984). The biological definition of being an adult can be seen as that age when the person has the capacity to reproduce, i.e. bear offspring. Most people, regardless of race or culture, reach this age sometime during adolescence. The legal definition of adult, on the other hand, varies from place to place. It is defined as that age when we can marry without consent, vote, get a driver's license, etc. (Hartree, 1984). Socially, we become adults when we start performing mature roles such as those of a full-time worker, a breadwinner for the family, a spouse or a parent, a voting citizen, and others. Finally, we are considered adults psychologically "when we arrive at a self-concept of being responsible for our own lives, of being self-directing" (Knowles, 1984). For Knowles, it is this last definition that is most important when it comes to understanding adult learning.

Knowles differentiated adult learners ("non-dependent" or "member role") from non-adults ("dependent" or "student role") into 10 items (Knowles, 1978):

1) Adult learners are increasingly independent whereas non-adults are strongly dependent;

2) Adult learners are more self - directed, self-disciplined, and self-operating while non-adults are more other-directed, need external discipline, and have little

self-operation in effect;

3) Adults are active learners (student-centered learning) while non-adults are passive learners (teacher-centered learning);

4) Adults usually find no "correct" answer for most problems studied/lived while non-adults usually have a "correct" answer for most classroom problems studied;

5) For adults, "correctness" of behavior is more rigid and associated closely with cultural/social stereotypes or tradition while, in non-adults, behavior is not as rigidly bound by "correct" stereotypes and tradition;

6) Adults are more aware of the influence and effects of decision-making or problem-solving processes and, therefore, less likely to implement "theoretical" solutions in real-life settings whereas non-adults are not as aware of the effects of decision and are more prone to implement solutions studied in class to real-life situations;

7) Adults have more-developed views and a value system which may differ from the teacher leading to conflict in the learning setting while non-adults are less likely to have strongly-developed value systems or points of view;

8) Adults naturally have more and varied life experiences which may be organized differently that could block, modify, or affect perception, problem-solving, and decision-making while non-adults have less and fewer kinds of life experiences and are, therefore, less likely to be influenced in perception, problem-solving, and decision-making;

9) For adults, investment of time in a learning activity may be as an important part of decision for involvement as investment of money or effort; for non-adults, investment of time in an activity is not usually an important part of decision for involvement in a learning activity;

10) Active learning is usually practiced in areas of interest and, therefore, there maybe less varied learning activity involvement for adults while with non-adults, varied learning is more common.

According to andragogy, adult learning is based on originally six key assumptions (Knowles, 1978):

a) the need to know;

b) the learners' self-concept;

c) the role of the learners' experience;

d) readiness to learn;

e) orientation to learning;

f) motivation.

Adult learners need to know the reason why they need to learn before they make the first step to learn it (Knowles, 1968). The question adults initially ask is how the new knowledge or skill would benefit them. One's grandmother would more willingly learn how to use a computer and e-mail if she is told that she can communicate with somebody half a globe away and even be able to receive digital pictures, which she can print immediately. Another way of looking at it is that it would be more difficult for adult students to learn something when they do not understand why they have to learn it. It is a totally different case for young children who have to accept whatever the teacher presents for learning. Children normally do not ask how something is applicable in their lives before learning it.

The self-concept of adults revolves more around being responsible for their own decisions and for their own lives (Knowles, 1984). Adults have a better self-direction – they can choose where to go, what to know, when to start, etc. According to Knowles (1978), this can often pose a dilemma in teaching adults. Normally, adults agree to learn because they are aware that they need to know something. The teacher is seen as one who has that knowledge or skill. Hence, adults sometimes feel a conflict between a dependency (on the teacher) and the deeper

psychological need to be self-directing (Knowles, 1978). After acknowledging this problem, which, according to Knowles, might be one reason for the high dropout rate in most voluntary adult education programs, adult educators have worked at creating learning experiences that help adults to make the transition from dependent to self-directing learners (Knowles, 1978). One of such methods is involving them in the planning and design of instruction.

As for the role of the learners' experience, adults not only have much more experience than children, their experience is also of a different quality. Naturally, adults have more experience due to their longer lifetime. However, the quality of adults' experience is also different in that there are certain things that only adults can experience – working full-time, seriously falling in and out of love, trying to make ends meet financially, etc. Adults have a qualitatively much wider set of experience. For adults, the quantity and quality of experiences they bring are in themselves rich resources for learning and reflection. With their little experience, children normally rely on the experiences of the teacher, on books, audio-visuals, and other materials.

According to Knowles, adults become ready to learn those particular things they need to know and do so they can cope effectively with their real-life situations (Knowles, 1984). In short, it is easier for people to learn when they are developmentally capable of it and feel the need to learn it. For children, their role is more passive in that they become ready to learn whenever and whatever the teacher presents to them else they will fail in the exams.

The assumption of orientation to learning is very much related to the previous one although on a more general level. Adults are more life-centered in that they are " motivated to devote energy to learn something to the extent that they perceive that it will help them perform tasks or deal with problems that they confront in their life situations" (Knowles, 1984). Experience teaches adults what to expect from life and they are more willing to prepare for future needs. Moreover, for adults, the process of learning is in itself important. Thus, it is an outlook or orientation proper to adults. Children, on the other hand, focus more on subject matter for learning. They see and experience learning more as an accumulation of content or an added skill. Younger ones are also more likely to whine about tedious processes as they are more interested in final results.

Adults are motivated to keep on growing, developing, and learning. The fact that there is such a thing as adult education is proof enough that they have this desire to learn more when they often do not actually need to. With children, it is often a battle with grades, acceptance, approval, and rewards. These assumptions reveal an epistemology that is heavily influenced by pragmatism and a little of interpretivism. The fact that experience and reason play a key role as sources of knowledge makes andragogy lean more towards pragmatism. On the other hand, there is also a tint of interpretivism in that each learner will have his or her own assumption of what reality is based on the uniqueness of each one's set of experiences (Knowles, 1968).

These assumptions still provide a summary and a clearer picture of who adults are and where they come from. In fact, the assumptions can be generalized into other domains and not just in learning (Knowles, 1978).

There are four basic questions for structuring any learning experience (Knowles, 1980):

1. What content should be covered?
2. How should the content be organized?
3. What sequence should be fol-

lowed in presenting the content?

4. What is the most effective method for transmitting this content?

Under a pedagogical approach, the teacher's role is to answer and implement the answers to these questions. Under an andragogical approach, the teacher's job is to design a process whereby the learners both help create their own answers to these questions as well as participate in their implementation.

According to Knowles, the following principles are the basis for creating practices and procedures that guide the organization and provision of andragogical learning experiences (Knowles, 1972). The adult learning characteristics and needs being addressed by each principle are mentioned in the parentheses:

1. The adult learner must be able to define what they want to learn (autonomy, personal need, reasons, and intrinsic motivation);

2. The plans for the learning program should be made jointly between "teacher" and "student" (autonomy, personal need, reasons for learning);

3. The adult must be involved in the evaluation of the learning program (autonomy);

4. The climate of the learning program must be safe and non-threatening (experience);

5. The program should relate to and include the adult's existing experiences and cognitive structure (experience);

6. Learning activities should be experiential and "hands on" rather than passive and pedagogical (personal needs, pragmatic experience);

7. Learning should lead to practical solutions to experienced problems. The curriculum should be problem-, rather than subject-, based (personal needs, pragmatic experience);

8. The proper role of the "teacher" is one of process facilitator and co-learner rather than content expert (autonomy).

Knowles translates these principles for adult education into the following practices and procedures (Knowles, 1978):

1. Climate. In contrast to the climate in a traditional setting where there is a lot of formality and the teacher is an authority figure, adult learning should be characterized by mutuality, collaboration, respect, and informality (Knowles, 1978). Since the adult learner is self-directed and internally motivated, it would be beneficial for both teachers and learners to regard each other more as peers helping one another. According to Knowles (1978), for many kinds of learning in adult education, peers are considered one of the richest resources for learning and that any form of competition stifles the access to those resources. A climate conducive to learning should be created. While it is important to provide a climate that is physically comfortable, the real focus must be on creating a psychological climate of safety, acceptance, trust, and respect. This is a key responsibility of the facilitator.

2. Planning. A mutual planning procedure should be used that involves the learner in planning what the learning will cover. This is a "cardinal principle of andragogy" (Knowles, 1978). Adults have a more mature self-concept and far richer experiences. A more concrete example on this point is the use of learning contracts. Learning contracts provide a vehicle for making the planning of learning experiences a mutual undertaking by letting learners participate in the process of diagnosing their needs, formulating objectives, identifying resources, choosing strategies, and evaluating their accomplishments (Knowles, 1978). According to St. Clair "the notion of adults working together to design the educational process encapsulates the core values of andragogy in many ways" (St. Clair, 2002). Again, it reinforces the adults' self-direction. They are masters of their own destinies.

3. Diagnosis of needs. One basic

way to include the adult in planning involves the following two-step process. First, desired learning competencies or outcomes are identified, and second, discrepancies between those desired competencies and the learner's current abilities are noted. The result is a self-assessment of what the learner wants to learn. From an honest assessment of their current state, they can move on to the next step, which is to formulate goals (Knowles, 1978).

4. Formulation of objectives. The adult should be involved in establishing learning objectives. The adult learner needs to be a part of this process in line with the climate of mutuality and collaboration mentioned in the first step and the involvement of the learner in the overall planning of his or her education stipulated in the second step (Knowles, 1978). The adult learner should have an opportunity to exercise self-direction in making the objectives. This gives the adult learner a sense of control.

5. Design. The adult should be involved in selecting and planning the sequence and nature of learning experiences and resources used in the process. Knowles suggests some concepts of educational design of a suitable format that takes into account the available resources, methods, schedule, sequence, social reinforcement, individualization, roles and relationships, criteria for evaluation, and clarity of the design (Knowles, 1978). Again, this reinforces the adult learner's self-direction and makes use of his or her experiences in the process of learning. The design also takes into account adult learners' physical and mental conditions – proper scheduling.

6. Activities. The activity should be focused on experiential techniques, making full use of the adult learner's vast experiences. Then, in the actual operation of the activities, the teacher's role becomes sort of an administrator merely overseeing the adult learner progress without any hint of authority. The learner usually has enough motivation and self-direction to do the activity with little supervision unless he or she needs help or guidance. Here, the teacher acts more in the capacity of a facilitator, resource person and mutual student than as independent expert (Knowles, 1978). Knowles identified a number of specific actions that a teacher should perform in order to perform the role of facilitator, such as creating the right mood or climate; helping participants clarify learning expectations and intentions; organizing and making available a wide range of learning resources; and reacting to student inquiries socratically by asking questions rather than providing "expert" answers.

7. Evaluation. This step should be like a mutual re-diagnosis of needs and how they have or have not been met. For Knowles, "if every learning experience is to lead to further learning, as continuing education implies, then every evaluation process should include some provision for helping the learners re-examine their models of desired competencies and reassess the discrepancies between the model and their newly developed levels of competencies" (Knowles, 1978). Adults are mature enough to honestly see their achievements and possible areas of weakness.

Thus, adults not only can but also do continue learning in one way or another after completing their compulsory education. In this case, andragogy is the method of choice for educating adults because it more adequately addresses the distinctive learning needs and requirements of the adult learner. Unlike the teacher-controlled classroom, the andragogical learning experience is one in which "teacher" becomes a learning facilitator and co-learner with the "student" as an equal partner in the learning process. According to the theory, andragogical methods, by providing autonomy and actively involving adults in this learning process, should produce more and/ or better learn-

ing for the adult participants than would the traditional pedagogical approach do.

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INTERRELATION BETWEEN PUBLIC SPEAKING AND INTERPRETATION

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Nothing in life is more important than the ability to communicate effectively.
Gerald R. Ford

Public speaking has gained importance in the course of time due to the economic and social development of the world. The development predetermined increased number of job interviews, various types of meetings (business, interpersonal, public, etc.), product presentations, workshops and other types of purposeful interaction. It is now important to be able to express your thoughts professionally and to persuade people to act and think in a certain way. More and more leaders and people concerned with their future now realize value of good interpersonal communication skills. Therefore, communicative competence is one of the most essential traits a successful person needs to have in order to perform effectively.

Public speaking is very stressful activity. Many people experience so-called “stage fright”, or “glossophobia”, which is a common fear of public speaking. However, we should not confuse common nerves and anxiety with the phobia [1].

While public speaking is formidable and frightening process itself, dealing both with translation and speaking simultaneously is ever harder. The reason is that the interpreter has to stay calm and be able to process what was said, to find appropriate equivalents, combine the words into grammatically structured sentences and to enunciate the result with confidence and smile, as if it was easy and pleasant.

For this reason we believe it is necessary to teach students studying Interpretation Science and Foreign Languages to combine these types of activity to be more competitive and satisfy speakers and hearers. Lack of scientific resources is the main obstacle that prevents scholars from teaching students two disciplines in combination and even at the first stage of the entire educational process, when the curriculums are being drawn. However, a lot of attention had been given to the processes of interpretation and public speaking separately. Therefore, let us begin the journey of exploring and integration of these two processes.

"Public speaking is a process, an act and an art of making a speech before an audience" [2]. Every person at some point of his/her life faced inevitability of performing in public. Only to some people it was limited to simple sharing of information, while others had persuasion as their primary goal. It is not a secret today that giving a speech publicly is an assiduous and onerous work. Even brilliant speakers, not to mention the beginners, ask themselves the following question quite frequently: How to do it? Many techniques and methods were developed and suggested by famous speakers and scholars since ancient times. We can confidently use those rules developed in Ancient Greece today, as it did not lose its relevancy and value with ages. Let us observe how the tips and techniques of public speaking have been developing in the course of time.

The very first public speaking work, "Three Basic Parts of Persuasion", was created by the Greek philosopher Aristotle over 2000 years ago. The parts mentioned in this creation are ethos (credibility or the speaker), logos (logic), and pathos (emotional appeal).

Next researchers of the matter were Romans, as they copied and modified rules developed by Ancient Greek. Marcus Tullis Cicero, who was a politician and philosopher using his public speaking abilities to gain power in a society and lead people, wrote the "De Oratore" treatise with "Five Canons of Rhetoric" explanation. He believed in five main steps constituting the process of successful public speaking: invention, arrangement, style, memory, and delivery [2].

Later, in America, public speaking was a powerful tool of revolution and renovation. Intense speeches of persuasive colonial speakers forced American colonists to take action. Public speaking contributed greatly to end slavery in the United States when Abraham Lincoln gave his famous "Gettysburg Address" speech in 1863. Dale Carnegie was the first who taught public speaking in America in the XX century. There were a series of radio and television broadcasts with powerful and touching speeches. The most remembered one, which is still used as an example of oratory and human will, is "I Have a Dream" by Dr. Martin Luther King [3].

Today, speeches are used for various reasons: to sell the product, to represent certain item or a person, to share findings of a particular research, and others. Most of the modern speeches consist of five basic elements, which can be expressed as "Who is saying What to Whom using what Medium, with what Effects?" [2] We believe that no component of this chain can be omitted if one wants to have the material represented successfully. Moreover, the question represented as a table or a

figure should be used as somewhat a checklist when preparing for the speech.

There are three major types of speeches used in modern world: impromptu, manuscript, and extemporaneous speeches [2]. The first type is very common, as any person can be asked to share information or express opinion at the event or meeting. Usually, there is very little time available to prepare the speech. In such cases speakers rely on their ability to organize themselves and calm down, as well as on sufficient amount of information to present. Manuscript speeches are not that common and usually used at the political events when high officials have to give a speech on a very important issue, which can touch on interests of other officials and countries. Due to the seriousness of the events, this type of speeches is given special consideration. Very frequently speakers use manuscripts written by other people for them and read it word by word, avoiding periphrasis and omitting. The last type, extemporaneous, is the most common one. Confident and trained speakers only can succeed in such type of public speaking, as it involves unlabored use of information, easiness of expressing what one has to say, and flexibility.

But what is the biggest obstacle the speaker faces when it is time to mount the rostrum? Fear, and this fear is even bigger than fear of heights, spiders and even death, according to national surveys and research results [2]. What is the nature of the public speaking fear? Firstly, it is for fear of being rejected by so many people in the audience that makes us feel so nervous. Secondly, it is fear of embarrassing ourselves, if our nervousness interferes with the course of speech. It is necessary to overcome the stage fright, because sometimes one's entire future and career depend on the particular performance. There are five ways suggested, which could help you fight with the fear and not to be a prey to it.

First of all, breathe deeply, because our breathing rate is directly connected to our emotional reaction. This is the fastest and the most reliable method to take emotions under control and regain confidence [2]. Secondly, focus on your message, not on physical aspects of your performance, i.e. shaky hands, butterflies, etc. Next, visualize your successful performance. The method has been proved to work for athletes, while recent researches showed it may be useful in the field of communication, public speaking, and education. Take 10-15 minutes every day prior to the day when you are giving a speech to relax and imagine yourself speaking confidently to the audience, smiling and moving across the stage. Also focus on facts, not fears, i.e. think of all the preparation that you have done to get the speech delivered well, rather on the fear of forgetting certain points or speaking too quiet. Finally, do not add complexity to your speech, although it may be tempting if you want to show everyone how smart you are. Focus on three main points and sort them out thoroughly instead. That will bring easiness to your performance and lose fear of complexity and you not being able to handle it [2].

Next let us explore what oral translation is. Interpretation is the facilitation of oral or sign-language communication, either simultaneously or consecutively, between two, or among more, speakers who are not speaking, or signing, the same language [4]. Interpretation emerged long before written language was created, as people of different languages, sign systems, and dialects had to communicate somehow. Only after the advent of written language, translation originated. Theory and practice of translation first were discussed in the antique world. Ancient Greeks distinguished between metaphrase (literal translation) and paraphrase. This distinguishing was further developed into the definition of the translation itself by Eng-

lish poet and translator John Dryden: "Translation is the judicious blending of these two modes of phrasing when selecting, in the target language, "counterparts", or equivalents, for the expressions used in the source language [4].

The first interpreters only relied on their mastery of languages, memory capacity, and broad background, as they were not specifically trained for entering this profession. There are several legendary interpreters known in the history, who serviced high officials: Jean Herbert, Andre Kaminker, and Prince Constantin Andronikof. With development of the society and international community, setting up of international organizations in particular, there was a growing need for a much larger number of trained interpreters with excellent knowledge, what is more important.

There are two types of interpretation usually mentioned when it is classified: Consecutive and Simultaneous. The first one represents oral translation of the speech during the speaker's pauses. It is used in the business field, at the meetings and public events. The second one is when the speech is being translated during the discourse without any pauses. This type is used at the multilingual official events. It saves a lot of time, since the speaker does not have to make pauses. Simultaneous interpretation is certainly the most difficult one, and those who can perform this type are highly appreciated. Furthermore, scholars and practicing interpreters also distinguish relay (when interpretation between two languages is conducted with the help of the third language), retour (when interpreting from your mother tongue into a foreign language), pivot (using a single language as a relay), cheval (an interpreter working alternatively in two booths in the same meeting), sign language (simultaneous interpreting into sign language), and others [5].

Interpreters operate the following concepts when describing how many languages and to what extent one can speak: language regime and active/passive languages. An active language is the one the interpreters speak that hearers can listen to. A passive language, on the contrary, is the one the interpreters understand that is spoken by the speakers. For example, when during the official meeting 12 nations participate in hearings, it means there are 12 passive and 12 active languages, i.e. all the official languages are interpreted into all the official languages. Such regime is called complete and symmetric. When interpretation is provided from less than the full number of official languages, the regime is called reduced. In an asymmetric regime, the interpreter can speak more languages than he/she can listen to. For instance, when it is said, that a meeting has an 8-4 regime, it means that delegates may speak 8 official languages, while interpretation is only provided into 4 languages [6].

Both translation and interpretation are quite wanted professions nowadays, due to globalization and international communication development. Hence, high quality professional education in this field is required and theoretical basis has to be set. In reality, little attention is given to the theory of interpretation as a subject when the Interpretation Studies are taught in higher education institutions. One can see that there are all sorts of disciplines related to the translation, with rules, suggestions, guidance, practice, etc. However, when it is time to learn oral translation, students only receive limited knowledge on the subject-matter and a lot of practice. We agree, that a constant, never-ending practice is essential for successful speaking, not only interpretation, however, having learnt some principles, instructions, and tips on how to do interpretation would play a significant role in developing required skills in students.

As described above, both public

speaking and interpretation are crucial types of activities in modern world. The ongoing development of those makes proper education required and essential. But how do these activities correlate?

First of all, high grade conference interpretation is impossible without adequate training. Say, the interpreter speaks fluent target language with the correct equivalents to idioms and different stylistic devices. However, when it is needed to perform consecutive interpretation in the official meeting or a conference, the interpreter might be so nervous and anxious, his speech would be of a low quality with mediocre use of lexical devices, wording, etc. Thus, great knowledge and excellent interpretation skills may be hidden by the "stage fright".

On the other hand, good public speaking skills may sometimes save situation and help in delivering interpretation. When a person is aware of necessity to keep the tone confident and positive, of using clichés and wording choice which is usually used at the similar events, knowing this may help conceal the gaps of the content understanding, if the interpreter lacks specific knowledge, for example, greetings, professional field vocabulary, etc.

Taking into consideration everything aforementioned, it may be concluded that public speaking and interpretation are interrelated. Public speaking skills determine the quality of interpretation when performed publicly and its essence in whole. Oratory can be considered as a tool for improving and perfection of the text produced during the process of translation. Not being confident speaker yourself can disserve all the efforts for making good quality translation.

The fact that there is little useful and relevant information given to students makes the necessity to scrutinize the point of integrating public speaking into the interpretation science is of a key importance and actuality. Only by combining these two disciplines can we achieve required level of preparation of future interpreters. On the other hand, neglecting the importance of using both skills can bring harm to the interpreter's competence and efficacy. We believe that new discipline has to be designed and included into the curriculum of higher education institution. A thorough research of the students' needs, wants, and lacks, as well as environment has to be conducted in order to include all the required information in the course to make it of the most use. We can be assured that after studying this course successfully in combination with general progress on other courses required for the Interpretation Science major, the graduate will be a professional who is ready to go out to the world and perform excellently to honor his/ her Alma Mater.

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DEVELOPING CRITICAL THINKING IN LITERARY TRANSLATION COURSE

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Developing highly qualified, competitive human capital is one of the priorities in the Kazakhstan national development strategy [1]. Indeed, knowledgeable people with critical thinking are indispensable in the development of sustainable society as working diligently to develop the intellectual virtues, trying to improve their reasoning abilities they strive to improve the world in whatever ways they can, contributing to a more civilized society [2].

Critical thinking, generally defined as "the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" entails the examination of those structures or elements of thought which are implicit in all reasoning (i.e. purpose, problem, or question-at-issue; assumptions; concepts; empirical grounding; reasoning leading to conclusions; implications and consequences; objections from alternative viewpoints; and frame of reference[2].It is not an inborn ability and not all people can be equally good at it but a number of scientists (Linda Elder, Richard Paul, Edward M. Glaser) state that if a person is properly trained to do critical thinking, he is able to gather and assess relevant information, to deduce consequences from it, to think open-mindedly within alternative systems of thought, to formulate vital questions precisely, to communicate effectively with others in figuring out solutions to complex problems [2, 3].

Critical thinking as a most essential intellectual ability has never been underestimated by Kazakhstan educators and intellectual skills, based on it, are always mentioned in Kazakhstan State Educational Standards of Secondary and Higher education as requirements for graduates. However, teachers of secondary and higher educational institutions note that in the recent years students' intellectual abilities, including critical thinking have worsened. Entering a university, many students prefer relying on "gut feelings" than thinking the problem over and over again, do not review their mistakes and avoid challenging tasks which require problem solving skills. To improve the quality of higher education university courses are to be designed in such a way that they may gradually develop critical thinking in students. In the article we are considering development of critical thinking in the Literary Translation course which is designed for students of Translation Studies major.

Translation is a challenging activity as it requires excellent comprehension abilities, an ability to recognize problems and to find workable means for meeting them, to gather and marshal pertinent information, to recognize unstated assumptions and values, to comprehend and use language with accuracy, clarity, and discrimination, to interpret data, to draw warranted conclusions and generalizations. The work is always closely connected to the thinking in a special, intricate way. Here we are talking about situations which are to be dealt in an instant way while interpreting – especially interpreting. A skilled interpreter is a person who catches the word flow, submerges in it, understands and transmits it in an appropriate way, converting it to another language, which is clear for the second party and then – the same process in the opposite direction. A good interpreter should be

able to study by himself and for this purpose seek relevant sources of information. All the above-mentioned skills are, in fact, manifestation of well-developed critical thinking.

Developed critical thinking is presupposed in the requirements of the State Obligatory Educational Standard (SOES) of the Republic of Kazakhstan (RK) dd. 2006 for the undergraduate program in Translation Studies [4]. The program graduates should be able not only to translate texts of a certain subject area but are to understand the basic concepts of cross-cultural communication, social, natural sciences, and special linguistic disciplines; are to know the ways of state development, main points of economic laws, historical variety of cultures, history, culture, language, and religion of the country studied. They are to speak foreign languages fluently, to be able to work with given information, to translate written or oral texts; to work in different spheres such as: administrative and managerial, educational and scientific, cultural and cross-cultural communication, international relationships, publishing, mass media, information-analytical, industrial [4]. These duties surmise an ability of performing the translation of different genres of texts and documents, interpretation of negotiations, international meetings and conferences, editing, translation, compilation of various written texts, etc.

The Translation Studies curriculums supposed to give those skills. However, the analysis of the content of the Standard Program for 050207 – Translation Studies specialty [5] makes us note that, unfortunately, most of the courses of the curriculum are focused on language and translation theory which is, indeed, important for a university graduate but is not enough for a future interpreter who should have well-developed problem solving skills and critical thinking, in general. Even translation courses are mainly focused on training how to deal with certain groups of words or grammatical structures. It is, obviously, helpful for making students remember some translation rules, but it does not teach them to think in an "unaccustomed" way which may be helpful for them in their future professional activity.

Nevertheless, there is one course that actually meets the case. Whereas other translation courses are focused on informative texts where words are mainly used in their primary meaning and the essence of translation is to render information of the original text with minimal changes, Literary Translation teaches students how to work with literary prose, drama and poetry, that is, texts where "form" dominates over "content". Literary translation has strongly marked specification of texts, which obliges one to think critically, while translation of informative texts requires having a general idea of a particular theme. One can obtain great knowledge in different spheres of life, but when dealing with texts for literary translation, words are not as important as they seem. Word is just a symbol, a "tool" for creating associations. That is why, without proper training, many students misunderstand literary texts and translating them apply approaches used in informative and technical translation.

The ability of a translator to read and convert literary text into another language, to understand its deeper meaning depends primarily on emotional intelligence. The projection of the original text, which is the result of translation, in psychology is treated as comprehension and generation of values, which consists in the subject's conscious and unconscious transference to its properties, conditions to external objects. This is a creative process which is under the influence of dominant powers, purposes and values of the subject.

Thus, the Literary Translation course has appeared to be perfect for developing critical thinking which is predetermined

by the nature of literary texts. As they are form-oriented, not the exact words and their arrangement used to express a certain idea is essential but the image these words create and the function these elements in the text [6]. Consequently, in literary translation there are not many rules and limitations so, translation of a sentence or a text when a translator has to see "between the lines", to restore the situation, the exposition, the author's idea is always challenging and requires critical thinking. Realizing that students taking the course are not, as a rule, well-developed critical thinkers we base our course on the following principles:

- The course should be consistent and logical;
- Students should be aware of what they do;
- Theory should be always connected with practice;
- Any literary text can be translated;
- Students should be able to visualize a translated text;
- There should be constant feedback;
- There are always several correct variants;
- Analysis should be done during any work with a literary text.

Consistency and logicality of the course is achieved by its structure when the themes and texts are interconnected and arranged in such a way that more complicated material goes after a simpler one [7]. It concerns critical thinking development as well. At the beginning of the course students analyze sentences and are given exact directions what they should seek for (e.g. Studying graphical expressive means they are told to find graphons in sentences and define their functions). Then they have to analyze sentences to find all stylistically colored elements and, finally, they do analysis of literary texts, making conclusions about expressive elements of the text at all levels, their interconnections and functions, images created, the message of the text and its style.

Critical thinking development can be demonstrated by the example of work at rendering the idiolect of a literary character. This issue is one of the most challenging ones in the course as students who have some idea of expressive means and stylistic devices from the school Russian literature course, do not know what "idiolect" is, often treat idiolect binary as tautology which is inadmissible in Russian classical literature and, as a result, do not render speech characteristics properly [8]. Giving some basics of idiolect components, we start with the analysis of sentences on the phonetic, grammatical, lexical levels, asking students to define emotions and style. Analyzing literary texts, we start with an extract from the chapter "A Knife in the Dark" (J.R.R. Tolkien "The Lord of the Rings"), where the characters do not speak much, with the task just to define and render the style of each character in general, then take texts with a narrator (J.D. Salinger "The Catcher in the Rye", Evelyn Waugh "Cruise") and students have not to define the style but prove their conclusion with the results of the text analysis. Finally, students have to deal with challenging texts where personages are characterized through speech (e.g. Ch. I, Volume I, Jane Austin "Pride and Prejudice", dialogue of Mr. and Mrs. Bennet). They are not just to define the style and general speech characteristics but make a well-grounded conclusion about the character of a personage and his emotions.

The principles of "awareness" and "connection of theory and practice" are interconnected as, although the course presupposes creativity, still there are some general rules to follow and translation practice of rendering some language elements. After some theory and training usual ways of rendering a language element, some sentences with elements which cannot be translated according to the rules are given, i.e. after training to render indi-

vidual peculiarities of speech, foreign accent, dialect, manner of speech (translation variants are discussed), students are given the task to translate the sentence:

He began to render the famous tune "I lost my heart in an English garden, Just where the roses of England grow" with much feeling:

"Ah-ee last mah-ee hawrt een ahn Angleesh gawrden, Jost whahr thah rawzaz ahv Angland graw" [9].

which shows the individual manner of singing a song (translation of songs has not been shown), and comment on their variant of translation.

Developing critical thinking is hard but necessary so students should be motivated to translate a literary text no matter how difficult and untranslatable it may seem. We normally illustrate the idea with the dialogue of two Scottish farmers at the market (speaking English):

- 'oo'?
- 'oo'.
- a'' 'oo'?
- 'e', a'' ''oo'.

At first students state that the dialogue cannot be translated but when we start asking questions about the situation, the participants of the communication, the possible peculiarities of Scottish accent, writing down ideas on the whiteboard, they gradually understand the essence of the dialogue and cope with the translation. Visualization is, indeed, a good tool in teaching critical thinking. In literary translation it helps better comprehend the text and avoid mistakes and illogicalities.

Students should get constant feedback no matter what they are doing not only from the teacher but from other students. Debates and discussions motivate critical thinking. And here Literary Translation has a great advantage over other courses because most students are intimidated when they are asked to express their opinion or translate something as they are afraid that they will make a mistake and be criticized. Unlike in other courses, in Literary Translation all variants that render the main idea, style and function of a text can be considered adequate. Though if during translation a text has been transformed greatly the student-translator has to explain why he has changed the text and prove that he is right. In general, all translation variants that render the sense are analyzed, discussed and improved by the group.

In fact, analysis which is not only the main "tool" for developing critical thinking but also for adequate text comprehension , is used in all Literary Translation activities: pre-translation analysis of texts and sentences, comparative analysis of original and translated texts, etc.

On the completion of the course students, as a rule, better comprehend texts as they are trained enough to see interconnections in the text and can single out language elements which should be most accurately translated, have a better feeling of style and language, are more flexible in choosing variants of translation, know how to work with different dictionaries and reference books and more motivated to do challenging tasks. We are coming to the conclusion that critical thinking is not just important as an intellectual ability, but it is a means of making any academic course more interesting and effective.

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IMPORTANCE OF APPLYING THE INTELLIGENCE THEORIES IN TEACHING AND LEARNING PROCESS

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The efficiency of acquiring knowledge in the learning process depends on many factors, such as students' motivation, methods of teaching, atmosphere in the classroom, learners' intelligence and other. Among all these internal and external factors, we may emphasize different types of intelligences that students possess which play a predominant role in getting, understanding and remembering new information by a learner.

Psychologists, educators, methodologists for many years, have investigated the question about intelligence. Such researches as J. Thurstone, G. Peterson, H. Gardner, Ch. Spearman and other emphasize the importance of different types of intelligence that should be reckoned with in the teaching and learning processes.

Different investigators have identified different aspects of intelligence in their definitions. Intelligence is defined as:

- the ability to learn (A. Binet, Ch. Spearman, S. Colvin);

- the ability to operate and manipulate abstractions and give good responses to questions (L. Terman, E. Torndike, G. Peterson, J. Guilford);

- the ability to adapt to a new environment which draws upon a number of cognitive processes, such as perception, learning, memory, reasoning, and problem solving (V. Stern, L. Thurstone, E. Klappared, J. Piaget).

According to Britannica encyclopedia Human intelligence is a mental quality that consists of the abilities to learn from experience, adapt to new situations, understand and handle abstract concepts, and use knowledge to manipulate one's environment.

Therefore, numerous theories about intelligence exist nowadays.

Piaget's work on the intellectual and logical abilities of children provided the single biggest impact on the study of the development of human thought processes. He described the mind as proceeding through a series of fixed stages of cognitive development, each being a prerequisite for the next.

Charles Spearman introduced two-

factor theory of intelligence, using the statistical procedure called factor analysis. He noticed that people who did well on one mental-ability test tended to do well on others, while people who performed poorly on one of them also tended to perform poorly on others. To identify the underlying sources and reasons of these performance differences, Spearman contrived factor analysis, a statistical technique that examines patterns of individual differences in test scores. According to him intelligence is made up of two components: a g-factor (general intelligence which pervades performance on all tasks requiring intelligence) and s-factors (a collection of specific cognitive intellectual skills which are specifically related to each particular test) (1, p. 201).

The American psychologist L.L. Thurstone disagreed with Spearman's theory, arguing instead that there were seven factors, which he identified as the "primary mental abilities". These seven abilities include:

- verbal comprehension (as involved in the knowledge of vocabulary and in reading);
- word fluency (as involved in writing and in producing words);
- number (as involved in solving fairly simple numerical computation and arithmetical reasoning problems);
- spatial relations (as involved in visualizing and manipulating objects, such as fitting a set of suitcases into an automobile trunk);
- inductive reasoning and general reasoning (as involved in completing a number series or in predicting the future on the basis of past experience);
- memory (as involved in recalling people's names or faces;
- perceptual speed (as involved in rapid proofreading to discover typographical errors in a text).

According to Thurstone, each ability can be measured separately, and the sum of the unique abilities compose a high level of intelligence (2).

Vernon and Cattell viewed intellectual abilities as hierarchical, with g, or general ability, located at the top of the hierarchy. But below g are levels of gradually narrowing abilities, ending with the specific abilities identified by Spearman. Cattell also suggested, for example, suggested that general ability can be subdivided into two further kinds, "fluid" and "crystallized."

- Fluid abilities consist of reasoning ability, memory capacity, and speed of information processing. Problem-solving abilities are measured by tests such as analogies, classifications, and series completions.
- Crystallized abilities, which are thought to derive from fluid abilities, include vocabulary, general information, and knowledge about specific fields (3, p. 107-129).

Philip Vernon introduced hierarchical model. He suggested that intelligence consists of factors and skills arranged hierarchically. The cognitive factor, at the top, is composed of two skills, verbal/ academic and practical/ mechanical, each of which is subdivided. For example, Verbal/ academic includes such skills as vocabulary and verbal fluency.

Robert Sternberg was concerned with how intelligence is used, particularly in problem solving, as well the abilities it includes. He suggested triarchic theory which deals with:

- componential intelligence, which includes components essential to acquisition of knowledge, use of problem-solving strategies and techniques, and use of metacognitive components for selecting a strategy and monitoring progress toward success;
- experiential intelligence, which is reflected both in creatively dealing with new situations and then combining different experiences in insightful ways to solve

novel problems;

- contextual intelligence, which is reflected in the management of day-to-day affairs (4).

J. P. Guilford proposed three dimensional model of mental ability:

- operations (the act of thinking);
- contents (the terms used in thinking);
- products of thinking (ideas).

Each of these dimensions is subdivided into the smaller ones. Combinations of the dimensions and subdivisions can lead to over 100 separate factors, many of which have been demonstrated experimentally.

Gardner's Multiple Intelligence Theory strongly suggests that everybody has a different mind, and no two profiles of intelligence are the same. He defines intelligence as the ability to create an effective product or offer a service that is valued in a culture; a set of skills that make it possible for a person to solve problem in life; or the potential for finding or creating solutions for problem, which involves gathering new knowledge (5, p. 4-5).

According to Howard Gardner, human beings have eight different kinds of intelligence that reflect different ways of interacting with the world. Each person has a unique combination, or profile. Although we have all nine intelligences, no two individuals have them in the same exact configuration, similar to our fingerprints. The theory suggests that traditional ways of testing for intelligence may be biased to certain types of individuals depending on their perception of the world. The perception still exists that intelligence can be measured in relation to reading, writing and arithmetic skills alone, and a person's future success is judged accordingly. Here are intelligences that people can possess:

1. Linguistic Intelligence involves the capacity to use language to express what's on your mind and understand other people. It includes students' sensitivity to spoken and written language, the ability to learn and use languages for accomplishing certain goals. Language is a means to remember information.

2. Logical-Mathematical Intelligence consists of the capacity to understand the underlying principles of some kind of causal system, the way a scientist or a logician does; or to manipulate numbers, quantities, and operations, the way a mathematician does. In Howard Gardner's words, it entails the ability to detect patterns, reason deductively and think logically. Therefore, it involves the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically.

3. Musical Rhythmic Intelligence involves skill in the performance, composition, and appreciation of musical patterns. It encompasses the capacity to recognize and compose musical pitches, tones, and rhythms, and perhaps manipulate them. People who have strong musical intelligence don't just remember music easily, they associate newly acquired information with music.

4. Bodily-Kinesthetic Intelligence entails the potential of using one's whole body or parts of the body (your hands, fingers, arms) to solve problems, make something, or put on some kind of production. It is the ability to use mental abilities to coordinate bodily movements. Howard Gardner sees mental and physical activity as related. Students easily remember information through trying, performing, or acting.

5. Spatial Intelligence involves the potential to recognize and use the patterns of wide space and more confined areas. It's the ability to represent and visualize the spatial world internally in your mind.

6. Naturalist Intelligence describes the ability to discriminate among living things (plants, animals) and sensitivity to

other features of the natural world (clouds, rock configurations). It enables human beings to recognize, categorize and draw upon certain features of the environment.

7. Intrapersonal Intelligence consists of having an understanding of yourself; knowing who you are, what you can do, what you want to do, how you react to things, to appreciate one's feelings, fears and motivations, which things to avoid, and which things to gravitate toward. We are drawn to people who have a good understanding of themselves. They tend to know what they can and can't do, and to know where to go if they need help. In Howard Gardner's view it involves having an effective working model of ourselves, and to be able to use such information to regulate our lives.

8. Interpersonal Intelligence is concerned with the capacity to understand other people, their intentions, motivations and desires. It allows people to work effectively with others. It's an ability we all need to communicate easily with other people.

Learning through a variety of unique experiences allows students to better understand themselves as lifelong learners, and to see how others acquire knowledge and apply their skills. Psychologists and educators indicate that it’s important for a teacher to determine students’ learning styles by introducing a broader range of learning methods appropriate to all the types of intelligences. This would consequently give them the opportunity to learn in ways more productively to their unique minds.

There are multiple benefits to employing intelligence theories in the classroom. Teachers may combine various methods and techniques in teaching. Students become more active, and involved learners as intelligence theories allow students to opt for many different means of learning and expression.

Such activities as drawing a picture, composing or listening to music, watching a performance, and other can be vital in learning process. Therefore, we may come to regard intellectual ability more broadly. Studies show that many students who perform poorly on traditional tests are turned on to learning when classroom experiences incorporate artistic, athletic, and musical activities.

Teachers may provide opportunities for authentic learning based on students' needs, interests and talents. Parents and community involvement in your school may increase. This happens as students often demonstrate work before audience. Activities involving apprenticeship learning bring members of the community into the learning process.

Students will be able to demonstrate and share their strengths. Building strengths gives a student the motivation to be a "specialist." This can in turn lead to increasing self-esteem.

When the teacher "teaches for understanding," the students accumulate positive educational experiences and the capability for creating solutions to problems in life.

It goes without saying it’s challenging to teach all intelligences at the same time. However, teachers may think positively: different kinds of intelligence would allow various ways to teach. Powerful constraints that exist in the mind can be mobilized to introduce a particular concept (or a whole system of thinking) in a way that students are most likely to learn it and least likely to disfigure it. The key to implementing intelligence theories successfully is to design your classroom and the particular lesson so that students are able to participate in learning and understand the material in a variety of ways.

There are some ideas that the teacher should keep in mind in the process of teaching.

1. Provide the students with sufficient materials.

If the teacher takes into account all the intelligences it's necessary to make students work together in groups and/or on projects that employ many materials. The teacher must be sure that he/she adapts the classroom space as best he/she can to the parameters of the lesson. For example, if the lesson plan asks students to work with computers and there are not enough in the classroom, the teacher should try to schedule time in the computer lab in advance. If the lesson plan involves drawing or acting, the teacher should be sure to arrange the classroom so that there is sufficient space and materials.

2. Make clear instructions and strict limitations for carrying out the given task.

The teacher should be prepared not only to encourage collaboration and thinking process, but also to maintain some control by setting specific boundaries for students. For example, if the assignment calls for the students to work together to develop a presentation, be sure to define exactly how they should work together (perhaps by asking them to muck in the task among the members of a group, or encouraging them to assign different roles within the group) and what to do if they have trouble cooperating.

3. Be ready for getting different ways of students' performance.

One answer or outcome is not the only acceptable measure of a student's understanding. For example, if your objective is to help students understand the literary elements of a story or novel (e.g., rising action, conflict, climax, etc.), different learners might grasp the concept in different ways. One student might illustrate them through drawing, another might be able to re-create the elements through acting, and another might better be able to summarize them in writing. The teacher may set an alternative how to get the result by allowing students to choose the most suitable and easiest way for them to achieve the aim.

4. Let students know the criteria of assessment.

The students need to have a clear understanding of how their work will be evaluated. The teacher should lay out the exact objectives and expectations of the lesson before beginning. The students need to understand that there may be many different forms of evaluation used at the lesson, and that one style of work is not necessarily more demanding or time consuming than another. For example, if a project gives participants a choice between writing and illustrating, the outcomes will obviously be very different, but they may be given the same grade for meeting the same objective.

In conclusion, I'd like to refer to Howard Gardner's thoughts about human uniqueness, "I want my children to understand the world, but not just because the world is fascinating and the human mind is curious. I want them to understand it so that they will be positioned to make it a better place. Knowledge is not the same as morality, but we need to understand if we are to avoid past mistakes and move in productive directions. An important part of that understanding is knowing who we are and what we can do... Ultimately, we must synthesize our understandings for ourselves. The performance of understanding that try matters are the ones we carry out as human beings in an imperfect world which we can affect for good or for ill (6, p. 180-181)

Therefore, teachers may create conditions to change the world and help students acquire new information easily. We should remember that intelligence is like people's capacity to solve problems in their own way. Teachers can fashion products that are valued in one or more cultural setting by choosing different methods and techniques that are easier and more effective for problem solving. That's why it's important for every teacher to find some individual approach to every

student, know his/her type of perception of the world. If a student is not learning in the way the teacher is teaching, then the teacher must teach in the way the student learns.

Educators should take advantage of the uniqueness of their students, explore students' interests in world cognition, be creative, use their skills to maintain students' potential and help them understand the world easier and more consciously.

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COGNITIVE LINGUISTICS AS A PART OF COGNITIVE SCIENCE

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Cognitive linguistics as being part of cognitive science deals with techniques considering the work of mental processes. Mental mechanisms of human mind are studied by cognitive science. Taking into account all mental processes, principles of information processing, and the connection to other psychic and neurological spheres cognitive scientists believe that they are closely interconnected and have a profound effect on each other. However, looking at cognitivism from a more precise prospect the core interaction of mental processes can reveal more subtle aspects of mind work such as culture and mentality. Yet, there are still a number of contradictions in cognitivism that cannot be researched without consideration of a number of disciplines where linguistics is a centre of cognitive science.

Cognitivism is the study of psychology where the mind of a person is studied as an information processing system and the behavior of a person should be described and explained according to his/her internal state. These states are physically determined, observable and interpreted as a receipt, processing, storage and, therefore, mobilization of information for the rational decision of reasonably formed tasks. As the decision of these tasks is directly interconnected with the use of language, it is quite reasonable that language is in the centre of cognitive science.

Observing the concept of cognitivism through centuries it has been drastically modified during this period. The usage of the term "cognition" as a key direction has led to considerable discourses in definition and application of this notion. The initial meaning of cognition was always represented as perception, mind, or intelligentia. Nowadays cognitivism differs from its previous notion by its wide

use of information select metaphors and characters. Cognition for cognitive scientists is procedures connected with acquisition, usage, storage, transition and production of knowledge [A. Hautamäki 1988, p. 11].

Cognitivism in its notion can be defined as [M. Richelle 1987, p. 181]:

- Research program of human "thinking process" [J.-F. Le Ny 1989, p. 9];

- Observation style over human nature mental phenomena (where cognitivism is close to phenomenology);

- Initial hypothesis that the subject is a source and originator of its actions;

- Demarcation of research area when cognition being perception, communication act, memory, and imagination confronts emotions that are not considered in the primary research objects.

Working out the models of "inner processing" cognitive scientists describe mental events in mental terms [W. Bechtel 1988, p. 13]. Basically, cognitive work is to determine the reasons that evoke certain thoughts. There are at least two more approaches such as behaviorism and neuropsychology that are connected to mental activity. Behaviorism characterizes behavior in terms of skills, motives, and reactions. Neuropsychology explains the behavioral process in terms of neuronal process [W. Bechtel 1988, p. 3-4]. Unlike these approaches, cognitive scientists aim to form their own hypothesis in terms of mental processes without studying motives, reactions, and cellular interaction. The main objective is to identify mental states functionally in terms of their interaction and deviate from material actualization in mind.

For example, in "cognitive theory of individual" it is necessary to focus not on the phase of personal perception but on what follows this process. This preceding phase is called "information process". Such "processing" is characterized as "schemes", "frames", "script". According to the concept of "parallel distributed processing" (PDP), some "processing" that is smaller and have microlevel features are determined as "micro sign" functioning in terms of interconnected systems [D.E. Rumelhart et al. 1986, p. 7]. The cognitive aim of the theory is to consider closeness of a certain researching phenomenon to consciousness [H. Thomae 1988, p. 16]. Therefore, one of the cognitive objectives is to display cognition in external behavior [Lycan 1990, p. 1].

Considering a number of questions that arouse in cognitive theory it is inevitable to connect this science to mathematical principles. Such issues as the effect of cognitive processes, metaphors and characters produced in human mind are studied only by mathematics. Algebra as an art to solve certain equations had conceptually existed before current formal mechanisms existence. However, initially it is closely connected to the systems that generate the methods of solving sophisticated types of tasks. Cognitivism concerns a serial or even "technical" task solving in human mind causing a serial of new problems every time.

Cognitive science is a science that researches intelligence and intelligent systems where intelligent behavior is considered as a determinant [Simon, Kaplan 1989, p. 1]. It differs from previous approaches to cognition by its level of idea perception and "determination" techniques. The latter is not of arithmetical mean but as an operation analogue produced by a computer [Z.W. Pylyshyn 1989, p. 51].

It is evident that such a discipline is complex. For example, it can be described as a "federation" of sciences that are not interconnected by strict and set relations. There is artificial intellect (or "applied philosophy"), linguistics, psychology and neurology [M.A. Arbib 1985, p. 28] (another type of administrative decision is

physiology, psycholinguistics and mathematics [G. Kegel 1986, p. 28]) in this "federation". Artificial intellect is aimed to imitate human intellect with the help of a computer to solve tasks. "Cognitive linguistics" is a branch of cognitive science that uses a set of language information processing to create models that imitate external human behavior demonstration when solving intellectual tasks. Neurology, or theory of brain, explains the behavior of a person or animal through its interconnection with nervous system elements.

A general consequence of such a complex cognitive science is to build models of knowledge and intellect to produce them in computer. Thus, the object of research is human cognition (interaction of perception system, information representation and production) and its "technological presentation" [G. Kegel 1986, p. 30].

In 1960 cognitive psychology demonstrated the possibilities of information select approach to human mentality and the possibilities of new scientific metalanguage. The concept of information processing taken from the information theory where it was applied to physical systems of information transmission was applied to a person. A general idea was transformed into the following conception: organisms use internal perception (representations) and make evaluation operations over these perceptions. Now cognition is an object, which regulates human perception according to the manipulation rule of computers.

This theoretical experiment that detected the flexibility of a new scientific metalanguage in description of psychic processes was the background for the creation of cognition approach to objects and research results in allied subjects. This approach is the most applicable in linguistics as in all complexes of sciences about a human being. Hence, the relation between language and other human activities and processes takes the leading part. It is language but not culture or society that gives cognitive scientists a key to human behavior [W. Croft 1991, p. 273].

Before cognitive current, the science was mostly focused on the general logical laws applicable to all biological species, materials, centuries and stages of knowledge in contrast to their content [H. Gardner, Wolf 1987, p. 306]. Nowadays main principles are connected to human cognition. Scientists that worked in this sphere are J. Bruner, G. Miller, U. Neisser, J. Piaget, A. Newell, G. Simon and others during 1956-1972 [G.A. Miller 1979]. According to the theoretical and personal characteristics, cognitivism is comparable to behaviorism in psychology from 1940 to 1950. It is interdisciplinary of this period that determined axioms of cognitivism [H. Gardner, Wolf 1987, p. 117]:

1. Visible actions (such as products) are not only to be researched but also their mental perception, symbols, strategies, and other invisible processes and abilities of a person (that cause actions).

2. During these processes a reasonable aspect of actions and processes are under consideration but not an external analysis of behavior.

3. Culture forms a person, an individual is always under the influence of his/her culture.

No matter how many contradictions were between different currents, cognitive scientists were aimed to return the concept "mind" to the human science. They did not try to modify behaviorism but dispel it as a methodology of scientific research [J.S. Bruner 1990, p. 3-4].

By the middle of the 1950s, the explanation of mental processes through "rules of modification of mental perception" had appeared that are comparable to the transformational rules in the first versions of generative grammar. These rules were being formed during the observation of language learning by children [S. Pinker 1984, p. 1]. It was found that chil-

dren master their native language in an equal way and that this universal "algorithm" of mastering language consists of accepting new rules into the internal grammar of a child. Thus, it was concluded that these rules resemble all aspects that also direct nonspeech types of activities and provide them with productivity and sometimes look like reflexive type of activity or uncontrolled behavior reflecting on the structure of perception, memory and even on emotions [Fodor, Bever, Garrett 1974, p. 6-7].

Based on such kind of arguments, cognitive methodology is close to linguistic activity. Interpreting a text a linguist analyzes the correctness and meaning of sentences (on the basis of subject consulting and/or explaining the meaning using his/her knowledge) using hypothetico-deductive structures [A.I. Goldman 1987, p. 539]. The research on how a person operates the symbols around him/her conceiving the world and his/her place in the world demonstrates an inevitable connection of linguistics with other disciplines, which study a person and society interpreting their interconnection.

Cognitive science displayed one of the general tendencies of interpreting approach in different disciplines. This objective to determine mechanisms of human interpretation of the world and his/her place in the world is considerably displayed in linguistic "interpretivism" ("interpreting semantics"), in philosophical and juridical hermeneutics, in literary studies of reader criticism. However, cognitivism does not cover as many aspects as interpretivism but it does not have limit in its size.

Cognitive science as a project of human cognition research is of interest and practical importance. However, it has inevitable contradictions. There are some typical issues in cognition concepts:

1. The confusion between the terms "meaning" and "information", "consciousness" and "information processing" which are connected to contemporary features of describing technological analysis model. Actually, meaning and information are completely different notions. Meaning can be applicable even to non-informal items. The important concept, which is to be considered, is that an item is informative, that it has its own code of information in contrast to other types of items. When considering a certain informative item it already has its own set of predefined possible choice. Hence, beyond this choice it is impossible to consider the information processing in terms of basic operations that function in fixed and optional items. In contrast to the meaning system, the information system does not imply indeterminacy, polysemy, metaphor and connotation [J.S. Bruner 1990, p. 4].

2. Considering cognitivism in its profound notion it appears to be closely interconnected to a technological rather than human aspect. However, cognition has hardly anything common with mirror reflection in its classical aspect, which functions according to information selection paradigm. Human perception (as well as language, myth, and art) is not a mirror that reflects the external and/or internal nature of objects, which had its own structure before our act of perception. Human perception is more like a source of light that creates conditions for human perception. The stronger the light the stronger the source the clearer we see an object [E. Cassirer 1923, p. 26]. According to Cassirer, any perception is set up to find a single principle that unifies different observations in one complete unit. One item cannot be single, it must be applied to a certain category where it must be represented as an element of either logical or cause-and-effect structure [E. Cassirer 1923, p. 8].

3. A human being cannot be only referred to information category as the main feature of human intellect is will. Intellect

is will and cognition (there can be more aspects). Considering only manipulating symbols cognition deviates from intentionality [H.-H. Lieb 1987, p. 11]. Hence, if intention and will are included in cognition, then there is no cognition according to its core nature; therefore, cognitivism cannot manipulate intellect. In both cases, it is difficult to define the term "cognition" in information select sense.

4. Syntactic symbols that cognitive scientists are often limited to cannot reflect the mentality of a person as people think semantically [J.R. Searle 1984, p. 43-55].

As a result of a number of contradictions, many issues of cognitivism are under consideration. There is no one but several unified cognitive theories that are interconnected trying to adapt but not replace each other. In this case of interaction, one can see the feature of human interpreting process trying to explain everything that attracts his/her attention [A. Newell 1990, p. 503].

"Cognitive linguistics" is a scientific current that centers language as a combined cognitive mechanism.

The main focus of cognitive science is a "mental" basis of speech understanding and production in relation to the way the structures of language perception are represented and work during the information processing. The issue put from this concept is what representation of knowledge and procedures of its processing can be expected. It is considered that representation and similar processes are organized modularly so that they are dependant to different principles of organization [D. Wunderlich, Kaufmann 1990, p. 223].

In contrast to other disciplines of cognitive course, those cognitive structures and processes are only considered that are typical to homo loquens. In the first stage is the system description and explanation of human mechanisms of learning language and the principle of structuring of these mechanisms. However, there are certain issues during these procedures [Felix, Kanngiesser, Rickheit 1990, p. 1-2]:

1. Considering the representation of mental mechanisms of learning language and principles of their structuring, the number of mechanism representations, the principle of mechanisms interaction and their inner construction are arguable.

2. Considering production, it is disputable whether production and perception are based on the same system units or they have different mechanisms. It is also questionable whether the time processes that make speech production go parallel or sequentially, whether we build a general sample of sentence and only then provide it with lexical material or these processes go at the same time, how it happens, what substructures (for example, syntaxes, semantic, conceptual etc.) function in speech production and how they are set up.

3. Perception in cognitive course is researched more actively than speech production, which characterizes interpretivism. Considering perception, a number of issues are under consideration, such as what kind of procedures regulate and structure language perception, what experience evokes these procedures, what is the organization of semantic memory and the role of this memory in the speech perception and understanding.

It is acceptable in cognitive linguistics that mental processes are not only based on the representations but they correspond to certain procedures such as "cognitive estimation" [C. Eschenbach et al. 1990, p. 37-38]. For other cognitive disciplines (especially for cognitive psychology) the implication of cognitive linguistic is valuable when they allow to determine the mechanisms of these cognitive estimation [G. Lakoff 1982, p. 141].

In such an information select principle the central objective of cognitive linguistic is determined as the description

and explanation of inner cognitive structures and the dynamics of a speaker and hearer [S.W. Felix, Kanngiesser, Rickheit 1990a, p. 5]. A speaker and hearer are considered as a system of information processing that consists of a final number of independent components (modules) and distributes language information in different levels. The aim of cognitive linguistics is to research such system and set up its main principles but not only to represent systematic language phenomena. For cognitive scientists it is necessary to understand what mental representation of language knowledge should be and how this knowledge is cognitively processed. Adequacy and relevancy of linguistic statements are determined according to this concept and explain the following notions [S.W. Felix, Kanngiesser, Rickheit 1990a, p. 6]:

1. Understanding is considered to be a type of mental representation that should be accessible for learning. (The issue is what is accessible for learning and what is not accessible).

2. Processing is an act of process between a presenter and presentee that can be processed by means of the program of a quite proper analyzer (in computer). The check of grammar models with methods of computer linguistics is an example for processing.

Thus, it is essential to consider cognitive mechanism in all linguistic activities as it deals with all principles of perception, processing, and output of information. Language cognition can be defined as interpretation process that controls all language processes, especially speech. Internal world is interpreted through speech. A universal cognitive strategy is set up in human cognition. A person can collect information and use these strategies to monitor his/her knowledge. According to Lieberman [Lieberman 1984, c. VII] the universal strategies set up in human mind programmed by biological structures are similar to computer work. Knowledge accumulated throughout the life of a person is monitored by these strategies and makes a person think and learn according to this knowledge.

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LANGUAGE CONTACT AS A SIGNIFICANT SOCIAL PHENOMENON

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Languages have always been influencing each other in certain ways, when speakers of different languages interact closely. This interaction has always been of interest for linguists, and there is even a special branch of linguistics, called contact linguistics, which studies language contacts. Normally, this interaction is reflected in language convergence, borrowing and replacement. It may also lead to the emergence of hybrid languages, such as pidgins, creoles, and other mixed languages.

This research will cover the following aspects:

1) What is language contact;

2) The ways languages interact and influence each other;

3) Possible outcomes of such influence.

Language contact is considered to be an important phenomenon, and many linguists have been studying it for years. Multilingualism has always been common in the human history. In the today's world of globalization, most people became multilingual, and there is much language variation. Therefore, studying the aspects of language contact and of its influence is a significant matter.

First of all, it is important to remember that all languages change though time due to various reasons. These reasons include drift, which means tendencies within the language to change due to structural imbalances, dialect interference, and foreign interference (Thomason and Kaufman, 1991). Various factors may lead to the dialect diversity and even to language splits. Therefore, any language may have numerous offspring (Thomason and Kaufman, 1991).

The simplest definition of language contact is the use of more than one language in the same place at the same time (Thomason, 2001). This phenomenon does not require fluent multilingualism. Instead, it involves the communication between speakers of different languages. Moreover, it should be exactly two different languages, not different dialects of one language.

However, the language contact does not require the direct communication between two or more people of different languages. It can also occur through reading, watching movies on a foreign language, listening to the music or the radio on another language, and so on (Thomason, 2001). The brightest example of that is the way one languages influenced others is through sacred texts and spread of religions, such as Christianity (spread of Latin and Greek), Buddhism (the Pali language), Islam (Arabic), and so on.

Thus, the cycle of language contact begins when environment puts monolingual speakers in interaction that makes them think about learning another language (Scotton. 2002). In other words, the cycle begins with the emergence of bilingualism, which may further lead to the language shift and to the penetration of one language into another one.

Language contact may take place as a result of various circumstances. They include military invasion and subsequent colonization, living in a border area, migration, education, spread of international languages, and ethnic awareness (Scotton, 2002). There can be other influential factors and events, but these ones are the most frequent causes, which took place many times throughout the history.

The influence of language contact can be reflected in several ways. They include borrowings, adoption of other languages features, language shift, replacement of the languages, and creation of new languages. Let us examine these forms of influence more thoroughly further.

Lexical borrowings are considered to be the most common way of influencing a language. There are numerous examples of loans and borrowings in languages. For example, the French language influenced the lexicon of Middle English a lot and brought many borrowings, which are still used today. In addition, these borrowings can be integrated in varying degrees into the morphology, phonology, and syntax of the borrowing language. Further, they may also be subject to semantic change (Winford, 2002).

The influence can be exerted deeper than just on words, extending to the basic characteristics of a language, for example, grammar and morphology, as well. One language can absorb grammar forms, verb tenses and other features from another. Usually, there are only certain examples of this kind of influence in a language, such as the word groups attorney-general or Lake Superior in English, which are adapted from the French language's rule to put an adjective after a noun. However, sometimes a language can influence the basic features of another language as well by changing its grammar and morphology features (Scotton. 2002).

Language shift is also a possible phenomenon, which occurs when one language replaces another one due to a higher social position. In this case, a replaced language is highly likely to become extinct. Nevertheless, it can leave a deep im-

pression on the replacing language in some cases (Thomason, 2001). For instance, when Latin replaced such local languages as Gaulish and Germanic in Roman times, they left its influence on it.

In addition, language contact can lead to the creation of new languages. The development of pidgin and Creole languages is common when people with different languages interact closely. Such languages are usually rather simple. In case communities are fluent in both languages they use for communication, mixed languages may emerge and be more complex in grammatical and phonological aspects than pidgin and Creole (Thomason and Kaufman, 1991).

Most bilingual communities experience the dominance of one of the languages. It appears that even though a community can be bilingual, it contains only one native tongue, while another one may be not spoken at all or spoken rarely (Weinreich, 1968). Therefore, the change resulted from language contact is usually one-sided. A certain number of people should speak a language for it to be considered a living language. If this number drops, the language is referred to as an extinct one. Therefore, one of the outcomes of language contact is language extinction.

It is obvious that when the speakers of a language get more power, this language becomes more influential. Thus, such languages as Latin, Sanskrit, Greek, Arabic, French, Chinese, Russian, and of course English have experienced the periods of global importance. As a result, they have all influenced each other in some ways as well. In the present days of globalization, the number of languages becomes less every day, because they either become mixed or are replaced by other ones. Therefore, the branch of linguistics which deals with language contact becomes more important for further research.

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CHALLENGES IN TEACHING TRANSLATION

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We live in the world where international relations and collaboration in economics, science, culture and other spheres continuously broaden. Development of information and communication technologies greatly contributes to this process. International communication is mainly performed in English. Knowledge of this language is a basic condition for getting access to the world scientific literature, doing business with foreign partners and integrating into foreign markets. In this context, the profession of a translator has started to receive greater acknowledgement. Demand in highly qualified translators has grown immensely for the last few decades. Requirements to professional qualifications and competences of trans-

lators have changed similarly.

Now translators are expected to ensure effective interlanguage communication in every sphere of industry and produce authentic written translations of specialized English texts of various difficulty levels. In this connection the concept of teaching translation in higher education institutions has changed. In order to teach translation effectively educators started developing new teaching methodologies, which can meet the demand in highly-qualified translators. Still contemporary education science does not provide a thorough study of this topic. There are many textbooks on translation techniques and translation theory, but few books on methodology of teaching translation. Moreover, some scholars dispute on the content and sustainability of those few existing methods for teaching translation. The relevance of studying and development of teaching methodologies is proved by the need in well-trained, qualified translators, besides, theoretical knowledge and training methods are not well-defined and studied.

In our research we have studied works on teaching translation by several scholars. Alekseeva I. in her textbook Professional Training for Translators discusses separately training of interpreting and written translation. In teaching written translation she gives an overview of *traditional methodologies* and proposes *complex methodology* that incorporates some traditional methods with new ones [1, 56]. Another scholar, Prof. Gerding-Salas C. proposes *cooperative work procedure* as a method for teaching translators at an undergraduate level. According to this method the educator acts as a facilitator of the translation task and students accomplish it both collectively and individually with further discussion of translations made [6, 9]. Mikel Garant in his book Current Trends in Translation Teaching and Learning discusses Nord's *model of translation-oriented text analyses, the process-oriented approach to translation teaching* and *the competence and skill-led approach* [5, 27-28]. These authors describe and analyze traditional methodologies and approaches to teaching translation. Another author, Alekseeva L.M. raises an issue of inadequacy of traditional teaching methods in the article Methodology for Teaching Written Specialized Text Translation. She favors a *modern methodology* based on the belief that translation is modeling of the original text meaning by translator [2, 78]. Thus, the literature on the topic discusses mainly *traditional methodologies* of teaching translation; however some authors criticize them and propose completely different approaches in teaching translation.

Prior to studying and analyzing the existing methods of translation teaching, it is necessary to review the notion of "translation". There are multiple definitions of this term. Each definition depends on the research purpose of an author. For example, the advocates of structural methods to translation propose that it is "conversion of a text structure from one language to another with the meaning remaining unchanged" [3, 11]. Scholar and stylist I.R. Galperin defined translation as "rendering meaning and stylistic peculiarities of an utterance in one language by the means of another language" [4, 21]. Although many authors concur that the translation process is transfer of meaning, structure and stylistic features of a text from the original language to the target language, some scientists propose a completely different term. According to Shveitser A.D., translation is "a one-directional two-stage process of interlingual and intercultural communication when, based on the primary text that underwent committed analysis, a secondary text is created which can substitute the primary text in another language and cultural environment" [7, 14]. In term of specific functions of translation in professional communication, this definition is

more complete and appropriate. This definition also reflects the function of translation as a means of interlingual communication.

Studying translation, it is essential to distinguish between two types of translation: translation in foreign language teaching process and professional translation. Vermes A. called the first type *pedagogical translation* and defined it as "an instrumental kind of translation, in which the translated text serves as a tool of improving the language learner's foreign language proficiency" [8, 83]. This type of translation concentrates on language. On the contrary, professional translation, as Vermes put it, is "aimed at a reader who is fundamentally interested in the contents of the text" [8, 83]. Professional translation focuses on the text. This is a more difficult type of translation, because its primary purpose is to convey information for specific use. When speaking about methods for teaching translation, we mean professional translation, because in the first case translation is a method itself used in foreign language acquisition.

The review of traditional methodologies for teaching translation made by Alekseeva comprises 4 methods. The first method, the most popular one, is *training translation in a specific field* (e.g. technical translation, legal translation, etc.) The training starts with studying vocabulary of the field and giving equivalents in the language of translation. Based on this, students proceed with complicated grammatical structures of specialized written texts. The author notes that this method concentrates mainly on acquisition of the terms and specialized vocabulary of a chosen field. However, such vocabulary can be found in different types of texts: scientific article, manual, official letter or advertisement. Unaware of stylistic peculiarities of these texts, students may fail translation of such texts [1, 53-54]. This method of teaching translation represents an approach of teaching on a particular example; the example here is translation of texts from a specific field. Obviously such example is too limited in features and cannot train translation of other completely different types of text such as literary texts.

The second popular method for teaching translation is *text analysis and translation*. Text analysis is traditionally one of the most significant aspects in training language and translation in higher education institutions. It results in identifying peculiarities of the text and some general principles of such type of text. But out of variety of peculiarities found, in the author's opinion, translators are not able to pick out those features that are strictly recommended for translation and should be distinguished from those that can be neglected. In other words this method assumes intuitive choice of translation strategy [1, p. 54]. Kashkin V. characterizes conventional practice of text analysis as focused on grammatical structures, set-expressions, realities and other elements of the text that can cause difficulties in translation. Text analysis does not give proper consideration to the features of the text as a complete substance such as the type of the text, sphere of application and recipients. Although, they also play an important role for making correct translation. He proposes a discourse method of making text analysis, which is to analyze a text as an integral communicative message [9]. Obviously both theorists concur that this method of teaching translation have certain drawbacks, but text analysis ranks an important place in translation process.

The third method consists in *finding all existing translation equivalents*. The method is popular in contemporary western education systems. The base for the method lies in the belief that "form - content" relations do not have only one equivalent. The same meaning can be expressed by different means. In a class, students have a task to find as many transla-

tion equivalents for a word or phrase as possible in the text that they translate together. Of course, students discover a lot of equivalents for a single word, but upon taking into consideration the type of the text, word compatibility, and meaning shades the variety of equivalents invariably reduces. Depending on the type of the text, either an emotionally colored, literal or neutral word shall be selected. Thus students deal with extensive material practically based on their active vocabulary. Similarly to the previous method, Alekseeva I. marks, that students make an intuitive choice when translating the text [1, p. 54]. The method operates with polysemanticity of vocabulary and involves cooperative learning and the basics of text analysis.

The last method, which has a long history, is comprised of the translation training being conducted by an experienced talented translator. The method can be successfully used alone or in addition to the first and the second methods and often succeed in teaching. This is when an experienced translator trains young translators. The trainer selects texts for translation training which can vary greatly. When assessing different translation variants, the trainer rarely gives grounds for the assessment and provides students with own variant of translation. In this method, the trainer relies on own knowledge and prestige. Likewise this method can be called the "authoritarian-creative" method [1, p. 54]. This method relies on the process of sharing experience and teaching translators' competences of the trainer that were acquired through a long-term translation practice.

Having studied traditional methods of teaching translation and concluded that none of them can ensure proper translation training, Alekseeva I. proposed a complex method. The method is comprised of 3 stages: *preparatory, basic, and training*. The preparatory stage consists in the study of different types of texts in the language of translation. Subjects like critical reading, text analysis or writing training can cover objectives of this stage. The author also recommends practicing not only analysis of texts type in the native language but synthesis, too [1, p. 62]. Students should find a similar type of text in the language of translation, observe its characteristic features and write a text of this type observing its features [1, 56]. Thanks to this method students can familiarize themselves with the types of texts and acquire skills of reproducing any peculiarities of different types of texts found.

The basic stage subdivides into *text analysis for translation, analytical search of translation variants and analysis of translated text*. Text analysis for translation is a necessary step. It should not have scientific or research character, but concentrate on the needs of consequent translation [1, 56]. Upon completion of text analysis, students proceed with translation. The search of translation variants lies in finding an appropriate translation equivalent subject to the text analysis results. It is essential to formulate and write down the "ideal" translation for each word and phrase. Alekseeva I. stresses that the teacher's status plays significant role in this process, however the teacher should not impose own variant to students, as it can demotivate them [1, 57].

Ideally, the best translation equivalent should be chosen from those offered by student. The search of translation variants can be practiced using other people's translation, too. Students comment on the choice of words or phrases and can propose their own variants of translation [1, 61]. The basic stage ends with analysis of translated text. The translation is to be compared with the original text: whether all words and phrases have been translated. Then style integrity of the translation is assessed without looking into the original text and any required editing is

performed. At the beginning of the teaching process it is the teacher who should edit students' translations. Later students are to edit one another's translation. Finally, students should edit their own translations and read it aloud to the audience, which is the most complicated task. In addition, if possible, the translated texts can be compared with the accomplished translation of the same text made by a professional translator [1, 62].

The last stage stipulated in Alekseeva's complex method is the training stage. Training is conducted on the materials of one type of texts or texts of a particular professional field. Since it is impossible to touch upon translation of all existing types of texts, only a few of them are trained. Their choice is usually determined by market demands. Sometimes training also provides basics of the spheres in which texts are translated. Actually, it is very rare when a translator happens to make translation only in one or two professional fields. Thus translators have to learn translation of texts from new spheres on their own using basic knowledge they have acquired [1, 56]. The method proposed by Alekseeva I. represents a more thorough study of the translation teaching process and incorporates the best techniques used in traditional methods as well as new tools such as analysis of the types of texts in the language of translation.

The next methodology of teaching translation applies to translation of specialized texts. Alekseeva L.M calls it *modern methodology* and describes in her article "Methods for teaching specialized written translation". In her opinion, it is a specific branch of translation studies, which challenges traditional training methods that treat text as an objective phenomenon and define translation as work with signs of an original text [2, 77]. Contemporary view on translation techniques, according to the author, relies on the following statements: (a) the technique is based not on the use, but on handling with text; (b) the original text as an object for translation totally depends on translators; (c) translator adds comprehension of meaning to translation; (d) translation techniques are determined by the text integrity [2, 77]. Alekseeva L. understands translation as modeling and consequent transmission of a complex-structured meaning of the text. The the researcher singles out four stages of the translation teaching process. The first stage she calls *building space for translation*. It relates to finding conceptual meaning based upon the unity of the old and new knowledge about the text. The second stage is *compression of special knowledge*, whose one form is modeling. The third stage is *interpretation of special meaning.* The main aim of this stage is sequential interpretation of concept-forming language units. The fourth stage consists in *identifying theme and rheme of the text,* based on the theory of actual division of the sentence and principles of logical narration [2, 81-82]. Modern methodology of teaching written translation of specialized texts completely differs from what we used to know about translation and translation instruction. The method differs in views on text, meaning, and role of translators and challenges the adequacy of traditional methods for teaching translation.

The review of the available teaching methods shows surprising diversity. However, each teaching method may be productive in one environment and inconsistent in another. We studied traditional, complex and modern methods for teaching translation. The first traditional method, training translation in a specific field, may be good in teaching translators for working in one particular field, which happens very rare in real life. So students trained to translate in metallurgy will experience difficulties when translating texts on electrical engineering, and even more difficulties in translation legal documents, because, in

the first case they have not studied vocabulary of the topic, and in the second case, they are not familiar with vocabulary plus peculiarities of new type of texts. The method is limited by the subject of texts and lacks very important step of translation: text analysis. In the next teaching method, it ranks high importance. The method of teaching translation, called text analysis and translation, enables learners to translate different types of texts. But as mentioned by Alekseeva I., upon analyzing a text, students may not be aware of what peculiarities they should render in translation. To learn this, they need to familiarize themselves with peculiarities of such types of texts in their native language. So probably, the second method of teaching translation should be supplemented by studying different types of texts in the native language of learners in order to have stylistically correct translations.

The method of finding all existing translation equivalents differs from the above methods by its cooperative nature. Students make translation together, can exchange ideas and find the best choice. They not only look for the most suitable word but aim to preserve the style of the text. The drawback of the method is that it concentrates on translation of words, and do not regard the text as an integral communicative act. Sometimes equivalents should be found for a whole sentence, paragraph or even text in order to preserve their communicative value. Text analysis can be helpful for identifying such issues in the text. Moreover, the method of finding translation equivalents requires more time than the other teaching methods, because words have a lot of synonyms and the process of choosing an appropriate one takes time. The last of traditional methods for teaching translation is training by an experienced translator. This method involves a lot of practice, discussions and advice. The trainer may help in resolving particular practical tasks and issues based on his or her experience. This method may be used together with other methods mentioned before and this will enhance the quality of teaching. Students probably appreciate to be educated by an acknowledged translator and become therefore more motivated for study. However, the disadvantage of the method is that it contributes to the development of professional skills but do not guarantee them. Students are presented with ready solutions of translation tasks but do not find them through personal practice, thus they may not fully understand them. Besides, this way of teaching is quite subjective, because it is the trainer, who selects training material which may be based upon personal preference.

The complex method, proposed by Alekseeva I., represents a more comprehensive view on translation and teaching translation. It addresses not only working with original texts, but studying the norms of such type of texts in the language of translation. As a result, the quality of the translated texts improves. Text analysis, as one of the components of this method, is also a necessary condition for making translation properly, and works well as united with further training. In addition, this method recognizes the limitedness of training translation in a specific field, and therefore suggests that as many of such fields should be touched upon as possible. But it does not take into account the fact that text is an integral communicative unit. On the contrary to all the previous methods, the modern method, suggested by Alekseeva L., emphasizes the role of translators in translation and challenges the concepts of equivalence of text. Under this teaching method, translation acquires a cognitive function. Translation process is recognized as extraction of the meaning and modeling in the language of translation, not as transfer of meaning. This method stresses the importance of the text as an integral unit, which is not mentioned

in the previous methods. However, the teaching method proposed by Alekseeva L. concentrates on the theory and does not provide us with direct instruction how the above features of translation process can be taught to students, what tasks should be used, and etc.

The translation teaching methods cited in this article represent different approaches to translation and teaching. Traditional methods have obvious disadvantages and do not comply with the whole set of goals, faced by educators. Some of them even proved to be insufficient for teaching translation as a complex subject. Therefore researchers try to study the problem and find the best method for satisfying all goals and needs in training translation.

The new methods proposed by some of them cast light upon the topic, but still have some drawbacks or require further thorough investigation. At the meantime, the demand in professional, qualified translators enhances the relevance of further investigation. Thus, teaching translation remains a topical issue and has great potential for research.

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DIFFICULTIES IN TEACHING GRAMMAR FOR KAZAKH NATIVE SPEAKERS

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Recently much has been done in Kazakhstan system of higher education in accordance with the time demand and the priorities of the country economic development. The credit technology of education has been introduced to ensure the international recognition of the national education program, to provide students and faculty with academic mobility opportunities, as well as to improve the quality of education.

The increased collaboration with other countries in all spheres of life established maximal requirements to the level of professional competences of future English teachers, as they are trained for future work in governmental schools and other educational institutions.

The requirements, mentioned in the State Overall Compulsory Educational

Standard of 5B011900 "Foreign Language: Two Foreign Languages" 5.04.019-2011, suggest that the graduate of the given specialty is to be able to perform professional activity properly both psychologically and methodologically aimed at developing students' ability to learn foreign language as means of intercultural communication; to be able to design methodological model of foreign language communication mastering closed to the conditions of real communication; to be able to define the category as an object of didactic learning, synthesizing into single unit "foreign language-foreign culture-identity"; to be able to be able to pick out lingvoculturally and socioculturally oriented authentic teaching materials; to use standard authentic vocabulary in the classroom; to be able to create and encourage interest for foreign language acquisition as means of intercultural communication; to be able to use technologies, methods and techniques ensuring the formation of the subject of cross-cultural communication; to be able to use pedagogical and information technologies efficiently in the sphere of educational activities[1].

As a result of studying subjects of core disciplines the graduate of the given specialty should acquire:

- knowledge and skills to implement all kinds of professional activities in the field of foreign language education (to know the main stages of development and current state of linguistic sciences);

- laws and regularities of linguistic science, its conceptual and categorical apparatus; modern scientific and theoretical views of linguistic theories;

- basic techniques of linguistic analysis and description; system of language and speech realization of linguistic categories;

- spelling, orthoepic, grammatical and stylistic rules of the studied languages [1].

Students of the given specialty should be able:

- to interpret critically and creatively various areas of linguistic theories;

- to analyze the specific language material; interpret independently linguistic phenomena; compare and identify similarities and differences corresponding to subsystems of comparing languages to predict possible interference or transfer; - to apply their knowledge in speech situations to solve problems of teaching;

- to carry out investigation linguistic phenomena of foreign and native languages independently;

- to use foreign language as means of intercultural foreign language communication; to use basic forms of speech utterances in the process of communication, to understand authentic audio texts;

- to use different reading strategies; to prepare and perform different forms of written expressions;

- to use research and reference libraries, different types of dictionaries;

- to know methodology of foreign language education; cross-cultural communicative competence [1].

All of these above-mentioned requirements for students cannot be achieved without grounded knowledge of the English grammar, because only grammar gives strictly rules of writing and speaking correctly.

According to the State Overall Compulsory Educational Standard of 5B011900 "Foreign Language: Two Foreign Languages" 5.04.019-2011, during the first year at the University students of the major take "Basic English language" (A1, A2, B1- levels) course, which forms an adequate social and educational level of proficiency in a foreign language [2].

This course "Basic English language" (A1, A2, B1- levels) requires functional literacy in a foreign language, communication skills formed in four basic skills: speaking, listening, reading and writing.

By the end of the course, *in speaking* students are to be able to do the following:

- to exchange information on daily or other topics of personal or of general interest;
- to explain the given problem, prove its correctness;
- to explain their own point of view on the themes of culture (films, books, music);
- to express own point of view on the topic of self-interests or events from everyday life; (family, hobby, job, travelling, current events).

In *listening* students are to be able to understand:

- simple informational events of daily and professional life;
- the main facts of short stories;
- the main idea and specific details of the messages with a clear pronunciation;
- lecture or talk on the studied topics;
- a short simple conversation on familiar topics with a clear normative pronunciation;
- a simple technical information (rules of operation of devices of daily use);
- detailed instructions;
- information on radio and TV programs recorded with a clear normative pronunciation;
- the main provisions of news on radio and elementary texts on familiar topics in the slow record;
- television programs on topics of interest (interview, reports) in slow record and clear sound,
- the development of the film's plot, based on a number of visual and action, in a clear and simple sound.

In *reading* students should be able to:

- to look through large texts and find necessary information;
- to gather information from different parts of the text / from different texts;
- to find and understand relevant information in everyday material (letters, brochures and short official documents);
- to find the main conclusions / evidence in the text;
- to find the points of simple newspaper articles about a familiar topic;
- to read and understand simple texts with factual information on the topic of interest;
- to understand the description of events, feelings and wishes in personal letters in everyday speech with a friend;
- to understand the technical regulations in the presentation simple words (safety rules);
- to read and extract the necessary information from brochures, catalogs, brochures, menus, schedules.

In *writing* students should be able:

- to write simple texts on a wide range of issues, linking together the separate short elements;
- describe in details simply familiar objects / objects of interest or questions;
- to describe own experiences, express own feelings in the form of a simple connected texts;
- to describe real events (the trip);
- to write short contents of story;
- write short simple essays on topics you are interested in;
- to summarize and give own opinion on the factual information gathered on familiar matters of everyday life;
- to write short reports, simple in form and contents from real life [2].

Graduates coming from the Kazakh schools have no such knowledge, and have difficulties with acquisition of grammatical material of "Basic English language" (A1, A2, B1- levels) course, as English language learning is mainly based on textbooks of T. Ayapova (Ayapova T. English: a Textbook for General Educational Schools / Thanat Taniberdikyzy Ayapova,

Danegali Berdibekuly Ukbaev. - 2nd ed., Ext. And rev. - Almaty: Atamura, 2005. - 208.) [3], which is designed according to the modular format, where theory and practice of English grammar is not almost studied. Thus, the teachers of Kazakh speaking groups face greater challenges than teachers of Russian-speaking audience and do not cope with the task of to increase knowledge in the grammatical structure of the English language.

The main literature of the "Basic English language" course (A1, A2, B1-levels) written by S. Cunningham, P. Moor (Sara Cunningham, Peter Moor. Cutting Edge. Intermediate Students' book. Work Book / Longman, 2005 – 176 c.)

Sarah Cunningham, Peter Moor. Cutting Edge (Intermediate) Work Book. Pearson Education) is not also designed to provide student with sufficient knowledge of Grammar [3]. Therefore, as it is stated in the work program of the course additional resources are used for teaching English grammar of the following authors such as V.D. Arakin, T.U. Drozdova, V.L. Kaushanskaya and others.These books are developed by the Soviet and Russian linguists and such resources are aimed at Russian speakers. It means that these authors designed teaching materials which reduce only Russian speaking students' interlanguage errors. Thereby, these books cannot be applied in teaching English for Kazakh speaking students in practicing some difficulties of English grammar, because students do not know Russian fluently and such books do not solve their problems which are based on the peculiarities of the Kazakh language.

The Kazakh language belongs to the Kypshak group of Turkic languages, which also includes Tatar, Karakalpak, Nogai, Baskir, Karaim,Kumyk, Karachai-Balkar and Kyrgyz [4]. Kazakh is described linguistically as an agglutinative language. Suffixes are added to a word root without changing the root itself. The suffixes carry either lexical meaning or grammatical function.

Grammatical categories of tense, mood, voice, number and person are expressed through different suffixes which are added to the root which are added to the root which is obtained through dropping the ending –u of the initial form. The root of the verb corresponds to the familiar form of imperative mood, all other forms require suffixes or endings [5].

The negative form of the verb in Kazakh is formed by adding suffixes –ma/-me, -ba/-be,-pa/-pe to the root of the verb according to the following rules: after vowels is added –ma/me; after voiced consonants is added –ba/be; after voiceless consonants is added –pa/pe [4].

The Kazakh verb has three tenses:

1. *Osy shak* (Present Tense)

2. Keler shak (Future Tense)

3. Otken shak (Past Tense) [5].

In Kazakh there are two types of the Present Tense: *Nak osy shak* (The Concrete Present Tense) and *Auyspaly osy shak* (the Transitive Present Tense).

Nak osy shak denotes an action taking place at the moment of speaking and it is close to Present Continuous in English. *Auyspaly osy shak* denotes the Present and the Future Tenses depending on the situation.

Keler shak in Kazakh has three forms: *Auyspaly keler shak* (the Transitive Present-Future Tense) which we have already mentioned as present tense, *Bolzhaldy keler shak* (the Suppositional Future Tense) *and Maksatty keler shak* (the Future Tense of Intention). *Bolzhaldy keler shak* expresses supposition with a slight degree of certainty. *Maksatty keler shak* expresses some intention to do action.

Otken shak has two forms:

1) *Zhedel otken shak* (The Evident Past Tense) and

2) Burungy otken shak (The Pluperfect Tense) [5].

"*Zhedel otken shak*" denotes an ac-

tion which took place in the past. It is formed with the help of suffixes dy/di, ty/ti (–ды\ді, –ты\ ті) and personal ending. For example: zhazdym (жаздым), "I wrote" жүрдің "You went" It is close to the English Past Indefinite Tense in its meaning. "*Burungy otken shak*" denotes an action which was completed before specified time or before the beginning of another action in the past.

The most difficult theme is Past Tenses. In the formation of "*Zhedel otken shak*" in Kazakh language the choice of the suffixes depends on the law of synharmonism and progressive assimilation. Synharmonism or hamony of vowels comes from Greek words syn-"together" and harmonia – "connection, assonance". According to the law of synharmonism the last syllable of the word becomes assimilated by the previous one. In the Kazakh language the words follow the law of progressive assimilation as well as the law of synharmonism. If the words end in the voiceless consonants (к, қ, п, с, т, ф, ц, ч, ш, щ) or the voiced consonants (б, в, г, д) the suffix of the ending being added to a word begins with the voiceless consonant. If the last sound of a word is a voiced consonant except (б, в, г, д), a sonorant (й, л, м, н, ң, р, у) or a vowel the suffix or ending begins with voiced consonant or sonorant [5].

Table 1. Personal endings of "*Zhedel otken shak*"

Person	Singular	Plural
1	keldim, aittym, almadym	keldik, aittyk, almadyk
2	keldin, aittyn, almadyn	keldinder, aittyndar, almadyndar
	keldiniz, aittynyz, almadynyz	keldinizder, ayttynyzdar, almadynyzdar
3	keldy, aitty, almady	keldy, aitty, almady

The negative form of *Zhedel otken shak* is expressed with the help of suffix -ma/-me, -ba/-be, -pa/-pe, after which the tense suffix and personal ending are added.

"*Buryngy otken shak*" denotes an action which was completed before specified time or before the beginning of another action in the past. It is close to the English Past Perfect Tense in its meaning and is formed in two ways:

- By means of the suffixes –kan/-ken, - gan/-gen (-қан/-кен, -ған/-ген) and personal verbal endings. "I had gone"

- The suffixes –kan/-ken, - gan/-gen is added to the verbs ending in voiceless consonants: zhatkan, zhetken (жатқан, жеткен). In other cases the suffix is used: bargan, Bergen (барған, берген).

In the formation of "*Buryngy otken shak*" in Kazakh language the choice of the suffixes also depends on the law of synharmonism and progressive assimilation:

Table 2. Personal endings of "*Buryngy otken shak*"

Person	Singular	Plural
1	aitkanmyn, kelgenmin	aitkanbyz, kelgenbiz
2	aitkansyn, kelgensin,	aitkansyndar, kelgensinder
	aitkansyz,kelgensiz	aitkansyzdar, kelgensizder
3	aitkan, kelgen	aitkan, kelgen

The form “Burungy otken shak” may be negated in three ways:

- by using negative suffixes -ma/-me, -ba/-be, -pa/-pe;
- by using the negative verb “emes” with personal endings;
- by using the negative word “zhok” with personal endings.

The English Past Tenses system also presents a lot of trouble to theKazakh speaking students because of the difference which exists in these languages with regard to time and tense relations.

In English the Past Tense consists of the following tense forms:

- Past Indefinite Active Tense;
- Past Continuous Active Tense;
- Past Perfect Active Tense;
- Past Perfect Continuous Tense [6].

The grammatical content of the Past Indefinite may be briefly characterised as follows: the Past Indefinite represents an action or state as relatively static in the past. The duration of the process indicated by the Past Indefinite can vary according to the immediate lexical context or special situation with no time indicators at all. The Past Indefinite is a synthetic form (synthetic forms are built up by a change in the word itself: by means of suffixes or by means of vowel change). But the interoggative and negative forms are built up analytically (analytical forms consists of 2 components), by means of the auxiliary verb *to do* without the particle to [6].

The Past Indefinite is used to express the following cases:

- to express a single action which took place in the past;
- to express an action which occupied a whole period of time now over;
- in narration to express a succession of actions;
- to express recurrent actions;
- to express permanent actions which indicate continuous, uninterrupted processes in the past, giving a general characteristic of the person or thing denoted by the subject;
- to express an action going on at a given past moment;
- to express a future action viewed in the past;
- to express unreal actions [6].

The primary meaning of the Past Continuous is that of a past action shown in its progress at a given past moment. The Past Continuous is an analytical form which is built up by means of the auxiliary verb *to be* in the Past Indefinite and the –ing form of the notional verb.

The Past Continuous is used in the following cases:

- to express an action which was going on at a given moment;
- to express an action going on at a given period of time in the past;
- to express actions characterizing the person denoted by the subject, bringing out the person’s typical traits;
- to indicate a future action viewed from the past [6].

The Past Perfect is an analytical form which is built up by means of the auxiliary verb to have in the Past Indefinite and the participle of the notional verb. The same auxiliary is used to form the interrogative and the negative forms [6].

The Past Perfect is used in the following cases:

- to express an action accomplished before a given moment and viewed back from that past moment;
- to express an action which began before a given moment and continues into it up to it.

In adverbial clauses of time introduced by the conjunctions when, before, after, as soon as and till/until to express a future action viewed from the past [6].

The Past Perfect Continuous is an analytical form which is built up by means of the auxiliary verb to be in the Past Perfect and the ‘ing” - form of the notional verb. In the interrogative form the first auxiliary verb is placed before the subject.

In the negative form the negative particle not is placed after the first auxiliary.The Past Perfect Continuous has two different uses which will be further referred to as Past Perfect Continuous I and Past Perfect Continuous II.

Past Perfect Continuous I serves to express an action which began before a given past moment and continued into it or up to it. In this meaning it is parallel to Past Perfect II. Past Perfect Continuous I may be used with the same indications of time. The Past Perfect Continuous can be used with dynamic verbs of both durative and terminative meaning (see the examples above). Stative verbs express this meaning with the help of Past Perfect II Past Perfect II is possible with dynamic verbs of durative meaning but it is not found at all with terminative verbs.

Past Perfect Continuous II serves to express an action which was in progress just before a given past moment and it affects the past situation in some way. The precise time limits of the action are not specified. In this meaning the Past Perfect Continuous is not parallel to Past Perfect II. Past Perfect Continuous II is, as a rule, not associated with any indications of time [6].

Analyzing the theoretical material of Past Tenses in English and Kazakh languages we found out the following differences:

- The English past tenses forms are built up with analytical forms, which consist of two components: an auxiliary verb and a notional verb. An auxiliary verb has no lexical meaning, it expresses only grammatical meaning. A notional verb is the bearer of lexical meaning. Only Past Simple in the affirmative form is built up synthetically by a change in the verb itself (by means of suffix – *ed*).

- The Kazakh past tenses have agglutinative forms, where the suffixes are added to the root of verbs depending on the law of synharmonism and progressive assimilation.

- Past Continuous and Past Perfect Continuous forms do not exist in the Kazakh, but Continuous tenses in the Kazakh are expressed by means of a notional verb in the form of Participle.

- Word order is different, in Kazakh the verb-predicate always stands at the end of the sentence. In negative and interrogative forms of *Buryngy otken shak* verb stands before the negative words: “emes” and “zhok”.

In English Past tenses in an affirmative form the predicate is placed after the subject. In questions the word order is characterized by the model: auxiliary verb + subject + main verb.

Also we define the following similarities:

- *Zhedel otken shak* in the Kazakh is close to the Past Indefinite in English;

- *Buryngy otken shak* in the Kazakh is close to the Past Perfect Tense in English.

As a general rule, the native language of every learner is a significant factor in the acquisition of a new language and exercising either an interfering or facilitating effect on the target language. All textbooks take into consideration this, because the majority of a learner’s errors in producing the second language stem from the learner’s assumption that the target language operates like the native language. Carefully analyzing verbs as the most complex part of speech, due to the central role it performs in the expression of predicative functions of the sentence, it is possible to make a conclusion that the difficulties experienced by Kazakh speaking students in learning English is connected with the following: English is an analytical language, where grammatical relations are more expressed by auxiliary verbs. As a result of this fact, Kazakh speaking students often forget to put in auxiliary verbs a sentence in practicing the English Past Tenses such as Past Perfect, Past Continu-

ous, Past Perfect Continuous in all three forms (affirmative, negative, interrogative) and interrogative, negative forms of Past Simple; in negative forms of Past Perfect and Past Simple the students often put instead of auxiliary verbs: *did/had* the negative word "not", because in Kazakh language negative form of *Burungu otken shak* which is close to Past Perfect is formed only with the help of notional verb and this negative word "zhok" which means not in English and personal ending . Another difference of the analytical language from the agglutinative language is that syntax and meaning are shaped by use of word order rather than by inflection. In English the predicate is placed after the subject, in Kazakh the predicate always stands at the end of the sentence. The first typical mistake of Kazakh speaking in the word order is that the students put the predicate at the end of a sentence. The second typical mistake is caused by the auxiliary verbs of interrogative sentences in English, which are (in our case - did, had) often placed at the beginning of a sentence, because co called interoggative particles (-ba/-be, -ma/-me,- pa/-pe) are placed at the end of a sentence. Due to the non existence of Past Continuous Tense and Past Perfect Continuous Kazakh speaking students mixed up the Past Simple and Past Continuous, Past Continuous Perfect and Past Perfect.

On the basis of the above mentioned grammatical difficulties Kazakh native speakers come across in the English grammar, we have come to the conclusion, that the use of the grammar textbooks aimed at Russian speaking students is not possible and it does not give expecting results, due to the fact that adequate grammar textbooks written by Russian linguists take into account only the specifics of the Russian language. Overcoming these difficulties, which are typical for the Kazakh-speaking students in learning the past tense in the English language, requires the specific methodological approaches, such as a good practice of the past tenses based on their learners' native language, which cannot be achieved without creating the necessary group of exercises.

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CONSIDERATION OF EAST-KAZAKHSTAN REGION'S NEEDS IN TRANSLATORS' TRAINING

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Consideration of East-Kazakhstan region's needs in translators' training is an issue problem while designing teaching material for undergraduate students. At present there is a State Obligatory Educational Standard (SOES) of the Republic of

Kazakhstan (RK) dd. 2006 for an undergraduate program in Translation Studies. Regulations of this Standard are obligatory to apply and obey by higher education institutions of the Republic of Kazakhstan that train students in a Bachelor's program in the indicated profession. The SOES demands much of graduate students with Translation Studies Major. According to the SOES, graduate students of this Major are not to only translate texts of a certain subject area but are to understand the basic concepts of cross-cultural communication, social, natural sciences, and special linguistic disciplines; are to know the ways of state development, main points of economic laws, historical variety of cultures, history, culture, language, and religion of the country studied [1]. We are coming to the conclusion that that Department of Education and Science of the Republic of Kazakhstan sets goals aimed not only at training human resources who know foreign languages but it also focuses on obtaining background knowledge helping to get full information about the country of the language studied and the language itself. This strategy helps the translator realize completely the process of translation itself and its peculiarities.

Undoubtedly, the SOES of the Republic of Kazakhstan also demands good knowledge of the main regulations of translation theory and practice, mentality, traditions and customs of certain countries, and also knowledge regarding translation techniques. It is quite obvious that having this knowledge, graduate students with Translation Studies Major have a possibility to accomplish in their profession and to become highly qualified specialists. The following regulations are indicated in the SOES: the graduate ***should have*** the following skills - proficiency in the state language and in two foreign languages, in translation techniques [1].

According to the SOES, the graduate should be able to speak foreign languages fluently, to work with given information, to translate written or oral texts. The above-mentioned regulations make us come to the conclusion that graduate students with Translation Studies Major should have relevant information of stylistic and language peculiarities of translated texts as well as about the scientific sphere of the subject matter of the text to perform their professional activity. It is necessary to be a competent person in the following issues: political and socio-economic development of the Republic of Kazakhstan, constitutional legislation of RK, its administration system, functioning of educational and cultural institutions; the sphere of cross-cultural communication, the sphere of linguistic and professional capacity, the sphere of human resources management, and in the sphere of Translation Studies [1].

This SOES, in a certain measure, must give an opportunity to train specialists according to goals and objectives set by the Republic of Kazakhstan. As we know, the main priorities regarding development of our Republic are given in the Address of the President, Nazarbayev N.A., dd. 2011: “Industrialization forms a new paradigm for regional policy”; “Quality education should be the basis of ***industrialization*** and innovative development of Kazakhstan” (Nazarbayev N.A., 2011) [2].

Obviously, on the basis of the strategies mentioned above, great attention is being paid to the industrial development of Kazakhstan, because there is a great supply of minerals in our country that gives a possibility to develop different branches of industry. Therefore, we can see need in training and involvement of specialists, graduate students with Translation Studies Major to work in this sphere.

The analysis of the SOES shows it that graduate students with Translation Studies Major are trained to work in different spheres such as: administrative and managerial, educational and scientific, cul-

tural and cross-cultural communication, international relationships, publishing, mass media, information-analytical and many others [1]. However, one can note that among the indicated spheres there is no mention of the industrial production sphere, which is a serious problem in human resource development for the region with the developed industrial production field.

In this work we are focusing on training translators and interpreters for the East Kazakhstan region as it is is one of the three major industrial centers of the Republic of Kazakhstan, which produces over 20% of industrial products 65% of energy and 5% of the country's export. 48% of processing industry enterprises is concentrated in the region [2].

In East Kazakhstan nonferrous metallurgy is the basic branch of the oblast economy. It comprises 52.0% of the industrial potential of the East Kazakhstan oblast (EKO). The leading enterprises of the branch are: the *"Kazzink" LLP ("Ust-Kamenogorsk and Tekely Lead and Zinc Combinates", "Leninogorsk Polymetallic Combinate" and "Zyrianovsk Lead Combinate", "Bukhtarma and Tekely Energy Complexes")* which comprised 26.0% total oblast income in 2000; the *"Ust-Kamenogorsk Titanium and Magnesium Plant" JSC - 1.8%; the "VostokKazmed" merger – 6.5% (*includes *Zhezkent Ore-Dressing and Processing Combinate* and is a part of the *"Kazakhmys"* Public Company [3].

Rapid industrial development makes the region increasingly attractive for foreign investors. It leads to designing joint industrial projects and construction of huge enterprises. Therefore, East Kazakhstan needs highly qualified specialists who know the specifics of non-ferrous industry, translators among them.

For the region it is unreasonable to train 90% of translators who are skilled in the field of tourism, science, international relations and only 10% in the field of nonferrous metallurgy. In connection with the development of the country and industry this region needs translators who will get a job and be ready to work in field conditions because industrial plants and their subdivisions, as a rule, offer jobs at a site, in shops, which are close to the process of production. At present, when for training of interpreters and translators books, recommended by the SOES are used, managers of East Kazakhstan industrial enterprises are often disappointed with the work of University graduates. According to T.A. Alimbekov, head of the "Kazzink" LLP Translators' department: "Graduate students with Translation Studies Major do not have enough experience to work at the industrial enterprises because of their lack of knowledge of terminology and the process of production which complicates translation process, slows it down and worsens its quality".

Therefore, there is a serious problem which has not been solved yet and which is topical now as consideration of the region's needs can improve the quality of interpreters' training for their future successful work at the East Kazakhstan enterprises.

According to the facts mentioned above one can make a conclusion that it is necessary to consider region needs in the training of undergraduate with the Translation Studies major. The result of studying always depends not only on the observance of SOES' regulations but also on its compliance with the curricula. The quality of a curriculum is defined by means of distribution of hours for each course but it is necessary to remember that only Major disciplines help develop and master skills for future translation process.

The curriculum for training translators/ interpreters includes *core courses* (990 hours) and *basic courses* (1980 hours) [1].

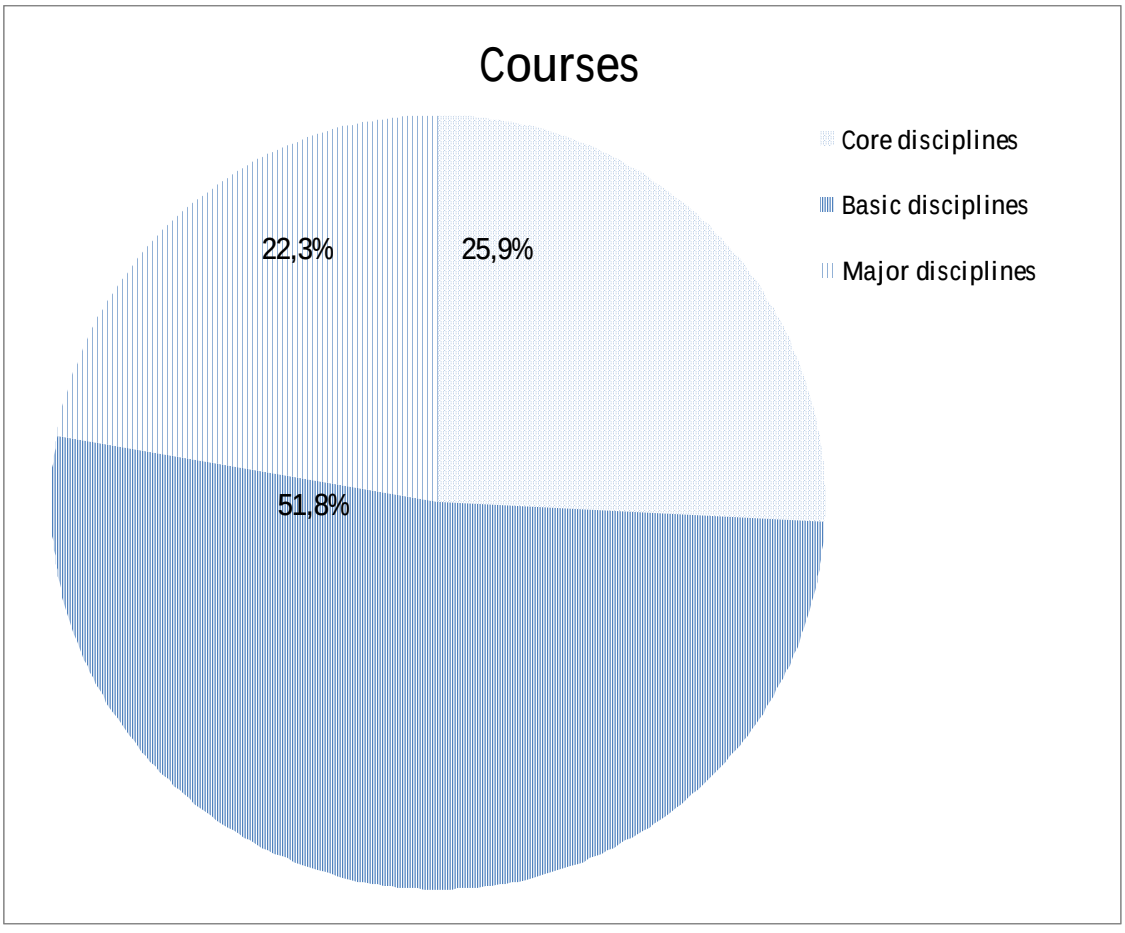
Among the major courses are Gen-

eral-Professional Foreign Language (225 hours); Specially-Professional Foreign Language (225 hours); Literary Translation Techniques (135 hours); Written Translation (135 hours); *Practice of Informative Translation (135 hours)*; [1]. The general amount of hours in major courses is 855 hours.

Table 1. "Translation Studies" Curriculum

№	Courses	Total, hours	%
1	Core	990	25,9
2	Basic	1980	51,8
3	Major	855	22,3
4	Total:	3825	100

According to Table 1, it is obvious that the least amount of hours is given to the most important set of disciplines – *major courses* which, undoubtedly, affects negatively the quality of specialists' training.



Let us stress, that duration of most essential major courses – Translation Theory and Practice of Informative Translation – is not sufficient. Thus, Translation Theory only lasts 180 hours, though the main notions of translation, style classification, main aims of informative translation and its types, studied in this course, give a possibility to obtain theoretical knowledge to do translation. "Practice of Informative Translation" is given only 135 hours. The course includes the following

themes: functional and stylistic differentiation of texts and the problem of translation; scientific and technical style and its characteristics; the structure of scientific and technical texts; principles of scientific and technical translation; the problems of the term; multiple meaning of the terms; translation of term-neologisms; false "friends" of a translator and the problem of scientific and technical terminology; internationalization terms' system in a scientific paradigm and a peculiarity of a translation process; principles of technical translation and translation of materials regarding economics and trade business; peculiarities of a media prose; principles of text translation that belong to journalism: reports, a political comment, a theme article, journalistic story, interview; peculiarities of newspaper headlines [1, 4]. We can make a conclusion that if we are intended to design a course with consideration of regional needs as it is required by the Country's development strategy, the books by V.S. Slepovich "*Course of Translation"* [5] and A.L. Pumpyansky "*Reading and Translation of English scientific and technical literature*" [6], recommended for the course by the SOES [1], cannot be used much in the course as they give training in theory and practice of translation (general, lexical and grammatical) in the field of economy, international business, banking, finances, but there are no specific texts suitable for our region.

We are coming to the conclusion that this course gives a very general idea of informative translation *not* training them in themes which may be essential for them in their future professional activity. Not underestimating the importance of theoretical themes of the course, we would like to propose the "Practice of Informative Translation" course, developed with consideration of needs of the East Kazakhstan region and mainly focused on nonferrous metallurgy, energy sector or oil and gas industry. First of all, these texts should contain information regarding East-Kazakhstan industrial field. Graduate students with Translation Studies Major must obtain experience not by means of translating separate disconnected sentences, but by means of translating full, connected texts about a certain branch of industry. Such an approach will help them realize their future professional activity, possible difficulties in translation, and study specific vocabulary typical for the industrial production in East-Kazakhstan. It is reasonable to reconsider the structure of the "Practice of Informative Translation" course and to design an integrative course to cope with all the problems described in the paper. One of the possible solutions to the problem is increasing the amount of hours for studying "Translation of Scientific and Technical Texts". According to SOES, the duration of the "Practice of Informative Translation" course is 135 hours [1].We can redistribute these hours between units of this course and to change priorities. We suggest 20 hours for translation of media texts, popular science texts and official documents because in our region translators do not often work with them; 30 hours are dedicated to translation of trade business texts as such texts are also not so often translated but they are of great importance for some huge trade companies in the East-Kazakhstan region which are cooperating with foreign countries in delivery of household appliances. Consideration of the East Kazakhstan industrial development made us give the largest amount of hours, 45, for translation of scientific and technical texts. Thus, we offer the following distribution of hours:

- Translation of media texts – 20 hours;
- Translation of popular science texts – 20 hours;
- Translation of official documents – 20 hours;
- Translation of texts regarding a trade business – 30 hours;

- *Translation of scientific and technical texts – 45 hours;*

Considering the needs of the region we suggest the following main themes to study in the "Translation of scientific and technical texts" unit:

- Nonferrous Metallurgy;
- Energy Policy of Kazakhstan [7];
- Oil and Gas.

We also think that each of the main sections should include specific themes. The first theme "Nonferrous Metallurgy" should contain the following themes to study: "Nonferrous Metals", "Production of Zink Concentrate", "Anode Furnaces", "Copper Smelting". The theme section should contain: "Energy Complex of East Kazakhstan Region", "Primary Energy Sources", and "Hydropower Station [7], and the last theme, "Oil and Gas", should contain the following themes: "Petroleum", "Natural Gas" [8]. In other words we suggest the following distribution of hours:

- Nonferrous Metallurgy: Nonferrous Metals. Production of Zinc Concentrate. Anode Furnaces. Copper Smelting. (25 hours).

- Energy Policy of Kazakhstan. [7]: Energy Complex of East Kazakhstan Region. Primary Energy Sources. Hydropower Station [7] (10 hours).

- Oil and Gas: Petroleum. Natural Gas [7] (10 hours)

The suggested texts can help students obtain practical skills to work with technical texts, to learn about industrial branches which are developing in the region and in Kazakhstan in general. Besides, students will obtain experience how to use technical dictionaries.

We are sure that the region-oriented approach in training translator and interpreters will help improve the quality of East Kazakhstan translators' training and enable them to efficiently work at the enterprises of the region.

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THE INFLUENCE OF SANOGENIC THINKING ON THE EMOTIONAL STATE OF THE CONVICTED

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In the society human life is governed by certain social and regulatory standards, in which the law occupies a central place. In cases law is a subject begins to bear legal responsibility, and the state, represented by authorized bodies, begins to apply the punitive sanction to him. If a person commits a crime he must be punished. According to the legal doctrine, punishment is a special measure of state coercion, accompanied by deprivation or restriction of the rights and freedoms of a person who is found guilty of a criminal act. Thus, punishment is a charge for the crime, retribution for the damage inflicted. But, how does effectively isolation an individual from society, staying in the group of people in a limited space during long period of time within the scarcity of sensory stimulus and continuous communication with the same people?

Punishment is applied in order to restore social justice, also for correction of a convicted and prevent the commission of a new offense by a convicts or by others people. According to the law a punishment must not cause the physical suffering or degradation.

A forced social isolation often serves as a punishment, that is, deprivation of liberty and putting it in a corrective labour institution.

When a convicted stays in social isolation he begins «to exist in a kind of vacuum» and stops developing as a person. Freedom is known to be a necessary condition for development. Personality of a criminal begins to undergo a number of changes.

The generalization of experience of the Republic of Kazakhstan Penitentiary Facilities shows the importance of special work in psychological correction work with the convicted as irreversible changes appear in the psychological state of the convicted while they are staying continuously in prison for several years (according to recent studies, this period is three years). The importance of psychological training has increased significantly due to the deep analysis of psychological factors, in particular, their role in repeat criminal offences, in criminology in recent years. The psychological training for the convicted plays an important role in overcoming recurrent practice. It performs the initial and final link in the process of correcting the convicted. Psychological readiness for living in a new environment is formed with the help of goal-directed activities. Without such help they add to the already numerous maladjusted, marginalized people and eventually get a permanent "registration" in the colonies.

Psychological correction work is done during the whole period of imprisonment. But special emphasis should be placed on a period of adjustment and the period prior to the release, as at this time the main negative states are more evident.

The shortage of this psychological preparation has been detected in recent years; consequently it is possible to say that one of the main punishment functions, re-socialization of the convicted, is not performed. At this moment the law provides for psychological services of penal facilities, because the necessity of physiologists' active participation not only in crime investigation, but also in implementation of punishment and execution has been proved.

But in spite of this state of things, a rather paradoxical situation is forming nowadays: controlling crime, we declare the humane approach to the punishment

determination, (it means the choice individualization and application of punitive measures with regard to all the personality characteristics of the convicted person), but actually we do not deal with the correction of criminals, we just isolate them from the society for a particular term. In fact, they are separated in order to make them live in the society, their actions are planned to teach them useful and active behavior, they are kept among the same criminals to turn their bad habits into good ones, but it just leads to the mutual baneful influence.

Besides, it is possible to draw an interesting conclusion: as the convicted person is obliged to be among other criminals, there appears an invisible borderline between them and free people, the reality changes – the convicted begin to take themselves as free persons. The consolidation of prisoners inevitably leads to the differentiation "we" and "they". Life loses its diversity because of the division. So, penal facilities cultivate recidivists, because nowadays criminal subculture influences the personality of the convicted person more than the official penitentiary system. This is due to the fact that the national penitentiary system does not have the necessary theoretical and practical methods, which can improve efficiency of its function.

Emotions determine a person's behavior greatly, including criminal behavior, which is always followed by the punishment, the consequence of any criminal action.

Punishment is defined as a special measure of the official enforcement, which is accompanied by deprivation or limitation of freedom or rights of a person, found guilty of committing a criminal action in the legal doctrine. This is enforcement measure, expressed in the punishment, having as its object to make convicted person reform and to reeducate them, to prevent committing of criminal actions by convicted persons and others and to promote eradication of crime.

The compulsory social isolation is the reason of changes in mental condition of a person, because it is connected with various restrictions of the necessities of life, and some of them cannot be met at all. In other words, the life in places of confinement subjects a person to the negative mental condition.

Re-socialization of the convicted, as one of the main functions of the penal facilities, is primarily connected with their value reorientation, formation of the mechanism of the socially-positive goal-setting, the development of the steady socially-positive behavior stereotypes.

There are four types of penal facilities for men to achieve these aims, not including a penal colony settlement and a prison: a general regime colony, a reinforced regime colony, a strict regime colony and a special regime colony. The term *security* determines the confinement conditions of the prisoners.

Security, in the psychological aspect, is a special organization of life and activities of the convicted in accordance with laws and regulations.

In a way the life and activity organization has a certain correctional influence on the person, forming an adequate behavioral stereotype, habits and personal qualities.

For the imprisoned the confinement security is the same thing as environment for people who are not in prison. It is different in colonies with different contingent of the imprisoned – ordinary, strengthened, strict and special security.

Now penitentiaries of low security are for people with no previous convictions who have committed offences of no great social danger. Strict security is for those people who have committed crimes of great social danger and repeat criminal offenders.

As a result of imprisonment, nega-

tive emotions will prevail in the emotional state of the convicted. The tighter the regime is, the more limitations the imprisoned have and the more needs are blocked. All that leads to the increase of tension.

Consequently, the intensity and the specificity of the emotional state display are directly dependent on the security level of a penitentiary.

The research of the dynamics of the imprisoned person's personality results in the conclusion that its evolution in this specific environment is subject to certain laws and consists of several stages. V.P. Vassilyev singles out the following stages: 1) arrest; 2) sentence; 3) arrival at a penal colony; 4) first 6-8 months of imprisonment; 5) 3-8 months before release from prison; 6) release from a penal colony.

All these six stages are crucial in the personality dynamics of the imprisoned at these moments as a dramatic change of a person's state, intentions and priorities takes place – fear of the coming penalty during the arrest, apathy after the sentence, readiness to redeem himself, strive to get free as soon as possible - this is not the complete list of those emotional state that a person experiences at different stages, beginning from his arrest and up to the moment he is free [1].

There are two trends in the convicted person's dynamics: the first consists in adaptation to the conditions of social isolation, the second one is characterized by increasing negative changes in the personality, their fixation which hampers successful adaptation to the imprisonment conditions, and, consequently, to further correction and rehabilitation of the convicted.

The personality of the convicted is characterized by a number of negative psychological states. In psychology the psychological state is defined as a psychological category consisting of all kinds of integrated impact on the subject both internal and external stimuli without awareness of its content.

The main negative states of the convicted are increased irritability, depressive anxiety, tenseness, estrangement, increased aggression (often unmotivated), despair, sense of deprivation. These negative states predetermine priorities in organization of correction work with the convicted.

Correction of the criminal cannot be achieved only by external influence.

The above-mentioned predetermines the need for arranging psychological training in penitentiary facilities, aimed at enhancing psychical processes, and developing the proper behavior model for the convicted life after serving a term in prison. The main point in the correction program is radical change of a person's attitude both to the environment and to himself.

Therefore, it is clear that at present development of such a system of knowledge is a pressing problem.

One way to achieve the goal is the method of *sanogenic* thinking, introduced by Yu. M. Orlov. It defines the following functions of thinking:

- First, thinking creates an idea of the things that do not exist yet, but should be;
- Second, it gives the environment (situations) in which a person will have to live and act;
- Third, it anticipates the feelings that a person will experience in this case;
- Fourth, it systemizes the information that a person receives from the outside and the one that he draws from memory, prepares it in such a way that it is better to remember and is always at hand;
- Fifth, curbs or excites the senses, creates fear or joy [2].

Specificity of the *sanogenic* thinking is the ability to use it for detecting the causes of any condition of the person, primarily, emotional, which, in turn, influences the choice of behavioral strategies that lead to the realization of a motive or a

group of motives. In the case of committing a crime, a person may not always be aware of the true motives of his actions, replacing them by externally imposed ones. Therefore, it is clear that the ability to think in this way for people who commit crimes or latent criminals is important. Development of *sanogenic* thinking is a way that could affect the process of correcting the person convicted, and, mainly, the process of further rehabilitation and resocialization. *Sanogenic* thinking can change the self-awareness of the convicted, their attitude to their own needs and interests, and their feelings and experience through reflection and analysis of emotions. The above mentioned changes in the style of thinking will lead to a qualitative change in behavior and the means of achieving goals. For example, satisfaction of sexual needs is a basic need. But one way to meet this need is to court a girl, the other one is raping. This example confirms the statement mentioned above. Thus, we can say that, being able to think in a *sanogenic* way, gives a person a choice - whether to become a criminal or not.

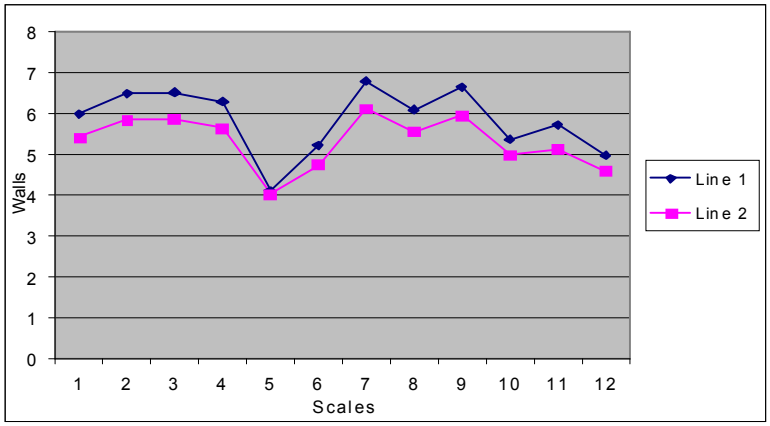
In the first part of our pilot research project, we decided on the methods of work. As a result of the content analysis members of the test correction group were selected. They were studied in detail on the basis of their curricula vita analysis, as well as by the first psychological test. The most typical negative emotional states specific to the convicted in the period preceding the release were identified. It should also be noted that the entire test group (300 people) was divided into two large groups: prisoners - repeat offenders and first offenders.

Such a division was made as these two categories of the convicted are quite different from each other. The former already have the experience of being in prison and many negative emotional states are either expressed weakly or not expressed at all.

The second part of our research was devoted to correction work, the purpose of which was to correct the most striking negative states with the help of Yu.M. Orlov's *sanogenic* thinking technique. After the training was the second behavior psychological test, designed to assess the efficiency of the work.

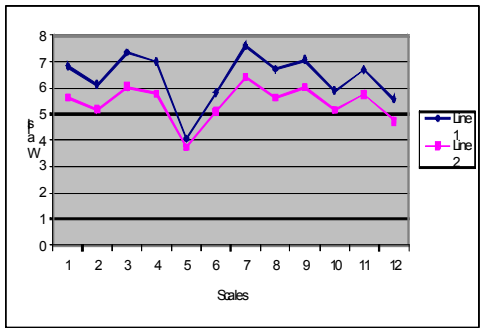
Considering the personality profiles obtained as a result of the second psychological test and comparing them with the results of the first one, we see that the character profiles have not changed, the negative states are expressed less often. In the group of the repeat offenders, only columns VII (reactive aggression) and IX (self-criticism) rated slightly above average. In the group of the first offenders only column VII (reactive aggression) is above average and the sociability level (column V) has decreased. This may be explained by the fact that during the correction work a need in a thorough self-evaluation, and they started to deliberately avoid communication. The changes in the groups are shown in Figure 1 and Figure 2.

Figure 1: Graph of personality profiles - the results of averages (FPI (B) questionnaire) in the group of the repeat offenders (data of the first and second tests)



Line 1 – Test 1
Line 2 – Test 2

Figure 2: Graph of personality profiles - the results of averages (FPI (B) questionnaire) in the group of the first offenders (data of the first and second tests)



Line 1 – Test 1
Line 2 – Test 2

Significant changes have taken place, practically, on all scales, with few exceptions. The difference in the perception of the impact of the correction work can be explained by the depth of criminalization of a convicted person and, consequently, the stability of negative phenomena, largely determining the antisocial personality in general.

In order to analyze the dynamics of anxiety, we used Mc-Nemor G-sign test and obtained the following results. Both situational and personal anxiety of repeat offenders have decreased (G_{emp} = 48 $G_{0.01} \leq 55$ – situational anxiety, G_{emp} = 53 $G_{0.01} \leq 55$ - personal anxiety). In the group of the first offenders there is also a reduced level of both forms of anxiety (G_{emp} = 19 $G_{0.01} \leq 60$ - situational anxiety; G_{emp} = 16 $G_{0.01} \leq 60$ – personal anxiety). The results suggest that, as a result of the correction work there has been a significant

decrease in anxiety. And in the first group of prisoners the significance of this decrease was relatively higher. In addition it should be noted that after the correction work some research participants had, on the contrary, the increased level of both personal and situational anxiety. We can assume that in this case there has been weakening of psychological protection in the form of "*emotional deafness*", which we described earlier as a result of the fact that a participant of the test group was more actively involved in the correction work and improved his self-awareness. Therefore, we cannot consider such a response as a negative result of the correction work.

After processing the data, we conducted a factor analysis to identify the main factors that have an impact on the convicted person. We managed to identify the factors that are typical of the first group – repeat offenders. The first of these has such inherent characteristics as lack of emotional stability, situational anxiety and aggression, depression, introvert personality and increased emotional lability. This factor predetermines quick change of feelings and situation-based outbreaks of aggression against the background of possible depression. The second factor combines parameters such as increased irritability, neurotic states, personal anxiety and femininity. This factor leads to the appearance of the convicted of the so-called feminine type, most often classified as "excluded."

For the group of first offenders three factors dominate. The first one is characterized by such parameters as machismo, introvert personality type, resistance to stress, reserve and spontaneous aggression. This factor determines the kind of behavior that is characterized by stability, lack of mood swings, manifestation of aggressive outbursts only in extreme situations. Great influence this factor has a group of the convicted, belonging to the category of "authorities." The second factor includes the increased nervousness, situational and personal anxiety, depression, emotional lability. The influence of this factor is manifested by in the appearance of neurotic and depressive states. The factor, most often, affects suspicious, anxious convicted with uncertain position. The third factor includes increased irritability, reactive aggression and sociability. It determines, in most cases, uninhibited aggressive behavior characteristic of the so called "bulls".

Besides factor analysis, we also held cluster analysis; as a result, we were able to single out 10 clusters for the group of first offenders and 11 clusters for the group of repeat offenders. For each group we developed detailed recommendations with consideration of the specificity of each of the selected clusters.

Both groups underwent certain changes in the emotional state after the correction lessons. The ambiguity of the results is due to the attitude of the participants to the correction work. Despite a relatively short period of time and the inability to monitor the lives of the participants after imprisonment, we can still speak about the effectiveness of the method in improving the emotional state of correction program participants. During the research, we were able to identify not only the main features of different categories of the convicted, but also divide the studied categories of the convicted into clusters, to determine guidelines for working with each of them and to identify the range of factors that affect a convicted person in each category. We can also say that out hypothesis was confirmed:

Sanogenic thinking *can* correct and prevent further negative emotional states of the convicted;

- for the convicted of both categories the typical states are increased depression, anxiety, aggression, and lack of emotional stability;

- the results of the correction work with first offenders are better, as they are not included in full in the functioning of the criminal subculture, criminalization and anti-social orientation of the individual is not rigidly fixed in the personality of the individual, in addition, the internal structure of first offenders has not undergone most irreversible changes that take place in repeat offenders and are the result of long social isolation.

This study enabled us to formulate the following practical guidelines:

- There is now a mature, tested method which can improve and optimize the process of correction and re-socialization of the convicted;

- For its greater efficiency constant, systematic work with the convicted is required;

The technique is flexible enough as it can be applied to any person and does not require extensive training of specialists and, more importantly, suggests that the participants of a correction group are to do much on their own which, in its turn, ensures a better result in comparison with other types of re-socialization of the convicted;

- Organization of the correction work requires considering a number of specific issues: first, it is necessary to note the presence of the psychological resistance of the convicted. Moreover, the longer the term of penal punishment is, the stronger the resistance may be. Most often it is manifested in the denial of the efficiency of this kind of work, which is based on the feeling "*we*" and "*they*." The convicted tend to believe that the society rejects them, none but the criminal community needs them, therefore, attention to them, to their lives and fate may be caused purely by scientific interest, e.g. when correction work is being arranged. Psychologists very often fail at that, the main argument of the convicted being "... we do not want to be guinea pigs..." Often, this situation is exacerbated by improper conduct of penitentiary facility personnel;

- Secondly, there is no possibility to organize correction work according to all the rules. In particular, there are no opportunity to select participants of the correction group, in such a way that they may not know each other, to cluster only men, there is no possibility to take into account age specificity of the correction program participants, it is impossible to neutralize the impact of the personnel on the convicts' behavior, and finally, there are no specialized facilities. All this leads to the fact that only 70% of the convicted work with all the material of the correction program; the remaining 30% study the material not so thoroughly because of either selective or superficial approach;

- Third, it is possible to conduct this kind of work only on the territory of a penitentiary facility which results in perceiving this kind of impact as part of measures aimed at providing criminal law penalties, and, in particular, the security content;

- Fourth, the sex of the instructor (the opposite sex of the participants) also affects the correction work. This influence is particularly strong in groups of the convicted for the term of ten to fifteen years. It takes one-third of the correction program time to overcome this kind of influence which greatly reduces its effectiveness. However, on the other hand, when the instructor is a woman it helps solve a very important problem – maintaining communication skills and interaction with the opposite sex. Therefore, we recommend that the instructors should be of both sexes;

- Fifth, during the correction program, providing interacting among the participants, the instructor should take into consideration informal interpersonal communication among prisoners (in particular, informal stratification), based on the laws of the criminal subculture. More-

over, the stricter the security level of a penitentiary facility is, the greater these characteristics are manifested. Therefore, organizing such correction work with repeat offenders, one should plan the program thoroughly;

- Sixth, the efficiency of the correction program would increase if there was a possibility of a long-term observation of the program participants after they leave the penitentiary facility. Unfortunately, at present this is not possible due to lack of high level of visitation services and social welfare services, the police do not want to do this work.

Further research may include studying:

- the effect *sanogenic* thinking has on correction of juvenile offenders and convicted women;

- impact of *sanogenic* thinking not only on the correction of negative emotional states but also on changes in the purpose orientation of the convicted;

- the way *sanogenic* thinking affects people of different ethnic groups.

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ETHNO-CULTURAL SPECIFICS OF COGNITIVE STYLE AND WORLDVIEW OF PERSONALITIES WITH DIFFERENT CEREBRAL ASYMMETRY

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Ethno-psychological specifics of hemispheric asymmetry manifestation in the cognitive area implies conventional ways of formulating questions, strategies of search and filtering information, explanation models, argumentation patterns, etc., typical of a definite ethnic group and common to all its representatives. With relation to this ethnic group, they represent indicative features, primarily, environmental structures and their basic elements realized in creating the worldview. Cognitive style and worldview are determined by a number of background factors, such as history, politics, and culture, as well as social and individual peculiarities.

Ethno-psychological specifics of hemispheric asymmetry manifestation are characterized as field dependence-independence, different cognitive styles and a specific worldview. A cognitive style represents steady symptom clusters, personality dependent individual and age distinctions in cognitive activity. Cognitive style is the unity of the inner (intellectual, emotional, volitional and motivational) and external (behavioral) characteristics. Cognitive styles and directions in thinking are mostly determined by belonging to some ethnic group and depend on its historic and cultural background.

Ethno-cultural peculiarities and specifics of hemispheric asymmetry manifestation with Kazakhs and Russians in Kazakhstan were studied according to the Program among representatives of six age groups. Thus, the sample group was presented by 1480 persons aged 5-22, among them 840 being Kazakhs and 640 Russians.

The research was aimed at examining the assumption that exposure to specific social, historical, cultural and ethnic factors has formed and consolidated some

peculiar features in the content and display of cognitive styles and worldview of the various ethnic communities in Kazakhstan possessing different hemispheric asymmetry.

Methodological basis for the research presents a set of methods, techniques and technologies adjusted to the issues of ethno-psychological research. They are as follows: a methodology for instant diagnosis of asymmetry by A.R. Luria; M. Shtambak test; a Side Selection questionnaire by B. Taggard; Gottshald's Embedded Figures Test; a Direction in Thinking questionnaire by A. Alekseev, L. Gromova. Besides, we used the method of defining types of thinking through solving logic problems by respondents; projective drawing My Image of the World; a projective essay My Idea of the World; a variant of the Semantic Differential technique: The World Around Us is Like…, a variant of the Semantic Differential technique: The World Around Us -What is It Like?

At the stage of generalization and interpretation of the data, we used the Spearman rank correlation coefficient, $\chi 2$ - Yates criterion, $\chi 2$ - Pearson criterion, the discontinuous variability coefficient - φ, factor analysis.

While analyzing the research findings, it was found out that among the Kazakhs (N = 840) there was approximately equal distribution of right hemisphere (44.4%) and mixed (45.4%) types of domination, only 10% having left hemisphere prevalence.

Among Russians (N = 640), prevail individuals with mixed domination (58.5%), the number of persons with right hemisphere domination is half as large and makes 28.4%, testees with left hemisphere domination present the number 4.5 times less. This data shows that Kazakhs demonstrate 1.6 times higher incidence of right hemisphere dominance if compared with Russians, while persons with prevailing left hemisphere occur 2.9 times rarer. With Kazakhs mixed type occurs 1.2 times as small as with Russians. This confirms our theoretical assumptions about the cultural dependence of the right hemisphere dominance with Kazakhs, and left hemisphere dominance with Russians.

If we consider this data according to sexual identity, it may be noted that there are clear differences between the Kazakhs in terms of hemispheric response, so the proportion of males was 27.9% and females 72.1%, while for the left hemisphere and mixed response frequency of occurrence they were nearly similar (51.9% and 48.1%, 41% and 59% respectively).

In the Russian sample (N = 640), no distinct differences in hemisphere dominance were found in terms of sex identity, and the figures were as follows: left hemisphere males made 51.4% and females 48.6%; right hemisphere persons presented 52.6% and 47.4% respectively; mixed types were 42.2% of males and 57.8% of females.

Table 1. Percentage of occurrence of right and left hemisphere dominance in the ontogeny of Kazakhs and Russians

Age/ Nationality	5-6 years (1st group)	7-8 years (2nd group)	11-12 years (3rd group)	14-15 years (4th group)	17-18 years (5th group)	20-22 years (6th group)
Right hemisphere dominance (χ^2 =12,79)*						
Kazakhs	25,7	18,6	41,7	55	35	10 (12)
Russians	15,7	25,7	40,8	23	18,7	9
sample average	20,7	22,9	41,3	39	26,8	10,3
Left hemisphere dominance (χ^2 =5,4)						
Kazakhs	10	18,6	7,5	1	27,5	52 (17)
Russians	28,6	7,2	11,7	4	25	30
sample average	21,4	12,9	9,6	2,5	26,3	33
Mixed type of response (χ^2 =9,3)						
Kazakhs	60	62,8	50,8	44	37,5	38 (71)
Russians	55,7	67,1	47,8	73	56,3	62
sample average	57,9	65	49,2	58,5	46,9	57

In brackets, the data is given for the Kazakhs preferring thinking in Russian.

Comparing the change in the frequency of occurrence of various types of hemispheric dominance among Kazakhs and Russians during the transition from one age period to another, we can judge about the dynamics of the FAM development specific to each age group, whereas the most important in our view is the dominant activity, social roles, and the language.

According to the results of the data presented in Table1, it may be noted that dynamics of the frequency of occurrence of different hemisphere dominance among the Kazakhs and Russians varies. The nature of these changes, as we have shown in the theoretical and confirmed in the empirical part of this study, depends on the education system and the language.

Results of the gender-related study of dynamics of hemispheric dominance among Kazakhs and Russians suggest that the dynamics of hemispheric dominance in terms of gender among Kazakhs and Russians is unequal. Significant differences (by $\chi 2$ - test) in the nature of the dynamics of hemispheric dominance according to left - ($\chi 2$ = 10,5 *), right ($\chi 2$ = 22,05 **) hemisphere dominance among the Kazakhs and the right hemisphere - ($\chi 2$ = 24,15 **), mixed ($\chi 2$ = 18.9 **) dominance among Russians apparently depend on the gender-role identity of men and women secured in the social, personal, professional, age, cultural characteristics of community.

Gender differences in hemisphere dominance are also explained by gender-role characteristics mediated by culture. They, apart from perception of the global social, economic and political events, are most clearly expressed in common sense ideas of individual differences in general, that is, are culturally specific.

Gender asymmetry is not only the condition and the product of cultural and biological reproduction of human beings, but also the form within which the reproduction mediated by social relations takes place.

The results of the specific worldview study of Kazakhs and Russians in terms of hemispheric dominance and gender are presented in the summary Table 2. Analysis of essays and drawings makes it possible to identify meaningful groups of categories used by respondents to describe the world.

Table 2. Results of essays data processing

	Nature of image (figure)	Russians						Kazakhs					
		L		R		I		L		R		I	
		Sex											
		f	m	f	m	f	m	f	m	f	m	f	m
А	Specific sensory content of images												
1	Landscape (nature, mountains, river, village)	44	14	14	9,1	21	33	44	17	14	14	13	10
2	Landscape with people	7,3	17	18	18	5,9	0	22	17	2,7	4,5	7,5	3,3
3	Urban landscape (facilities, factories, transport, etc.)	0	0	0	18	0	0	0	17	8,1	0	0	0
4	Urban landscape with people	15	0	4,5	9,1	0	0	0	0	2,7	0	10	0
5	Mixed landscape: urban, rural	0	0	0	0	0	0	0	8,3	2,7	0	5	17
6	Enumeration, single objects not united into one image (a bottle, a tree, a bag of dollars, etc.)	15	0	0	0	12	0	0	0	0	0	5	0
7	Family picture	44	21	0	9,1	5,9	0	0	8,3	8,1	4,5	2,5	3,3
8	Self-image (Me), myself as a center	15	3,4	0	0	0	0	0	0	0	0	7,5	10
9	Technological images	0	0	0	0	0	0	0	0	0	0	2,5	0
10	Animals and people's images	7,3	0	0	0	0	0	0	0	0	0	0	0
Б	Abstract (symbolic, allegorical, schematic) content drawings												
11	Abstract and symbolic (the symbol of peace is a dove, the symbol of death is a grave with a cross, a symbol of love is a styled heart, a symbol of the path and movement – a Taoist circle)	65	14	18	0	8,8	6,7	11	17	8,1	18	10	20
12	Abstract and allegorical	36	24	9,1	27	8,8	13	11	17	32	18	7,5	17
13	Abstract and schematic	87	6,9	36	9,1	38	47	11	0	22	41	30	20

Where: left hemisphere dominance (L), right hemisphere dominance (R) and mixed types of dominance (I)

The table shows that Russians with left hemisphere dominance clearly prefer topics related to communication, to other people and to their inner world, feelings, thoughts, dreams. This is particularly noticeable when we compare this data with that of testees from other groups.

Among the Russians with the right hemisphere dominance the group of descriptive categories prevails, comprising concepts of organic and inorganic nature. We should pay attention to the fact that within this group of categories, they have the one of abstract natural sciences.

Considering the results of the Russians with mixed types of domination, it should be noted that in their idea of the outer world they point out the categories related primarily to nature, the biosphere, and human use of nature.

The interesting point is that despite the prevalence of categories describing the world of nature and the world of communication, in the overall picture of ideas, the Kazakhs with left hemisphere dominance singled out aesthetic and ethical categories which were not observed with testees of the previous groups. This suggests that differences in the view of the outside world in this group can be explained by the influence of the national and linguistic identity.

Right hemisphere dominant Kazakhs' ideas of the outside the world contain a large share of natural science concepts of nature and space-time, and, at the same time, they include representation of the world as the world of communication and ethical and aesthetic values. In this respect, the results of this group serve as a connecting bridge to the results of the Kazakhs mixed.

The Kazakhs mixed prefer diversity of views of the world. Compared with the previous group of testees, in their view it is not the world of people, but the world of technology. This is the only group of testees with explicitly expressed group of such descriptive categories.

Firstly, when analyzing the results, a variety of topics presented in the drawings attracts attention. For the boys, this diversity is less pronounced.

Secondly, interesting is the presence of pictures of equipment (2.5%) but only with the girls.

On the whole, we can report about the following findings on all sample groups:

1) The girls' pictures are characterized by a wider thematic range than the boys' pictures, which is indicative of more generalized views of the world of the latter group;

2) Basically, we have observed hemispherical dependence of specific features in the pictures of both boys and girls. At that, most evident dependence was expressed with right hemisphere dominant Russians and Kazakhs. Their pictures are characterized by a greater number of symbolic and allegoric images compared to definite and schematic ones;

3) Our supposition that the worldview depends on culture and ethnicity was substantiated by the results gained through projective drawing method, notably, by results of the Kazakh sample group.

Except for this data, with the help of the Semantic Differential technique and following it factorization, we have obtained information on the Kazakhs' and Russians' worldview prompting suggestions that personal views of the world are highly individual.

Thus, the Kazakhs "mixed" perceive the world as: complicated, inaccessible, cognizable, and dangerous (1st group of scales); diverse, rhythmical (repeated), lively and cosmic (3rd group of scales); ethically problematic in terms of behavior and actions (4th group).

The Kazakhs with right hemisphere dominance characterize the world in terms of its regularity, dimension, integrity, meaningfulness (1st group of scales); its energy, spontaneity, and mobility (3rd group). A very important point is the presence within this group of the idea of the world's accessibility, cognoscibility, and perceivability (4th group of scales).

As is the case with the right-brain dominant Russians, this can be indicative of their constructive way of thinking which postulates the person's response to flexibility, availability, and resistance to the constructions he is designing. At that, individuals with right hemisphere dominance are characterized with aesthetic attitude towards reality (scales of group 5). As opposed to left-brain dominant Russians, they show not the sensory aspect of perception but the emotional aspect that is related to the aesthetics of emotion, its inner amodal matter.

For the right-brain dominant Russians the following generalized specifics of the outer world perception is typical: the world's energy, dynamic character, stability (1st group of scales); cognoscibility, availability, manageability (2nd group); beauty and brilliance (3rd group); mobility and activity (5th group); integrity, harmony, spirituality (axiological aspect) (6th group).

Left-brain Russians attract attention by the presence of ideas reflecting various sensory modalities of perception: brilliance, imagery (visual aspect) (5th group of scales); somatic sense (bodily-kinesthetic aspect), sensibility (emotional aspect), spirituality, corporeality (metaphysical aspect of somatic sense), wide-awakeness (visual aspect), endurance and changeability (kinesthetic aspect), vocalization (auditory aspect), aromatic quality (smelling), and taste. Somehow it contradicts the traditional ideas of the left-brain

dominance, since such kind of perception with much attention paid to one's own feelings and emotions is more typical for right-brain persons.

Information on the Russians with the mixed type of laterality and Kazakhs with left-brain dominance testify that most important for the first group are the categories of perception: beauty, activity, and harmony which likens them to the Russian right-brainers. For representatives of the second group most attractive features of the world are its cognizable and regular character, predictability; such an approach associates them with the Kazakhs from the mixed dominance group.

Lateralization basic tokens are indices of the cognitive area of an individual psychic's manifestation, such as:

- Perceptual-cognitive and cognitive peculiarities of psyche of representatives of a definite ethnic group depend on the type of their cerebral lateralization;

- Interrelation of cerebral lateralization and ethno-cultural characteristics of an ethnic group is mediated by cognitive and perceptual structures;

- Cognitive style comprises both physiological and individual peculiarities of perception and brainwork.

Interrelation of cerebral lateralization and ethno-cultural characteristics of a personality is mediated through the cognitive style as an integrative characteristic of the national intellectual and cognitive area.

Ethno-cultural distinctions in the cognitive area of Kazakhs and Russians are manifested in the following:

a) Cerebral lateralization and different individual development, depending on the age, sexual identity and language;

b) Preference of particular intellectual strategies in the absence of statistical discrepancies with respect to parameter field dependence-independence;

c) Cultural and historical determinacy of the worldview of representatives of both ethnic groups.

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SPECIFIC MANIFESTATIONS OF PSYCHE DEFENSE MECHANISMS AT THE LEVEL OF AN ETHNIC GROUP

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Psychological defense is usually regarded as the system of regulative mechanisms, aimed at elimination of personal negative, traumatic experiences connected with inner or external conflicts, anxiety and discomfort. At an ethnic level, it is a psychological way of elimination of discrepancy between an ethnic world view and reality. In the process of interethnic contacts, people permanently meet with new information which can disturb their ethnic world view and consequently lead to the loss of their positive identity. Then, psychological defense mechanisms are triggered, making it possible to avoid destructive tendencies and maintain the in-

tegrity of an ethnic system.

We can differentiate between three main levels of the personal ethno-psychological defense structure and three respective ways of its forming and functioning.

Figure 1 demonstrates an attempt to single out possible levels of ethno-psychological defense mechanisms study.

The phenomenon of psychological defense can be detected not only at an individual but also at a group level. Let us examine the psychological defense mechanisms at the level of an ethnic group.

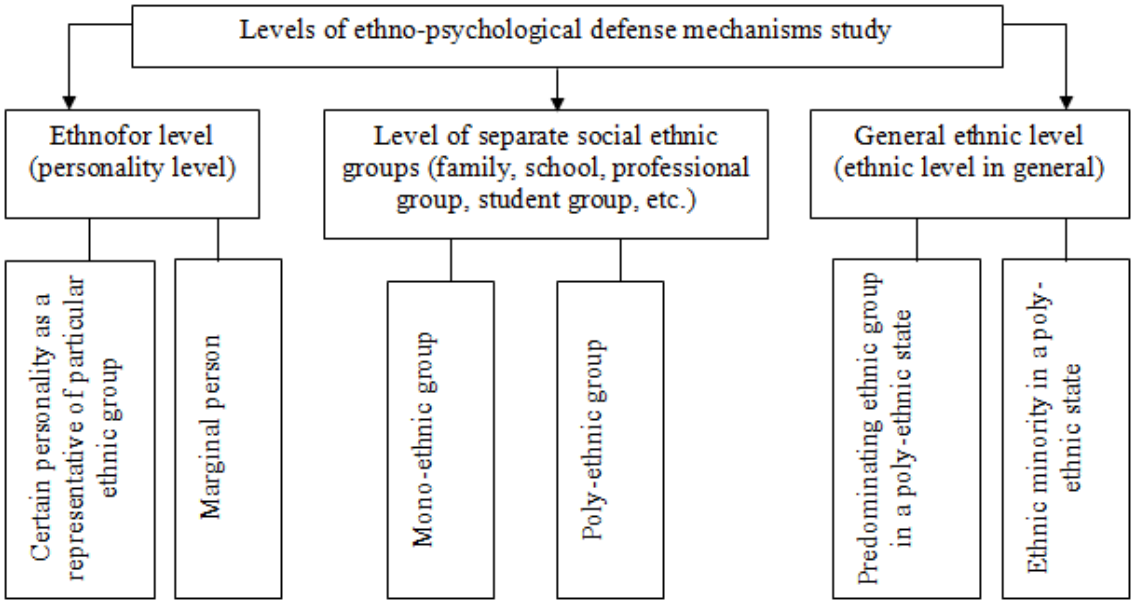

Figure 1 Levels of ethno-psychological defense mechanisms study

The problem of psychological defense manifestation in a group context, particularly in the group dynamics, has not been elaborated yet. However, it is extremely complicated due to lack of concise conceptual ideas of psychological defense and group dynamics.

Just as we distinguish between several different mechanisms of self-concept defense, so we have a variety of different types of group-concept defense.

No matter what people do, they want to be sure in legitimacy and fairness of their actions. Any action should be substantiated in the human mind. Such substantiation is always provided by psychological defense mechanisms. Attribution mechanism, which means attributing some traits and motives to an object, is of significance in interethnic relations and in the processes of ethnic self-defense. Primarily, ethnic groups use attribution for forming a positive image of themselves and also for ascribing negative motives to opponents. Forming stereotypes is based on this mechanism [1].

The attribution mechanism is also required when an ethnic group is willing to form certain self-concepts, it has no sufficient objective basis for. In such a case, self-attributions amplify the positive self-concept; in some way, they eliminate contradictions and inconsistencies of its particular parts, promoting formation of holistic self-comprehension with definite positive self-esteem.

It is obvious that in the process of self-attribution people can commit all the errors incidental to this mechanism. Ethnic groups attribute their failures to external

circumstances but their achievements to their own virtues. In case of hetero-attribution, the achievements are attributed to external happy circumstances, but failures are accounted for their inherent defects, unrealistic targets and motives.

Even though such tendencies exist, they are never absolute. The general principle consists in combination of these two attribution types. Actually, it means coexistence and compatibility of these two attribution strategies, finally resulting in a more flexible, realistic and compromise attribution [1].

"Though attribution is a universal human phenomenon, we can assume that it is ethnically specific. It means that a Russian, a Frenchman, a German or a representative of any other nationality performs attributions differently; they prefer different types of attributions; they tend to combine types of this psychological mechanism differently and are inclined to combine attributions with other adaptive mechanisms in a specific way.

These ethnic distinctions depend on the following factors: firstly, on ethic cultural; secondly, on peculiarities of historical development; thirdly, on their current status in interethnic relations" [2].

A particular case of attribution is a projection. Its main point consists in projection of the group's own but unconscious and therefore inappropriate negative feelings, traits and peculiarities to representatives of other ethnic groups. The essence of projection as a defense mechanism consists in the fact that negative projections help the group avoid direct inner contact with incompatible and upsetting mental contents.

Another group defense mechanism is the "sour grapes mechanism" which consists in the "rational" explanation of unconscious causes of the person's own actions, failures and losses. Logical but basically false explanations are used by people for self-justification. However, the motives and argumentation are selected subconsciously; therefore, the sour grapes mechanism is not always a willful deceit. "For the purpose of ethnic self-defense, sour grapes mechanism is used by ethnofors and ethnic sub-groups, and even by the whole ethnic group… At a group level, sour grapes mechanism is a part of group ideologies, in particular – ethnic (national) ideologies, as well as of the processes by means of which the group interests can be protected: political and ideological discussions, propagandistic materials, the texts used for new generations' socialization [1].

The following defense mechanism is symbolization, which is interpreted as attribution of all virtues and intentions reflecting hopes and wants of the ethnic majority to a particular person. Thus, the combination of the personality principle transforms into the symbol worth risking life. At that, the personality of a public figure may lack necessary qualities, but if necessary, people can credit him/her with required traits. Such symbolization of people, who are far from being ideal, is essential for ethno-psychological self-defense, positive aspects of self-concept strengthening and personality's identification with an ethnic group; the latter process usually takes place by means of the personality's identification with the national symbols.

Blaming the victim can be also considered as an ethno-defense complex comprising several mechanisms: 1) Projection provides an opportunity for an abuser to see problems with the victim, outside himself; 2) Attributions allow such a person to impute a victim with additional negative qualities; 3) Finally, the victim's dehumanization takes place, which simplifies the implementation of most brutal and immoral measures, methods of punishment and control; 4) An abuser triggers sour grapes mechanism to excuse himself for the oncoming events in advance. Thus,

it becomes apparent that the future victim is guilty and deserves punishment. In the process of these plans realization, the aggressor gets new facts about the victim's "dirtiness"; and he/she dares to resist the "fair treatment"!

During the periods of escalation of interethnic tension up to the conflict stage, psychological defense mechanisms also become strained. Selectiveness of interethnic perception increases. Intergroup differences strengthen and intra-group differences weaken. Attention is focused on the information confirming present negative stereotypes; the contradicting information is neglected. Parties to the conflict commit crimes and demonstrate cruelty, blaming the opposite party for it; they consider their group actions a response to aggression of an enemy. All the evil done by the representatives of their own ethnic group is automatically repressed, and if "we didn't do that", the other party has to be blamed. A person has an impression that the enemy is always more violent and clever, and we are only victims, trying to defend ourselves. Moreover, the mechanisms of psychological defense make these ideas absolutely honest, and it is practically impossible to change it by means of any facts.

It is known that ethnic group cohesion and ethnocentrism serve the purpose of ethno-defense [3, p. 116]. These processes become more intense against the background of escalation of contradictions and conflicts. G.U. Soldatova writes about the processes undergoing among the peoples of the Northern Caucasus in recent years: "Amid growing interethnic tension, intra-ethnic emotional bonds are strengthening, the feeling of ethnic solidarity intensifies, and the native ethnic group and its interests get paramount importance in the system of values. Another characteristic feature is represented by behavioral orientation to an ethnic group, intra-group cooperation, joint responsibility and mutual support. Besides, the mechanisms of ethnic self-determination is triggered: in fact, nowadays every man living in the Northern Caucasus is forced to show his "collective", "national" face, which means to side with somebody" [4, p. 139].

Intensification of ethno-defense processes is promoted by development of self-concept both at an individual and an ethnic group levels. Ethnocentrism strengthening is closely related to self-consciousness of ethnofors.

Another psychological mechanism used unintentionally, but actively in the "hot spots" ethnic processes is represented by regression – a psychological return to the earlier, already by-passed levels of the ethnic group and its culture development. In the context of conflicts, an ethnic group uses the strategy of regressive adaptation, like any frustrated personality does [1]. At an ethnic level, regression can be manifested in different ways. One of them is the following: under the conditions of interethnic conflicts, we can see active recovery of ethnic and religion traditions, values, family relations. For instance, people start to use the Shariat instead of civil law, which absolutely means the backout from construction of modern civil and legal society, from the democratic state. This is a real ethno-psychological regression, since the Shariat had appeared in the times of tribal life, and corresponds at its best to the level of tribal alliances. Such regression is an ethno-defense process, which however, partially restores ethnicity lost in the Soviet period. With that, the process of regression leads an ethnic group back to the ancient stages of its ethnic history. Ethnic cultural and psychological regression of some peoples may be of the following types: public punishment in accordance with the Shariat court decision, restoration of the tradition of blood revenge, traditions of reconciliation, traditional ways of conflicts resolution and other elements of traditional national cul-

ture.

The example of ethnic and national repression is oblivion of most unpleasant, shameful and frustrating pages in the history of a nation. Subconsciously and even intentionally, the events which discredit the leaders, ruling parties and other major political forces are relegated to oblivion. Huge amount of knowledge and cultural values also are relegated to oblivion when a nation abandons its traditional religion and accepts some new belief. Group repression takes place in cases when a leader is substituted by the next one, a new dynasty succeeds the previous one and when one political party is forced to yield power to another party and leave the historical arena together with its ideology.

Ethnic groups and nations very often tend to repress information related to national traitors and their deceitful deeds. Such effects are connected with negative identity; consequently, here we reveal the cohesion between two psychological mechanisms: repression and negative ethnic identity. According to Nalchadzhyan, this information, impressions and related negative experiences are preserved in the long-term memory of an ethnic group and its members, but at a subconscious level. Ethnic subconscious is also impregnated with unpleasant and humiliating national dignity contents. Due to the sublimation and repression mechanisms, people usually remember fewer traitors than their real number. The same phenomenon is observed with cases of defeat and abasement of human dignity, which may be erased from the national memory and not be reproduced in ethnofors' consciousness. There also exist other ways of liberation from frustrating, hurting influence of such recollections: they are revaluated, distorted and partially forgotten.

Another mechanism connected with repression is sublimation, exaltation (refinement).

Sublimation has several functions, defense function being one of most important. At an individual level, sublimation represents exaltation of mental energy, initially connected with drives of the lower level. Thus, according to the psychoanalytical concept of sublimation, when the sexual instinct can't be used in a normal way, it may be deflected into acts of higher social values and be expressed in art, science and other spheres of activities. Sexual desire changes an object and is elevated (sublimated) [5]. Nalchadzhyan offered a wider sublimation concept understanding it as exaltation not only of sexual but other instincts and transformation of their energy into creative and social activity. Sublimating his unrealized instincts (sexual, aggressive and egoistical in general), a person overcomes frustration, protecting his/ her psyche from possible neurotic and psychotic disturbances.

At an ethnic level, sublimation is exaltation of the national history and culture, its language and symbolic system, its heroes, military and political leaders, etc. Sublimation forms certain aspects of the nation. National goals and values are sublimated, the nation is attributed with special historical mission; sublimating, ethnic group representatives repress negative aspects of their national history, preserving and even strengthening positive ones.

Sublimation of certain aspects of the national history and culture is accompanied by repression of others, unfavorable for ethnic self-consciousness aspects. There exist pathological forms of ethnic group sublimation [2]. The basic peculiarities of pathological sublimation are as follows: 1) it forms a highly distorted self-concept of an ethnic group; 2) interethnic relations are also distorted; 3) the same is true of images of other ethnic groups, especially hostile ones; 4) a pathologic construction is being molded – a complex of this ethnic group extra significance (and of personal significance), and at the same time – disparagement towards other ethnic

groups, especially towards the groups they disapprove; 5) the pathological defense mechanism is triggered and starts functioning, initiating some persistent abnormal features and their complexes (servility, conformism (in their extreme manifestations); the cult of superiority and crude force, super aggression, arrogance; 6) all these processes are accompanied by coining of two stereotype groups: positive auto-stereotypes and negative hetero-stereotypes.

Accordingly, every culture has its own "defense hierarchy" and members of every particular society resort to certain protective properties of their psyche. Ethnic unconscious constitutes a part of the unconscious segment of an individual psyche, common to other members of the same cultural community. Ethnic unconscious contains the material every new generation learns to repress in accordance with requirements of prevailing cultural patterns.

An attempt to represent the peculiarities of psychological defense mechanisms of psyche at the level of an ethnic group allowed including into this category such mechanisms as: attribution; sour grapes mechanism, used in favor of the group; intensification of ethnocentric processes; ethnic and group regression and sublimation.

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DEVELOPMENT OF TEACHER PROFESSIONAL COMPETENCE

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Achieving a high level of professional competence is a strategic goal of teacher in-service education.

The problem of development of teachers' professional competence has being solved by researchers from the perspective of different approaches: a systematic, axiological, technological, activity-oriented, professional and personal, competence-based, context-based, etc. Each of the approaches being the type of scientific knowledge reflects the different aspects of the research object, and so it gains the greatest efficiency in relationship with other approaches. The process of formation of the professional competence of a teacher is a complex multilateral mechanism, and the use of this complex approach to the study of the development of the professional competence of teachers in the educational activities will be the most effective.

The systematic approach is fundamental, scientific method of analysis of any investigational pedagogical phenomenon. N.V. Blauberg, and E.G. Yudin pointed out that a systematic approach serves as scientific methodological direction which aims to develop principles, methods and means of studying objects of a system [4]. V.G. Afanasyev treats the system as a set of components which

while interacting generate (integrative, systemic) qualities that are not inherent in their image [1, 2]. Element is a minimum structure-unit system possessing structural specificity.

Each system has two components: the elemental composition and structure as a system of relations between the elements. The high degree of interconnectedness of all components of the structure ensures its integrity. The structure and nature of constituent relations is defined by the nature of the elements that form the whole, and their qualitative and quantitative characteristics. Under the influence of systemic relations the system operates and develops. All systemically targeted connections dominate the functioning of all parts of the system, as well as all communication management: subordinate (vertical), coordination (horizontal). The level of system integrity depends on its commitment, integrity set of components, quality of each component and density of interconnections between components as well as interconnections between each of them and all in the whole. An important feature of the system is its integrated character [2, 4, 8, 9].

Thus, a systematic approach allows us to consider the formation of professional competence of teachers and to determine its structure, relationships between the elements within the system and with the environment, explore operational characteristics of the formation of quality in educational activities, as well as the management of the system. A systematic approach to pedagogical activity allows you to build a generalized model of the system with the help of system analysis and modeling methods. The most significant achievements of the systematic approach lie in the basis of any educational technology. The conceptual framework of the technological approach highlighted in the works of V.G. Bespalko, J.K. Kabansk, N.V. Kuzmina, G.K. Selevco, N.F. Talyzina etc. G.K. Selevco gives the definition of educational technology as a content summary that incorporates definitions of various authors, and is represented by three aspects:

1. Scientific: pedagogical technologies as part of teaching science explore and develop the goals, content and methods of teaching and design pedagogical processes.

2. Process-descriptive: description (algorithm) of the process, a set of objectives, contents, methods and tools to achieve the intended results of training.

3. Process-effective: the implementation of technological (teaching) process, the operation of all personal, pedagogical and methodological tools [10].

Therefore, educational technology includes the following elements:

1. The conceptual basis

2. Content part: common learning goals and goals for learning specific subjects, the content of academic material.

3. The procedural part: the organization of the educational process, methods and forms of teaching, teacher performance management process on formation of professionally important qualities.

4. Assessment part: operational feedback and implementation of appropriate correction of learning process [3, 6, 10].

Thus the technological approach gives the opportunity for a holistic process design, its consistent and systematic implementation in practice, tracking the results, and its repro-reproducibility.

Taking into consideration the fact that the technological approach is not paying proper attention to the creative development of the individual, in constructing a system of formation of teacher development, it is necessary to consider the psychological characteristics in the process of development of professionally important qualities.

According to the methodological

principle by S.L. Rubinstein, a person functions and develops in activity. Educational and cognitive teacher's activity is the activity in which his professional skills are built thus developing his personality. This activity defines the scope of the potential development of the individual, due to the objective requirements of the teacher.

Numerous studies on the problems of higher education have proved that you can master the skill only on the level of individual creativity and a person acquires professional knowledge and skills in personal context. In other words, every teacher has its specific pedagogical entry into the profession. Individual creative approach to the development of professional competence of teachers in the teaching activity involves:

- personal approach to the development of professional competence;
- identification and development of professional attitudes;
- unique technology activity.

To achieve the objectives of forming a teacher's personality, you need to organize such training, which provides the transition, and transformation of one type of activity (cognitive) to another (professional) with a corresponding change in the needs and motivations, goals, actions (deeds), tools, subjects and results.

During the formation of the system of teacher development in the process of educational activity, one of the objectives is to enhance the cognitive activity of the teacher, which means to shift the center of gravity with the ready-made knowledge transfer to developing creativity. This problem might benefit the educational process on the basis of competence-oriented approach. The idea of competence-oriented education is one of the answers to the question about the directions of modernization of education. Formation of teacher competence, i.e. the ability to apply knowledge in the teaching activities, is one of the most actual problems of modern education.

Learning outcomes can not be limited by the set of facts, or the sum of standard methods of solving problems, but in reality, the situation is often the case.

According to V.A. Bolotov V.V. Serikov, natural transition to the competence-based model of education defines by the fact that the traditional model is inherently disharmonious, because instead of a holistic socio-cultural experience, students actually learn only part of it, first of all this is knowledge-component [5].

The introduction of the competency-based approach to higher education in our country is also a very important task of integrating Kazakhstan into European education system according to the Bologna Process.

Acquisition of competencies is based on the experience of the student. This view is based on the achievements of learning theory (Piaget, Vygotsky, Galperin, Talyzina, etc.), many European and Russian experts share it. To learn how to communicate, you do need to communicate. You cannot learn the English language, without speaking English, use the computer without having practice. Acquisition of competence depends on the activity of students.

On the basis of this provision, one of the most important ways to face challenges of incorporating the competency approach is seen in the search for and construction of the learning process based on active learning. Under active learning, we understand such methods of the educational process that ensure the inclusion of students in interaction and communication in the process of cognitive activity.

The practice of the Russian and foreign pedagogy has a wide range of teaching methods, providing interactive personal interaction of students. The most effective are portfolio, projects, games, all kinds of educational technology case stud-

ies (the method of the incident, situation analysis, etc.), small groups, and competence-model. One important factor, without which the implementation of these technologies is impossible, is teacher role replacement: from knowledge translator to the organizer of educational resources. It is clear that the volume of teacher preparation significantly increases. It includes lesson scenario varieties design, development (selection) of the relevant training and methodological support of students' independent work in the classroom and at home.

Competence technology is more effective to the system of teacher professional competence formation. It bases on the rapidly changing conditions of employment, changes in the economy, need for new professions; professional development increase has made it necessary to use such systems that can quickly respond to the demand of specialists.

Modular system is the most flexible system. It can be adapted to any of the existing training programs [7].

Modular training is more economical, the materials that are not related to the work performed are excluded from the courses:

- counting existing knowledge and skills of the students, which allows to reduce the educational time;

- counting individual characteristics of students (learning rate, skills, etc.), which also makes it possible to save time.

The main differences of the modular technology are as follows:

- modular program structure is related to the teacher activity structure and consists of individual units called modules, which are complete units with clearly defined beginning and end. At the same time, each module is a structural element of the modular program;

- to study each module of the study program (a fragment of the teacher activity) special manuals are developed, which contain the necessary information about the formation of knowledge and skills necessary for tasks or tests;

- for each student you can make an individual study program based on the basic modular program with the order for education.

Thus, the modular study involves relatively independent work of students in the development of individual modular program consisting of individual modules. Professional activity develops from the required production standards. Through consistent focus on clear goals, immediate assessment of their achievement, we achieve warranty, the stability of the results of educational work.

Analyzing the system of teacher professional competence formation in the educational activity, we can make the following conclusions:

The problem of teacher professional competence formation is solved from the perspective of different approaches: a systematic, technological, professional - personal, competency, etc.

Each of the approaches being the type of scientific knowledge, gains the greatest efficiency in relation with other approaches.

The most significant are the systematical and the competence-base approaches. Teacher professional competence formation system bases on such approaches.

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RESEARCH ON THE EFFECT OF ETHNIC PSYCHOLOGY ON SPECIFIC FEATURES OF MANAGERIAL FUNCTIONS IMPLEMENTATION

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One of characteristic features of the present global community is substantial modification and aggravation of intergroup and interethnic relations, of political-social and economic affairs. On the one hand, this state of things depends on demographic, economic and environmental crises; on the other hand, such trends are the result of the complicated processes of ethno-political, ethno-historical and ethno-cultural differentiation and, at the same time, of the global integration promoted by the general socio-cultural rise and development of the national identity.

Against the objective development of the national identity, we see the natural intensification of the researchers' interest in the problems of ethnic and psychological specifics impact on various aspects of human life. Besides the apparent academic significance of this scientific trend development, real practice claims explanations of a number of phenomena and regularities, consulting psychologists encounter in poly-ethnic organized bodies.

Specifically, numerous works by Kazakhstani and foreign researchers who have examined managerial activity and leadership styles, professional mentality, personal characteristics and managers' typology have not yet reflected a clear idea of interrelation between the style of managers' professional activity and their ethnic psychology. Meanwhile, at the mundane level, such interrelations are observed and reflected in ethnic stereotypes and mindset.

One of most prominent effects in economic and social life is presented by the managerial professional style; hence, identification of objective differences determined by ethnic psychology is of utmost practical importance in terms of improvement of managerial process, based on the ethnic origin and psychology of the manager himself.

A manager realizes his functions in a cyclical and repeatable set of logically connected activities which can be corrected in the process of implementation, and is focused on solving managerial

problems with optimum employment of resources. Psychological investigation of this process gives grounds for introducing the category of the management style understood as stable and rather steady integral, mental formation comprising conscious and unconscious mechanisms of adjustment (both in active and passive forms) to managerial activity.

Investigation of this phenomenon should be conducted at the following levels: analysis of resources (preferable set of means used consciously and unconsciously for attaining managerial goals); analysis of mechanisms (activity algorithm, ways and means of solving managerial problems); strategies analysis (subjective hierarchization of managerial functions).

Among the factors determining the formation of the leader's management style, ethnic background is of importance together with personality and professional record. Ethnic psychology manifests itself in the form of ethnic psychological specifics. It exists as a public mind phenomenon and appears in the form of social and psychological characteristics of people and their groups, called ethnic and psychological specifics. Ethnic and psychological specifics have certain properties, among them: impossibility to summarize these specific features; ability to determine the character of other psychological phenomena, attaching them some special orientation; greater degree of conservatism and stability if compared with other psychological phenomena, and multiformity.

Effect of ethnic psychology on peculiarities of the leader's managerial functions implementation is realized at the following levels:

Intellectual and cognitive level determines the flair of ethnic perception and brainwork; elements of this level include examination of managerial functions subjective hierarchization and self-reflection.

Emotional-volitional level stipulates functioning of some definite original emotional or volitional traits within the given ethnic community; it presupposes investigation of preferable resources used by the leader within the framework of managerial functions implementation; the type and direction of emotional responses within business communication and accepting the spheres of responsibility.

Communicative - behavioral level embraces informative and interpersonal interaction of an ethnic group representatives' and includes elements of activity algorithm study, practice of solving managerial tasks by the leader, preferable types of communication channels.

Background-motivational level characterizes activity drivers of an ethnic group representatives' and contains elements of investigation of motives, values and the leader's type of direction within his professional activity.

The goal of the cross-cultural research was an empirical study of manifestations of the ethnic and psychological specifics of Kazakh and Russian leaders in the process of their managerial activity.

As a working hypothesis of our empirical study it was suggested that existing differences in ethnic psychology of Kazakhs and Russians stipulate specific features of managerial activity of the leaders, representatives of these ethnic groups, which are revealed in different style components: selection of strategies, preference of certain resources and mechanisms.

The tasks of the cross-cultural study were as follows:

- To elaborate, verify and clarify the conceptual model and techniques of scientifically grounded and comprehensive research and interpretation of peculiarities of the ethnic psychology impact on specifics of managerial functions implementation by the leaders of different ethnic origin;

- To conduct an empirical study of manifestations of peculiar ethnic and psychological features of Kazakh and Russian

leaders' managerial activity;

- To generalize the findings and to compare them with the findings of the previously conducted studies related to the problem under investigation;

- To present a meaningful characteristics of preferable styles of managerial functions implementation by Russian and Kazakh leaders.

The hypothesis and tasks of the research alongside with the outlined criteria for detection of ethnic psychology manifestations among Russian and Kazakh leaders in terms of their impact on managerial functions implementation, determined selection of complex techniques used.

For examination of the first group of criteria the following techniques were used:

- A specially elaborated questionnaire;

- My Limitations Analysis Test (Francis, Woodcock):

The second group of criteria was examined on the basis of the following techniques:

- Research on Personality Control Localization technique by H. G. Ksenofontova;

- Business Situations by N.G. Khitrova;

- A specially elaborated questionnaire.

The third group of criteria was examined on the basis of the following techniques:

- Color Choice technique by Solomina I.;

- Technique for Labor Motivation Identification by Badoev N.;

- Mach- IV (Machiavellian traits) questionnaire by Znakov V.V.

The fourth group of criteria was examined on the basis of the following techniques complex:

- T. Leary's Interpersonal Relationships Diagnostics;

- Manufacturing Situations by A.A. Yershova.

Substantiation of research techniques for examination of the ethnic psychology impact on the leader's implementation of managerial functions was complicated by certain factors. On the one hand, we faced the necessity to analyze the practice pattern of ethnic and psychological specifics research. On the other hand, we had to analyze the techniques for the leader's implementation of managerial functions.

Having analyzed the current diagnostic material, we chose the list of techniques most relevant for the research.

The conducted cross-cultural research on the impact of the ethnic psychology on specifics of managerial functions implementation, as exemplified by Russian and Kazakh managers, demonstrated the following:

Strategies of managerial functions implementation in two samples differ considerably. Kazakh managers consider as most prominent the administrative, educational and public relations functions, whereas Russian managers consider as most prominent the administrative, expert-advisory and strategic functions. Selection of strategies for implementation of administrative functions alongside with other factors is determined by strong and weak points of the manager.

The resources chosen by Russian and Kazakh managers are different and determined by the responsibility zone; Russians refer to administrative and professional resources as most prominent, and Kazakhs refer to administrative resources and personal network.

The type and direction of emotional response in frustrating situations have certain specific features: Russian managers are typically active and try to find a way out of a jam. At that, they demonstrate high degree of initiative, activity, expertise in assigning powers and ability to assign

missions to the subordinates. Kazakh managers tend to focus on the problem, not demonstrating it yet; the frustrating situation is neglected or its existence is completely denied. Activity is oriented to maintaining positive personal relations, even at the superficial level.

Background-motivational ethnic and psychological specifics of Kazakhs and Russians are manifested in professional motives hierarchy. The Russian sample obviously demonstrates the self-actualization and self-development motives, the background for realization being career and power. For Kazakh sample, higher ranking are the power, status and social motives realized through the official position, authority and communication. Predominant needs both with Kazakhs and Russians are met within the framework of significant managerial functions.

Favored mechanisms of managerial functions implementation are embodied in the prevailing types of interaction and behavior. Thus, Russian leaders are characterized by activity, professional expertise and self-development; independence in taking decisions, non-conformity, precise planning and control demonstrated in the initiative type of behavior. Kazakh leaders are characterized with a tendency to cooperation, delegation of authority, participative style of taking decisions, high-profile status, and officiality expressed in the executive type of behavior. Integral characteristics of the identified styles of managerial functions implementation allow specifying them as ego-professional for Russian managers and ego-humanistic for Kazakh managers.

For the benefits of the research gains localization and with a view of collecting most significant data, most representative elements characterizing research subject in most comprehensive way, have been analyzed first. These representative elements allowed determining the techniques used in the research.

The empirical study was conducted within the framework of cross-cultural ethnical and psychological research focused mainly on the ethnic specifics of selected mental measures manifestation with respondents of different ethnicity. A specially selected complex of individual and social-psychological techniques and purposefully elaborated system of experimental measurements adjusted to their perception by respondents served that purpose.

The research was conducted in the city of Ust-Kamenogorsk, Kazakhstan, from 2004 till 2010. Its principal part took place in 2006.

The research embraced 428 middle managers, males, aged 28-56. In compliance with the goal and tasks of the research, the sample was divided into two groups according to their ethnic background, Kazakh managers made a group of 252, and Russian managers, a group of 175 participants. The research was conducted on the basis of metallurgical industry enterprises of East Kazakhstan.

Reliability of the findings was provided by the author's initial methodological principles; verification of the general theory by means of correlating it with the findings; application of the verified research techniques; usage of the complex of standard reliable techniques of ethnic and psychological research, relevant to its goals and tasks; representativeness of sample; conducting additional research and comparing it with the situations modeled; comparing the findings with findings of other authors.

Principal positions and research findings have received practical approval and have been implemented at the JSC Ust-Kamenogorsk Titanium and Magnesium Plant.

Further prospective directions of the relevant investigations within the framework of the given problem may be as follows:

Investigation of the ethnic psychology impact on the implementation of managerial functions within mono- and poly-ethnic collective bodies;

Elaboration of practical guidance for business communication aimed at representatives of other ethnic groups;

Identification of most efficient ways and means of professional education and development for Kazakh and Russian managers, with consideration of their ethnic and psychological specific features.

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INVESTIGATION OF DIFFUSION MECHANISMS IN IDEAL TWO-DIMENSIONAL BLOCKS OF DEFECT-FREE CRYSTALS Ni, Ni3Al and Al BY COMPUTER MODELING METHOD

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The main result of the phenomenon of diffusion is the mass transfer, i.e. thermally activated movement of atoms in the crystal lattice. In real crystals, the diffusion processes are affected by the presence of defects of the crystal lattice, such as vacancies, dislocations, dislocation loops, stacking faults, phase boundaries, block boundaries and grains [1]. The presence of imperfections should affect the activation temperature of diffusion. Obviously, in each case of imperfections some mechanism or set of mechanisms must exist, which would create conditions for thermally activated mass transport. One of the major factors affecting the diffusion processes and therefore such parameters as the rate of atom diffusion, diffusion coefficient, the diffusion activation energy, is the presence of local free volumes in the crystals, which may occur near the various types of defects of the crystal lattice.

Real experiments allow us to study diffusion in metals and alloys, as a rule, by initial and final states of the structure, which gives only an indirect picture of the various mechanisms of diffusion.

For a visual and more detailed study of the mechanisms of diffusion is now more intensively used computer modeling to track the trajectory of atoms, and receive a detailed picture of individual diffusion mechanisms taken in dynamics [2-5]. This method is in addition to the known experimental and theoretical research methods, often acting as a liaison between the two. The computer model can serve as a means of testing theoretical insights and, conversely, to explain or predict phenomena not previously lit in theory and experiment to the full.

As a method of computer modeling the method of molecular dynamics was chosen. Its main advantages over other methods of computer modeling as applied to condensed matter physics lie in the fact that the atoms in it are not tied to nodes of the ideal crystal lattice, which allows one to model the phenomena associated with de-crystallization of the structure and the displacement of atoms. The choice of the two-dimensional model is justified, first of all, because in tridimensional crystals diffusion processes are implemented along the close-packed directions, which are located in the planes{111} of the face-centered cubic (FCC) lattice. At the same time, according to the author [6], a simple model has its advantages: the simpler the model, the less the possibility of erroneous conclusions. Depending on the task a computer experiment can be simplified by using a sequence of different approaches to the study of materials, ranging from simple two-dimensional systems with the transition to two-dimensional layered systems, and then to three-dimensional structures.

Two-dimensional crystal is like a sweep of such planes in tridimensional material. Such structures are realized in nano-structured thin-covered materials, which recently received more and more increasing attention due to their possible use as intelligent materials with new properties. The experiments were carried out using the program [7].

Outside the designed-basis block crystal is repeated with periodic boundary conditions. Then, using the method of molecular dynamics a computer experiment takes place. The molecular dynamics

method is that, by using Newton's equations for the motion, and knowing the strength of interaction, velocity of the particles and their displacement with a small step of integration is calculated. The interaction between the atoms in the crystal is given by the respective functions of the Morse potential, the parameters of which were calculated from experimental data of overall modulus, sublimation energy and lattice parameter [8].

$$j(r) = D \cdot b \cdot e^{-a \cdot r}\left[b \cdot e^{-a \cdot r} - 2\right], \quad (1)$$

where r - the distance between the atoms;
λ, β, D - experimental parameters.

In this method limits of the amount of the design cell were about 10^3-10^6 atoms. From the macroscopic point of view, it is extremely small. So that the results can be extended to macro-volume, boundary conditions that allow an approximation to "stitch" the design cell to the outside volume were put on a design-biased block.

Preliminary (primary) relaxation was performed using the method of molecular dynamics. The initial rates of atomic vibrations were set equal to zero, corresponding to an initial temperature of 0 K. During relaxation the cell temperature increased and reached the level at which there was stabilization of the kinetic energy, and the temperature rise stopped. After stabilization of the temperature the cell was subjected to ultra-fast cooling. All the atoms' rates were periodically leveled to zero (when oscillations of kinetic energy reached the maximum) as long as the atoms occupied the positions of equilibrium, and an increase in temperature associated with relaxation phenomena could no longer be observed. When starting the main experiment it was believed that the established structure of the designed cell is stable at temperatures close to absolute zero.

The paper evaluated the diffusion parameters of the main components that make up the composite structure under study.

The stability of interfaces in a composite material on the processes of thermal activation depends directly on the diffusion characteristics of individual components. The beginning of diffusion processes is associated with the emergence of self-organized collective displacements of atoms, leading to structural changes in the material. The emergence of collective atomic displacements from chaos, corresponding to dynamic vibrations of atoms is random. The probability of this state depends on the time of the computer experiment during which the material is held at a given temperature. With the increase in the length of time of the computer experiment random events turn into the state of certain statistical regularities. However, in solving a number of problems the main parameter of the study is to detect primary change in the system. In such cases, the time can be restricted to a small interval for impulse heating of the system up to a certain temperature.

For ideal two-dimensional blocks of defect-free crystals, Ni, Ni_3Al and Al onset temperature diffusion processes were found to be 1920K, 1700K and 1150K, respectively, much higher than the melting temperature of these materials.

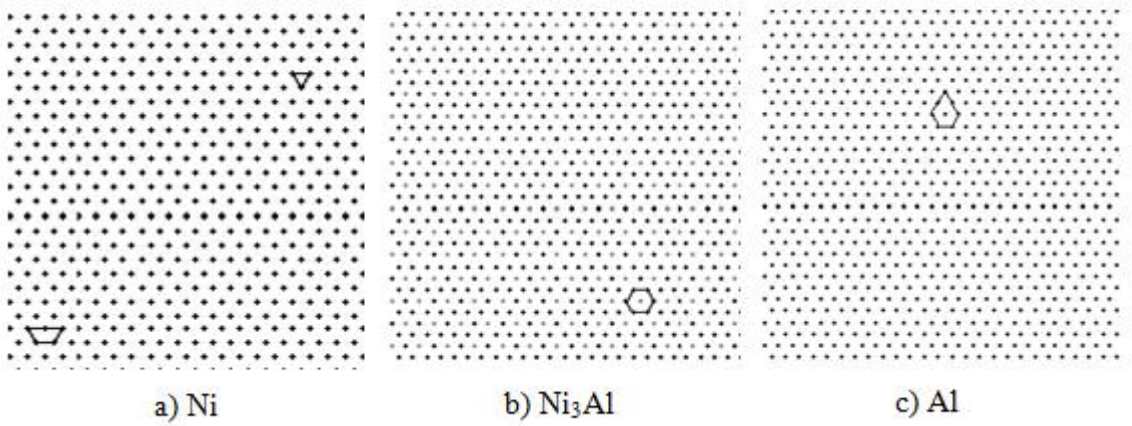


Figure 1. Atomic displacements in ideal defect-free two-dimensional blocks of crystals a) Ni; b) Ni_3Al; c) Al

In all cases at first stages the ring mechanism of atom diffusion in triangles, quadrilaterals, pentagons and hexagons of the nearest neighbors could be observed (Fig. 1a, b, c). In this case, there was the mass transfer of the material, but structural changes in the system did not occur. In inter-metallic compound, migrations of Ni-atoms, on sub-lattice Ni correspond to the diffusion ring mechanism in hexagon of the nearest neighbors (Fig. 1 b), which does not result in the violation of order in the system. With the increasing of temperature, movements of atoms by circular trajectories, when Frenkel pair appears and annihilates in the system, are added to the given diffusion mechanisms. If there is no annihilation of Frenkel pairs, the trajectory of movements is a broken line, at the ends of which there is a Frenkel pair - vacancy and interstitial atom (Fig. 2a). The diffusion coefficient of this dramatically increases (1,642 10^{-11} m^2/s). In inter-metallic compound Ni_3Al such processes create disorder areas in which there may be observed buds and clusters of new phases of the system Ni - Al (Fig. 2 b).

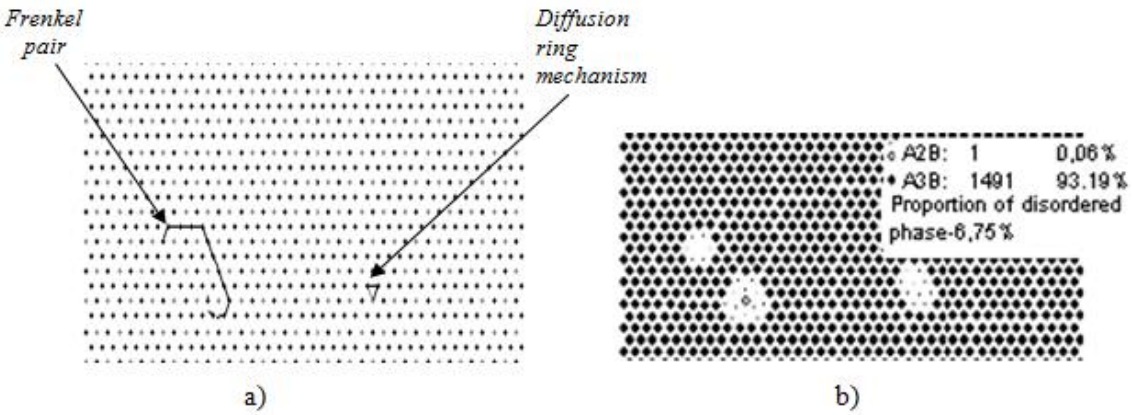


Figure 2. Atomic displacements (a), phase composition (b) under pulsed heating of the crystal Ni_3Al to 1800K

It is enough just to introduce the vacancy as the temperature of the onset of diffusion processes is reduced drastically to 1600K, 1500K, 800K for Ni, Ni_3Al and Al, respectively. This is below the melting temperature. The main mechanisms of diffusion in this case are the crowdions mechanism, and the movement of atoms

along the broken line by the vacancy mechanism. When approaching the melting point again, to the two above-mentioned mechanisms of migration, the mechanism of forming and annihilation of Frenkel pairs is added. In this case, the paths of the moving atoms have a larger extent and are closed lines if Frenkel pairs annihilate. When annihilation in computer experiment did not occur, visualizers showed the presence of Frenkel pairs. In all materials investigated the total energy of the crystal after the procedure to quench 0K increases, when Frenkel pairs are saved, and decreases after the completion of their annihilation. In inter-metallic compound, the total energy of the crystal increases due to the presence of the accompanying diffusion process of the superstructure destruction.

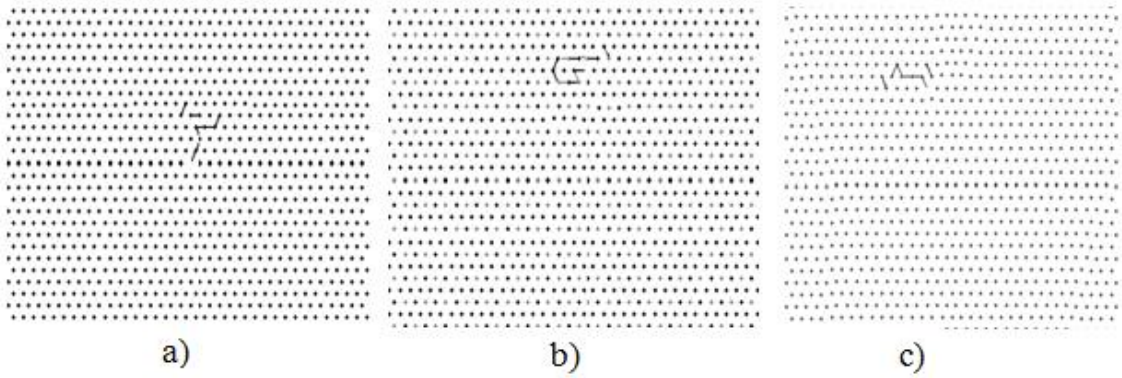
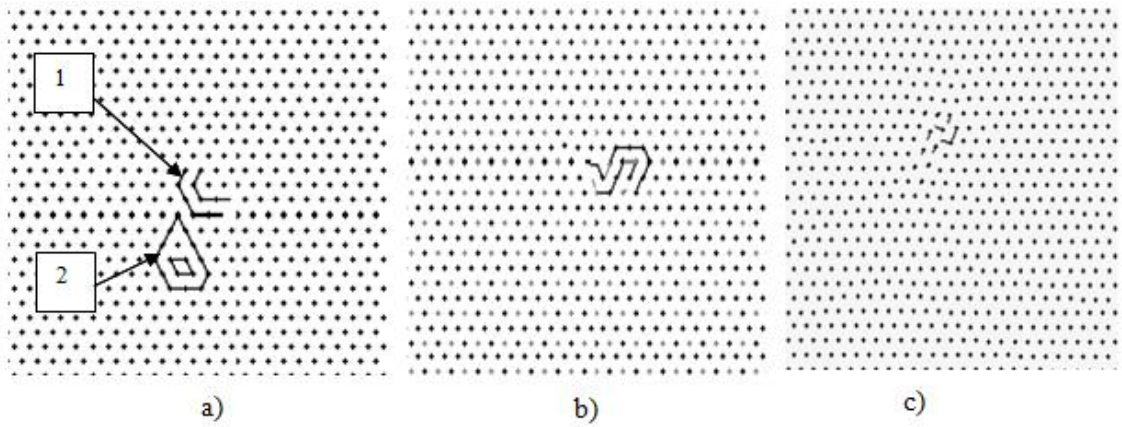


Figure 3. Atomic displacements after a) introducing vacancy into crystal Ni; b) introducing vacancy into crystal Ni_3Al; c) introducing vacancy into crystal Al

Introduction of a bi-vacancy into the crystal lattice causes a decrease of critical temperature of the diffusion process onset to the level of 950K (D=0,882 10^{-11} m^2/s), 900K(D=0,814 10^{-11} m^2/s) and 250K (D=0,915 10^{-11} m^2/s) for Ni, Ni_3Al и Al, respectively (Fig. 4a).



1 - Migration of bi-vacancy in a broken path, 2 - Frenkel pair

Figure 4. Atomic displacements after introducing the bi-vacancy into a crystal a) Ni; b) Ni_3Al; c) Al

The main mechanisms of diffusion in this case are either migrating of bi-vacancies in a broken path or bi-vacancies transformation into a complex consisting of an interstitial atom and three closely spaced vacancies, subsequent recovery of

the bi-vacancies from the complex after the hardening process. In the alloy Ni_3Al, the complex creates a region of disorder during migration process.

With the increasing of the time for the computer experiment, the difference in the distribution of the trajectories of atomic displacements within the units of the crystal under study is due to the fact that the investigated processes develop at random, so their own elements of diffusion of atoms in the crystal at the discrete time interval of pulse heating begin to develop.

Thus, the main diffusion mechanisms are crowdions, collective movement of atoms along closed paths, mechanism for moving the interstitial atom along a closed path to annihilation with a vacancy in the dynamic formation of Frenkel pair and transformation of bi-vacancies into complex.

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THE PARTICULARITY OF AgCu 92.5 ALLOY PRODUCTION TECHNOLOGY AT KAZAKHSTAN MINT

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The History of Kazakhstan Mint (hereafter KM) dates back to November 13, 1992; when the first sovereign Kazakhstan's coin was minted. Kazakhstan Mint owns its birth to independence and sovereignty of Kazakhstan, as the national currency is of the attributes of statehood in any country.

Since 1996 the KM has developed the technology to produce "proof" quality coins of silver-copper alloy (AgCu 92.5), which is the top of monetary art. The result of this long-term work was the release of the "Millennium" coin in December 1999.

The problems caused by defects in the surface of precious metals products concern the producers of these high-priced products, as these defects not only increase the products' cost and reduce the profitability of production, but also lower the company's competitive capacity in the market economy.

These problems were in the spotlight at the 24th MINT DIRECTORS CONFERENCE held in Paris in May, 2006.

Several reports on the analysis of precious metals products surface defects were made at the technical section of the conference. An overview report [1] on the surface defects was presented; it contained the results of defects study carried out at 18 mints.

The report presented the classification of surface defects of the "proof"-quality coins such as floating fibers, excessive grain size, orange peel, cross contamination, blisters, tarnish, stains, peck marks, inclusions, struck in debris, stardust.

Many silver alloy compositions are known. Some of them are used for jewelry and flatware, while others are used in brazing compositions and as electrical conductors. Due to this silver alloys are of interest to manufacturers in the whole world [2-6].

A large number of products are made from the AgCu 92.5 alloy at KM. Minimizing the "proof" production defects is a large cost saving reserve. The defects of AgCu 92.5 alloy coin blanks and finished products caused by inclusions and porosity are one of the main types of defects.

The increasing demand for "proof"-quality finished products requires the optimization of production scheme. KM carries out research on technological improvement of "proof" quality coins production in cooperation with D. Serikbayev EKSTU experts.

Experimental procedure

We used two AgCu 92.5 alloy samples for our research: ingot 97/1 obtained by induction melting, continuous horizontal casting into a water-cooled kokille; the other sample, ingot Sh-139 was obtained by melting in an electric furnace and cast into a steel mold.

The obtained samples quality evaluation was performed with nondestructive evaluation (NDE): eddy-current testing, ultrasonic inspection, fluoroscopy and radiographic analysis. However, these methods were not effective for the detection of internal defects smaller than 3 mm.

We developed the procedure of AgCu 92.5 alloy quantitative metallography for its quality attestation (hereafter

MMA). According to this procedure, we made microslices from the samples. The evaluation of the sample's surface contamination for inclusions was done with an optical microscope "Axiovert 200 MAT. Zeiss", and a scanning electron microscope (SEM). The sample's metal was given a quality rating based on the evaluation results.

The presence of gas porosity in the samples was measured by fracture test.

After studying the defects' morphological peculiarities we studied the elemental composition of the inclusions with a scanning electron microscope microanalyzer ISM 5610.

The final quality evaluation of the AgCu 92.5 alloy was minting of the "proof" quality coins.

The Results and Discussion

Our research revealed that AgCu 92.5 alloy products manufactured at KM contain foreign inclusions of ferric oxide, silicon oxide, and complex oxides of aluminum, magnesium, and calcium. The inclusions are located on the alloy surface and often in a subsurface layer. These inclusions virtually always contain carbon. Polishing of blanks removes some of these inclusions as a part of the surface layer is taken off, but the defects in the subsurface layer are exposed. Similar processes take place as a result of motion of the metal caused by plastic deformation during minting. Foreign defects located on the surface disable embossing die and scratch the mirror surface of minted coins. We also found that there are three types of inclusions: "black", "gray" and "light" ones.

The examination of the received results showed that the "black" inclusions contain mostly carbon 82 % (mass). The source of theses inclusions is corrosion graphite mixer, crucible and coal.

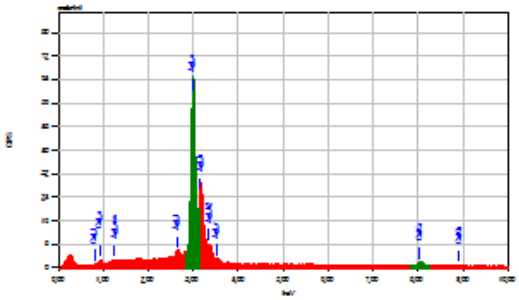
In addition to the increased carbon content the "gray" inclusions contains oxygen up to 27 % (mass) and traces of Al, Si, Na which could get there as a result of a slight erosion of clay graphite crucible, Al_2O_3 top isolation.

Oxygen is the main component of the "light" inclusions; its content is up to 36 % (mass) at the high carbon content.

Examination of the gas porosity didn't reveal any macroscopic porosity in ingot 97/1 samples. The presence of gas blister larger than 300 micron on the fracture of ingot Sh-139 is associated with the capture of the air in a steel casting mold.

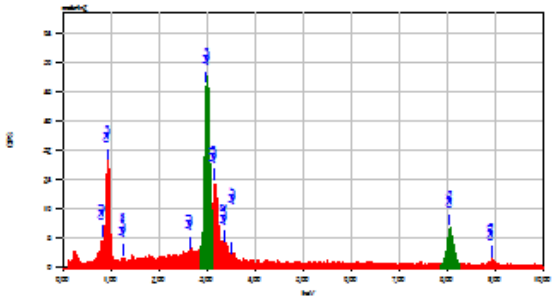
The results of the "proof" quality coins minting showed that samples of AgCu 92.5 alloy coin blanks which have quality rating no higher than R-2 (by the metallographic analysis of AgCu 92.5 alloy) do not have defects of inclusions and porosity after minting.

Microstructure studies have shown that the structure of the alloy at room temperature is heterogeneous and consists of two phases: solid solutions based on silver and copper. These phases have a significant difference in chemical composition. Micro Roentgen-spectral analysis of these areas showed that the silver content in the light areas is 96-97 mass.%. In the dark areas it is 67 mass.% (Fig. 1). This submicroscopic liquation is only detected at the etching of polished sections.



Element (keV)		mass%
Cu K	8.040	**3.88**
Ag L	2.983	**96.12**
Total		100.00

A)



Element (keV)		mass%
Cu K	8.040	**30.14**
Ag L	2.983	**69.86**
Total		100.00

B)

Figure 1 - X-ray spectrum and elemental composition of solid solutions based on silver (A) and Cu (B)

AgCu 92.5 alloy structural and chemical micro heterogeneity (microliquation) is due to the limited solubility of copper in silver. Below 700° C, the separation of β-phase, which is a solid solution of silver in copper, occurs.

Further studies of structural heterogeneity showed that enlarged β-phase areas often form around the inclusions. Such defects were assigned to endogenous inclusions, i.e. inherent to the technology, the equipment design, the materials of casting equipment (Fig. 2, Table 1).

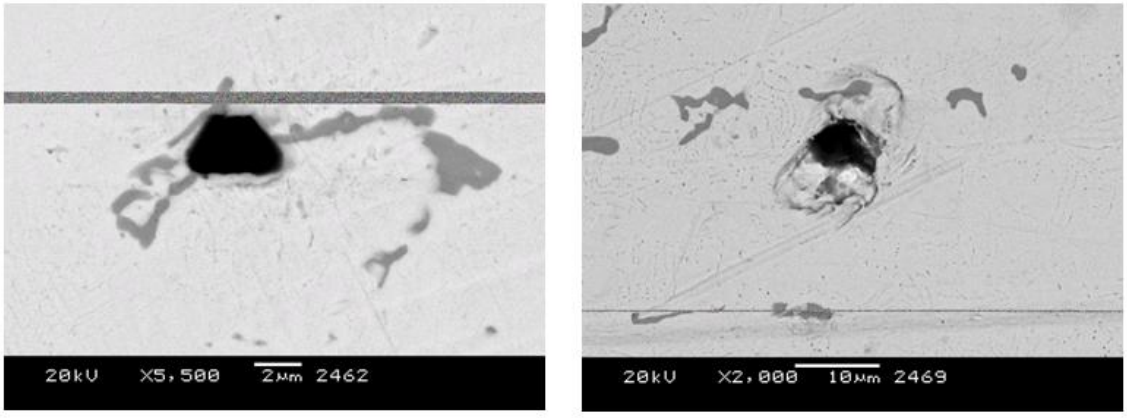


Figure 2 - Endogenous "carbon oxide" inclusions in AgCu 92.5 alloy

Table 1 – The chemical composition of endogenous inclusions at. %

№	C	O	Ag	Cu	Si	Al	Na	Mg
1	97.32	-	1.81	0.86	-	-	-	-
2	66.68	21.49	7.99	0.66	0.85	-	2.23	-
3	56.92	29.05	12.24	1.79	-	-	-	-
4	37.26	30.07	25.76	2.47	-	-	4.44	-
5	28.80	44.58	7.58	6.46	8.95	3.63	-	-
6	28.63	53.57	9.43	0.44	3.28	2.15	-	2.5

The basis of endogenous inclusions is carbon, oxygen, as well as silicon, aluminum, sodium, and magnesium. From the analysis of the elemental composition of the inclusions it can be assumed that they are microparticles (up to 30 mkm), formed by the erosion of the clay graphite crucible, around which a copper-rich zone forms.

The results indicate that despite the “deoxidation” of the alloy during smelting and the low content of oxygen in the alloy (less than 0.002%) there are micro volumes with the oxygen content up to 54 at%.

The values of their high oxygen content exceed the values required for the formation of Al, Si, Cu oxides. This suggests that much of the dissolved oxygen and carbon is in the form of CO ligands soluble in silver [9].

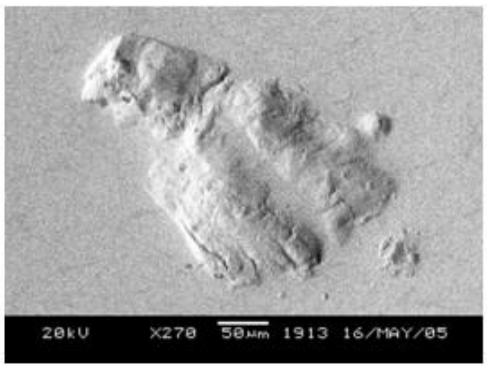
The carbon which is present in the clusters may participate in the processes of deoxidation and is a reducing agent for the copper oxide with the formation of carbon monoxide:

$$Cu_2O + C = Cu + CO$$

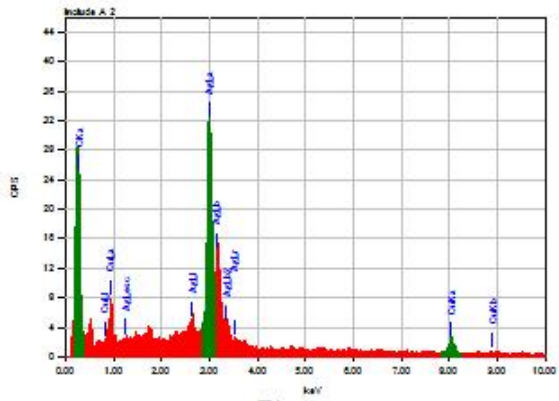
Areas enriched with CO and local accumulations of gas may appear in the areas of endogenous clusters. Besides, during the subsequent hydrogen annealing by the known mechanism of "hydrogen disease" [7, 8], the molecules of water formed in the alloy can react with carbon monoxide, which intensifies the formation of gas porosity:

$$CO + H_2O = CO_2 + H_2$$

Sometimes during polishing preparations such defects as "peck marks" appear in the microrelief irregularities where the remains of the high content of carbon and copper are detected (Fig. 3). These "peck marks", apparently appear as a result of treatment of clusters and gas micropores in the surface finishing.



A)



B)

Element	(keV)	mass%	Error%	At%	Compound	mass%K
C K	0.277	**40.56**	0.22	85.04		29.7593
Cu K	8.040	**6.68**	1.33	2.65		7.8601
Ag L	2.983	**52.76**	0.63	12.31		62.3806
Total		100.00		100.00		

C)

Figure 3 - Electronic image of "peck marks" in the polished section in reflected electrons (A), X-ray spectrum (B), the elemental composition of the inclusion (C)

Thus, the detected clusters can be the cause of the "peck marks" in the polished surface of the product. But it remained unclear why this phenomenon occurs sporadically.

We assessed the crucible erosion (on the alloy "contamination"), according to its operating time.

The results of the assessment of the alloy "contamination" (according to MMA) are shown in Fig. 4.

The received results show that the alloy “contamination” by endogenous clusters increases with the crucible operating time. At that, the inclusions become larger from 15 to 30 micrometers (Fig. 5), which means the sizes of the clusters and areas enriched in oxygen and carbon increase, as well as the probability of occurrence of the “peck marks" defects during polishing.

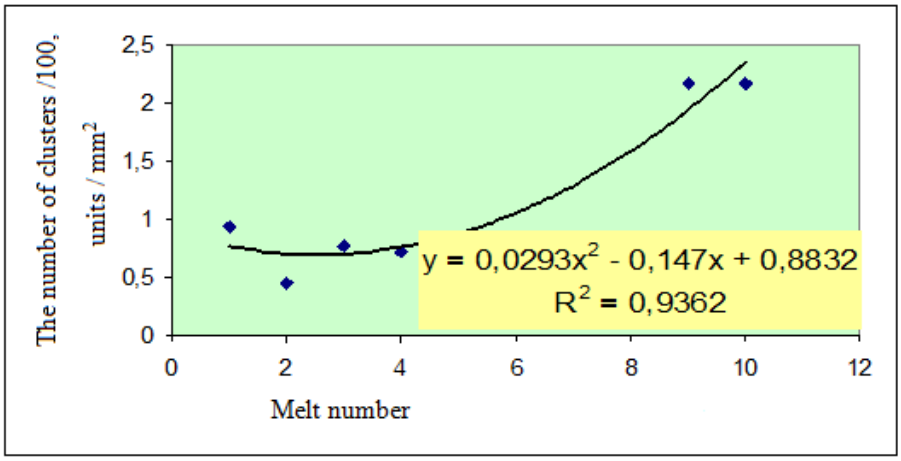


Figure 4 - The relationship between the alloy “contamination” and the operating time of the crucible

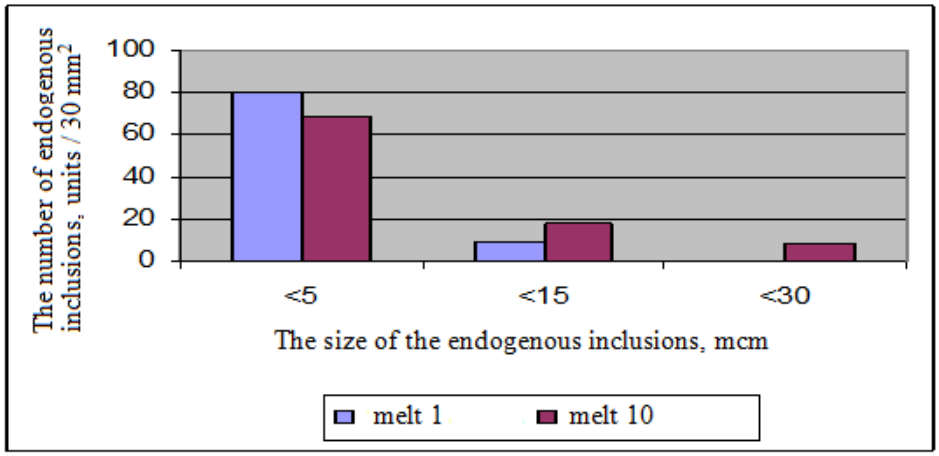


Figure 5 – The structure of the alloy "contamination" of the 1st and the10th casting work

Conclusion

The research has revealed that foreign inclusions in AgCu 92.5 alloy produced at KM can be of exogenous and indigenous nature.

Some of the inclusions get into the metal from the outside: with the source melting stock, during plastic deformation, heat treatment, polishing, etc. from the industrial atmosphere. These are exogenous inclusions. The other part of inclusions is obviously of metallurgical nature. They are produced by physicochemical interaction of the melt and the melting crucible, casting tool set materials and atmosphere inside crucible. Such inclusions are indigenous. These inclusions are formed by the erosion of the clay graphite crucible,

they increase the alloy “contamination” as the crucible operating time increases. Gas microporosity localizes in the cluster area as the result of carbon deoxidizing reaction.

When the sizes of the inclusions reach critical values (with the long term of the crucible use or in case of nonoptimal glazing), the formation of gas macroporosity and the “peck marks" defects in the blanks’ polished surface is possible.

The methods of nondestructive evaluation (NDE) of AgCu 92.5 alloy proved to be not effective for the diagnosis of defects smaller than 3 mm.

The developed method of AgCu 92.5 alloy metallographic analysis allows making a valid and prompt evaluation of the metal’s quality and forecasting the amount of defective goods at “proof” quality coins minting.

Continuous horizontal casting of AgCu 92.5 alloy partially excludes the possibility of macro shrinkage. It prevents the swelling of the metal caused by hydrogen disease at annealing in protective atmosphere.

The metal’s quality rating no higher than R-2 (by the metallographic analysis of AgCu 92.5 alloy) doesn’t lead to defects in “proof” quality goods like foreign inclusions or porosity.

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REMOTE ACCESS TECHNOLOGY TO THE ENTERPRISE INFORMATION SYSTEM VIA A VIRTUAL PRIVATE NETWORK (VPN) AND THE OF REGULATIONS CERTIFICATION

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The information system of the modern enterprise has developed a client-server architecture that provides the necessary information for the different categories of users. This system not only collects, updates, gives you important information for it to work, but also involves the user in the use of various technologies to work with information, develops standards of behavior of the network, forming an active subject of his system. In this case, instead of mandatory requirements of a secure network connection to the user is guaranteed confidentiality, integrity, dedicated to his information.

Previously, for secure data transmission need to mark a line that links two points. Cost of organizing such lines are quite large. VPN gives users a secure way to access the corporate network through the Internet or other public or private networks (VPN) without the need for a dedicated line. Usually, VPN (Virtual Private Network-VPN) deployed at levels no higher power, as the use of cryptography at these levels can be used unchanged in transport protocols. At the appropriate level to implement and use special software VPN network can provide a high level of encryption of the information. When properly configured, all the components of VPN technology provides anonymity on the web. VPN technology in recent years is not only used to create your own private network, but some providers for the provision of Internet access.

VPN consists of two parts: the "internal" (controlled) network, which may be several, and the "external" network, which forms the encapsulated compounds (usually the Internet). You can also connect to a virtual network a single computer. Connecting to a remote user VPN is through an access server, which is connected to both the internal and the external (public) network. When a remote user (or when connecting to another secure network) access server requires the passage of the identification process, and then the authentication process. After successful completion of both processes, the remote user (remote system) has the authority to work on the network, that is, the process of authorization.

Using a (VPN) can solve the following applications:

• Virtual private network between organizations;

• The mobile user;

• User SOHO.

Picture 1 - Users and propagation method VPN

For users SMB / SOHO (Small Business / Small Office / Home Office):

• Cost-effectiveness

• A complete solution for commercial use

For remote users:

• Integrated security solution

• No need for additional software

• Easy configuration

For corporate users:

• Cost-effective solution for remote users and branch offices

• Compatible with the decisions of the majority of solution providers for virtual private networks.

At present virtual private networks, are recommended for the management of quality communication services and improve service to users of communications services. In order to reach general population and public organizations, public PKI AIC together with JSC "National Information Technologies" created the National Certification Authority (NCA). Connection Registration Authority (RA) users with NCA secured through VPN.

The end of 2009 "Kazakhtelecom" together with Cisco and AMT Group have announced the launch of the operation of IP-NGN-based optical networking solutions Cisco. This solution enables us to provide new services to businesses and demanding home users. These services include high-speed Internet access with integrated voice, video and data services, virtual private networks (VPN) for corporate users to virtual video conferencing using the technology of Cisco Tele Presence. In accordance with the Strategic Plan of the Ministry of Communications and Information for 2011-2015 performance of a direct result of the budget program highlighted the number of facilities needed to provide network VPN (2010r.-941, 2014g.-1500).

It should be noted the importance of the certification procedure - as proof of the remote user access to the virtual network. Certificate issued by a certificate authority, meets the quality standards in order to ascertain the identity, encrypts messages and performs other actions related to security in the network. Regulation of a remote access through certification process includes the certificate was issued by a CA company, the process of accessing and reissue and revoke certificates. Computer support for remote access is provided through a special program VPNClient-v.5.0.07.0290, service support - OS NT 4.0 SP4 or higher, Internet Explorer, archives. Cryptographic support is provided through RSA and AES, SHA-1 hashing.

Let us consider in more detail regulation indicated access. The process of issuing certificates of the issuing CA includes the steps of:

1. Certificate to connect to the corporate network is issued based on an office memo. The memo indicates the reason for providing access, then the network resources or services that will be used.

2. To issue certificates employee a memo must pass approval and approval:

- Signature of a certificate request to access

- Signature of immediate supervisor the employee who requested the certificate for access

- Signature of company

3. To issue certificates employee third party requires formal security clearance company. Only on the basis of this document may be memo to provide remote access. After that memo must pass approval and the approval referred to in paragraph 2.

4. After agreements and approvals an office memo employee company formed a certificate request to connect to the network from the issuing CA. Depending on the task certificates can be issued for the period:

- 1 year

- 1 month

- 1 week

Validity of the certificate specified in coordination an office memo.

5. On the basis of the approved an office memo employee who is responsible for publishing the CA approves the request for a certificate. If an employee who requested the certificate, there is an account in the domain, the competent person responsible for the domain is added to a domain account the employee who requested the certificate to the group «VPNUSers» for additional authentication when connecting to the network. If you have an account, it starts and also added to the group.

6. Employee archives certificates with a password to access:

- Certificate for connection to the user (with a password)
- Root public certificate of the issuing CA
- Manual user

7. Employee of the enterprise on the basis of agreements and approvals an office memo transmission archive holds an explanation about the person responsible, a certificate request to access, then passes the archive certificates and password on it. Based on the issued certificate will describe the process remote user inputs to the enterprise network. The remote user must have:

- Connecting to the Internet;
- Installed software such as, «VPN Client»;
- The root certificate with a public key;
- Personal certificate with a private key;
- Username and password for authentication.

Fur there mote user:

1. Establishes a stable connection to the Internet.

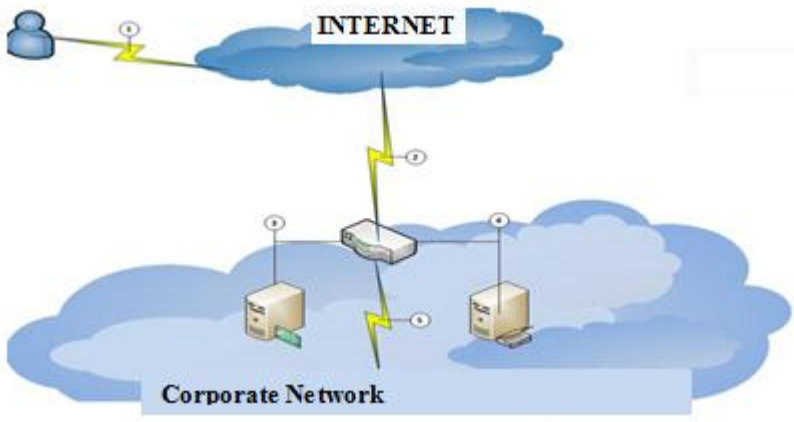
2. After a pre-configured software connects the hardware authentication.

3. Hardware authentication checks:

3.1. Certificate is signed by the issuing CA;

3.2. Actual whether the user certificate;

3.3. Certificate revocation user.



Picture 2 - Regulation of remote access to the corporate network

Then hardware authentication requests login and password from the remote user. A remote user enters his famous name and password.

4. Hardware authentication checks:

4.1. Actual whether the login and password

4.2. Actual user account

4.3. Is the account in the group «VPNUS»

5. It then sets a stable connection to the remote user's corporate enterprise network via the Internet. And time, for the session, the remote user is assigned IP-

address.

Reissue remote user certificate on the expiry of the issued certificate to connect to the enterprise network to the user submits a memo like the "Process of getting a certificates of the issuing CA."

The certificate may be recalled in the following cases:

1. In case of dismissal or transfer of an employee who requested the certificate

2. In the case of fixed compromised certificate authorized officer of the company. In the presence of an active session, the session is disconnected. Further prepared memo to the head of the company specifying the facts of compromise.

3. In the case of a request from the chief of the disabled employee who requested the certificate.

4. If you specify a termination date in the memo on the issue of the certificate, the issuing CA.

In case of revocation of a certificate issued by an authorized employee responsible for issuing CA certificates must manually update the certificate revocation lists and report to the authorized person responsible for the equipment connected. In case of necessity to block the remote user account. After the authorized person responsible for the device connection must check CRLs to prevent unauthorized access.

Known protocols to build VPN-tunnel:

- PPTP;
- L2TP;
- IPSec;
- SSL.

In the present group of records of certain interest is the family of IPS (IP Security) - a set of protocols addressing issues of data protection when transporting IP-packets. IPS VPN is best for connecting networks of different offices over the Internet. You can install VPN-connection protocol IPS. IPS also includes protocols for secure key exchange in the Internet. IPS protocols operate at the network layer (layer 3 model OSI). Internet-protocol (IP) has no means of data protection. He can not even guarantee that the sender is exactly who he says he is. IPS is an attempt to correct the situation. When using IPS all traffic can be protected before transmission over the network. When using IPS recipient can trace the source of the packet and ensure data integrity.

Thus, a combination of tunneling and encryption allows for such an important in today protectant such as virtual private networks. Such networks, usually superimposed over the Internet is much cheaper and safer than their own corporate network, built on a dedicated channel. Modern protocols to support classes of service, will help ensure virtual private network defined bandwidth, latencies, thus eliminating the advantage of their own networks.

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SOME PROBLEMS OF DISTANCE LEARNING TECHNOLOGY APPLICATION AT THE UNIVERSITY

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In the modern system of higher education there is a gradual displacement of the traditional paradigm, based on passive assimilation of knowledge and upbringing of "a cognizant person", to a new model of education, which is based on the principle of forming "an intellectual person", capable to creativity and self-improvement. However, the solution of such a priority task is possible only in case of introduction of innovative technologies into the system of higher education.

Introduction of innovations into the system of education, according to G. V. Lavrentyev, N. V. Lavrentyeva, can be carried out at the following levels:

- macro level, which entails changing the whole educational system and in the majority of cases leads to paradigm change;
- mesa level - leads to changes in the educational environment of the region, as well as the specific educational institution;
- micro level attracts changes in a specific course or block of subjects or courses [1].

However, no matter at what level the innovation is implemented, thorough organization and monitoring of the innovation process implementation and also the observance of the following steps and procedures are necessary:

- theoretical - justification of innovation (functionality in the overall concept of the university, the allocation and implementation of pedagogical, methodological, technological conditions, ensuring efficiency of the process, prognosis of negative and positive outcomes of an innovation);
- organizational - establishment of appropriate structures at the university, which contributes to innovation application;
- innovation – creation of material and technical basis, information and educational environment of the higher education institution, professional development of teaching staff.

In our view, innovation technology in the system of higher education is the technology of creation of a new or existing product on the basis of contemporary methods and techniques of teaching and learning aimed at improving the quality of specialists training and activization of the role of independent work of students.

Innovation in institutes of higher education is, first of all, transformation of new knowledge into new technologies. Distance learning is one that stands out among innovation techniques which have been widely applied into the practice of modern universities. Intensifying processes of distance learning implementation into the higher education system is dictated by the objective circumstances:

- the loss of significance and stagnancy of some traditional distance learning approaches;
- implementation of competence approach in education;
- the dynamics of social, economic processes taking place in a modern society, etc.

Analyzing points of view of various scientists (A. Andreyev, G.K. Nurgaliyeva, D.M. Dzhusubaliyeva, A.T. Chaklikova, I.V. Robert, E.S. Polat, E.G Skibitskiy, etc.) concerning the essence of the notion "distance learning", it should be mentioned that this term is defined by re-

searchers as “a new form of teaching”, “method”, “process”, “system”, “away”. We relate this notion to off-campus education programs and define it as technology based on IT means, providing interaction of subjects and management of the learning process [2]. The following can be referred to positive aspects of distance learning:

- accessibility - everyone who is at least 18 years old has the right to receive an education;

- flexibility - each student selects an individual pace of studying and individual training strategy, focusing on the final objective; student can also work wherever and whenever it is convenient for him (her), the educational process is subdivided into modules (each week devoted to a certain theme, and exercises for compulsory studying) division into modules creates unlimited opportunities for organization of training programmers and their update;

- cost-effectiveness - distance learning is at least 50% below the cost of full-time tuition;

- individualization of learning - taking into account individual needs of each student, providing individual interaction between the teacher (a tutor) and the student, opportunities to learn outside the classroom and without a group.

It should be noted that the technological features of distance learning have a major impact not only on the selection of content but also on structuring of the training material. The educational process in the form of distance learning is more labor-intensive and multifaceted than in full-time studying.

However, there are certain peculiarities of distance learning application - that must be taken into account when students are selected, course content is developed, and monitoring of students’ knowledge and skills is organized:

- at all stages of the learning process IT and mass media means are used as technological basis;

- interaction between all subjects of educational process (between teachers and students, between students, between institution of higher education and students) is ensured by means of Information and Communication Technologies (hereinafter - ICT);

- students needn’t leave their town and can study the content of the courses individually in the convenient pace;

- the new role of a teacher as a tutor includes coordination, correction, guiding learning process, advising and monitoring the quality of knowledge;

- specialized monitoring of quality of education: a distantly organized exam, an interview, practical or project work, externship, computer, intelligence and testing systems are applied as the form of control;

- the use of new educational technologies and progressive techniques (project-based method, modular teaching, collaborative teaching, teaching at different levels, individual and differentiated approach in teaching, etc.);

- a compulsory computer literacy of all the subjects of the educational process;

- much attention should be paid to independent work of a student – a teacher develops knowledge content (lectures, assignments, a glossary, the test material, exam questions), however a student must independently learn the given content, using only individual consultations, chat rooms, text messaging, etc.

Organization of the distance learning is directly linked to the choice of its form of organization. Different organization forms of distance learning depending on the degree of ICT usage in the learning process are known in the international practice:

- traditional (by correspondence);
- combined;
- partial usage of ICT;

- fully electronic.

We should carefully examine the last two forms of learning because of their high popularity and experimental implementation in the system of off-campus courses at EKSU in honor of S. Amanzholov. In case of partial usage of information technologies a student is given didactic and methodical material in the form of cases, meanwhile some part of the material can be presented in a digital form, all the other learning materials can be uploaded to the portal of distance learning. Teacher and student interaction is done through various means of telecommunication technologies (text messaging, chat rooms, and forums).

An electronic form of studying provides such conveniences, when a student after submission of a request to his/her educational institution gets an email with didactic and methodical materials according to his/ her sphere of learning (including the downloaded material from the portal of distance learning), which he/she studies independently. Interaction of all participants of an educational process is fully implemented on the basis of the wide use of modern means of communication. This form can be applied in the regions that are fully provided with modern communication techniques.

Realizing the experimental nature of distance learning implementation, taking into account the peculiarities of the project realization, we carried out the research which was aimed at identifying common problems and difficulties that students and teachers implementing distance learning programs can come across. The survey was conducted along with observations and personal conversations, both with students and with teachers.

We received the following survey results interviewing teachers:

• 87% of the teachers were against of distance learning at the initial stages of its implementation.

• 88% of teachers indicated that the introduction of this innovation caused them certain psychological and technical inconveniences associated with reluctance to implement distance learning.

• 67%were reluctant to interact with “virtual students” and use ICT.

• 34% felt anxiety.

• 56% lacked competence in this field.

• 57% were of conventional mindset.

• 78% lacked trust in this form of teaching, outcomes of distance learning (i.e. “distance learning specialists”).

• 34% of teachers had the desire to preserve traditional course organization.

• 45% of respondents mentioned that distance learning would increase amount of unpaid work - (development of course, update, assessment of course assignments, etc.).

We also asked about the nature of difficulties and problems of students and teachers who work in the system of distance learning. We received the following answers: 78% of respondents noted the absence of “real” motivation tools, stimulation and learning management; 45% of teachers mentioned that it was time-consuming to develop content of the course and upload it to the portal; 54% of respondents had difficulties with the identification of a student (hard to determine “who fulfills” the assignments); 90% experienced loss of communication with a student (doesn’t do the assignments, doesn’t contact a teacher); 45% of teachers pointed out the specific nature of some lectures and peculiarities in specialist training and therefore the inability to “place” the content of the course into electronic “wrap”; 76% of respondents stated that they had some difficulties to determine how big the volume of uploaded information should be and also were unaware of the level of achievements, personal accomplishments of a student - 34%.

With the purpose of disciplines cor-

rection and responding adequately to emerging problems we reviewed the results of the examinations completed by distance learning students who study Educational Sciences ("Pedagogics", "History of education", "Modern educational techniques", "Educational research methods", "Ethnopedagogics", "Introduction to teaching profession", etc.). The results of expert evaluation have identified the following main students' problems:

- the lack of integrity and consistency in understanding of knowledge content;
- the lack of consistency in learning the course content;
- inability to see the connection between various pedagogical ideas, concepts, and categories;
- limited understanding of the subject knowledge (predominant reading of lectures, uploaded to the distance learning portal);
- the lack of understanding of basic pedagogical ideas, theories, concepts;
- the lack of vision of the relation between theoretical knowledge and its implementation in practice;
- the absence of self-organization and self-education skills.

The results of the teachers' survey were supported by responses of students. Students were asked whether the problem was in the organization of learning. 95% of respondents replied positively, meanwhile the nature of the difficulties varied: 45% of students related difficulties to the lack or underdevelopment of the technical base (especially in distant regions); the lack of self-organization skills was identified by 56%; the whole independence in learning subject knowledge also seemed to be a problem - 87%. 54% of interviewed mentioned that they were offered very complex tasks and tasks, where instructions were not clear; tasks requiring additional sources of information - 53%; 23% have noticed sufficient complexity of the materials of lectures; 78% of respondents indicated that the materials of the lectures were in a very contracted form, consequently students needed additional lectures and seminars to systematize acquired knowledge. We want to especially emphasize that a comparative analysis of students who previously studied in colleges and those who studied for a Bachelor's degree shows that students who hold one degree and had experience studying full-time, are having significantly less difficulties.

To summarize, we should say that analysis of teachers' and students' difficulties identified the following objective problems (technological, methodical, psychological), connected with the implementation of distance learning in higher education:

- the absence or underdevelopment of computer bases in distant regions;
- problems with adaptation to distant learning technology, because of its specificity;
- the inability to train some professions with the help of distant learning technology (Physical Education, Music, etc.) because of their peculiarities;
- poor skills of students' self-education and self-organization;
- the problem of student identification;
- psychological (passivity of a teacher);
- lack of social interaction (in the form of "live" exchange of ideas, opinions, experience);
- the problem of distance course content, etc.

The implementation of any innovation in education (in particular of distance learning) associated with the "resistance to innovation". It happens when teachers and students feel a certain psychological discomfort, generated by the nature of change; the subjects of learning do not have enough information (uncertainty and

obscurity cause anxiety), upcoming innovation implies increased amount of work or changes implemented too quickly, emphatically, in an authoritarian form, etc.

Having analyzed Ilyina N.A. research [3], my own experience in this field, the nature of typical difficulties of both students and teachers we have developed a number of guidelines that would ensure the success of innovation:

- It is necessary to diagnose the degree of readiness (psychological, technological, methodological) of the university teaching staff for innovations;

- The teaching staff should clearly know when and what will be implemented, in connection with that it is necessary to conduct a collective analysis of possible options of innovation, have clear sense of the innovation consequences;

- To follow the rules that innovations should be implemented stage by stage, this significantly reduces the risk and potential rejection of innovations;

- It will help if respectable people of the university will encourage, support the change (leading professors, professionals);

- Constantly inform the teaching staff of the university about preparation and implementation of innovations, especially about management innovations (the absence of information leads to gossips);

- To conduct psychological and organizational orientations that will prove stable, consistent and purposeful nature of innovation, allowing to progress in a constantly changing environment;

- To involve the teaching staff and auxiliary personnel working in all departments of the university in implementation of innovations. An employee, who has made a certain contribution to organizational restructuring, becomes a supporter and protector of it;

- When innovation is planned it is necessary to take into account a social risk, i.e. an action plan in a situation of uncertainty, unexpectedness. Risk is a social problem, which requires a lot of efforts and money when the amount of gains and losses is uncertain.

Thus, we believe the problems and difficulties we identified and recommendations we made to overcome them will assist in further development of distance learning technologies.

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COMPUTER SIMULATION OF TEMPERATURE PROFILES OF A TWO-LAYER SAMPLE DURING HEATING BY THE ELECTRON BEAM

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The efficiency of advanced technology of getting protective coating by means of pulsing plasma jet deposition of Ni-based powders onto steel items often falls due to the porosity of the received coatings and their poor adhesion to the substrate [1, 2]. To eliminate these disadvantages the coatings are modified by the plasma jet or electron beam [1]. The processes of diffusion and formation of new phases in materials under the influence of electron irradiation happen very quickly, the temperature being one of the main factors influencing these processes. However, the temperature measurement under irradiation conditions is difficult and unreliable. Development of a mathematical model of temperature distribution in a material depending on irradiation parameters makes it possible to assume the kind of structures and phases that form in the material during irradiation (on the basis of the received values of temperature and the known phase diagrams). Based on this model, one can choose the parameters of irradiation so as to develop sufficiently high temperatures on the boundary of the coating to the substrate to accelerate the diffusion processes in order to improve adhesion of the coating to the substrate. The sources devoted to the development of such a model [3, 4] testify the relevance of this problem, but they do not provide a comprehensive solution.

The aim of this work is to propose a model of temperature distribution in two-layer metal absorbents during irradiation by a direct current electron beam depending on the energy and beam current density; on the basis of a simulation experiment on the calculation of temperature profiles to recommend specific irradiation modes; to carry out the exposure to radiation according to these modes.

Results and Discuss

Experiment and modeling

The protective coatings with a thickness of 150 to 300 microns were formed on a substrate of quality carbon steel St3 (20x30x10 mm^3 samples) using "Impulse-6" plasma-detonation facility. They were deposited with the PG-10N-01 and PG-AN-33 (Russian standards) Ni-based powder alloys.

The irradiation of samples on the side of the surfaces according to the calculated modes was carried out in vacuum by an electron beam on "U-212" generator with an accelerating voltage of 30 kV. The scan is sawlike; the beam travel speed in the horizontal direction is 360 mm/min; the diameter of the electron beam on the sample is 10 mm; the current amperage is 20-30mA.

The need for a detailed explanation of the coating structure scheme stems from the fact that in order to develop a mathematical model of temperature distribution in the coating during irradiation we have to justify the choice of material and thickness of the irradiated layers. Resting on reliable experimental data [5-7] we proposed a layered scheme of the coating structure [8]. A thin layer (less than 5 microns) with mostly Cr oxides and carbides forms on the coating surface. Then comes the main layer of the Ni-based coating, 100-300 microns thick, then a layer of Fe (substrate), 10 000 microns thick. Because of the small thickness of the Cr layer on the surface, this layer was neglected when calculating the temperature profile during electron irradiation, and Ni-Fe double-

layer coatings irradiated from the Ni side were considered.

In order to formulate the problem of describing the heating of the coated sample by a moving electron beam as a boundary problem of heat conductivity theory, it is necessary to specify the density of heat sources in a composite solid body. Since the thickness of the coating layer in which the electron beam is almost completely absorbed is very small compared to the thickness of the coating, and we are interested primarily in the temperature field at the boundary surface between the coating and the substrate, we simulate a moving beam of electrons by a moving flat normal-circular source of a given power, i.e. we assume that the specific heat flux at a distance r from the point of intersection of the symmetry axis of the beam with the sample surface is given by expression (1) (without considering losses):

$$q(r) = q_{\max} \exp(-kr^2) \qquad (1)$$

where $q_{max}=kN/\pi$ (N- beam power, $N=U_kI$, where U_k- cathode voltage, and I – the beam amperage), and the heat flux concentration ratio k is correlated with the heating spot radius R_b (the beam radius) by the formula $k=1.125/R_b^2$. The analytical solution of the problem of heating a plate of finite thickness with a moving normal-circular source presented in the literature [9] makes it possible to roughly estimate the maximum heat value of the points on the unheated sample surface. The corresponding calculations for the given ranges of beam energies and the geometrical dimensions of the sample show that the maximum heating (the difference between the maximum temperature reached by a point and the initial temperature of the sample) for the points on the ends and the "back" side of the plate does not exceed 3° C. Thus, the nature of the heat exchange with the environment on the unheated plane of the substrate and the ends of the sample has little effect on the temperature distribution in the contact area of the substrate and coating; and we simulate a sample by an infinite plate of thickness h lying on the surface of the semi-infinite space filled with a material with desired thermal characteristics.

Introducing the Cartesian coordinates by the method indicated in Fig. 1 (X and Y axes lie in the plane of the surface coating, Z axis points into the sample), we believe that at the time $t_0=x_0/v$ a normally circular source begins to operate at the surface, its center moves uniformly with velocity v along the axis X, and switches off at time $t_1=-t_0$ (and at time $t=0$ corresponds to the passage of the beam center point with the coordinates $O(000)$.

Since the heating occurs in vacuum, we believe that the only mechanism of heat loss from the heated surface of the coating is the heat emission described by the Stefan-Boltzmann equation

$$P = seT^4 \qquad (2)$$

where p - beam surface power density [W/m^2] σ - the Stefan-Boltzmann constant, ε – the emissivity factor for the coating material.

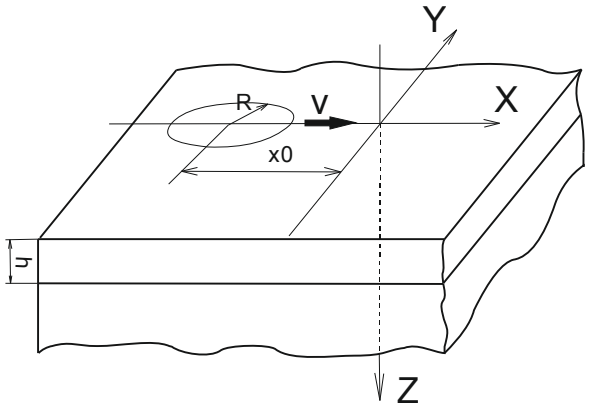

Fig. 1. Schematic representation of a two-layer sample with a moving spot during heating by the electron beam, indicating the choice of the coordinate system

Thus, we have the following problem of heat conductivity theory: find function $T_1\ (x,y,z,t)$ (temperature of the coating) and $T_2\ (x,y,z,t)$ (substrate temperature), as defined in areas S_1 and S_2 respectively (area S_1 is defined by the inequalities $0 \le z \le h$, $t_0 \le t \le t_1$, while are S_2 is defined by the inequalities $h \le z \le \infty$ and $t_0 \le t \le t_1$, at that for both areas $x \in (-\infty, \infty)$ and $y \in (-\infty, \infty)$, that comply in these areas with the differential equations (3) and (4):

$$\frac{\partial T_2}{\partial t} = \frac{1}{c_2 r_2}\left(\frac{\partial}{\partial x}\left(l_1 \frac{\partial T_1}{\partial x}\right) + \frac{\partial}{\partial y}\left(l_1 \frac{\partial T_2}{\partial y}\right) + \frac{\partial}{\partial z}\left(l_1 \frac{\partial T_2}{\partial z}\right)\right) \quad (3)$$

$$\frac{\partial T_2}{\partial t} = \frac{1}{c_2 r_2}\left(\frac{\partial}{\partial x}\left(l_2 \frac{\partial T_1}{\partial x}\right) + \frac{\partial}{\partial y}\left(l_2 \frac{\partial T_2}{\partial y}\right) + \frac{\partial}{\partial z}\left(l_2 \frac{\partial T_2}{\partial z}\right)\right) \quad (4)$$

where $l_1 = l_1(T)$ the thermal conductivity of the coating material, considered as a function of temperature and $l_2 = l_2(T)$ the thermal conductivity of the substrate material, also considered as a function of temperature. In the calculations for computing the values of the functions $l_1(T)$ and $l_2(T)$ we used polynomal interpolation on tabulated values of thermal conductivity of nickel and iron, $c_1 = c_1(T)$ and $c_2 = c_2(T)$ – specific heat capacity of the coating and the substrate, respectively, also considered as a function of temperature; r_1 and r_2 the density of the coating and the substrate materials (the constants), when the initial and boundary conditions described below are met: the initial conditions: $T_1(x,y,z,t_0) = T_0$ and $T_2(x,y,z,t_0) = T_0$, where T_0 - the initial temperature of the sample set equal to $T_0 = 20°C$; the boundary conditions (5), (6), (7) и (8): at the boundary $z = 0$ (the coating surface) – condition (5)

$$k_1((T_1)_p)x\left(\frac{\partial T_2}{\partial z}\right)_p = q_{\max}\exp(-kr^2) - se((T_1)_p)^4 \quad (5)$$

where $P(x,y,0)$ – the point on the surface of the coating, and $(T_1)_p = T_1(x,y,0)$ and

$(\frac{\partial T_2}{\partial z})_p$ respectively, the values of the temperature and the normal derivative of temperature at the point P, k_1 – thermal conductivity of the coating material (depending on the temperature), $r = \sqrt{(X_u(t) - x)^2 + y^2}$ – the distance from point P to the center of the normally circular source $(X_u(t)=X_0+vt)$; at the boundary between the coating and the substrate (plane z = h) must be met the two conditions (6) and (7):

$$k_1((T_1)_{z=h}) \times (\frac{\partial T_1}{\partial z})_{z=h} = k_2((T_2)_{z=h}) \times (\frac{\partial T_2}{\partial z})_{z=h} \quad (6)$$

where $k_2 = k_2(T_2)$ the thermal conductivity of the substrate material, considered as a function of temperature

$$T_1(x, y, h) = T_2(x, y, h) \quad (7)$$

that is, for all *x, y* and any *t*, belonging to the interval (t,t_0) at *z* tending to infinity, the temperature tends to the initial temperature of the sample T_0, condition (8)

$$\lim_{z \to \infty} T_2(x, y, z, t) = T_0 \quad (8)$$

Experiment results

The problem was being solved by the finite-difference method. We used the data [10] for the values of the thermal conductivity, emissivity, specific heat and density of Ni and Fe. Fig. 2 shows the dependence of the temperature at the point with the coordinates *(0,0,h)* (the point that lies at the boundary surface between the coating and the substrate) on the time at the following design parameters: coating thickness h=300 μm, the beam power *N=300W* (cathode voltage U_k=30 kV , beam amperage *I*=20 mA), beam radius R_b=5 mm, beam velocity *v*=0.004 m/s, calculation time interval t_1-t_0=14s (t_0=7.0s), correspondingly x_0=-28 mm. Fig. 2b displays the corresponding temperature dependence on the *z* coordinate for the point with the coordinates *x*=0, *y*=0 at the time *t*=0 at the above calculated parameters (the source switches on at the time t_0=7.0 s, time *t*=0 corresponds to the center of the source passing the point with the coordinates (0,0,0)).

The samples of Ni-based coatings were additionally irradiated according to the modes recommended in the result of numerical simulation calculation: electron beam current density – 20 mA/cm^2, accelerating voltage – 30 kV, in the continuous exposure regime.

For practical calculations at low electron energies we needed to turn to the experimentally obtained patterns. The empirical evidence [11] suggests that the 1-2 mm thick Ni layer at the energies of the electron beam of 30 keV is being completely absorbed. Since the depth of the total absorption of electrons is extremely small in comparison with the thickness of coatings, a model of surface distributed sources of heat can be taken for the construction of the temperature profile in the sample. In our proposed model not only a high temperature in the boundary zone is achieved, but also long enough, the order of several seconds, holding of the area in

the high temperature diapason of 400° C is provided, which allows for diffusion processes. The model enabled to choose low current density values, which allows one to save energy for further processing, without penetration into the coating or substrate.

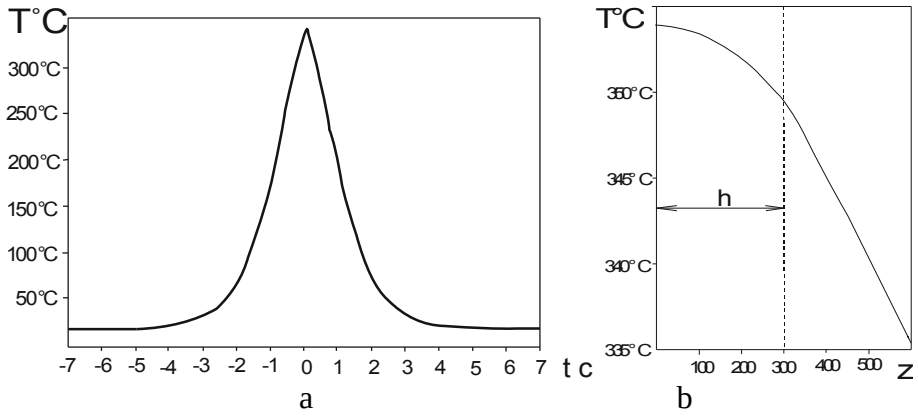

Fig. 2. Dependence of the temperature of a sample point on the boundary of the substrate and the coating on the time at the surface heating by a moving beam of electrons (a) and the corresponding temperature dependence on the coordinate *z* (b)

Based on the model of temperature distribution in two-layer absorbents with the surface distribution heat sources, the temperature profiles were calculated according to the irradiation parameters and conditions. The choice of materials and thicknesses of absorbent layers is based on the experimentally developed scheme of the structure of thick plasma-detonation powder coatings. Basing on the calculations we proposed the modes of exposure leading to the formation of high temperatures in the coating - substrate contact zone to accelerate diffusion processes.

Acknowledgments

This research was funded by the National Agency of Technology Development of Kazakhstan for the projects No. 389, "Development of technology for surface modification of by irradiation to produce nanostructured multifunctional protective coatings with high performance properties."

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ALGORITHM FOR DETECTION OF IMAGE CONSISTENT FEATURES USING SURF METHOD

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Many branches of engineering related to generation, processing, storage and transmission of information are to a large extent focused now on the development of systems in which information is of an image character. An image that can be considered as a two-dimensional signal, is a much more capacious storage medium than the usual one-dimensional (pertaining to time) signal [1].

The number of systems that use computer vision as their primary source of information increases every day, resulting in a need for new algorithms for image processing and recognition. The goal of computer vision is to develop useful conclusions about objects and scenes of the real world based on the analysis of images obtained with the help of sensors [2]. The study of computer vision is a scientific direction in the area of artificial intelligence and related technologies of scanning real objects, their processing, and use of the received data for an automated solution of applied problems. The start up of developments related to this direction, refers to the 1950's. The first real success in this field was gained in the Cornell Aeronautical Laboratory in 1958-1960 in connection with the implementation on IBM-740 of a hardware version of the system of recognition of simple visual images – Mark I Perceptron (designed by Frank Rosenblatt).

Nowadays there are a number of different approaches to the implementation of computer vision systems from different variations on comparison of a received image with a master one to building complex three-dimensional models based on images. As the topic of object recognition is excessive, this study considers algorithm for detecting image consistent features using the speeded up robust features method (SURF).

The principle of the algorithm is as follows. For featuring a scene and a reference object image using the SURF there are critical points and unique descriptors for them. Comparing the set of descriptors one can distinguish a reference object

against the scene [3].

SURF solves two problems: search of critical image points and the development of their descriptors that are invariant to scale and rotation.

The first phase, "Search for Critical Points" is carried out by means of the Hessian matrix. The determinant of the Hessian matrix (Hessian) reaches an extremum at the points of maximum variance in the brightness gradient. It is good at detecting spots, angles and line borders. Hessian is rotationally invariant, but not invariant to scale. Therefore, SURF uses multi-scale filters to find Hessians.

For each key point the direction of maximum brightness change (gradient) and scale, taken from the scale factor of the Hessian matrix are estimated.

The gradient at a point is calculated using the Haar filters.

The second stage is the "Formation of Descriptors." A descriptor is a set of 64 (or 128) numbers for each key point. These numbers reflect the fluctuations of a gradient around a key point. As a key point is the maximum of the Hessian, this ensures that around a key point should be areas with different gradients. Thus the dispersion (variance) of descriptors for different key points is achieved.

The fluctuations of the gradient of a key point area are estimated in relation to the direction of the gradient around the point in general (throughout all the area around a key point). Thus, the descriptor invariance to rotation is reached. The size of the area the descriptor is estimated on is determined by the scale of the Hessian, which provides the scale invariance. The gradient fluctuations are also estimated using the Haar filter. Let us focus on some key points of the algorithm.

Integral representation. For efficient calculation of Hesse and Haar filters the integral representation of images is used.

The integral representation is a matrix whose dimensionality is equal to the dimensionality of the original image, and the elements are calculated according to the formula:

$$II(x,y) = \sum_{i=0,\, j=0}^{i \le x,\, j \le y} I(i,j), \qquad (1)$$

where I(i,j) – the brightness of pixels of the image.

With a matrix integral one can very quickly calculate the total brightness of pixels, of random rectangular areas of an image using the formula:

$$SumOfRect(ABCD) = II(A) + II(C) + II(B) + II(D), \qquad (2)$$

where ABCD – the rectangle we are interested in. The calculation of the Hessian matrix. Detection of singular points in SURF is based on the computation of the determinant of the Hessian matrix (Hessian). The Hessian matrix of the two-dimensional function and its determinants is defined as:

$$H\big(f(x,y)\big) = \begin{bmatrix} \frac{\partial^2 f}{\partial x^2} & \frac{\partial^2 f}{\partial x \partial y} \\ \frac{\partial^2 f}{\partial x \partial y} & \frac{\partial^2 f}{\partial y^2} \end{bmatrix}, \qquad (3)$$

$$\det(H) = \frac{\partial^2 f}{\partial x^2}\frac{\partial^2 f}{\partial y^2} - \left(\frac{\partial^2 f}{\partial x \partial y}\right)^2. \qquad (4)$$

The Hessian is used to find local minimum or maximum image brightness. At these points, the Hessian reaches the point of extremum.

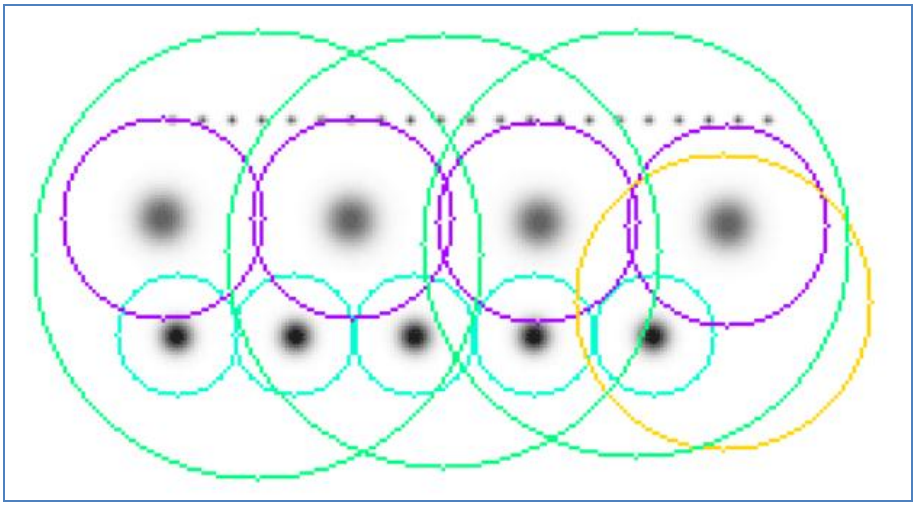

Figure 1 - The local extrema

Figure 1 shows that the singular points (circumscribed by colored circles) are the local extrema of the image brightness. Small sized points are not recognized as singular because of the threshold scissoring by the Hessian value.

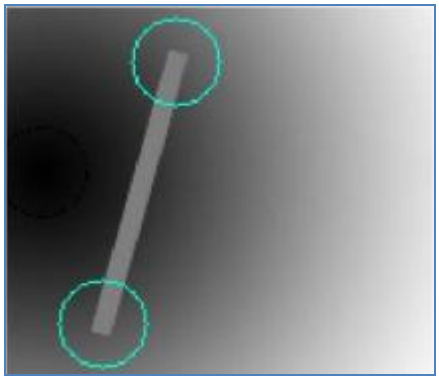

Figure 2- example key point

Figure 2 shows the ends of the segment, recognized as the key points, using the Hessian matrix.

SURF uses binarized Laplacian Gaussian approximation:

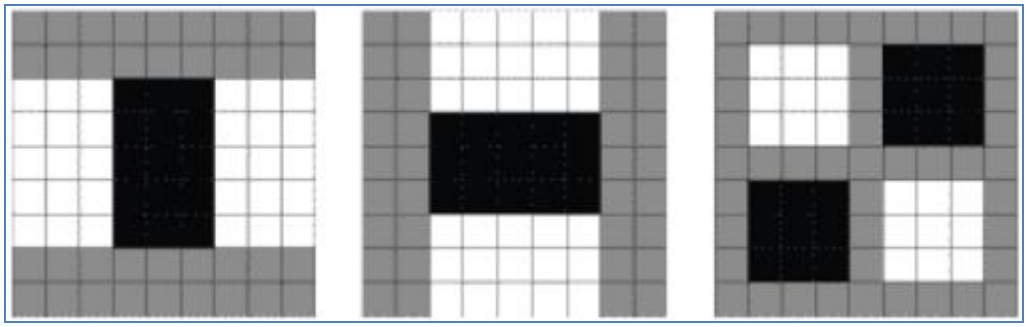

Figure 3 - Filters for finding the Hessian in SURF

Figure 3 shows the filters used to find the Hessian in SURF. The white areas correspond to the value +1, the black ones – 2 (in the third filter – 1), gray – zero. The spatial scale is 9x9 pixels. This filter is more sustained to rotation, and can be efficiently computed using the integral matrix.

Thus the Hessian in SURF is calculated as follows:

$$\det(H_{approx}) = D_{xx}D_{yy} - (0.9D_{xy})^2, \quad (5)$$

where D_{xx}, D_{yy}, D_{xy} are the convolution products by the filters shown in the figure above. Coefficient of 0.9 has a theoretical basis, and adjusts the approximate nature of calculations. So, to find singular points, SURF traverses image pixels and looks up the Hessian maximum.

Finding a local maximum of the Hessian. To find a local maximum of the Hessian we use the so-called method of neighboring points 3x3x3. Its meaning is clarified in the figure below:

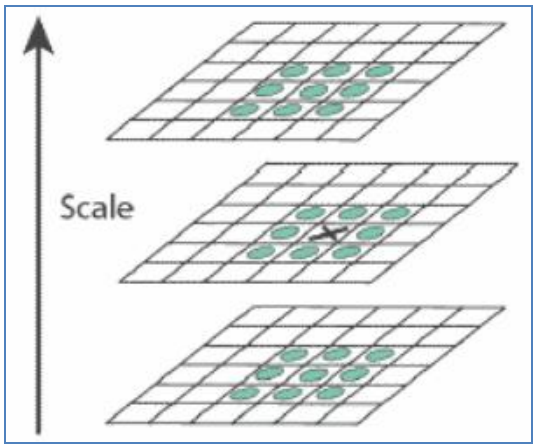

Figure 4 - Finding a local maximum

The pixel marked with a cross is considered a local maximum if its Hessian is greater than any of its neighbors' in its scale, and greater than any of its neighbors' with a bigger or smaller scale (a total of 26 neighbors).

The calculation of the descriptor of a singular point. A descriptor is an array of 64 (128 in the extended version) numbers that identify a singular point. Descriptors of one and the same singular point on the sample and on scene need to be approximately the same. The method of calculating the descriptor is that it is independent of rotation and scale.

To calculate a descriptor a rectangular area is formed around a singular point; it has the size of 20s, where *s* is the scale in which the singular point was found. The square is oriented along the priority direction calculated for the singular point. A descriptor is considered a description of the gradient for 16 quadrants around a singular point.

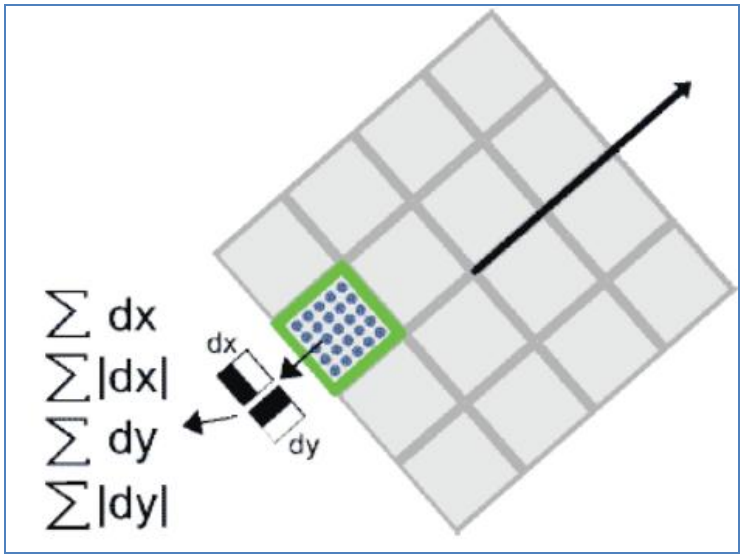

Figure 5 - Calculating the descriptor

Then the square is divided into 16 smaller quadrants, as shown in Fig. 5. In each quadrant we take a regular 5x5 grid, and for a grid point a gradient is sought with the Haar filter.

It should be noted that at the calculation of the Haar filter an image is not rotated; the filter is calculated in the normal coordinates of the image. But the received gradient coordinates (dX, dY) are rotated by an angle corresponding to the orientation of the square.

To calculate the descriptor of a singular point, it is necessary to calculate 25 Haar filters in every of the 16 quadrants, 400 Haar filters total. Given that a filter takes 6 operations, it will take a minimum of 2,400 transactions for a descriptor.

After finding the 25 points of quadrant gradients, the four values which actually are components of the descriptor are computed:

$$\sum dX, \sum|dX|, \sum dY, \sum|dY| \qquad (6)$$

Two of them are simply the total gradient in the quadrant, and the two others - the sum of point gradients absolutes. The figure shows the behavior of these magnitudes for different image areas.

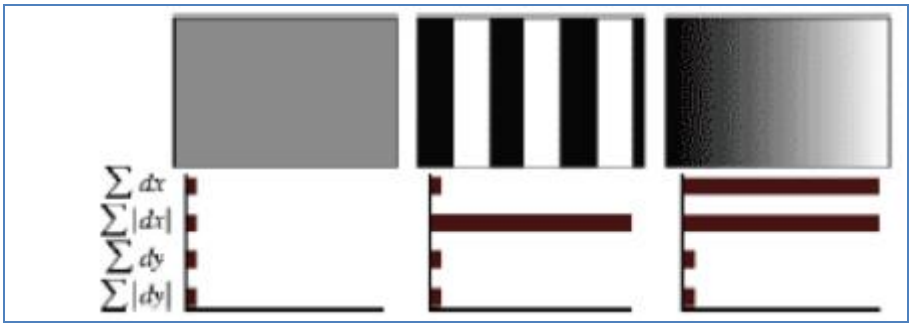

Figure 6 - The behavior of the descriptor components

Fig. 6 shows the behavior of the descriptor for various images. For 18 equal areas all the values are close to zero. For recurring vertical stripes all the values, except the second, are close to zero. With the increase of intensity of brightness in the direction of X axis, the first two components have great values.

The four components of each quadrant and 16 quadrants give 64 descriptor

components for the entire area of a singular point. When recorded into the array, the descriptor values are weighted by a Gaussian, with the center at a singular point and sigma 3.3s. This is necessary for the greater stability to the noise in the areas far removed from the singular point.

In addition to a descriptor, to describe a singular point a Hessian trace sign is used, i.e. the magnitude sign (Dxx + Dyy). For bright points on a dark background, the trace is negative for dark points on a light background - positive. Thus, SURF distinguishes light and dark spots.

In this way, by applying SURF to an image we obtain a set of descriptors that will uniquely identify the standard (model) in the scene.

In conclusion, it should be noted that there are not only positive but also negative aspects of this method, which were identified in the course of its use for the detection of stable features of images. The positive aspects of the method are:

- Invariance to rotation and scaling;
- Invariance to the difference in the overall brightness of an image;
- It can detect more than one object in the scene.

The negative aspects of the method are:

- It is quite complex in implementation;
- A relatively slow operation of the algorithm.

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INSTRUCTION AND LEARNING ISSUES

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