

*Materials of Conferences***URGENT ASPECTS OF STUDENTS' MOBILITY INCREASE IN CONDITIONS OF INTERNATIONAL EDUCATION STANDARDS INTEGRATION**

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A rough development of the world society on the millennium border provides ground for more consequent move away from the national reserve, self-isolation to interaction and collaboration in the world education society, the formation of its wholeness considering regional specificity that is defined by needs, interests and goals of a separate country. The beginning of the XXI century is linked to the formation of a single educational space, about which almost two centuries ago S.M. Taleyran said: «Education is really a special state, which influence area cannot be defined neither by one man, nor even by national authority: its influence area is huge, unlimited...»

Within the world society there are numerous examples of funds, centres, cooperations, organizations which goal is to solve the problems of integration in areas of science and education, international cooperation and mobility:

1. European organization of scientific and technical research support. Objective: national research coordination on European level, assistance in fortifying European collaboration in the area of scientific and technical research.
2. Danish centre of international cooperation and mobility in training and education.
3. Netherland organization of international cooperation in the area of higher education.
4. International mobility centre – assistance for international collaboration in field of education, training, culture, business life of youth.
5. Swedish Fund of International cooperation in Science and Higher education, etc.

The most clear expression of the integration process in Europe is the Bolognese process which ideas and goals found development and specifying in the following documents: Lisbon convention (1997), Bolognese declaration (1999), Salamanca declaration (2001), Paris (2001), Berlin (2003), and Bergen (2005) communiqué.

In his message «New decade – new economic rise – new opportunities for Kazakhstan» president of Kazakhstan Republic N.A. Nazarbayev said that the quality of higher education must correspond to the highest world requirements, «...Higher Education Institutions of our country must aim for entering the ratings of the leading world universities» [1].

In different years state programmes, legal acts, and laws devoted to the problem of Kazakh educa-

tion integration into the world society and experience were accepted in Kazakhstan. For example, in the report on the Kazakhstan Republic Government program for 2006-2008 it was said: «The going on changes within the social relation area requires mobility and correspondence to the economy development from from education system. In the education area the Government sets goal to create a competitive system of modern education, personnel training and re-training, as it is one of the major factors of Kazakhstan's integration into the number of the most developed countries». Among numerous objectives of the education development in Kazakhstan Republic a necessity to solve the integration into the world education space problem was outlined.

Among other documents, accepted in Kazakhstan Republic it is also said about the educational integration: Kazakhstan Republic Law «On education»; state program «Children of Kazakhstan» for 2006-2011; state program of patriotic citizen upbringing for 2006-2010; a transfer for 12-years secondary education plan; state program of education development in Kazakhstan Republic for 2005-2010, etc.

In Kazakhstan a number of educational institutions was created. Their activity also solves problems of international integration: «New International University», «Special fund», and «Intellectual schools».

If we investigate Kazakhstan experience of the credit system introduction, we will see that its formation was spontaneous (the mid-1990ies), and, as it was studied, higher education institutions clearly saw the evident advantages of students' mobility because of unification of different education plans and programmes. A whole number of Kazakhstan institutions started to actively broaden their international relations with leading foreign universities, participate in international projects and programmes. A great desire to accelerate the integration of all nation's education system into the world system of education led to a launch of pilot projects, financed by European Union (1995-1997), several Kazakhstan higher education institutes won the Tempus-TASIS projects. Institutions' personnel started an active work to study the world experience of leading countries in the area of education systems organization, speciality programmes' formation, and also studying the legal acts in the area of higher education of the most developed countries.

Nowadays in the area of Kazakhstan higher professional education a work of transferring to the international institutions' accreditation model takes place with involvement of international outer experts as well as that in transferring to the activity results estimation standards that are used in the countries of Economic Cooperation Organization. In other words, trends of strengthening the international education structures of various kinds and purposes take place, the development of education

internationalization not only in its form, but also the education technologies and organization methods, an integration of international and intercultural dimension into education, research, and service universities function take place [2].

In order for national education programmes to be accepted, for students to become mobile, and also for the specialists' training quality increase it is often defined by the comparability of national education programmes and the whole system of educative-training activity organization, as well as by the succession secure for all levels and stages of higher education.

Of course, European countries within the period of Bologna process existence faced a number of ambiguous and discrepant problems, for example, the variety and, often, incomparability of European education systems, differences not only in the countries' education systems, but also in apprehension and interpretation of the «credit» term. Numerous fears about the threats for stable national high schools development; academic mobility of students and tutors might mean only one direction – to the West; the two-stage education system may result in the decrease in training quality of graduates, etc [3].

But, on the other hand, in the world society designs of recommendations on internationalization process development, legal basis of international collaboration creation in the area of higher education are being initiated. The basis for these processes is the presence of universal regulations of academic freedom and democracy and international conventions that obtain the greater legal importance for national education systems, as well as world-wide declarations accepted by UNESCO and European Council. Gradually, general «game rules» are being produced within education systems [4].

As we speak of the prospects of national institutions' formation model in Kazakhstan in terms of international education standards integration, we should outline the following: a national institution accreditation model will be realized as well as the transfer to international standards of institution and special accreditation; Kazakh institutions' participation in the International Academy World Universities Rating (2020); functioning of several world-class universities; creation of integrated innovative scientific-educational structures, creation of stimulus and infrastructure for education services import and export; acknowledgement of Kazakh diplomas on the world labor market. Under the terms of Kazakhstan globalization a 2020 education system will function as a part of the single world information-educational space. A maximum accounting of international experience in the education informatization field, stable partnership with international development institutions in the area of ICT and leading IT companies [5].

All these directions will, no doubt, provide for the students' mobility at the account of the individual education program trajectory formation.

High social mobility, wide opportunities in social experience enrichment are significant peculiarity of a person self-realization in terms of modern society, that should not be neglected [6].

In accordance with the decisions of the 30th session of UNESCO General conference the main principles of the education strategy formation are availability, quality, and mobility.

In Europe (within all European Union territory) students' mobility equals more than 750 thousand people annually. This number grows persistently because of the Eastern Europe countries entrance, productive facilities distribution unevenness, decrease in education prices and many other factors.

In modern world the labor market conjuncture is exposed to changeability, so institution education plans and specialists' training process cannot consequently and fully correspond to the employers' requirements. That is why institution graduates have to be mobile, in order to be claimed in different regions. To provide this mobility it necessary to create a single educative space [7].

The higher education system is one of important stratifying components in the process of social-professional mobility and a condition, a factor of youth vertical professional mobility processes, as it increases their starting professional abilities.

But, in this question there are several negative moments. A lack of accounting our education programmes and their foreign analogues mechanism, worldwide acknowledgement of educational documents straps the academical mobility of students, tutors, and labor. Territorial mobility in local conditions is available only for few citizens' category because of high transportation tariffs, specific labor market peculiarities, housing prices inaccessibility, etc. So the students' mobility problem solution can be transformed into a virtual mobility that is a distant education and work for foreign organization via internet network. To professional mobility we can refer obtaining a second higher education, personnel retraining, qualification increase, additional education services. One of the professional mobility provision problems is the increase in the institution's role in the formation of social and cultural environment that would be attractive for life goals realizations.

Nowadays the major problems in the Kazakhstan mobility area refer to the following aspects:

1) mobility organization only within the terms of signed agreements and memorandums of two-side, or multi-side character. As rule, these agreements carry formal character and are not functional;

2) lack of internationalization in context of education plans themselves. They are not oriented for the development of students' language skills, attraction of foreign professors and further employment on labor market;

3) weak potential and low qualification of Kazakhstan institutions' foreign departments' personnel;

4) low language skills of both students and tutors, especially in knowledge of the second and third foreign language.

If we refer to the action plan for mobility development in European universities that was supported by the European Council in 2000 (Nice), we can underline the complex of measures that is significantly important nowadays for Kazakhstan education and Kazakhstan institutions and is related to the creation of conditions for mobility increase:

- 1) multi-language development;
- 2) mobility information availability;
- 3) stable mobility financing scheme creation on basis of funds sources coordination and broadening;
- 4) broadening of mobility participants and forms;
- 5) improvement and unification of acceptance for of mobility participants' groups;
- 6) coordination and simplification of mobility academic calendar;
- 7) motivation and mobility results strengthening.

It also includes: the most important requirements of foreign institution education acknowledgement by one's university, the creation of mutual acknowledgement system, diplomas and the whole education equality.

References

1. New decade – new economic growth – new opportunities for Kazakhstan. – Astana, 2010.
2. Chirva A.S. Internationalization – a prior development direction of higher education // Materials of the New scientific idea conference. – 2007.
3. Robva E.A. National alterations of international integration in education system // *Vysheysthaya shkola*. – 2009. – №4. – P. 17-20.
4. Sbdyapparov S.B. The basics of credit education technology I Kazakhstan / Ed. by J.A. Kulekeyev, G.N. Gamarnick, B.S. Abdrasilov. – Almaty: Қазақ университеті, 2004. – P. 4.
5. Long-term education development program up to 2020.
6. Doroshenko V.Y., Zotova L.I., Lavrinenko V.N. and others. Psychology and ethics of business communication. Higher education institutions textbook / Ed. by professor V.N. Lavrinenko. – 2nd edition. – M.: Culture and sport, UNITY, 1997. – 279 p.
7. General ideas of the Bolognese declaration.

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ABOUT THE TECHNIQUES AND MEANS OF COGNITIVE VISUALIZATION OF THE EDUCATIONAL MATHEMATICAL INFORMATION

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The formation of the high level of professional competence has become the basic requirement to a vocational training of the expert. It inevitably in-

volves the change of traditional educational technologies, the transition to the interactive methods and the modes of study, qualitatively new tutorials.

The theoretical and experimental work of the authors in creation of teaching materials convinces that it is necessary to recognize the intensification of the educational process as a strategic direction of the increase of efficiency of students' informative activity. In our opinion, for this purpose the performance of two interconnected conditions is necessary:

- the ergonomics of the educational information;
- the elimination of the irrational time expenses connected with the educational process.

Let's discuss in details one of the ergonomic means of the educational information – its visualization. The visual information is stimulating (simultaneous), while the verbal one is successive (consecutive). The average formation of representations while using the visual information is in 5-6 times faster, than by means of the verbal statement.

The effective mastering of the information assumes using the system of visual and verbal means simultaneously. It is necessary not only for the subject action organization, but also for the allocation of the form and content relations, essence and phenomenon, the ability to model a situation. Figuratively presented information should increase the possibility of its preservation in memory and operating with it. Besides, the specificity of the mathematical content assumes the organic combination of both languages (visual and verbal), therefore it is important to find the optimum balance.

Designing of educational materials is based upon the principle of cognitive visualization according to which the visualization should carry out not simply illustrative function but also to promote the natural-intellectual process of new knowledge reception.

The product of cognitive visualization is the thoughtform generated by consciousness, which defines an unknown person, an unrecognized object (phenomenon), represented in the external plan of educational activity. Therefore working out of techniques and means of purposeful creation of thoughtforms in the course of educational-informative activity becomes the central problem of cognitive visualization.

According to the analysis spent by N.N. Manjko [1], we will list some important ways of visualization, essentially influencing the degree of activation and the dynamism of intellectual and educational activity while processing and mastering of information. They are:

- the concentration of information (the basis of intensification);
- the information generalization;
- the expansion of roughly-presentational functions of visual didactic means (the presence of support);
- the algorithmization of educational-informative actions realized in visual means;
- a multicode presentation of the information.