Development Prospects of Education System in Modernization

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Abstract—the article analyzes the development prospects of education system in Kazakhstan. Education is among key sources of culture and social mobility. Modern education must become civic which means availability of high quality education to all people irrespective of their racial, ethnic, religious, social, gender and any other differences. Socially focused nature of modernization of Kazakhstan’s society is predicated upon formation of a civic education model in the future. Kazakhstan’s education system undergoes intensive reforms first of all intended to achieve international education standards and integration into the global educational and information space.

Keywords—Education system, Kazakhstan, Modernization

I. INTRODUCTION

Recognition of a human right to decent life is one of features of the modern civilization. Decent life is ensured not only by material supplies but also through self-enrichment of a person. Satisfaction of common material and cultural needs of citizens, regulation of processes of social differentiation of society, income of gainfully occupied population and incapacitated persons is ensured due to a social policy of the government. This enables each member of the society to exercise his/her vital socio-economic rights. First of all, it is right to level and quality of life essential for normal reproduction and individual development. Education is among key sources of culture and social mobility. Modern education must become civic which means availability of high quality education to all people irrespective of their racial, ethnic, religious, social, gender and any other differences. Socially focused nature of modernization of Kazakhstan’s society is predicated upon formation of a civic education model in the future.

What are specifics of civic education? First of all, it is attributed to humanitarian and civic nature of education, priority of panhuman values, free personality development, respect for rights and freedoms of a person with a special focus on gender differences.

Second, connection with availability of education to all strata of the population is obvious. All civil societies irrespective of ethnic, racial, social differences have a right to get high quality education. High quality education depends on a material and technical base of educational establishments, regular personnel, employment of modern methods, innovation technique, know how and methodologies in education process.

Third, civic education must rest on a national model of education which incorporates all achievements of the human kind in the field of education. Thanks to civic education people of all ethnic origins can preserve their specific features, traditions and language, however the ultimate goal is uniform. i.e. to ensure formation of a highly educated, cultural, ethically pure, self-sustained personality based on high quality education which keeps up with the times.

Fourth, civic society requires employment of democratic methods and work methods with students during enlightenment and education.

Civic education is the most perfect education which is possible only in a civil society where a person feels himself/herself really free, where his/her ethnic and personal self-consciousness grows. Education of a creative person is a task of civic education.

Today, differentiation of a rising generation between social strata of Kazakhstan starts from school education and out-of-school extended education which in existing circumstances poorly perform role of civic education. High quality education always charges a tuition fee starting from a school bench and not every family can afford it. The country has a situation when a difficult social situation caused by a gap between elite and grassroots education as well as a limited access to high quality education is arising.

Today, humanization and humanitarization of education are key strategic directions in activities of higher education. Their task is to optimize interaction between an individual and society, facilitate joining humanitarian culture. It has been established that creation of adequate social conditions of individuality development requires humanization of all fields of public life which implies higher role of humanitarian disciplines in formation of high moral and psychological ambience in the society. Humanitarian disciplines help introduce a new national education model which along with global educational standards takes into consideration specifics of the local world view n world relations of different ethnoses, their traditional culture as well as specifics of their mentality and psychology.
Today, Kazakhstan’s education system undergoes intensive reforms first of all intended to achieve international education standards and integration into the global educational and information space.

Core component of the education system of Kazakhstan is arrangement of a lifelong learning, i.e. continuous learning irrespective of specialized training in conventional educational establishments. In these conditions education begins to gain features of a process of achievement of personhood throughout entire socially active life. In this respect, lifelong learning idea that appeared in late 1950s – early 1960s assumes great importance. In the West it is called Lifelong Learning. Lifelong learning does not mean improvement of professional mobility due to rapid depreciation of knowledge in conditions of scientific and technological revolution. The issue is about inherent worth of learning.

Review of global trends shows that system of education and science turns into a powerful factor of progressive development of any community. Education and science ensure mastering and introducing high technologies in economy as well as ensuring national security and sovereignty; they create in society a social need for self-learning, bring a country to a high level of cultural and moral development; create civic and patriotic basis for formation of state identity.

Today, a learning individual is a true subject of an educational process. It is he/she who determines what information he/she needs for construction of his/her life projects, how and where it can be obtained. Introduction of not only knowledge but also information into main elements of an educational process in case of lifelong learning implies that a student himself/herself systemizes received knowledge and creates his/her world idea on that basis [1].

Amid modernizing changes conventional education model designed to form a patriotic personality who does not doubt the might of the soviet regime, committed to its ideas and treats received knowledge as a once and forever established truth acutely and vulnerably felt a process of switch from paradigm of “maintaining education” to paradigm of “innovation education”.

Modernization of the educational field of Kazakhstan is connected with a switch of a bulk of educational establishments of the country to a credit type of education which facilitates creative activities of students. Credit type method of education enables a student to demonstrate his/her personality traits, encourages him/her to be more active during practical training and most importantly creates conditions for co-creation of a teacher and a student.

According to a German concept, university education is underlain by principle of unity of researches and learning. It means that university teachers must be researchers as well and they must apply outcomes of their researches in their teaching practice. The entire education process must be governed by a “constant process of scientific inquiry”, while teachers and students become co-researchers [2].

Thus, education through scientific inquiry will facilitate obtaining an immense volume of information and personality perfection and it is a direct way towards improvement of the national culture.

Today, educational establishments as core social institutions must be in the vanguard of a process of improvement of new mechanisms of personality socialization. Here it would be useful to mention a viewpoint of a representative of humanistic psychology A. Maslow. He believes that satisfaction of basic psychological needs of an individual must become a vital task of education. No child can start moving toward self-actualization until his/her daily living needs in security, love, social involvement and self-respect are satisfied [3].

Value of education is that while getting education the person gets socialized spiritually, perceives power of growth needs, learns to respect himself/herself and other people.

Within integration into the global educational system modern experience of Kazakhstan must be coupled with both traditions and best examples and teaching methods inherited from the soviet education system and international (mostly European) standards.

Through exposure of relations of participants of the educational process to ongoing reforms we have tried to diagnose condition of the system of higher education in Kazakhstan. These considerations were accepted as a basis of the project ‘Kazakhstan’s education model: international experience, local traditions.’ Purpose of the research was to expose attitude of young scientists and students of different universities of Kazakhstan to core components of transformation processes of the education system of Kazakhstan. During the research process it was planned to place emphasis on trends of reforming education which in the opinion of young scientists and university students are the most sought-after and therefore are potentially effective.

Researches were conducted in May – June 2011 in the cities of Almaty and Astana as well as Oblasts of Aktobe, Karaganda, Southern Kazakhstan, Pavlodar, Eastern Kazakhstan, Semipalatinsk. The poll covered more than 1,500 candidates for bachelor’s degree from first to fourth years as well as candidates for master's degree and PhD students from 12 universities [4].

During the poll students were asked the following question: “Do you think reforms in the system of higher education of Kazakhstan move in the right direction or they to a large extend moved in the wrong way?” (See: Diagram on Fig. 1).

Student’s assessment of nature of changes in the educational process is indicative of a positive trend in ongoing transformations.

Diagram in Fig. 1 presents summary assessments of direction of reforms which show that over 60% of respondents are confident about correctness and adequacy of ongoing changes. Summary negative assessment made 27.6%. Meanwhile, 7.8% of respondents were undecided about the question.

What is your opinion about reforms in Kazakhstan’s education in universities of Astana and regions?

Information about nature and directions of reforms in universities of Astana and regional universities based on opinion of university students is set out in table 1. As is clear from data set out in table 1 that there is a different perception of the studied question in public opinion of students:
1. ‘Reforms in education move in the right direction, absolutely confident’. This answer option was very popular between students of universities of Astana – 25.9%, which is 10% more than outcomes of review of questionnaires of students from Almaty City and 12% more than an average result of the research on the whole. It is followed by summary answers of students of regional universities covered by the poll – 18.54%. Review of results for Almaty City is at the end – 15.38%.

2. ‘Reforms move in the right direction.’ This stance on the whole remains a leading one in application of different methods of data evaluation. Here we have a bit higher frequency indicator represented by regions – 52.1%. Students of the northern and southern capitals gave an almost identical answer – 45%.

3. ‘Reforms in education move in the wrong direction, absolutely confident.’ Range of answers in this option allows to maintain that the scope is lower – nearly 6%. However, consistency in assessment is the same like in option 1, i.e. ascending: universities of Astana (14%) – regional universities (16%) - universities of Almaty City (20%).

4. ‘Reforms move in the wrong direction.’ Outcomes of the last determination look statistically as well. Respondents from Almaty gave the most critical answer – 14%. Summary outcomes of remaining positions are half as large 6% each.

Findings are first of all indicative of trends of rethinking, critical, assignment perception of innovation components.

New stage of reforming education in Kazakhstan on the one hand requires that specialists be trained in innovation management, command management methods of research and educational teams and studies and be able to work on the market of innovations.

Education is a comprehensive multi-functional phenomenon within which both definition of objectives (outcomes, qualification) and procedural component (educational process) are equally important. Studied questions were detailed during the research as regards fulfillment of priority strategic tasks in reforming the higher education of Kazakhstan. Reforms ongoing in the system of higher education are designed to solve a number of strategic tasks. Students covered by the poll were offered to choose from the following table priority tasks in the education systems which are being implement and which are not (see table II).

Table II presents that strategic tasks in all outlined directions are consistently implemented. However, not a single position presented for consideration gathered less than 50% of positive answers.

On the whole students highlighted the highest degree of implementation in the field of introduction of new educational programs and teaching models as well as international cooperation.

Students indicate some defects in formation of personality competences where summary negative assessment stood at 26.7%.

The highest negative answer, 29.8%, indicates that in the opinion of Kazakhstan’s students it is necessary to place special emphasis on education of civic consciousness and patriotism.

Question about re-education and retraining of staff caused difficulties in assessment. 31.4% of students found it difficult to express their opinion on that question.

Within the poll students were asked a general question about their general satisfaction with the level of education.

Resultant summary outcome can be deemed quite high – 60.1%. One fifth of them, 21.1%, is completely satisfied.

13.4% students expressed negative opinion. Nearly 4.2% of respondents are completely unsatisfied with knowledge they get.

As is clear from data set out in table 3 nearly one fourth of students in universities of Kazakhstan covered by the poll were undecided about assessment of education quality and stick to a neutral position. ‘Not but satisfied, not but not’ - 23.6%.

Findings indicate that one student out of ten is unsatisfied with the process of getting vocational education both in general and in particular.

Concretization of empiric data received in findings of the research allowed to specify degree of satisfaction with level of knowledge that students get through additional parameters:

- language of studies;
- financial conditions;
- level of education;
- educational establishment.

Significant conceptual criterion of development of educational methods is orientation towards innovation education which is underlain by process of mastering basic competences which in perspective allow to independently get knowledge.

Vital competences in training of students and candidates of master’s degree in conditions of modern economy, policy, culture in public opinion of students were also ranged within the research.

Summary data re vital competences are set out in table 4. From the above-listed knowledge and skills respondents highlighted language skills, professional skills and communication skills as vital in subsequent professional skills.

Thus, almost one half of respondents think that proficiency in a foreign language is vital in education – 49.8%.

It is followed by the following positions marked in nearly 1/3 of questionnaires:

- computer literacy – 33.7%
- professional skills – 31.2%
- organizational and planning skills – 30.5%.

Another group of sought-after competences includes information handling skills based on sound basic knowledge, in particular the following:

- Basic general knowledge – 28.4%
- Information management skills – 28.0%
- Communication skills in a foreign language – 26.6%

And finally it is necessary to indicate that only 9.4% of respondents think that it is necessary to be educated and understand customs and traditions of other cultures and countries. It is the least frequent answer option.
On the whole, according to findings students do not have a quite clear understanding of instrumental (language, communicative, organizational) and professional, subject related competences. Thus, when developing educational models for the purpose of application of international education standards it is necessary to introduce a well-balanced combination of highly professional skills based on general and vocational and practical knowledge, language proficiency, PC literacy coupled with basic priorities of civic and media education. It is no coincidence that state compulsory standards of higher and vocational education of new generation include the following competences: instrumental, interpersonal, systemic and subject-related which is indicative of a strive for integrity and completeness of perception in the studied field.

At all times university education was oriented to develop ideas and meaningful values of the civic society, to develop needs of a personality and interests of the society on the whole. That is why key task of a university is to be centers of science, education and culture where it is possible to harmoniously unite educational activities and scientific and innovation activities.

On the whole, current innovation processes in the field of Kazakhstan’s education despite some complexities and controversies gathers momentum which is stimulated by changes in nature of socially economic relations, requirements of the labor market and international standards in education and human development. Success or failure of a modern attempt to modernize Kazakhstan’s education system will be first of all conditioned by objectives and directions of modernization of the entire community.

As results of the study show university students demonstrate high adaptive abilities to reforms in higher education. Their assessment of nature of changes on the whole is indicative of a positive trend of ongoing transformations: more than 60% of respondents are confident about correctness and adequacy of ongoing changes. However, it is necessary to take into consideration fact that quite critical assessment was stated in public opinion of students. More than one quarter of respondents from different regions of Kazakhstan believe that content of reforms does not correspond to needs of Kazakhstan’s education system and expressed negative attitude to ongoing processes.

Students on the whole have indicated the highest degree of implementation in introduction of new educational programs and learning models and models of international cooperation. The bulk of respondents treat launch of new faculties, specialties, introduction of different levels of training in the system of higher education, participation in research projects as modernization of the educational system.

Development of patriotism and civic consciousness is a key precondition of further success of the country. At that, students believe that objectives and main directions of educating patriotism and civic consciousness are only 50% implemented.

We witness drastic changes not only in content of educational programs but also in students' understanding of significance of vocational education oriented not to get a diploma but to consciously master theoretically and practically basic vocational qualifications. Findings of the research show that 60.1% of interviewed students are satisfied with level of education they get even though that almost the same percentage of pollees are confident about its insufficient compliance with international standards.

In summary of obtained empirical data it is possible to indicate that the youth of Kazakhstan has a quite high level of understanding of need to get higher education underlain by understanding of importance of vocational knowledge for achievement of future professional successes and promotion. However, as regards problem of vocational guidance it is obvious that it is necessary to regulate structure of student’s subpopulation in terms of specialties of the higher education which in turn is problem not only for Kazakhstan but also, for instance, for Europe.

Kazakhstan’s students have expressed uniform opinion that high qualification, work experience and deep vocational knowledge are a precondition of future professional successes and promotion – 41.5%. This position is followed by knowledge of the Kazakh language. Available relations, influential friends and relatives rank number three.

As regards key criteria of structural components of Bologna process, Kazakhstan has already secured tangible results which in turn is reflected in public opinion of Kazakhstan’s students being the most active, critical and concerned social group. However, a lot of innovations can entail intensification of existing differences in the national concept of the education system.

Overall, the education system of Kazakhstan has underwent drastic changes which provide university students with ample opportunities:

- expanded availability of the higher education;
- departure to foreign countries within academic mobility for 1 semester (for candidates of bachelor’s degree and master’s degree);
- internship in foreign countries for Ph.D. students;
- requests of grant support to continue education and to get master’s degree;
- awarding increased scholarships, special scholarships and grants. Today, this opportunity is provided by the Fund of the First President of the Republic of Kazakhstan.

Shared problems of all universities of Kazakhstan include insufficient material and technical basis and defects related to arranging different types of internships. Other problems of universities are shortage of qualified teachers, corruption, availability of literature (academic, research, other materials), incompatible old and new elements that coexist in the system, declining system of advanced training and retraining of staff (especially in private and regional universities).

II. CONCLUSION

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### Table I
**Respondents’ Assessment of Nature of Reforms in the System of Higher Education of Kazakhstan – Students of Universities in Astana and Regions**

<table>
<thead>
<tr>
<th>N</th>
<th>University</th>
<th>In the right direction, absolutely confident</th>
<th>In the right direction</th>
<th>In the wrong direction</th>
<th>In the right direction, absolutely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Universities of Almaty</td>
<td>15.3%</td>
<td>45.4%</td>
<td>20.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>2</td>
<td>Universities of Astana</td>
<td>25.8%</td>
<td>45.7%</td>
<td>14.2%</td>
<td>6.00%</td>
</tr>
<tr>
<td>3</td>
<td>Regional universities</td>
<td>18.5%</td>
<td>52.0%</td>
<td>16.3%</td>
<td>6.62%</td>
</tr>
</tbody>
</table>

### Table II
**Respondents’ Assessment of a Degree of Implementation of Priority Strategic Tasks of Reforms in Higher Education of Kazakhstan (in % from Total Number of Respondents)**

<table>
<thead>
<tr>
<th>N</th>
<th>Answer Options</th>
<th>YES %</th>
<th>NO %</th>
<th>Undecided %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Creating conditions for mastering educational programs</td>
<td>68.5%</td>
<td>15.4%</td>
<td>15.9%</td>
</tr>
<tr>
<td>2</td>
<td>Development of creative, spiritual and physical capacities of a personality</td>
<td>54.7%</td>
<td>26.7%</td>
<td>18.6%</td>
</tr>
<tr>
<td>3</td>
<td>Educating civic consciousness and patriotism</td>
<td>52.5%</td>
<td>29.8%</td>
<td>17.7%</td>
</tr>
</tbody>
</table>

### Table III
**Distribution of Answers to the Question ‘To What Extent Are You Satisfied with Level of Education in Your Educational Establishment?’ (in % from the Total Number of Respondents)**

<table>
<thead>
<tr>
<th>N</th>
<th>Answer Options</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Completely satisfied</td>
<td>21.1%</td>
</tr>
<tr>
<td>2</td>
<td>Rather satisfied</td>
<td>39.0%</td>
</tr>
<tr>
<td>3</td>
<td>Not but satisfied, not but that no</td>
<td>23.6%</td>
</tr>
<tr>
<td>4</td>
<td>Rather unsatisfied</td>
<td>9.2%</td>
</tr>
<tr>
<td>5</td>
<td>Completely unsatisfied</td>
<td>4.2%</td>
</tr>
<tr>
<td>6</td>
<td>Undecided</td>
<td>3.0%</td>
</tr>
<tr>
<td>7</td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table IV
**Distribution of Answers to the Question ‘Development of what Competences in Graduates of your Specialty Is Vital in your Opinion?” (in % from the Total Number of Respondents)**

<table>
<thead>
<tr>
<th>N</th>
<th>Answer Option</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Knowledge of a foreign language</td>
<td>49.8%</td>
</tr>
<tr>
<td>2</td>
<td>PC literacy</td>
<td>33.7%</td>
</tr>
<tr>
<td>3</td>
<td>Professional skills</td>
<td>31.2%</td>
</tr>
<tr>
<td>4</td>
<td>Organizational and planning skills</td>
<td>30.5%</td>
</tr>
<tr>
<td>5</td>
<td>Basic general knowledge</td>
<td>28.4%</td>
</tr>
<tr>
<td>6</td>
<td>Information management skills</td>
<td>28.0%</td>
</tr>
<tr>
<td>7</td>
<td>Communication skills in native language</td>
<td>26.6%</td>
</tr>
<tr>
<td>8</td>
<td>Teamwork ability</td>
<td>25.5%</td>
</tr>
<tr>
<td>9</td>
<td>Leadership ability</td>
<td>19.1%</td>
</tr>
<tr>
<td></td>
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<tr>
<td>---</td>
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</tr>
<tr>
<td>10.</td>
<td>Analytical capability</td>
<td>18.3%</td>
</tr>
<tr>
<td>11.</td>
<td>Responsibility for quality</td>
<td>18.1%</td>
</tr>
<tr>
<td>12.</td>
<td>Problem solution skills</td>
<td>17.9%</td>
</tr>
<tr>
<td>13.</td>
<td>New situation adaptability</td>
<td>15.1%</td>
</tr>
<tr>
<td>14.</td>
<td>Skills of interpersonal relations</td>
<td>12.6%</td>
</tr>
<tr>
<td>15.</td>
<td>Ability to hold a discussion, to perceive position of a companion</td>
<td>12.2%</td>
</tr>
<tr>
<td>16.</td>
<td>Be educated, understand customs and traditions of other countries</td>
<td>9.4%</td>
</tr>
<tr>
<td>17.</td>
<td>Ability of criticism and self-criticism</td>
<td>9.9%</td>
</tr>
<tr>
<td>18.</td>
<td>Undecided</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

Fig. 1 Represents Diagram ‘Public opinion redirection of reforms in the education’

REFERENCES

[4] From now on we cite outcomes of studies a research conducted by order of the Fund of the First President of the Republic of Kazakhstan – Leader of the Nation in 2011 in 7 regions of Kazakhstan. Scope of sampling population made 1,500 respondents.