**Modernization of educational programmes - an useful tool for quality assurance**

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**Abstract**

Globalization has led to increase competition between universities; consequently, current higher education bodies have to fight for their stable educational position on educational market, as well as at labour arena. It is worth to note, that quality education plays a crucial role in preserving the position of universities at domestic and international markets. At the same time, it is significantly important to consider requirements of major stakeholders (employers, students and parents) in developing content of educational programmes. The challenges of information and technology age have triggered complete modernization of university’s educational programs.

In this regard, without a doubt, in our opinion diversification of study programmes taking into account the demand of labour market, as well as needs of potential consumers and recommendations of accreditation bodies is a key area of ​​quality assurance. In this article, we attempt to observe how the process of modernization of study programmes for quality guarantee has been taking place at al-Farabi Kazakh National University and make general analysis of update in degree programmes from the perspectives of accreditation agencies’ reports. According to reports of accreditation agencies, the significant number of educational programmes of al-Farabi Kazakh National University has been awarded an European quality seal, which symbolizes the growth of international recognition of educational programmes of the university. In the meantime, on the base of our observation, this innovative approach is carried out in accordance with the state programmes for modern innovative development of society and current trends in the development of professional education in the world. In other words, this approach enables the university to prepare competitive graduates with knowledge, skills and professional competencies in accordance with 6-8 levels of the European Qualification Framework.

**Key words:** degree programmes, modernization, quality assurance, higher education

**Introduction**

According to Aamodt and et al (2018) in current higher education area academic staff is mainly concentrated on developing more distinctive learning outcomes in compliance with the European qualification framework; however, it should be noted that, there is a great necessity for the development of innovative educational programmes. Consequently, this in its turn has attracted much interest from academies as well as from stakeholders, realizing importance of degree programmes as a product of the market.

There is a school of thought, that there is no unique model for quality management in higher education. Some efforts have been made to implement business models of quality in higher education. Depending on the target measurement dimensions of models, the literature presents several scales for service quality management in higher education. It should be noted that, some scales like ServQual developed by Parasuraman et al (1988), ServPerf (1992) and CourseQual proposed by Vajda et al (2015) encompass the same dimensions as tangibles, reliability, responsiveness, assurance and empathy. As for measurement of other attributes of quality, EduQual concentrates on defining the effectiveness of learning outcomes, responsiveness, physical facilities, personality development and academics of the higher education institutions, that are mentioned by Mahapatra and Khan  (2007). Further, in 2006, Abdullah (2006) proposed HEdPerf model based on ServPerf, which focused only on non-academic aspects of higher education. However, Srikanthan (2010) suggests that quality models for quality management in tertiary education need to be developed in accordance with specific characteristics of higher education.

Recent studies have attempted to figure out the main tools of quality assurance of higher education institutions for effective management of quality, which in its turn play an equally crucial role in the growth of the university. According to Zakaria et al (2009), qualified faculty staff, quality research activities, international reputation, infrastructure, smart students, international collaborations, new courses, effective management are the major factors of defining quality tool of the best university. On the other hand, other scholars believe that a wide scope of other features, like internationally recognized degree programmes, lectures, research and foreign relationships of the university, administrative staff, academic mobility programmes, contingent of students; and finally wise management and world recognition of graduates should be considered in developing a quality model.

Even though, some scholars support an innovative approach towards admission process of all students’ category, the policy of fair assessment of students’ achievements, broad range of support services, as well as improvement of teaching staff qualifications, as they are considered to be the major backbone of the excellence of higher education. In the same way, Nabwera H., et al. proposed some guidelines for development of high quality degree programmes in their handbook for development of quality assurance. In a like manner, findings of their study highlighted the importance of the curriculum design and development of degree programmes in consultation with students, employers. In addition, authors have highlighted the necessity of variating teaching methods to ensure quality of degree programmes. Finally, according to Nabwera H. et al (2008) in the light of compliance with local and international market and society needs, the modification of existing and new study programmes has been defined as the most prominent tool to assure quality. Considering the above listed characteristics, in this paper, we have focused mainly on the role of educational programmes in defining the quality of education, mentioned by Zakaria et al (2009) and in Naidu (2016).

As for the higher education system in Kazakhstan, the President of the country – Nursultan Nazarbayev, acknowledging the significant role of high quality education in the development and prosperity of the nation welfare and economy, signed the Bologna declaration in 2010. Consequently, the boundaries of academic freedom of Kazakhstani universities in developing its own educational programmes have widened. As a result, one of the leading universities of the country – al-Farabi Kazakh National University, which holds 220 position in the rankings of QS “World University Rankings” for its achievements in scientific and educational space, has been awarded a special status. (Decree of the President, Republic of Kazakhstan, 2001). Based on the results of an independent assessment conducted by QS in 2018, KazNU became the first University in Kazakhstan and the only one in the Central Asian region that has been awarded «Four Stars» of Excellence in «QS Stars Development Road map international rating». This in its turn demonstrates a broad scope of activities of the university and its compliance with high international standards.

Actually, the university has a broad range of educational, scientific, social, innovative and resource potential to prepare the highest qualified specialists, competitive not only at domestic labour market, but also at the world. Taking into account the most prominent role of study programmes updated with current trends, the university annually sets strategic goals to renovate its degree programmes. As might be expected, in 2018 the concept of modernization of educational programmes of the university was developed in order to improve the quality of professional training at al-Farabi Kazakh National University (The concept, 2018). As well as, the idea of modernization of programmes stems from Article 1. 17-1, of the “Law on Education” (“Law on Education”, 2007), which states a right and an autonomy of a national university to develop its own educational programmes in compliance with demand of domestic, as well as international market (Decree of the President, Republic of Kazakhstan, 2001). In addition, in the framework of the State Programme for the Development of Education and Science for 2016-2019, the Development Strategy of Al-Farabi Kazakh National University for 2017–2021, the Road Map for the Development of Educational Activities of the Kazakh National University for 2017-2020, the university has determined to step towards a new innovative educational space with distinctive programmes.

According to the development strategy of KazNU until 2020, the university administration and all 16 faculties have been carrying out joint cooperative work in the process of complete modernization of the educational programmes and diversification of curriculums of bachelor’s, master’s and PhD degree programmes in order to harmonize the content of educational programmes with internationally recognized leading universities. In a like manner, the importance of modernization of educational programmes is to strengthen the practice-oriented and competence-based approach of teaching and to prepare highly qualified graduates to be able to compete not only at domestic, but also at international labour market.

As it has been mentioned before, Al-Farabi has developed its own innovative educational and professional programmes that meet international standards and ensure that students acquire the necessary professional competencies that increase their competitiveness in Kazakhstani and international labour markets. As noted above, during development and updating of the content of degree programmes, the focus is mainly concentrated on taking into account the competence requirements of employers, strengthening practical training and the scientific component of each programme.

In the framework of higher education, innovative, outcomes-oriented educational programmes are developed in compliance with State compulsory education standard, National qualification framework, professional standards and conformed with Dublin descriptors and the European Qualifications Framework.

In this regard, coordinators of degree programmes in cooperation with students, employers and quality experts mostly concentrate their focus on the content of programmes with perspective of substantive and methodological development and improvement, which will create conditions for the formation of metacompetence, i.e. the ability of the student to self-improvement and autonomous lifelong learning. This in its turn results in promoting development of global competencies (interpersonal, social and industrial communication, strategic leadership, possession of information technology, willingness to change, risk, etc.) of learners.

Equally important, priority areas for modernization of study programmes are given to programmes, **within the framework of the President's Addresses "The Third Modernization of Kazakhstan: Global Competitiveness", as well as to interdisciplinary programmes, programmes with English language of teaching,** joint educational programs with **foreign partner universities. In a like manner, the major** objectives of the modernization of educational programmes is ensuring the compliance of educational programmes with the following fundamental principles of the academic policy of KazNU.

* principle of quality compliance of study programmes with European educational standards;
* principle of student-oriented teaching;
* principle of integration of education, science and industry;
* principle of lifelong learning;
* principle of the internationalization of education;
* principle of supporting learning innovation.

The university has set several objectives to be realized in order to assure quality of education. To illustrate:

* ensuring successful employment of graduates within one year after graduation;
* assistance to development of faculty through the implementation of advanced training and retraining programmes;
* contribution to development of education and science through the formation of scientific and educational environment;
* creation of innovations in the field of vocational training;
* and finally promotion of educational programmmes in international rankings by subject area.

Considering the mentioned objectives, the stages of realization have been outlined. First, it is worth to say that, modernization of educational programmes requires search and marketing research of labour market. Secondly, revision of the key competencies of graduates, the definition of a balance between common and specialized (professional) learning outcomes, their correlation with the European Qualifications Framework, and formulation of expected learning outcomes required by labour market. Thirdly, correlation of the content of degree programmes with the programmes of universities, which are in the top 200 list of QS “World University” ranking in the relevant subject area; as well as introduction of innovative educational technologies and methods (QS World University Ranking Report, 2019).

**Research and Discussion**

Al-Farabi Kazakh National University, being the leading multidisciplinary university of the country, has a powerful potential for diversification of educational programmes. Currently, the university has formulated the following demanded groups of educational programmes identified as the ones that meet objectives of strategic government programmes for the development of the country and needs of stakeholders of educational services:

Table 1: Group of educational programmes

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Specification** | | | **Consumers** | | | | | | **Required conditions for realization** | | |
| Interdisciplinary | | | | | | | | | | | |
| Ability to apply knowledge from various fields in professional activities. Expansion of fundamental training and professional opportunities of graduates. Additional competitive advantages | | | Large companies, modern organizations | | | | | | Need of labour market, availability of infrastructure, qualified teaching staff. | | |
| Joint degree programmes | | | | | | | | | | | |
| Cooperation with universities. Issuance of partner universities diplomas. | Key employers. Foreign companies | | | International joint programmes should be directed to university-goals and objectives. Priority area are TOP-200 universities, foreign research centers. | | | | | | | |
| With integrated education and production modules | | | | | | | | | | | |
| Enhancement of competitiveness. Implementation of dual studies at the university and at the enterprise.  Training of staff that best meets the requirements of employers.  Correlation of science-education-industry.  Future employment guarantee. No gap between theory and practice | | | | | | Industrial enterprises | | | | Marketing needs of industrial enterprises. Joint agreement with companies. | |
| English-based programmes | | | | | | | | | | | |
| Increases graduates' competitiveness, expands employment opportunities | | | | Foreign companies | | | | | Partners for organization of foreign internship and trips. | | |
| Multilingual educational programmes | | | | | | | | | | | |
| Training of competitive specialists as the main factor of economic and social modernization of Kazakhstani society, who speak professional Kazakh, Russian, and English languages for the implementation of the cultural project “Trinity of Languages”. | | | | | | | | Organizations, Higher education Institutions | | | Language competence |
| Business-education | | | | | | | | | | | |
| Training entrepreneurs and business leaders capable of responding to the contemporary challenges of world market and managing development of new, knowledge-based innovative economy. | | Companies, top managers of organizations for advanced training and career growth. | | Foreign partners;  International accreditation;  Foreign lecturers with international experience, top managers, businesspersons and government officials.  Innovative teaching methods;  Extensive connections with Kazakhstan business. | | | | | | | |
| (major+minor) | | | | | | | | | | | |
| Maximum employment opportunities, Enhancement of competitiveness | | | | | Students | | | | Labour market demands | | |
| Distance learning technologies\* | | | | | | | | | | | |
| In al-Farabi Kazakh National University, distance learning functions at university system: http: //dl.kaznu.kz. Students independently determine time and place for studying. | | | Bachelor’s, master’s, PhD degree students. Students with disabilities. Students at scientific internships, foreign trips in the framework of exchange and academic mobility programmes. | | | | Availability of devices with Internet access (personal computer, tablet, cell phone, etc.) or the possibility of regular access to these devices. Availability: webcam, headphone and / or headset. Internet access. Internet skills with e-mail and office software packages for creating and editing electronic documents. | | | | |
| Advanced training programs for teachers | | | | | | | | | | | |
| Programmes must generate new research concepts and pedagogical innovations. | | | | Faculty staff | | | | | Creation of database innovator-teachers. | | |

*(source from internal documents of KazNU “The concept of modernization of educational programme, KazNU, 2018)*

It is undoubtedly true that there should be coordinators of degree programmes, who should monitor and periodically evaluate study programmes to ensure that they achieve their goals and meet the needs of employers, students and society. Accordingly, the results of these processes should lead to continuous improvement of programmes. Without a question, all interested parties should be informed of any actions planned or taken with respect to the programmes. Constant monitoring, periodic evaluation and revision of educational programmes are aimed at ensuring their effective implementation and creation of favourable learning environment for students. In this regard, it is worth to note the following area of monitoring that it encompasses:

* content of programmes in the light of the latest achievements of science in a particular course
* unstable needs of society;
* workload and performance of students;
* effectiveness of student assessment procedures;
* expectations, needs and satisfaction of students and employers with programmes;
* educational environment and support services and their relevance to the objectives of the programmes.

Undoubtedly, degree programmes should be regularly evaluated and reviewed with students engagement and with participation of other stakeholders. In addition, the collected information should be analyzed and the programme should be brought in line with modern requirements, as well as an external assessment of degree progammes, mainly programme accreditation should be held.

As it has been mentioned previously, one of the main strategic directions of KazNU is quality development of educational services (Annual Rector’s Report, 2018). In this regard, the number of significant mechanisms of strategy realization such as priority to enhancement of quality of educational programmes, internationalization of educational activity, diversification of educational programmes, implementation of innovative technologies, development of infrastructure and finally, advanced training programmes for teaching staff, has been highlighted.

Actually, it is undoubtedly true, that the evidence of quality updated educational programmes, which meet the modern requirements of society and labour market is the number of students enrolled to the university and the whole picture of employed graduates. Please refer to *Figure 1 – Number and quality of enrolled students and Figure*  *2 – Number of employed students.*

*(Source from Rector’s annual Report, 2018)*

Figure 1. Number and quality of enrolled students

*\*winners of republican Olympiads, winners of a special award “Altyn Belgy” (The best result for educational achievement after school graduation).*

*(Source from Centre for career and professional development, KazNU, 2018)*

Figure 2. Number of employed students

In support of educational programmes as a tool to enhance the quality of educational services, the university has developed for about 70 joint or double diploma programmes with international partners. It is no doubt, the sign of quality programmes that provide KazNU. Annually, the administration and 16 faculties of the university in cooperation with employers and foreign partners, as well as with students’ engagement perform intensive activities on the improvement of quality of educational programmes. In addition, the project of development of innovative degree programmes, which emcompasses four crucial aspects of the society and industry, like “Digital Kazakhstan”, “Development of traditional basic industries – Modernization 3.0”, the project in the context of governmental programme “Spiritual enlightenment” and finally, “Provision of a new generation of human resources - interdisciplinary education”, has been launched.

According to Manarbek et al after the integration of Kazakhstan into the European Higher Education Area in 2010, and in response to world competitiveness in tertiary education, the government has promoted the universities to aspire international accreditation of study programmes, as an innovative approach to externally evaluate the quality of programmes (2018).

Figure 3. International recognition of educational programmes

In this regard, al-Farabi KazNU closely cooperates with international accreditation agencies such as ASIIN, ACQUIN, AQA and FIBAA. The share of successfully accredited educational programmes in these accreditation bodies is over 92 percent. Mainly, 241 educational programmes successfully have passed the process of international specialized accreditation. The number of degree programmes is under the state of re-accreditation.

Figure 4. Accredited degree programmes in the context of accreditation agencies

**Conclusion**

On the whole, it is worth to outline that, successful implementation of innovative degree programmes is based on the following factors:

* + high-quality staff with appropriate qualifications, able to provide quality improvement of professional training;
  + expansion of experience for attracting practitioners, members of professional communities, graduates of the “Bolashak” state programme\*, English-speaking experts through volunteer organizations and exchange programmes, foreign scientists;
  + improvement of partnerships with employers, expansion of practice on opening joint departments and centers, application of information and technical resources of an enterprise in the educational process;
  + development of university support programmes for personal development of a teacher through advanced qualification courses, as well as scientific and methodological internships in the framework of existing agreements and memorandums with foreign partner universities;
  + organization of educational activities in accordance with the key principles of the European educational area: student-centered approach to learning. The transition from reproductive learning to constructive. Transition from the knowledge-based paradigm to the activity-based one.
  + modernization of the assessment system, development of criteria and evaluation materials designed to assess learning outcomes;
  + modernization of the resource support of educational programmes; an increase in the share of audiences with modern material and technical equipment corresponding to the profile of the target course (including multimedia); provision of all educational laboratories with modern equipment;
  + fulfillment of conditions and recommendations provided by accreditation agencies and quality experts in improving the quality of educational programmes.

To conclude, unquestionably the process of modernization of educational programmes achieves the number of strategic goals of the university. First of all, the update of degree programmes guarantees quality higher education in the context of global trends for the preparation of competitive graduates. Secondly, the modernization discloses introduction of practice-oriented educational programmes for the training of highly qualified specialists for priority sectors of the economy, as well as development of educational programmes in accordance with modern standards of vocational education, expansion of the research / practical component, digitization of the educational process based on a competence-based and student-centered approaches. Thirdly, diversification of the educational programmes provides the introduction of new educational technologies based on ICT, and the expansion of target potential consumers of educational services, including inclusive education. Equally important, modernization of the content of degree programmes based on recommendations of international accreditation agencies will significantly contribute to quality higher education, which complies with the European standards for quality assurance of education. As might be expected, diversification leads to the increased number of joint international double-degree programmes with leading universities abroad, which in its turn will be a reason for attracting foreign students. This results in the increase of the share of educational programmes with an English language of learning. Finally, a new innovative approach for the update of programmes content will promote degree programmes in international rankings and rating.

*\* “Bolashak” state programme – a governmental scholarship to study abroad. The programme includes both academic studies (master's and doctoral studies), research and production internships at leading companies and universities in the world.*

**References**

Aamodt, P.O, Frolich, N. and Stensaker, B (2018), ‘Learning outcomes - a useful tool in quality assurance? Views from academic staff,’ *Studies in Higher Education.* 43 (4), 614-624.

Abdullah, F. (2006b). The development of HEdPERF: a new measuring instrument of service quality for the higher education sector. International Journal of Consumer Studies, 30(6), 569–581.

Cronin, J. J., & Taylor, S. A. (1992). Measuring quality: a reexamination and extension. Journal of Marketing, 56(3), 55–68.

Decree of the President of the Republic of Kazakhstan on granting special status to higher educational institutions. 5 July 2001 No. 648.

Law of the Republic of Kazakhstan “On Education”. 27 July 2007. № 319-III (with amendments and additions. 01.01.2019). https://online.zakon.kz/Document/?doc\_id=30118747

Law of the Republic of Kazakhstan “On Accreditation in the field of quality assurance”. 5 July 5, 2008 No. 61-IV (with amendments and additions 29 March, 2016).

Manarbek G., Kondybaeva S., Dr. David Celetti. (2018). The role of international accreditation in Quality Assurance of Higher Education. *The Journal of Economic Research & Business Administration.* №1 (123). 47-58 pp.

Mahapatra, S. S., & Khan, M. S. (2007). A framework for analysing quality in education settings. European Journal of Engineering Education, 32(2), 205–217.

Nabwera H., Purnell S., and Bates I (2008), ‘Development of a quality assurance handbook to improve educational courses in Africa’, Human *Resources for Health*. 6(28), 1-5.

Naidu, P and Derani, NES (2016), ‘A Comparative Study on Quality of Education Received by Students of Private Universities versus Public Universities’, Proceedings of the  7th International Economics and Business Management Conference (IEBMC), DOI: 10.1016/S2212-5671(16)00081-2, 05-06 October 2015, Kuantan, Malaysia, 659-666.

Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality. Journal of Retailing, 64(1), 12–40.

Qualification requirements to educational activities, approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan. 29 June, 2015. № 391. http://adilet.zan.kz/rus/docs/V1500011716

QS World University Rankings 2019. https://www.topuniversities.com/university-rankings/world-university-rankings/2019

Rules for the organization of education based on credit technology. 20 April 2011. № 152. (with amendments from 02 June, 2014. № 198. http://adilet.zan.kz/rus/docs/V1100006976

State general compulsory standard for higher education, approved by the Government of the Republic of Kazakhstan. 23 August, 2012. № 1080 (with amendments from May 13, 2016 № 292). http://adilet.zan.kz/rus/docs/P1200001080.

State programme "Information Kazakhstan-2020". 19 March, 2010. № 257. http://adilet.zan.kz/rus/docs/U1300000464

The concept of modernization of educational programmes, al-Farabi Kazakh national University, 06 November 2018. https://online.zakon.kz/Document/?doc\_id=1023814#pos=0;200

Zakaria, A. Ahmad, M. and Norzaidi (2009), **‘Determining World Class University from the evaluation of service quality and students satisfaction level: An empirical study in Malaysia’,** *International Journal of Scientific Research in Education*, 2 (2), 59-66.

Vajda, B., Farkas, G., & Málovics, É. (2015). Student evaluations of training and lecture courses: development of the COURSEQUAL method. International Review on Public and Nonprofit Marketing, 12(1), 79–88.