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МИНИСТРЛИГИ

# Current Context and Perspectives of Quality Assurance in Education of the Kyrgyz Republic



**THE STATE AND PROSPECTS OF THE  
EDUCATION QUALITY ASSURANCE  
SYSTEM IN THE KYRGYZ REPUBLIC**

COLLECTION OF ARTICLES

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The state and prospects of the education quality assurance system in the Kyrgyz Republic.  
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The collection of articles aims to address current issues, ways and means to solve challenges of improving the quality of higher education in the Kyrgyz Republic. The collection provides an overview of the transformations in the higher education system, describes the experience, prospects and efforts to ensure the quality of education undertaken by the MES, universities, independent accreditation agencies and international partners to improve the quality of higher education in the country. The publication can be useful to researchers, teachers, students, graduate students and anyone interested in the problems and prospects of development of the quality assurance system in higher education in the Kyrgyz Republic.

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## INTRODUCTION

Since the independence of Kyrgyzstan, the national education system has undergone a number of transformations and changes. Reforms carried out by the state in various domains contributed to the reformation of higher professional education as well. In the process of reforms, attention was focused on improving the quality of education, its accessibility, and its integration to the world educational space. Given world integration and globalization, training of highly qualified specialists has become a priority in the development of the country's economy.

In order to train graduates capable of adapting to rapidly changing external environment, and ensure that the content of education adheres to all quality principles, the Ministry is working on a number of projects to modernise the education system of the Kyrgyz Republic.

The higher professional education system is currently undergoing reforms in three main areas:

- Integration of education, science, innovation, and production;
- Internationalisation of higher professional education;
- Autonomy of HEIs to enhance academic and financial capacity.

This will facilitate self-regulation and self-financing of universities, as well as ensure development of diversity, variability of educational programmes, which will lead higher professional education system to focus on demand - not only from the state, but also from citizens, various social and professional groups, market economy, country's provinces, etc. In other words, there will be an opportunity to train specialists of new breed, at the intersection of areas ("Digital agronomy", "Digital economy", "Digital management in public administration", etc.).

In addition, the reform of higher professional education in the aforementioned areas will enable creating broad, advanced markets of educational services, their export and import. It will also facilitate optimization of the HEIs' network based on vital needs, as well as creation and development of new types of education and institutions, while curtailing or retooling those that do not meet current and future development needs of the country (creating two types of institutions: research and applied).

Undoubtedly, these reforms should result in high ranking of KR's HEIs at international market of educational services. They are also expected to boost effectiveness of HEIs' contribution to the country's foreign policy implementation, and ensure recognition of qualifications and competitiveness of graduates at international labour market.

# HIGHER EDUCATION POLICY OF THE KYRGYZ REPUBLIC

## KEY AREAS OF HIGHER EDUCATION DEVELOPMENT IN THE KYRGYZ REPUBLIC

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In accordance with the KR's Law on education, higher professional education includes training and retraining of bachelors, specialists and masters in order to meet individuals' needs to deepen and broaden his or her education.

There are currently 73 HEIs operating in the KR, of which 33 are state-owned and 40 are private. 25 state universities are directly subordinate to the KR's Ministry of Education and Science and another 8 are subordinate to relevant ministries. 20 HEIs are located in the country's regions. In the last five years, there has been a significant increase in the number of HEIs, mainly due to foundation of private educational organisations.

A total of 183,000 students are enrolled in KR's HEIs, of which 128,300 are full-time students. The state budget finances 16% of students, while 84% of students study on a contractual basis. More than 40,000 foreign students study in KR's HEIs. There are medical HEIs successfully operating in the republic that only admit foreign nationals (India, Pakistan) with English as the language of instruction.

There are more than 12,000 teachers in HEIs, of whom 6.2 per cent are Doctors of science, 4.9 per cent are Professors, 26.8 per cent are Candidates of science and 17.8 per cent are Associate professors.

Since the 1990s, institutions of higher education have been active in exploring and incorporating modern trends in higher education development and the Bologna Process principles into the education system.

The KR's education legislation introduced a multi-level system of higher education in 1992, which involved parallel existence of a bachelor/master's and specialist (with a diploma) training system based on traditional Soviet system.

Taking into account accumulated experience, the two-tier structure of higher professional education (bachelor's and master's degree) was established in the Kyrgyz Republic in accordance with Resolution No. 496 of the KR Government of 23 August 2011. The training of specialists according to five-year programmes has been retained in health care, culture and art, and in some technical and humanitarian specialities.

The first admission of applicants to study under new standards took place in 2012. The gradual transition of KR's higher education system to a two-tier structure was therefore completed in 2017 (in 2017, universities had their last part-time students in five-year programmes graduate).

The development of PhD programmes is underway. Since 2013, PhD programmes have been piloted in 6 HEIs in the Kyrgyz Republic. In 2019, the Law on Amendments to the Law "On Education" was adopted, which introduces the PhD qualification for the first time. In accordance with the Resolution of the KR Government No. 601 of 11 December 2020, the Regulation on the procedure for the organisation of postgraduate professional education (basic doctoral studies (PhD) and the award of the PhD/Doctor in the profiled field and Minimum Requirements for the accredited educational programmes for the PhD/Doctor in the profiled field were approved. At this stage, the HEIs have started the preparation for obtaining approval for the implementation of the programmes in PhD/Doctor in the profiled field.

The process of transition to a two-tier structure of higher education is accompanied by constructive changes in the design of higher professional education (hereinafter referred to as HPE) content at all levels.

The State Educational Standards (hereinafter referred to as SES) set fundamentally new features of the HEI's educational programme:

- Based on expected educational outcomes;
- Correlation with level (Dublin) descriptors, which ensures consistency and comparability of degrees among HEIs not only nationally, but also internationally;
- The use of the credit system in determining workload of both the educational programme as a whole and all of its elements (modules, disciplines);
- Increasing university's social responsibility for personal development of students, unlocking their intellectual, spiritual and moral potential, and shaping universal competences;
- Increasing students' academic freedom to choose different individual educational trajectories;
- To expand the autonomy and academic freedom of HEIs and academic staff in designing educational content and using educational technologies;
- Strengthening the accountability of HEIs and their degree of responsibility for the quality of the educational programmes they deliver;
- The establishment of a sustained dialogue between the HEI and their social partners, in particular those from the world of employers;
- Increasing the responsibility of academic staff and students for the effectiveness of educational process and educational outcomes.

Importantly, the standards of new generation set minimum requirements not for processes (in the form of topics and workload for each subject), but for learning outcomes formulated in terms of competencies: universal and professional. Competence is seen as a dynamic combination of personal attributes, knowledge, skills and abilities required to engage in professional activities in relevant field.

Another important aspect of the new SES in HPE is that Educational and Methodological Associations (hereinafter EMA) responsible for the development of SES in HPE have attempted to shape expected learning outcomes at educational programme level based on so-called Dublin

Descriptors. The Dublin Descriptors are the basis of a qualifications framework of the European Higher Education Area.

In December 2019, the layouts of SES in HPE have been radically revised. The new layouts of SES in HPE establish a direct link with the National Qualifications Framework and professional standards, and allow for a significant increase in the autonomy of educational institutions in shaping educational programme of higher education.

The SES, in the part related to educational programme content, defines: 1) the list of competencies to be mastered by a graduate; 2) the structure of basic educational programme of higher education; 3) the volume (workload) of each block in credits.

The set of disciplines (modules) belonging to the basic part of a Bachelor's, Master's or Specialist's programme shall be determined independently by the educational organisation in the volume established by the standard, taking into account the list of competences.

Increased level of responsibility set by the SES is fixed in parallel within the documents aimed at replacing HEIs' state attestation by independent accreditation. The most important accreditation criteria are the approaches to defining of educational programme's objectives, designing expected educational outcomes and shaping the content based on them, selection of teaching methods and assessment.

The quality assurance system is also undergoing a radical restructuring. State functions of external quality assessment have been currently delegated to non-state actors, in accordance with amendments to the KR Education Law adopted in 2013.

The licensing procedure, which allows an educational organisation, including HEIs, to implement an educational programme, is left to the Ministry of Education and Science of the Kyrgyz Republic.

All educational organisations are accredited in accordance with the procedure established by the legislation of the Kyrgyz Republic in order to confirm the quality of educational services provided. A new body was established to coordinate the development of independent accreditation: National Accreditation Council (NAC) is established under the Ministry of Education and Science of the Kyrgyz Republic and chaired by the Minister of Education and Science. It functions on a voluntary basis, as an advisory and consultative body established to consider the recognition of accreditation agencies in a collegial and transparent manner.

For the first time in the Kyrgyz Republic, on the basis of European standards, a legal and regulatory framework has been formed for introduction of independent accreditation procedures for professional education quality, recognition of KR's diplomas abroad, and integration of the education system into global educational space. The National Accreditation Council has recognised seven accreditation agencies so far.

68% of HEIs in the KR have undergone programmatic and institutional independent accreditation by accreditation agencies recognised by the NAC.

However, there is still a need to improve the regulatory framework for recognition of independent accreditation agencies, programme accreditation, its development for institutional accreditation as well as the establishment and development of an independent ranking of HEIs in the KR, which is being introduced starting from the 2018-2019 academic year.

In 2019, the legislative framework for the formation of the National Qualifications System in the KR was established. The KR Law "On Education" includes the concepts of "national qualifications system", "national qualifications framework", "industry-based/sectoral qualifications framework", and "professional standard". The Law also includes norms according to which training of specialists at all levels of professional education should be carried out in accordance with the national qualifications system.

On 30 September 2019, the Concept of the National Qualifications System in the Kyrgyz Republic was approved by a Resolution of the KR Government.

In September 2020, the National Qualifications Framework of the Kyrgyz Republic was approved by a resolution of the KR Government.

Draft industry-based/sectoral qualifications framework Methodology, professional standards Methodology, including draft layouts of professional standards, qualifications framework for education sector have been developed.

In the next two years, much work remains to be done to create other elements of the National Qualifications System of the Kyrgyz Republic, which will form the basis for decisions in further reformation of professional education at all levels, ensuring recognition of qualifications and their compliance with national and transnational labour market requirements.

In order to ensure that everyone has access to quality education with a focus on preparing graduates capable of adapting to rapidly changing external environment, participating actively in development and implementation of innovations in all domains of life, and ensuring the formation of educational content adhering to all quality principles, the Ministry is currently working on a number of projects to modernise the KR's education system.

The priorities of the HEI system development in the KR are:

- Transforming HEIs into University 4.0: Integrating Education + Science + Innovation = Economic Development.
- Development of academic and financial freedom of HEIs (since education is dynamically changing and requires increasing material costs for development, it is necessary to create conditions for self-regulation and self-financing of universities).
- Reform of financing of research projects and training of scientific and pedagogical staff: financing projects integrated with industry, integration into global scientific space, improving quality of scientific staff training through the introduction of PhD studies.
- Division of HEIs into two types: research and applied.



Research universities should have a greater degree of academic and financial freedom, to become innovation and entrepreneurship centres. Research should be integrated with industries and geared towards regional development.

Main task of applied HEIs is high-quality training of specialists for labour market, based on an effective tool for forecasting labour market needs and elements of dual training form.

At the same time, it is important to ensure the following:

- Further development of the system of HEIs' internal and external quality assurance;
- Improvement of HEIs' external evaluation procedures: institutional accreditation, accreditation of PhD and double degree programmes, development of HEIs' Quality Management System;
- Implementation of innovative educational programmes - training of new-format specialists for the market, i.e. at the junction of "fields", such as "Agrarian Informatics/Digital Agronomy", "Digital Economy", "Digital Management in Public Administration", etc.;
- Improvement of teacher training: providing teachers with effective professional and personal development, to train teachers capable of preparing specialists in accordance with current requirements for changes of education content;
- Development of an education export development programme: increasing attractiveness of KR education to foreign nationals;
- Development of professional standards together with representatives of labour market, and systematic update of state educational standards;
- Further development of inclusive education;
- Development of blended learning: modernising normative regulations for online education;
- Digitalisation of education: Creating modern digital environment at all education levels for effective education system management and transparency of educational processes;
- Launch of HEIs' national rating for development of competitive HEIs in the KR, improvement of education quality and HEIs' integration into global educational space.

## **NATIONAL QUALIFICATIONS SYSTEM IN THE KYRGYZ REPUBLIC**

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Integration processes that have been taking place in the Kyrgyz Republic in recent years have been affecting economic growth rate and structural changes in labour market. Main condition for economic development is to improve quality of human resources, increase competence level of labour force. Development in scientific, communication and information domains changes professional and qualification-related composition of labour resources.

The National Development Strategy of the Kyrgyz Republic for 2018-2040, approved by Presidential Decree No. 221 of 31 October 2018, states that complex and rapidly changing economic situation in the world and the region, digital transformation that has engulfed key areas of social life and global economic sectors, growing pressure of humanity on the Earth's ecosystem expressed as changes in global climate and demography, all require a new model for the country's

development. Quality and standard of living, human rights and obligations have been placed at the centre of government policy. The KR National Development Strategy for 2018-2040 is aimed at creating an environment for human development, unlocking the potential of everyone who lives in our country, ensuring their well-being.

The recent changes in the country's education system require development and application of new approaches and requirements to the education system, a very topical task within this process is the formation of a National Qualifications System in the country.

Improving the development of competences and skills, reforming and improving the quality of professional education systems are high on the policy agenda in most countries. A particular concern in many countries is improving the interaction between training systems and labour markets.

The creation and development of a National Qualifications System is seen as the most important effective political and economic tool for achieving these objectives. Globally, a country's competitiveness and ability to innovate will be based on its population's skills. Based on various studies, in the next 20 years most of today's work processes could be computerised. Most of new jobs to be created will require high-level skills, so it is necessary to create conditions for the population to improve their skills based on these changes, as well as to introduce a mechanism for recognition of qualifications in other countries, for instance, host countries of KR's labour migrants (Russian Federation and Republic of Kazakhstan).

In order to create a normative legal framework for the National Qualifications System, amendments were made to the Law of the Kyrgyz Republic "On Education", in particular new terms were introduced to facilitate the creation of the National Qualifications System, such as PhD, qualifications and levels of qualifications, National Qualifications Framework, National Qualifications System and professional standard, which was approved by Decree No 71 of 14 June 2019. According to this Law, National Qualifications System is a set of mechanisms to ensure the interaction of education system and labour market, including the National Qualifications Framework, industry-based/sectoral qualifications frameworks, professional and educational standards and their recognition procedures, qualifications assessment systems, educational organisations and programmes.

The Ministry of Education and Science of the Kyrgyz Republic, within the framework of the "Sector Development Programme: Skills for Inclusive Growth", is working on the creation and implementation of the National Qualifications System, so for this work an expert group has been founded according to the order of the Ministry No. 504/1 of 30 April 2019.

This working group developed the Concept of the National Qualifications System, which was approved by Resolution No. 505 of 30.09.2019 of the Government of the Kyrgyz Republic, its objectives are:

- Increasing demand for workers' qualifications from labour market and supply of qualifications from education system;
- Formulating approaches to develop and launch a national system for recognition of learning, including means to develop and operationalise national qualifications policies, institutional

arrangements, processes, quality assurance, assessment and award and recognition processes, and other mechanisms that link education and learning to labour market and civil society.

The objectives of the Concept are:

- Defining framework conditions for recognition of qualifications and learning at national and international levels, including promotion of lifelong learning;
- Identification of key tasks and mechanisms aimed at creating conditions for sustainable development of primary, secondary, higher and postgraduate professional education system and its adequate response to requirements of educational services' consumers;
- Establishment of a methodological and organisational framework for the development, implementation and improvement of the national qualifications system;
- Defining of actors' role in development, implementation and launch of components of the national qualifications system in the Kyrgyz Republic.

The Concept outlines the basic notions and terms for the national qualifications system, functions and tasks of the national qualifications system, and key stages of the Concept implementation.

According to this Concept, basic principles for development of the National Qualifications Framework are identified, such as

- Systematicity, which will be ensured through integration of all types and levels of professional education (formal, non-formal and informal) into a common structure, formation of a common strategy for development of labour market and education system to allow planning of various educational paths leading to specific qualifications, promotion of one's qualification level, career development, through correspondence of qualification levels' hierarchy to the structure of labour division and national education system of the Kyrgyz Republic;
- Comparability, for which during the development of the structure and elements of national qualifications system, global experience will be taken into account, as well as qualifications systems of the countries that form the regional labour market and common labour markets formed within agreements, as well as the European Qualifications Framework, the qualifications framework of the European Higher Education Area;
- Transparency achieved through the involvement of all stakeholders in the development of the national qualifications system, mutual interest of professional education and labour market in improving the quality of training and ensuring competitiveness in graduates' professional activities, transparency in description of necessary procedures, qualification level requirements for all users;
- Flexibility, which will be ensured by upgrading existing ways and means of attaining and awarding qualifications;
- Consistency, which will be ensured by implementing logically interlinked activities, with a common criteria and methodological framework, within a set time frame.

The country is expected to establish a base and system for training highly qualified specialists, and regional hubs that introduce innovations in digital economy, applied research and development using state-of-the-art technologies will stimulate creation of new intellectual jobs and enable Kyrgyzstani citizens to work globally.

Main interrelated elements of the National Qualifications System are

- national qualifications framework;
- professional standards and procedures for their recognition;
- industry-based/sectoral qualifications frameworks;
- qualifications assessment systems.

Primary elements of the National Qualifications System will be closely connected with the state educational standards of the KR, as well as internal and external quality assurance systems for educational programmes.

Domestically, a National Qualifications Framework provides an opportunity for different categories of people to obtain objective information on the state of the education sector and labour market. For example, employers will have reliable indicators to understand competence level of job applicants and employees, benchmarks to compare qualifications, indicators of qualifications' quality and their relevance at national level; while employees will be able to plan their own training and careers in an informed way.

According to the implementation stages of the National Qualifications System Concept, an action plan for the implementation of the National Qualifications System Concept in the Kyrgyz Republic was developed and approved by Resolution No. 79-r of the Government of the Kyrgyz Republic dated 16 March 2020.

The core of the National Qualifications System is the National Qualifications Framework (hereinafter NQF), which defines a common scale of qualification levels for the development of industry-based/sectoral qualifications frameworks and professional standards. It helps ensure inter-industry comparability of qualifications and serves a basis for the system of compliance and award of qualifications to professionals.

As part of launching the National Qualifications System, the NQF was developed, which was approved by the Decree of the Government of the Kyrgyz Republic No. 491 of September 18, 2020. According to this Resolution, NQF is designed for different groups of users (state bodies, employers, enterprises, educational organizations, citizens) and provides a common methodological basis for developing professional standards, education standards and educational programmes. It also uses a common vocabulary to describe the requirements to learning outcomes in terms of qualifications and competencies of specialists and graduates of educational institutions when developing professional and educational standards, to develop assessment materials and procedures for determining qualifications of graduates of all levels of professional education, to form an overall development strategy of the labor market and education system, including the planning of various educational trajectories leading to specific qualifications, qualification upgrading, career growth.

NQF is a document containing a generalized description of qualification levels and designed for different user groups (employers, their associations, educational authorities, educational organizations, citizens). NQF KR aims to ensure identification, recognition and comparability of qualifications obtained by the KR citizens within the country and globally in the context of synchronization of relationship between professional training and labor market. It also ensures transparency of qualifications for all stakeholders, supports lifelong learning through recognition of qualifications obtained in formal, non-formal and informal education, promotes professional

mobility of citizens through comparability of qualifications within the European and other qualifications systems. The National Qualifications Framework serves to measure and compare learning outcomes and establishes the correlation of diplomas, certificates and other documents confirming the completion of education and training.

In the Kyrgyz Republic, the NQF includes 9 levels, given progressive complexity of levels both in terms of the employee's knowledge and skills, and in terms of competencies, which in this document are understood as the level of a person's capabilities in the workplace (through manifestation of such qualities as autonomy, responsibility and communication). Accordingly, the first level is the level of elementary knowledge and skills, which gives the opportunity to work under the guidance of a mentor and have a limited range of authority. The ninth level of qualification allows to solve collectively and individually not only large-scale practical tasks (at the state and/or international level), but also to comprehend them at the level of methodology, which is the basis for making strategic decisions.

Main ways to achieve the level of qualification for higher professional and postgraduate education specified in the NQF, related to training, education, practical work experience, are presented in the following table:

*Table 1. Ways to reach the qualification level*

<b>Qualification level</b>	<b>Ways to reach the qualification level</b>
6	Bachelor's degree. Programs of secondary professional education and additional professional education, practical experience.
7	Master's degree, practical experience. Specialist's degree, practical experience. Bachelor's degree and additional professional education, practical experience.
8	Postgraduate education (programs leading to the qualification of PhD, Doctor of Philosophy (PhD/doctoral in the profiled field and/or practical experience). Master's or specialist's degree, additional professional education, practical experience.
9	Postgraduate education (PhD qualification, practical experience) and public and professional recognition at sectoral, interdisciplinary, international level. Postgraduate education (qualification of candidate of sciences, PhD/doctor in profiled field and practical experience and/or additional professional education) and public and professional recognition at sectoral, interdisciplinary, international level.

Workload to achieve the qualification level in formal education is determined within the sectoral qualifications framework and professional standards.

For the qualification levels of higher professional education, the workload is measured in credits, which correspond to the state educational standards. In this case, 1 credit is equal to 30 academic hours. Workload of the 9<sup>th</sup> qualification level is not formally fixed.

Table 2. Workload of the NQF KR – levels 6-9

<b>Workload (credits, hours), duration (months, years)</b>	<b>NQF level</b>
240 credits	6
60-180 credits	7
180-240 credits	8
Not defined	9

Descriptors of qualification levels of higher professional and postgraduate education are shown in the table:

Table 3. A fragment of the NQF KR – levels 6-9

<b>Level</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Personal competencies (1 - independence, 2 - responsibility, 3 - communication)</b>
6	Possesses a broad range of integrated general and professional knowledge, including critical understanding of theories and principles, in the field of work and learning.	Possesses a broad range of methods, including innovative methods, skills to select and apply them to solve complex problems in work and learning, and critical thinking skills.	1 - Manages complex actions, processes. 2 - Responsible for making decisions in unpredictable work or learning environments, and managing professional development of individuals or groups. Participates in expert groups and development of strategic development plans. 3 - Conducts business communication and maintains partnerships.
7	Possesses highly specialized knowledge and methods of scientific research in the field of work or learning, as well as general and professional	Possesses specialized skills to solve strategic problems and problems in research and/or innovative professional activities, production of new knowledge,	1 - Manages and transforms a complex unpredictable work or learning environment with innovative approaches. 2 - Is responsible for making decisions in unpredictable environments. Evaluates strategic group indicators.

	knowledge in related fields.	original ideas and/or scientific research.	3 - Organizes activities of expert/professional groups/organizations, presents results of their work. Leads professional discussions at the level of profile and related industries. Solves communication tasks in all spheres of activity.
8	Possesses the most advanced knowledge in the field of work or learning in related fields.	Possesses the most advanced and specialized skills and techniques, including synthesis and evaluation needed to solve critical problems in research and/or innovation, and to expand and redefine existing knowledge or professional practice.	1 - Demonstrates autonomy, innovation, scholarly and professional integrity, and a sustained commitment to developing new ideas or processes in cutting edge areas of professional practice or learning, including research. 2 - Is responsible for implementing his/her research findings at the institutional level and/or industry-wide. 3 - Leads research or professional teams in solving complex or interdisciplinary problems.
9	Possesses the latest comprehensive sectoral and interdisciplinary knowledge in the field of research and innovation in professional area.	Possesses the skills to solve problems of methodological, program and research nature related to improving efficiency of production and research processes.	1 - Demonstrates high level of independence in scientific activity. 2 - Is responsible for the result of implementation of his/her own research and research of scientific team, as well as for its economic effect industry-wide, as well as at country and international level. 3 - Demonstrates the ability to strategically lead large research and/or production teams, as well as to train scientific personnel.

At the moment, in the KR work is underway in accordance with the action plan to roll out the National Qualifications System (Resolution No. 79-p of the KR Government).

## **THE DEVELOPMENT OF PHD PROGRAMME IN THE KYRGYZ REPUBLIC**

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With the introduction of the new qualification of Doctor of Philosophy (PhD) on 14 June 2019 as a level of postgraduate professional educational qualification that entitles individuals to carry out scientific and other professional activities, an inter-agency working group was established to develop the PhD regulation in the Kyrgyz Republic.

This was preceded by a long process of introducing and implementing two-level higher education, an experiment with pilot PhD programmes, and the participation of Kyrgyz universities in a number of international projects to reform higher education.

Thus, in September 2013 an experiment was launched to implement pilot PhD programmes in pilot HEIs (Decree of the Ministry of Education and Science of the Kyrgyz Republic No. 733/1 of December 12, 2012). Seven universities (Kyrgyz State University of Construction, Transport and Architecture, Kyrgyz State Technical University, Kyrgyz National Academy of Sciences, International University of KR, International Higher School of Medicine, Kyrgyz National University, ADAM University, Academy of Management under the KG Government) were selected as pilot HEIs, which at that time were implementing various projects to introduce the third cycle of education in cooperation with leading European universities within the Erasmus programme. According to the experiment, pilot programmes were launched, such as:

- Renewable energy and environmental technologies;
- Mechanical engineering;
- Electricity;
- State and municipal administration;
- Public health;
- Management, Management/Agro Management;
- Economics, Economics/Agriculture Economics;
- Business management.

For successful implementation of PhD programmes, regulatory documents have been developed and approved: state requirements for PhD theses, state requirements for PhD theses defence, regulations for PhD training programmes (MES Order No. 311/1 of 31 May 2013).

The results showed that the experiment went well overall, but not all of the declared programmes were successfully defended, with the exception of humanities majors.

The experience of the International University of the Kyrgyz Republic (hereinafter - IUKR) is an example of positive experience in implementation of the PhD programme. From 2013 to 2018, over 50 doctoral students were enrolled in two pilot programmes in economics and business management at IUKR, of which over 20 successfully defended their doctoral theses and received PhD diplomas from IUKR. Among the PhD students there were students from Kazakhstan, whose diplomas have been nostrified (recognized) in the Republic of Kazakhstan.

A distinctive feature of the pilot programmes at IUKR was the compulsory research internships in non-CIS countries and availability of a second foreign research adviser. Some research internships



were undertaken as part of the credit mobility of PhD students to the University of Pisa, Italy, under the Erasmus+ programme, as well as under the Tuning in Central Asia project (TuCAHEA).

Another feature and prerequisite for a successful PhD thesis defence at the IUKR was a plagiarism check and a publication in Scopus journals.

From September 2019 to October 2020 representatives of universities of the Erasmus+ DERECKA project consortium members (Candidate of Physical-mathematical Sciences Chynybaev M.K., Candidate of Economic Sciences Bekboyeva R.R, Dzhusupov K.O.), as well as Candidate of Economic Sciences Lailieva E.J. took part in the interdepartmental group on the development of the Regulation on PhD in KR, where the requirements for the launch and implementation of PhD programs, as well as quality assurance procedures were prescribed. Recommendations on licensing requirements for PhD programmes were also developed. The PhD Regulation was adopted by the Resolution of the Government of the Kyrgyz Republic on December 16, 2020.

The content of the PhD programme in the Kyrgyz Republic is as close as possible to international experience and the Salzburg Principles of Doctoral Studies, according to which the curriculum of doctoral students is approved by the HEI and the study period covers 3 years, which can be extended for up to 2 years. The workload of the doctoral study programme varies between 180 and 240 credits, with at least 60 credits being allocated to study subjects. Most importantly, during the period of study a doctoral student is obliged to publish at least 2 articles outlining important scientific research results in academic journals with "non-zero" impact factor and indexed by the international systems Web of Science and Scopus, as well as undergo foreign internship for a period of at least 1 month.

With the launch of the National Qualifications System on 30 October 2019, a roadmap for its implementation was developed, which included the development and approval of the National Qualifications Framework of the Kyrgyz Republic (hereinafter NQF).

In February 2020, representatives of the DERECKA consortium universities developed and made recommendations on learning outcomes (descriptors) for the 8th qualification level of the draft NQF. In addition, members of the working group participated in a broad discussion on the draft NQF.

Based on results of successful PhD pilot programmes in pilot universities in Kyrgyzstan, the working group for the preparation of the regulatory framework for PhD, proposed a national model for the PhD programme, comparable to the European programmes.

On 18 September 2020, the draft NQF was adopted by Resolution No. 491 of the Government of the Kyrgyz Republic "On Approval of the National Qualifications Framework".

Professional and personal competencies of PhD Doctors of Philosophy graduates are prescribed in the NQF, according to which a graduate of a PhD programme should be possessed following competencies:

*Table - Fragment of NQF KR - Level 8*

<b>Level</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Personal competences</b> (1 - autonomy, 2 - responsibility, 3 - communication)
8	Possesses the most advanced knowledge of working or learning in related fields	Possesses the most advanced and specialized skills and methods, including synthesis and evaluation to solve critical problems in research and/or innovation, and to extend and redefine existing knowledge or professional practice	<ol style="list-style-type: none"> <li>1. Demonstrates independence, innovation, scientific and professional integrity, and sustained commitment to developing new ideas or processes in advanced areas of professional practice or learning, including research.</li> <li>2. Is responsible for the implementation of own research findings at institutional and/or industry level.</li> <li>3. Leads research or professional teams to solve complex or interdisciplinary problems</li> </ol>

Due to the work done by the MES and the expert community, there is now confidence that, starting with 2021, universities in Kyrgyzstan will begin to implement PhD programmes to train scientific and pedagogical staff and integrate scientific research into international space.

# EXPERIENCE AND PROSPECTS FOR DEVELOPMENT OF THE QUALITY OF EDUCATION

**UDC 378.4**

**THE QUALITY OF HIGHER EDUCATION:  
PROBLEMS AND SOLUTIONS**

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***Abstract.** This article is devoted to the issues of quality of education. The article considers the problems of improving the quality of education, a brief review of documentation that ensures education quality. The article also describes possible perspectives on quality assurance in HEIs.*

***Key words:** quality of education, accreditation, quality management system.*

**Introduction.** The problem of quality of higher education is topical at the stage of formation of statehood in the Kyrgyz Republic. Priority areas for the country development have not yet been identified. This issue concerns both economic indicators and ideological values that would guide the direction of the country development. Current requirements of the labor market and society require constant improvement, constant mobilization, as the values of society are changing, the renewal of various technologies is very fast.

The quality of higher education is one of the main indicators of specialist training, which is an economic indicator of a state's development in terms of the use of human resources. Most graduates with higher education are forced to work outside their field of study or have to change their qualifications. The problem of lack of jobs, labour migration, and brain drain are indicators that indirectly affect the quality of higher education.

The Ministry of Education, together with the universities, is searching for a strategy to develop and improve the quality of the higher professional education system. Based on the existing post-Soviet system and international experience, we now have a kind of symbiosis of two systems. On the one hand, the five-year higher education system for training specialists with diplomas has not been completely abolished, and the further postgraduate (candidate of science dissertation) and doctorate (doctoral dissertation) systems have been retained. On the other hand, the "Bachelor-Master-Doctorate" system used in Europe and USA has already been introduced.

Improving the quality of higher professional education is one of the first and key issues in reforming the education system as a whole. How can we improve the education quality? What are the priority areas for training specialists to be in demand at labour market? What are the prospects for the development of the higher professional education system?

**A system of documentation to ensure the quality of education.** The laws of the Kyrgyz Republic are the basis for all activities. The main document for the education system is the Law on Education of the Kyrgyz Republic. Based on this law, State Educational Standards (hereinafter - SES) are developed, which define the principles, structure, amount of academic workload of students, requirements to the training level of graduates and the competencies they acquire [1].

Based on the SES, each HEI develops a basic educational programme (hereinafter - BEP) in the field of training. The system of documents (regulations) regulating the process of training is developed for the implementation of BEP.

The quality management system (hereinafter referred to as QMS), which consists of various normative documents, is being introduced in HEIs in the Kyrgyz Republic. The QMS consists of normative documents, which regulate:

- Governing processes (Charter of the HEI, Regulation on quality management system of education, Regulation on the Academic Council, Strategic development plan of the HEI, etc.);
- The key processes (design and development of the BEP, curricula for training areas, time standards for calculating teaching hours of HEI teaching staff, Regulations on HEI structural subdivisions (faculty, department), Regulations on the organisation of educational process, Regulations on the organisation and conduct of internships, etc.);
- Supporting processes (Rules of applicants' admission, Regulations on the discipline-related educational and methodological unit, Rules of library use, Job descriptions, etc.);
- Monitoring, measurement and analysis processes (Regulation on the rating system for student assessment, Regulation on the assessment tool base, Regulation on final assessment of graduates, Regulation on performance assessment of faculty members, departments, faculties, etc.) [2].

Based on the provisions being developed, which aim to improve education quality, the educational process is seen as a set of interrelated processes as follows:

- learning process (class sessions, modules, exams and credits, internships, final qualification work);
- developmental process (cultural and social events, sports competitions);
- creative process (academic conferences, competitions, workshops and personal development trainings).

**Accreditation indicators.** The process of training specialists requires continuous development and improvement. In order to assess education quality objectively, internal and external diagnostics and expertise are needed. Currently, an accreditation system has been introduced to ensure transparency and objectivity in assessing education quality.

Accreditation of educational programmes is carried out according to the following standards, the minimum requirements for which are defined by the Decree of the Government of the Kyrgyz Republic No. 670 of 29 September 2015 "On approval of acts of independent accreditation in the education system of the Kyrgyz Republic":

- Policy on quality assurance in education;
- Development, approval, monitoring and periodic evaluation of educational programmes;

- Person-centred learning and student performance assessment;
- Admission of students, recognition of results and graduation of students;
- Teaching and support staff;
- Facilities and information resources;
- Information management and awareness raising [3].

The purpose of HEIs' independent accreditation is to determine the level of compliance of the programme implementation processes with the requirements (accreditation standards). Independent accreditation also assists in determining the relevance of training in society and labour market, contributes to progress of the education system, including development of higher professional education system. Based on the results of accreditation, HEIs' activities are redesigned, which leads to the development and improvement of educational programmes.

Based on independent accreditation results, strengths and weaknesses of the HEI, opportunities and threats are indicated. Based on the SWOT analysis, the HEI develops a strategic plan for HEI development in order to boost its competitiveness at the market of educational services.

**Outlook.** Improving education quality is one of the priorities of HEI development. In the short-run, HEI's comprehensive assessment and analysis of its current state needs to be conducted.

Given HEIs' mission to train highly qualified specialists, and building on labour market requirements, employers' opinions, as well as all stakeholders (students, graduates, parents, HEI staff), it is necessary to design a model of the graduate. This model should be reflected in the basic educational programme of specialist training. The main points that can be highlighted in the model should reflect the following indicators:

- Competence, which includes not only professional competences, but also universal competences (communication skills, language skills, financial and computer literacy, motivation for continuous personal growth, leadership skills, public speaking skills, teamwork skills, application of scientific and technical discoveries, proactive social activity).
- Demand on the labour market, i.e. a graduate could start working in his/her chosen profession after completing his/her studies. The relevance of specialist training is characterized by the need for professionals with the competences to perform their tasks and achieve positive work results.
- Career opportunities, characterized by the fact that possession of universal competences (leadership qualities, aspiration for personal growth, public speaking skills, ability to work in a team) will enable a graduate to hold managerial positions in the course of his/her professional activity.
- Postgraduate education (master's, postgraduate, doctorate), which enables a graduate to continue his/her studies according to his/her interests. Learning is in most cases individual, which often depends on factors such as self-organization and motivation to learn about scientific advances related to the profession.

There are other important indicators affecting the training process and requiring continuous quality improvement. Let us list the main processes and factors influencing education quality:

- HEI infrastructure, or facilities (classrooms, sports halls, specialized laboratories, practical training facilities);
- Library collection (new textbooks and teaching materials, electronic resources and e-library, scientific periodicals);

- Teaching staff (doctors and candidates of sciences, system of professional development and retraining, scientific and methodological activities);
- Electronic information support (computer labs, licensed programmes and applications, website, projectors and interactive whiteboards).

**Conclusion.** The education quality is the indicator that determines the rating of an educational organization, an entire education system. The more successful a university graduate is, the higher its rating is. There is a huge number of indicators that form rating, where qualitative indicators are translated into quantitative indicators based on the significance of criteria. The main criteria of any HEI rating are:

- achievements of students and graduates;
- social indicators (cultural activities, sport achievements);
- career development for graduates;
- HEI's scientific activities (scientific publications, participation in scientific conferences, applied significance of scientific results).

One of the main indicators of education quality in the system of higher professional education is achievements of graduates. A HEI lays foundation for graduates' future – it forms universal and professional competences, develops personal qualities, and defines their worldview through mankind's accumulated experience and knowledge.

A modern higher professional education system, in order to improve its quality, should:

- integrate into global educational space, through academic mobility and participation in international conferences;
- develop educational programmes that build on labour market requirements and employers' interests;
- open up new training areas at the intersection of related sciences, e.g. computer scientist-economist, teacher-manager, etc.

Given multifaceted nature of the education system, all these problems are significant and require solutions that respond to current challenges.

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3. Decree of the Government of the Kyrgyz Republic No. 670 of 29 September 2015 "On approval of acts on independent accreditation in the education system of the Kyrgyz Republic" <http://cbd.minjust.gov.kg/act/view/ru-ru/98206?cl=ru-ru#p1>

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## INTERNATIONALIZATION OF UNIVERSITIES AND THE DEVELOPMENT OF EXPORT OF EDUCATIONAL SERVICES IN KYRGYZSTAN: EXPERIENCE OF THE KYRGYZ ECONOMIC UNIVERSITY NAMED AFTER M. RYSKULBEKOV

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**Abstract.** *The article points out that the export of educational services in the world is growing annually. Education export is growing in Kyrgyzstan as well. Kyrgyzstan has some potential to export educational services. The situation associated with the COVID pandemic in 2020-21 had an impact on the higher education sector in general, on the development of academic mobility, and export of educational services.*

**Key words:** *education export; education services; higher education; HEIs.*

Higher education responds to all societal changes and processes, as it is the main social institution that functions to meet social needs. At present, and not only, the education system is peculiarly refracting main global trends of human civilization and growing openness of national cultures. Given close conceptual interplay of globalization and internationalization, development of international educational connections is important, as it turns cooperation between national educational systems global.

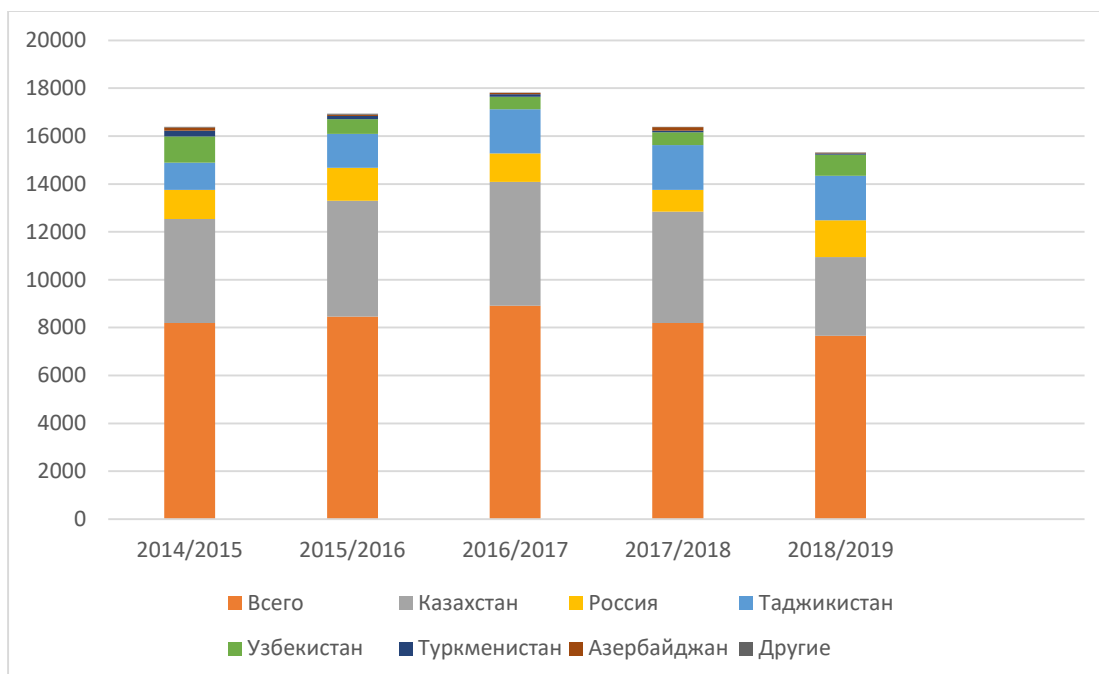
Export of education is a global business that aims to sell educational services to students and trainees from other countries in order to generate profits and expand cultural and economic links [3].

Education export is also on the rise in the Kyrgyz Republic. According to the National Statistical Committee, students from many distant and close countries study in the KR.

Table 1. Number of students from CIS countries  
(at the beginning of the academic year, persons)

Countries	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Total	8 195	8 466	8 908	8 194	7 653
Azerbaijan	132	57	56	153	33
Kazakhstan	4 338	4 828	5 184	4 655	3 294
Russia	1 225	1 377	1 186	910	1 535
Tajikistan	1 130	1 423	1 840	1 864	1 856
Uzbekistan	1 094	620	519	540	882
Turkmenistan	240	129	111	60	51
Others	36	32	13	12	2

Compiled from data of the National Statistical Committee of the Kyrgyz Republic [4, p.125]



As can be seen from Table 1, there is a decrease in the number of international students from CIS countries. The decrease is due to the reduction of students from Kazakhstan, Uzbekistan, Turkmenistan and Azerbaijan. The number of students enrolled in Kyrgyzstan's HEIs from Tajikistan is more stable. Students from the regions bordering Kyrgyzstan, Kazakhstan, Uzbekistan and Tajikistan mainly study at Kyrgyz HEIs. During the period under consideration, the number of students from Russia fluctuated between 1000-1500 people. The number of students from Ukraine and Moldova is insignificant.

Table 2. Number of students from non-CIS countries  
(at the beginning of the academic year, persons)

Countries	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Total	3 467	4 257	5 627	6 520	8 881
Afghanistan	66	107	123	148	169
India	1 709	2 377	3 917	4 745	6 828
Pakistan	628	559	413	390	579
China	255	267	187	269	273
Turkey	679	696	695	655	624
Nepal	45	23	17	15	24
Syria	7	15	16	14	16
Other countries	78	213	259	285	368

Compiled based on data from the National Statistical Committee of the Kyrgyz Republic [4, p.125].



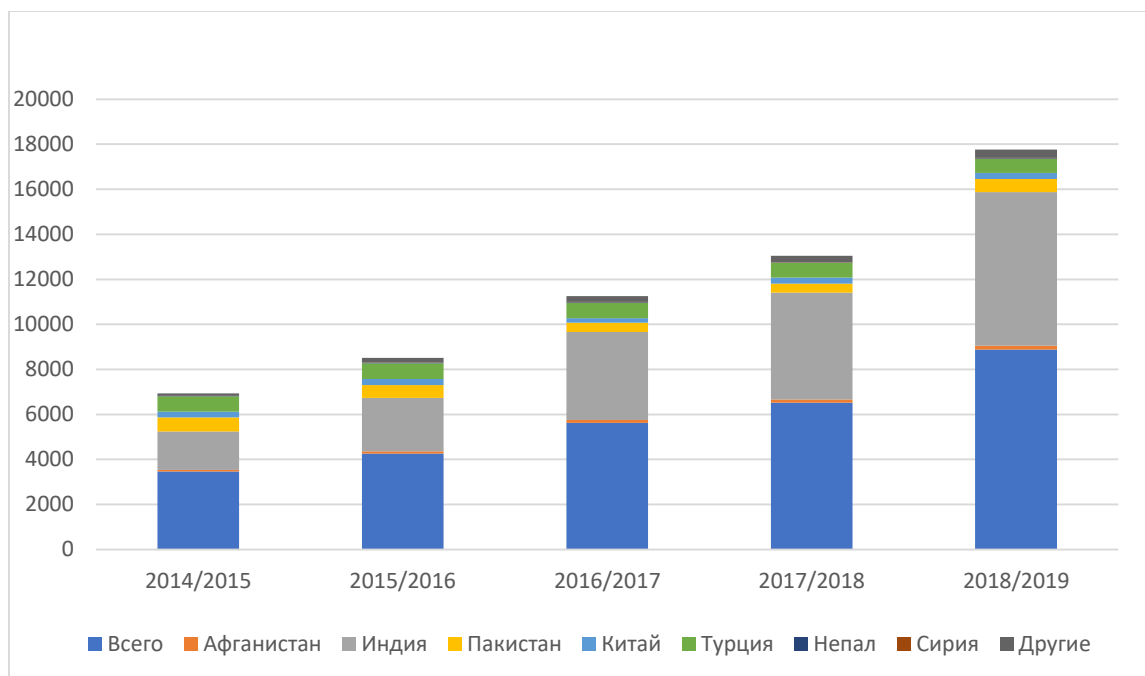


Table 2 shows that the number of international students from non-CIS countries is increasing. Compared to the 2014/2015 academic year, in the 2018/2019 academic year the number of international students from non-CIS countries has increased 2.5 times. The number of students from India increases annually. Thus, during the considered period the number of students from India has increased almost fourfold. Students from India study mainly at medical departments of universities. The number of students from Pakistan and Turkey remains more stable. Although China is close to Kyrgyzstan and shares borders, there are few students from China. However, it is safe to say that Kyrgyzstan has surpassed its Central Asian neighbours to become a regional leader in attracting foreign students.

Foreign students contribute a tangible amount of money to Kyrgyzstan's budget. What makes it an attractive educational destination is that tuition prices are lower than in other post-Soviet states; the cost of food and housing is also low. Here it should also be noted that the influx of foreign students is facilitated by joint universities and joint programmes.

Main factors in increasing the number of foreign students in Kyrgyzstan:

- cost of tuition and accommodation is relatively low;
- good quality of education (as perceived by international students);
- mild requirements for university entrants;
- proximity to their home countries;
- possibility of organizing learning process in different languages;
- availability of scholarships provided by donors.

In the 2019-2020 academic year, Uzbekistan decided to relocate all of its students to continue their studies in their own country, which served to reduce the number of foreign students in Kyrgyzstan's educational institutions. Turkmenistan also forbids its students to study in another country, as it is

a closed country in Central Asia. Students from Pakistan, India, China and Turkey are joining the ranks of foreign students at Kyrgyz universities.

The process of modernization of the Kyrgyz education system is carried out based on global trends; various projects in education are being implemented. Kyrgyzstan participates in formation of a common educational space in CIS format, and is developing education-related cooperation with other countries and partners in integration associations. The Republic has adopted the “Concept of export of educational services of the Kyrgyz Republic for 2016-2020”, which outlines principles, goals and objectives in provision of educational services to foreign students in Kyrgyzstan and abroad. The Concept is a basic document for planning and implementation of a system of measures to promote and develop export of educational services of the Kyrgyz Republic. It sets out goals, objectives, procedures and measures to ensure attractiveness and competitiveness of the KR educational system. The Concept is designed to ensure effective cooperation between state authorities, educational organizations and public associations to ensure and develop export of the KR educational services. Implementation of the Concept aims to achieve strategic objectives of the state policy:

- Strengthening the position of the KR education on global market for educational services;
- Increasing the rating of educational institutions on international rating lists;
- Increasing the share of funds received from the export of educational services within the income structure of HEIs.

Thus, there is room for further expansion of cooperation between Kyrgyzstan and other countries in the field of higher education by attracting more foreign students to the country.

The M. Ryskulbekov Kyrgyz Economic University (hereinafter referred to as KEU) is one of the oldest educational institutions in the country which started its development as a vocational school. Today, it is a multidisciplinary scientific and methodological complex in professional education, which includes 4 institutes, College of economics and service and a lyceum. The main feature of the KEU is that it was one of the first in the country to pass international accreditation and is a laureate of quality in education not only in the Kyrgyz Republic, but also the winner of the European Grand-Prix for quality. The university has established a modern multilevel system of continuous training of specialists in economics: from general education to doctoral studies.

Given internationalization of all spheres of human activity, it is no longer possible to imagine a modern university operating outside a system of international contacts. The wider and deeper a university is involved in the fruitful process of exchange of ideas, technologies, scientific personnel and educational services, the more opportunities it has for its development and the more respected it is in scientific and educational community. This means such a university is able to provide the citizens of Kyrgyzstan and other countries with a higher quality and more comprehensive education.

One of actively developing areas of the university's international activities is our involvement in organizing and hosting a wide range of conferences and creative forums. They are attended by heads of education authorities and university rectors, renowned scientists and educators, postgraduate and undergraduate students, and entrepreneurs.

The university also successfully cooperates with many international organizations and foreign universities. Thus, under the academic mobility and exchange programmes Erasmus+ and MEVLANA, KEU students study in such universities as: A.I. Cuza University Iasi, Romania, University of Applied Sciences Ludwigshafen am Rhein, Germany, South-East University of Norway, Sakarya University, Turkey, NARXOZ University, Kazakhstan, Pskov State University, Ural State University, NRU HSE, Russia. Regarding foreign students, citizens of Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Russia and China study at KEU. Within the Erasmus-Mundus-SilkRoad, university professors visited the University of Zagreb and gave lectures to students on tourism and the political-economic development of the Central Asian region.

At present, the following projects are being implemented at KEU:

- Tempus UNIVIA project "Developing and Improving the International Activities of Universities";
- Erasmus+ EUCA-INVEST project "Investing in entrepreneurial universities in the Caucasus and Central Asia";
- Norwegian project "Sustainable Rural Entrepreneurship and Cultural Heritage Tourism Development between Norway, Georgia and Kyrgyzstan";
- Erasmus+ HECAFS project 'Higher education for food production systems and standards in Tajikistan and Kyrgyzstan';
- Erasmus+ LMPT project 'Training programme for undergraduate and postgraduate tourism development in China, Vietnam and Kyrgyzstan'.

In recent years we have been actively working with universities in the People's Republic of China and the Russian Federation.

In May 2015, the university was accepted as a full member to the New Silk Road University Alliance, which was established at Northwestern University in Xi'an, China. Thanks to this status, KEU will implement the objectives of the international Great Silk Road Economic Belt programme. In November 2015, we co-founded the International council for tourism education with the Hainan Ocean Tropical University. In 2016, KEU co-founded the Mixed/Hybrid education association along with renowned universities such as Asian University of Taiwan, Dalian University of China and other partner universities. It should be noted that our university maintains sustainable ties with leading HEIs in Russia, Belgium, England, Scotland, Germany, France, Austria, Finland, Czech Republic, Italy, Portugal, Latvia, Lithuania, Japan, China, India, South Korea, Mongolia, Turkey, Cyprus, Kazakhstan, Tajikistan, and other countries.

International students from Kazakhstan, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan and China study at KEU. The total number of international students is more than 50, of which 13 citizens of Tajikistan, Uzbekistan and Turkmenistan receive visa support from the International cooperation and communications department.

Exporting education implies that it is not only possible to accept foreign students, but also to send our own to other HEIs around the world.

Thus, KEU students have been trained at Ludwigshafen University am Rhine (Germany), Sakarya University (Turkey), Narxoz University, ATU (Kazakhstan), Pskov State University, NRU HSE,

UrSEU (Russia). Postgraduate and master students of KEU have been trained at Masaryk University (Czech Republic), South East University of Norway, Valladolid University (Spain). KEU professors have completed internships at universities in Spain, Lithuania, Latvia, Poland, Tajikistan and Kazakhstan; postgraduate students at KEU have completed internships at Ak-Deniz University (Turkey).

The work done by the KEU in exporting educational services is commendable, but painstaking work remains to be done to create a strategy for exporting educational services for the future in the republic as a whole, namely a comprehensive and systematic scientific study of the export potential of the republic's universities is needed. A comprehensive analysis of HEIs' activities that provide services to foreign students should also be carried out, which will enable an assessment of actual capabilities of domestic HEIs at global education market.

To do this, we need to:

- Analyze the existing legal and regulatory framework for education export of line with international practice;
- Explore possibilities of using international experience in realizing the export potential of Kyrgyz HEIs;
- Identify challenges of all export models related to immigration (obtaining entry and residence permits while studying in the Kyrgyz Republic);
- Increase a distance learning share by using distance learning technologies;
- Conclude intergovernmental agreements on education with countries of strategic interest to the KR.

This should take into account shortcomings in the education system and in HEIs in the KR, such as

- Poor technical level of laboratory and methodological support;
- Education is generally provided only in the state language and in Russian, and limited programmes in foreign languages;
- Non-recognition of diplomas of most Kyrgyz HEIs at international market.

It should also be noted that the situation created by the COVID-19 pandemic in 2020-21 affected the education system worldwide, leading to massive school and university closures. This has severely affected higher education sector as a whole, development of academic mobility, education export and performance and viability of universities. The M. Ryskulbekov KEU has also revised its education export strategy: online courses for foreign students have been created and there are plans to create online diploma programmes, including in partnership with other universities.

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**QUALITY OF EDUCATION**

**THROUGH EFFECTIVE TEACHING STRATEGIES**

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***Abstract.*** *Quality education greatly depends on effective teaching strategies. Higher education institutions' instructors should possess and practice effective teaching approaches, which should be closely aligned with learning objectives. This article presents overview of effective teaching strategies in higher education institutions.*

***Key words:*** *quality of education, teaching strategies, learning objectives*

It is no secret that teaching is a difficult task. There are many people who have professional knowledge. However, not everyone can pass on to others what he or she knows. In fact, despite the fact that teachers have a wealth of knowledge, many find it difficult to communicate their knowledge to others. The main reason is that these professionals find it hard to present what they know. Thus, this article attempts to address the discrepancy between knowledge of a topic and the ability to share it with others by reviewing effective teaching strategies. It is very important to select and apply a wide range of teaching methods correctly in order to shape the expected learning outcomes. The choice of one method or another also depends on the expected learning outcome. The following questions are applied to guide this overview of effective teaching strategies: What does student-oriented learning mean and how can it be implemented? What are effective teaching strategies? What is "active pedagogy" and "active learning"? How can they benefit learners? This article provides information on student-oriented learning, provides a brief introduction to

collaborative learning methods and suggests measures to enhance the effectiveness of teaching strategies.

Effective teaching uses strategies that support a variety of learning styles. The definition of learning strategies in the literature varies. They are sometimes referred to as 'teaching methods', 'styles', 'pathways', or 'approaches. Silova (2010) argues that “teacher qualifications have a significant impact on student learning and that teacher professional development has the greatest potential to improve student achievement” (p. 174). Thus, it is important to improve the teaching process so that it can yield positive learning outcomes.

When writing a review of strategies or approaches, it is important to mention Paulo Freire, who had a significant influence on the concept of student-oriented learning. In his work “Pedagogy of the Oppressed” (1970) Freire criticized the 'banking' model of education, where teachers deposit facts in students' heads.

According to Freire (1970), education thus becomes an act of deposit, in which the students are the depositors and the teacher the depositor. Instead of establishing communication, the teacher issues communiqués and makes deposits, which the students patiently accept, remember and repeat. This is a 'banking' concept of education in which the scope of activities students are allowed to do extends only to receiving, formatting and holding deposits. They have the opportunity to become collectors or cataloguers of the things they keep (p. 72).

In Freire's banking concept of education, students receive information passively, where the main source of knowledge is the teacher. This is based on the 'traditional' teaching method in which the teacher is the center of all knowledge. These types of traditional or 'teacher-oriented approaches are characterized by "predominant use of traditional teaching methods such as formal lectures, seminars and examinations; the teacher provides structured material during lectures in which students listen while taking notes for themselves..." (Sablonier et al., 2009, p. 629). This means that lecturers are the main source of information and there is little interaction between a lecturer and a student.

In addition, teachers do not involve students in classroom activities, which are perceived as unnecessary. The teacher-oriented approach concentrates on students "accepting superficial learning" (Besart et al., 2013, p. 2). According to Besart et al. (2013) the superficial approach to learning refers to students "who do not seek further understanding of the learning material and rely only on memorization and reproduction" (p. 3). Fortunately, there are ways to move beyond superficial learning and go deeper into knowledge production and understanding.

Conversely, the student-oriented approach implies the use of methods, attitudes and behaviors (Sablonier et al., 2009, p. 630) that are significantly different from those used by teachers in traditional classes. This approach helps to move further from teaching methods aimed at filling students' minds with information, passively, according to the superficial teaching method. Silova (2011) argues that "a student-oriented approach is better than just memorizing facts and learning material by rote" (p. 314).

Similarly, Snyder and Snyder (2008) argue that traditional methods need improvement because they “use too many facts and are not comprehensible enough; aimed at memorization” (p. 92).

Ultimately, teachers need to develop students' independent thinking and complete understanding, which can ultimately lead to better learning outcomes. In a student-oriented approach, "the teacher provides necessary resources, improves quality of discussion by allowing students to use their curiosity, engage in intellectual interpersonal discourse with their peers and encourage them to find most important information" (Gonzalez, 2014, p. 65). Students are encouraged and motivated to work either in pairs or in small groups; they interact with both teachers and other students, which ultimately leads to fruitful discussions and collaborative work.

Similarly, in contrast to traditional teaching strategies, learning strategies within a student-oriented approach provide a degree of freedom to choose a learning path. Having a level of autonomy in and out of the classroom can provide a sense of ownership of learning materials and improved learning overall (Belenky, Clinchy, Goldberger and Tarule, 1986; Perry, 1970). In this way, students become active participants in teaching and learning process. Ideally, teachers will then have knowledge and experience of using a variety of effective teaching methods to use in a student-oriented classroom. For example, teachers should be familiar with active and interactive teaching and learning methods, and use them regularly in their practice. Teachers should also learn and develop well higher-order thinking skills, as recognized in Bloom's taxonomy, and develop higher-order thinking in their students by asking open-ended or conceptual questions (Anderson and Krathwohl, 2001; Bloom et al., 1956).

In this way, teachers will develop discussions and ask students about their views and opinions, encouraging them to work in pairs and small groups. These types of processes promote students' independent learning, which ultimately leads to better learning outcomes (Shamatov, 2012). Barr and Tagg (1995) suggest that educational institutions should reorient their policies and practices based on a learning paradigm rather than a teaching paradigm. Everything in their analysis, from lesson planning to the way teachers manage a classroom, reflects an emphasis on teaching rather than learning. Teachers may not be able to completely overhaul their schools, but if they have a clear understanding of the learning outcomes they want to achieve, they can try all sorts of ways to help students achieve them.

As the learning paradigm suggests, student-oriented teaching focuses on the student. Teaching methods are adapted to the students' needs. It is therefore important that teachers understand what they expect from students. These expectations follow the concept of "reverse purpose" created by Wiggins and McTighe (2005). In the "reverse purpose" the teacher starts with the end, with the desired outcomes. Then he/she considers which indicators will serve evidence that the student has achieved the target outcome. The teacher then develops activities that will provide students with the skills needed to achieve these indicators. The defined outcomes become what you want your students to know or be able to do by the end of the course, skills that are new to students, things they could not do before. The focus on learning outcomes reflects a change in the assessment process of institutions. Assessment was used to focus on inputs such as the book collection in the library or the number of teachers, or the space allocated per student. It was assumed that good results come from good inputs. However, many evaluators decided that assumptions were not enough; evidence of student performance and other characteristics was needed. So assessors began to focus on outcomes: how many students graduated compared to the number of entrants; how many got jobs in their field; how many went on to higher education degrees, etc. But this was still not indicative of what had been studied.

Accreditation agencies now require evidence of the learning outcomes' achievement. The following are recommendations for developing learning objectives. Answer the question: "What learning outcome will help learners achieve this?" Use active verbs to introduce the learning objective (e.g., learners will identify, learners will demonstrate, learners will illustrate, learners will be able to explain, learners will create). Use words that will allow you to determine whether the learner has achieved the objective. For example, stating that the learner should "know" the material does not indicate how you will determine this. However, stating that the learner should be able to come up with a story or achieve a specific outcome using specified material will provide a concrete measurable result.

After processing student learning outcomes, an effective teaching strategy to emphasize student-oriented learning is to use co-operative learning - a group strategy with clear steps, roles and elements. Learners work in small groups to achieve their goals, extend their learning and each other's learning by listening to different perspectives. Ultimately, the success of group work depends on the success of each student. The foundations of cooperative learning imply a rejection of a competitive environment where students do not seek to share their knowledge with each other. Instead, in a cooperative learning environment, the group builds knowledge as a whole, which requires input from each member. Learning outcomes are improved through the development of students' social skills and cooperative learning. This type of learning has been shown to retain information compared to other classroom teaching methods, such as lectures (Brooks and Brooks, 1993).

In cooperative learning, the teacher is not the only source of knowledge; instead, students learn to appreciate the contributions of others. In cooperative learning, students are able to work at higher levels of thinking, according to Bloom's taxonomy, than when they are passive recipients of knowledge. They need to apply concepts, evaluate other students' contributions and create something new.

Students can learn more about each other's formal and informal knowledge or what can also be called "funds of knowledge" (Moll, Amanti, Neff and Gonzalez, 1992). Ultimately, in cooperative learning, students perform better when they work together and exchange ideas. In a co-operative learning session or exercise, the teacher plays the role of a guide rather than an evaluator. Instead, the teacher tries to help students understand advantages and disadvantages of different solutions so that they develop their communication skills. Problem-solving skills can be improved by group members. This approach helps to move beyond teaching methods aimed at filling students' minds with information, passively, according to the surface teaching method - secretary and speaker (Mannis, 2012). The facilitator ensures that everyone is heard and that the group does not deviate from the task at hand. The secretary takes notes on what has been said and the speaker presents ideas to the whole class. The teacher supervises the results of the group work, modelling the process of students' conscious exposure to fellow students' ideas and asking questions, deepening reflection on the topic.

Another classic cooperative learning method for small groups is the Jigsaw (puzzle) method. In this approach, students step outside their group and are assigned as experts in a special thematic group. As experts, they then re-form initial groups with new ideas and knowledge. In initial groups,



expert students transfer new knowledge to others, thereby applying higher-order thinking. The method encourages everyone's participation and evaluates individual student's contribution.

Assessment methods in the classroom (Angelo and Cross, 1993). What we want our students to learn is not what they actually learn. To address this potential discrepancy between what you want students to learn and what they actually learn, different methods can be used. For example, teachers can introduce group reflection at the end of class as a form of assessment in practice.

Using a few minutes, students are asked to write down on a sheet of paper three most important words they have heard that day, and then, write some sentences explaining why one of those words was important to them. This feedback from the students helps teachers to evaluate their own teaching (i.e., did the students learn what the teacher intended to teach them?) and also the way to move forward to the next session.

Conclusion. The shift from a teacher-oriented classroom to a student-oriented one offers great opportunities for educators in any subject area. This article has discussed some effective teaching strategies that can be incorporated into university classes to enhance student learning. In particular, we have presented ideas for developing student learning outcomes using a “reverse purpose” to identify what you want students to know at the end of the course, as well as using cooperative learning to support a variety of learning styles and greater depth of knowledge. The description and examples provided provide an overview of effective teaching strategies for student-oriented classes.

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## **UDC 65.018**

### **THE NEED FOR AN EFFECTIVE EDUCATIONAL PROCESS QUALITY MANAGEMENT SYSTEM**

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**Abstract:** *The paper examines traditional approaches to assessing the quality of education in universities, analyzes their advantages and disadvantages. The questions about prospects and possibilities of forming a quality management system in universities, about the need to develop quality measurements of educational services, about criteria and indicators for monitoring and assessing the quality of education are discussed. The voluntary standard ISO 21001:2018 "Educational Organizations - Management Systems for Educational Organizations" is proposed to improve the quality of educational services.*

**Key words:** *quality of education, satisfaction with quality of education, monitoring, education quality system, higher education, university management.*

Currently, monitoring is considered an independent area of management activity in HEIs, where measurement, research, experimentation, informatics and management are integrated [3]. The monitoring system has an integrated holistic character. It provides universal opportunities for marketing activities in the field of education.

The need for monitoring and evaluation of the quality of education in educational institutions has increased significantly in the context of increased competition among educational institutions at national and international levels and increasing demands on transparency and information openness of their activities.

Today, the university needs to develop criteria and indicators to measure the quality of educational services, which should be objective, easy to apply, simple and easy to understand.

The quality of education can be divided into two interrelated components: 1) quality of knowledge, and 2) quality of the educational process. These two concepts - aim and means - can be seen as an inseparable pair, as they have a causal relationship with each other.

Thus, the quality of education is defined by the extent to which characteristics of products (services) of learning activities correspond to defined or expected outcomes of participants in the educational process.

Monitoring of the quality of education should be understood as a system for collecting, processing, storing and disseminating information on activities of the education system and on satisfaction of internal and external consumers of educational services.

At present, all educational institutions have control over the quality of education; monitoring of educational activities in all structural divisions of the educational institution is carried out according to a pre-determined plan [5]. Monitoring allows obtaining and analyzing complete information on implementation of the educational process at all levels of education quality management in the university. After monitoring is completed, teaching, learning and educational processes are adjusted in order to improve the quality of professional training of specialists.

According to the above, an effective quality management system for the educational process needs to be built, which requires certain tasks to be completed:

- Create target indicators for quality of the educational process;
- Compare achieved level of indicators with target (normative) indicators and, on this basis, assess quality of the educational process;
- Formulate control actions on the conditions and factors that determine the quality achieved in order to minimize deviations.

It follows that the purpose of the quality assurance system within HEI is to determine the quality of education and to identify areas of improvement in all units of the institution.

Thus, following tasks need to be carried out in order to control the quality of education at an educational institution:

- to monitor quality of implementation of normative documents in professional education and training, instructions and orders of the academic council and the university rector;
- to monitor students' progress on the basis of current performance, interim and final attestations;
- to analyze faculty's use of modern teaching technologies in order to disseminate good practice;
- to analyze staffing of educational process in scientific-methodological and research activities of teaching staff;
- to carry out expert assessments of professional education and training programmes;
- to monitor the quality of classes and availability of teaching and learning materials in disciplines;
- to analyze the state of facilities and the work under way to improve and develop them.

In accordance with the above-mentioned objectives of intramural quality assurance, the process and learning outcomes consist of following components:

- opportunities for applicants to "enter" a quality specialist training system;
- quality of the educational process;
- quality human resources capacity;
- quality teaching and learning activities;

- qualitative monitoring of learning achievements at following levels: applicant - student - graduate;
- quality of material and informational support;
- level of demand for highly professional graduates - 'exit'.

In the process of developing methodological and methodical principles for quality monitoring, a number of problems need to be taken into account that arise when assessing the quality of education in an educational institution. Some of them are presented below:

- 1) Lack of a clear methodology for assessing the quality of education;
- 2) Lack of a precise definition of criteria for the quality of education and criteria for evaluation;
- 3) Complexity of measuring the quality of education due to constant development of society and consumer demands;
- 4) The need to create a flexible tool for assessing the quality of education in relation to the demand of consumers education;
- 5) Incorrectness of comparing the quality of education in different educational institutions, due to the fact that they may be at different levels of development.

The main factor in examining the quality of education services is considered to be customer satisfaction, which consists of applicants, students, their parents, university lecturers and staff, employers and graduates. To date, quality management models of customer satisfaction with educational services are being created in educational institutions. These models have developed criteria and technologies for process of monitoring the quality of education.

Since the same criteria are used for evaluation on an ongoing basis, this has been an advantage of conducting monitoring surveys in educational institutions. Results of surveys are compared with each other and this helps review the quality of education in terms of the following parameters: student satisfaction with the quality of education, employers' interaction with the educational process, material and technical equipment and staffing.

Student satisfaction with the quality of education is considered one of the most important criteria for the quality of education. First and foremost, it is related to students' expectations when enrolling in an educational institution. Subsequently, this is measured by two main parameters: 1) educational programme, and 2) physical conditions.

Satisfaction with the educational programme also includes usefulness of the programme offered, course content, relationship between teachers and students, teaching methods, student satisfaction with learning, feedback mechanisms for students, where you can give your opinion on the course you have taken through questionnaires.

Physical conditions are measured by availability of places for group and individual studies, size of a library fund, possibility of using various technologies for studies, provision of the university with computer technologies, possibility of receiving technical assistance, availability of laboratories, classrooms and their conditions (lighting, heating, etc.). Availability of a dormitory, which should be close to academic building, is also a prerequisite.

Among other things, student satisfaction includes students' recommendations to their acquaintances and friends, as well as comparing student's initial expectations with what he or she has gained in the course of his or her studies. Changes in employment status may also have an impact on student satisfaction with the skills obtained in the educational process.

Researchers at Loughborough University (UK) highlighted another important point - quality of teaching. They conducted a number of studies and came to a consensus that quality of teaching also strongly affects student satisfaction with the educational process [3]. Researchers especially highlighted the role of interpersonal communication between teacher and student. Students prefer teachers who are able to get along with students, are able to maintain a respectful relationship in the learning process, have a sense of humour and are enthusiastic. I.B. Nazarova, a Russian expert in education, Doctor of Economics, argues that an effective teacher is the one who has a positive impact on students' satisfaction with the educational process, who meets certain requirements that cannot be disagreed with [6]:

- 1) conduct effective research;
- 2) have experience in leading universities and teach classes in English;
- 3) have some balance between teaching and science (decide on self-identity).

These studies provide an enormous cross-section of information on a wide range of educational quality issues, but there is one drawback: specifics of different structural divisions of a educational institution (specialties, departments, etc.) are not taken into account in research. In this regard, there is a need to develop monitoring evaluation criteria for each educational programme, taking into account the diversity of technologies used in these areas.

Hence, it can be concluded that through systematic analysis and evaluation of all monitoring indicators, corrective measures can be developed and areas of improvement identified at all levels of educational activity (management function).

Although educational institutions cannot guarantee expected learning outcomes [1], there are various ways in which they can stimulate interest in learning process in order to provide the level of quality service that students expect.

The voluntary standard ISO 21001:2018 "Educational organizations - Management systems for educational organizations" is proposed to improve the quality of educational services in educational institutions. [11]. This is an international standard, which is designed to develop and implement quality management systems in educational institutions and is partially similar to ISO 9001:2015, widely used by organizations of any type of activity.

ISO 21001:2018 will be of interest to those universities seeking to

- demonstrate their ability to support the acquisition and development of competences through teaching, learning or research;
- increase satisfaction of students, staff and other stakeholders through effective application of the management system for educational institutions, including: processes to improve the system and bring it in line with requirements of all stakeholders.

As we know, education is the foundation of society. In the learning process, students acquire not only theoretical knowledge, but also practical experience, which contributes to effective decision-making.

Thus, educational institutions need to pay great attention to the choice of training profile. This requires improving the quality of educational services in line with requirements of the new ISO 21001:2018, which aims to help the university effectively align its activities with its mission and vision, and to use more personalized learning services to benefit students, their parents, teachers and other stakeholders, who will certainly feel results of the processes used.

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**UDC 378**

**CHALLENGES AND METHODS FOR IMPROVEMENT  
OF THE QUALITY ASSURANCE PROCESS**

**THE CASE OF THE I. ABDRAIMOV KYRGYZ AVIATION INSTITUTE**

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**Abstract.** *The article analyzes the work done to implement and improve the quality management system in the training of aviation specialists, as well as the problems encountered in the implementation of quality management system in the Kyrgyz Aviation Institute named after I. Abdraimov.*

**Key words:** *aviation institute, aviation personnel, quality management system, quality policy, guidelines, quality improvement.*

Educational organizations can be considered among the most difficult to manage. They are characterized by a high level of human resource capacity, complexity of products and services, high social significance of results, significant life cycle of products and services, historically established independence and autonomy of teaching staff of educational organization, teacher freedom in the choice of teaching methods. There are many other specific characteristics that pose problems when creating and maintaining a quality management system (QMS) in HEIs [1].

A QMS of an educational organization is understood to be a management system for administration and management of the organization in relation to quality, and as defined in ISO 8402:94, the totality of an organizational structure of the educational organization (hereinafter referred to as the EO), methodologies (procedures for documented and undocumented procedures, methodological guidelines, regulations, job descriptions and work instructions), processes, resources necessary to implement overall quality management.

Achievement of high quality is the result of work of the whole EO, which must include all necessary elements of the activity. It follows that such a large and important subsystem of an EO as quality management crosses the boundaries of other subsystems of this EO which significantly influence quality. This suggests that at present stage QMS should be considered not only as a subsystem, but as the basis of the entire management system, functioning of which covers quality criteria of services, processes and all diverse activities (the EO's QMS should merge with other subsystems and become the basis of the management system of the entire EO) [2].

The Kyrgyz Aviation Institute named after I. Abdraimov (hereinafter referred to as "the Aviation Institute") has a published quality assurance policy reflecting the institutional vision and strategy, thus related to the EO's strategic management. Internal relevant persons and services develop and implement this policy through appropriate structures and processes together with external stakeholders. Staff of the Aviation Institute is directly involved in the implementation of the adopted quality assurance policy. The Aviation Institute has a documented mission, vision, policy and strategy of the HEI in the field of quality. The vision contains a clear scenario for the future, an assessment of the place and role of the HEI in society. According to the Decree of the Government of the Kyrgyz Republic № 131 from 17.03.2016 the Programme of the Government of the Kyrgyz Republic on development of civil aviation of the Kyrgyz Republic for 2016-2020 years was approved.

This programme identifies the Aviation Institute as a separate priority in the development of civil aviation in the Kyrgyz Republic.

Based on the approved Program of the Government of the Kyrgyz Republic, the Aviation Institute has developed and approved the implementation plan of the Civil Aviation Development Program for 2016-2020 with specific executors and deadlines. Also, the Development Programme of the Kyrgyz Aviation Institute named after I. Abdraimov 2017-2022 was adopted and approved.

The management carries out strategic planning in accordance with the state education policy, societal interests, demands of specific consumers of higher and secondary professional education, and professional training needs. The strategic document of the Aviation Institute is the College Development Programme for 2017-2022 and the Aviation Institute Development Programme for 2019-2023, which are described in detail through a system of operational and functional plans and programmes. The Institute Development Programme is the basis for setting goals for several years ahead for all structural units. This plan is developed by an ad-hoc creative group based on the analysis of the EO's activity over the past periods.

The objective of the Quality Policy at the Aviation Institute is to improve the quality of training of aviation personnel as a key factor in ensuring professionalism of each aviation specialist, which in one way or another affects flight safety, as well as the compliance of aviation personnel training with the requirements of the International Civil Aviation Organization (ICAO).

The Aviation Institute's management has highlighted the following key operating principles that define the quality policy:

- Improving quality of aviation training should be a planned and continuous process;
- Quality assurance activities should cover all components of the training process: from planning of educational activities, preparation and improvement of training facilities, to analysis of information on theoretical, synthetic and flight training.

From the above, the challenges that must be met within the adopted quality policy emerge:

- Selection and appointment of teaching, flight instructors and engineering staff who meet necessary requirements and who have sufficient experience and professional skills;
- Maintaining qualification level of flight and flight instructor training;
- Regular professional development of teaching, flight instructors, and engineering staff;
- Improvement and development of training facilities;
- Streamlining the organization of theoretical and flight training;
- Developing proposals for the introduction of progressive teaching technologies, knowledge and flying skills monitoring tools;
- Provision of state-of-the-art equipment, teaching aids and visual aids for learning processes;
- Developing a system to increase personal responsibility of all staff for the quality of education;
- Training of instructors and flight instructors in the quality management of aviation training.

Policies and strategies are implemented in all areas of activity and are regularly reviewed and adjusted to meet the current and future needs and expectations of all stakeholders, including society as a whole.

In order to monitor quality indicators for each academic year, an action plan is drawn up for their implementation. The progress and results of all types of action plans are discussed at meetings of the Institute's relevant collegial bodies and, if necessary, adjustments are made.



However, while we objectively assess the path our institute has taken towards implementing a quality management system, we could highlight the following problems:

- At some levels of QMS policy implementation, there is some misunderstanding of its principal elements on the part of managers;
- There is a need for further targeted and systematic work to build digital capacity in educational activities.

It should be taken into account that the younger generation today, in general, has a very high degree of integration with information and communication technologies and applications. In this context, an important role in the implementation and achievement of the goals and objectives also lies in the timely "guessing" of sentiments and expectations in the youth segment of society.

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#### UDC 378.4

#### NEW CHALLENGES IN THE EDUCATION SYSTEM

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**Abstract.** *The impact of new technologies is of great interest to teachers in controlling student learning and their interactions. However, there are both advantages and disadvantages in the process of such development. Well-designed educational programmes need to match supply and demand in the education market. Unrestricted flow of information affects the behaviour of younger generation. The course on "Etiquette" should be included along with general education subjects in the first year, regardless of a specialty profile. Cooperation between schools and universities is very useful. The problems of online learning process are also studied.*

**Key words:** *technology, education, learning, development, manners, communication, programmes, collaboration.*

Computer science, internet, technologies make a huge contribution to human development. New technologies provide a choice of optimizing educational strategies, and in such a rapidly developing world, a person needs to learn throughout his or her life.

"Keeping up with the times" means meeting all the challenges of the information society.

In terms of educational benefits, young generation is now able to engage more deeply in learning process through the use of new media. The teacher's role changes significantly and the following tasks are set for him or her:

- to know how to use information technologies;
- to teach students how to systematize unlimited amount of information;
- to explore new forms of data transmission and perception;
- to teach student to practically evaluate information and analyze it;
- to actively participate in project work, both locally and internationally;
- to increase motivation to learn foreign languages as a means to integrate into an international space, learning about the world and culture, gaining experience, new knowledge and ways to improve one's future.

In learning a foreign language, many opportunities have emerged thanks to new information technologies - visibility tools, interactive techniques in teaching, revision and modification of learning objectives, learning content, educational programmes in line with new realities. Audio-visual cognition is also being asserted.

Reforming higher professional education system is a priority at the present stage.

On the one hand, development of educational programmes represents matching of supply and demand at educational services market and entrance to global educational space. On the other hand, renewal of educational programmes envisages a significant reduction of academic hours in many disciplines, merging related subjects into a single discipline or excluding some essential disciplines from the curriculum altogether.

Knowledge of etiquette is important for all professions. The task facing a person is formation of her inner and outer culture, her moral and aesthetic development. The study of etiquette should be carried out in all specialties, given today's realities shaped primarily by the Internet, which brings with it serious shortcomings, affecting education of younger generation and their poor cultural development. Experience shows that younger generation cannot navigate socio-cultural situations - some are disrespectful not only to those around them, but also to themselves; ignorance prevails in their behaviour; they are not good at or do not know how to behave at the table, in public places, etc. The main objectives of socio-humanitarian training of students in HEIs are formation and development of socio-personal competences based on humanitarian knowledge, emotional, value-based and socio-creative experience. Socio-personal competences in a graduate contribute to the development of socio-professional competence as an integrated result of education in a HEI.

The course on the basics of etiquette, along with the study of Kyrgyz, Russian languages and other general education disciplines, would therefore be useful. Knowledge or ignorance of etiquette indicates the person's general cultural level as well as the command of manners, education or the quality of life, and their attitude towards themselves or others. It does not matter what kind of school one has graduated from: privileged, elite (private), state, etc. The only indicator is how a person internally and externally reflects the standard of social and moral norms.

We should not forget that a teacher's objectivity implies not only assessing students in a non-biased way, but also bringing students to a high level of intercultural communication. Pedagogical culture, skill and competence play a big role in realizing this goal.

Links between higher education institutions and schools. It is also worth noting the career guidance connection of HEIs. Many universities practice the orientation and preparation of final-year pupils (grades 10-11) of schools-gymnasiums for choosing a profession, a HEI, as well as specialized subjects. Classes are formed on the basis of HEIs in accordance with the curriculum, schedule and informal work in the relevant profile. Students are immersed in a student atmosphere, adapting various methods of teaching, unlike the school system, the work is evaluated according to a rating system. Responsibilities for "module", "session", "rating", "project" etc. are gradually formed. This line of interaction aims not only at attracting applicants, but also at orienting students towards their future profession, craft, skill development, independence and intercultural communication. In this way, the meaning of education is by no means lost and presents deep interest, and this is essential for the upbringing and development of next generation.

**Online learning mode.** The global COVID-19 pandemic presents a challenge to learn remotely through artificial intelligence-based educational technologies that provide vital support to teachers and students. New online support systems engage students and assess their strengths and weaknesses even when they are not in the classroom. Personalized learning has been very successful in this mode in many universities, for example in undergraduate education in the USA. Moreover, current learning in many developed countries is based on independent (individual) study of subjects. This is facilitated by free access to the internet, a rich library at the university, a culture of behaviour and a self-awareness towards self-learning.

In developing countries today, teachers have to consider the most effective ways of teaching students at home, which means that COVID-19 can open doors to new ideas and new technologies. When working online, there is a need for learning workshops with scientists, specialists in psychology, pedagogy, philology and physical education, which also becomes important in preserving and maintaining students' health who have to work more at the computer with insufficient mobility.

Of course, one would like to believe that by the end of the COVID-19 pandemic, online mode will not lead to adverse health outcomes among school pupils as well as students.

Today, it is necessary to develop a joint strategy at local level of educational institutions to take into account the following issues:

- The WHO-recommended daily norm of physical activity for adolescents is at least one hour of moderate to vigorous physical activity per day; mandatory online physical education classes;
- Reducing homework while classes are completely online;
- Development of an improved transparent electronic system (e-journal, passbook);
- Distance learning sessions with students (classes, tutorials) on the topics: 'Plagiarism and anti-plagiarism', 'How to avoid plagiarism', etc;
- Development of electronic teaching aids as an adaptive source of teaching and monitoring.
- Most major textbook publishers have purchased or developed similar learning systems and there is a wide range of adaptive learning technologies being developed, for example, by Academic Labs or the British Council, which promotes cooperation in education, culture and the arts between the UK and other countries. A lot of adaptive resources have been developed in teaching foreign languages. It should be noted that this kind of technology greatly increases

- students' motivation and is effective in teaching methodology, providing help in the form of prompts and other activities until the student is ready to answer;
- It is also necessary to develop regulations or methodological instructions for students and teachers in online mode: organization of classes, lectures and seminars; holding online conferences of scientific nature; deadlines for work; mandatory switch on of cameras for both students and teachers, as eye contact even creates a stable emotional connection and holds the audience's attention.
  - Financial resources to support students in working with online system.

Thus, with distance learning, the quality of education may suffer. Nevertheless, the system will develop and be used further. Digital technologies are transforming the education system and university administrators should not be bystanders, but active participants in this process. The state's regulating role is also important, which, on the one hand, should remove barriers to the roll out of online education, and on the other hand, should take into account possible risks. It is very important to consider all factors according to actual conditions in each country separately, as the education system, language environment, cultural aspects and many others have their own distinctive features. And while we accept the challenges of today's pandemic, we are in search of well-designed learning options that can guarantee the safety, effectiveness of new forms of learning, motivation, education and maintenance of cultural values.

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#### UDC 378.1

### DEVELOPMENT OF ENVIRONMENTAL THINKING THROUGH THE GREENING OF HIGHER PROFESSIONAL EDUCATION CURRICULA

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**Abstract.** *The article deals with the problems of introducing the principles of green thinking into the various subjects of higher professional education in Kyrgyzstan.*

**Key words:** *environmental education, green education, green economy, green thinking.*

Kyrgyzstan needs to implement safe environmental development. In recognition of importance of transition to green economy, the Green Economy Concept "Kyrgyzstan - country of green economy" was developed and approved by the Kyrgyz Republic Parliament Resolution No. 2532-VI dated 28 June 2018. In accordance with the Concept, it is proposed to develop "green" areas in the following sectors for the transition to green economy [1]:

1. green transport in a green city;
2. green energy and energy conservation;
3. green agriculture;
4. green industry;
5. green recycling;
6. public policy, green public procurement and payments for ecosystem services;
7. protection of biodiversity;
8. green thinking, green upbringing, green education;
9. green investment and sustainable financing to promote green economy.

"Green thinking, green upbringing, green education" is a critical area for successful development of green economy in Kyrgyzstan. In this connection, the main objective in this area will be the development of citizens' and businesses' green thinking in order to increase social responsibility and responsibility for improvement of human habitat. At the same time, it is noted that environmental education should become one of the foundations of the education system and take a leading place in it.

A global task before us is to socialize the individual based on values of ecological culture, i.e. to rely on environmental education in its broad sense.

As N.M. Mamedov notes, we should distinguish between ecological education and ecologization of the education system. Although they are interrelated, they characterize different phenomena in some respects. Ecological education is a direct assimilation of ecological knowledge of various natures and levels. It determines, but is not limited to, the process of training of ecologists. Ecologization of the education system is characteristic of the penetration tendency of ecological ideas, concepts, principles, approaches to other disciplines, as well as preparation of ecologically literate specialists of various profiles: engineers, doctors, economists, sociologists, etc. [2].

Environmental education in leading HEIs of Kyrgyzstan is mainly based on natural sciences programme. Environmental terms are added to traditional titles of departments in HEIs. In the Kyrgyz National University named after Zh. Balasagyn since 1994, the Department of ecology and nature management has been training specialists in Environmental protection and rational use of natural resources with the qualification of ecologist.

The Bishkek State University named after K. Karasayev has opened the Ecology and management faculty with the departments of Ecology and nature management, Geography, tourism and natural science disciplines.

The Yeltsin Kyrgyz-Russian Slavic University has a Department of Meteorology, ecology and environmental protection. The research areas of the department are:

- mountain meteorology, climatology and ecology;
- climates of the Central Asian highlands and their change in modern times;
- atmospheric circulation in mountainous regions of Central Asia;
- applied climatology of Central Asian mountain territories;
- ecology of mountainous areas in Central Asia.

The Kyrgyz-Turkish Manas University has a department of Environmental engineering. The department aims to assess environmental condition of air, water and soil, as well as biological and physical impacts on the environment, and to participate in development of environmental protection measures.

The Kyrgyz State Technical University named after I. Razzakov trains ecologists, mining economists and engineers with knowledge of ecology and economics.

The American University of Central Asia has opened a programme in Environmental management and sustainable development, which falls within the natural sciences and includes programming, geology, environmental management and applied mathematics.

The analysis of exemplary curricula of all higher professional education areas showed that mandatory general education disciplines include "Ecology" (2 credits), "Concept of modern natural science" (2 credits), "Economic geography" (2 credits).

The analysis of the topics of work programmes, syllabuses showed that the notion of "green economy" is rarely mentioned. Mainly, teachers use the terms "rational use of natural resources", "lean/economical attitude", "renewable/non-renewable resources", "renewable/alternative energy sources", "sustainable development of society", "greening of production", "restoration and reclamation", "environmental management", etc. [3].

Since 2018, the greening process of the education system in Kyrgyzstan has been carried out as part of the ERASMUS+ EGEA project 'Strengthening green economy in three countries: India, Kyrgyzstan and Nepal'.

Three leading universities are involved in the project: Issyk-Kul State University named after K. Tynystanov, Kyrgyz Economic University named after M. Ryskulbekov, and International University of Central Asia in Tokmok (hereinafter referred to as IUCA).

The curricula of IUCA Business Administration department are also being updated in accordance with the sustainable development goals of Kyrgyzstan. For first-year students the disciplines "Ecology" (2 credits), "Concept of modern natural science" (2 credits), "Economic geography" (2 credits) are compulsory.

"Corporate social responsibility of business" (hereinafter referred to as CSR) is conducted for students of Business Administration as a discipline of a variable cycle. Due to such a wide range of activities CSR is closely related to such concepts as business ethics, social partnership, sustainable business development, corporate citizenship, social investment, corporate initiative, green economy, etc. In other words, previously common understanding of social responsibility focused on charitable donations has, with call of the times, significantly expanded to an understanding of topical aspects of human rights, environmental issues, consumer protection, and countering fraud and corruption.

A content analysis of the "Human Resources Management" discipline has shown that the definition of "green" would be somewhat abstract for manufacturing companies. But when considered within the framework of occupational safety and health, the definition takes on more concrete forms:

- safe conditions;
- respect for a person's labour rights;

- proper wages;
- stable employment.

Practically speaking, such jobs are considered to be those in which contain indicators of decent work with a focus on environmental protection. Thus, "green jobs" should be promoted among business companies at the intersection of occupational health and safety, environmental protection and corporate social responsibility. As safe working conditions are stipulated in occupational safety and health regulations which are of great importance for the certification of workplaces, remaining conditions are stipulated in labour law regulations. To date, not every enterprise in Kyrgyzstan can boast a formalized document that consolidates all the above-mentioned attributes of decent work. In order to ensure that a university graduate employed by a manufacturing company is guided by green economy principles, there is a need to train students - future managers, ecologists, engineers, economists and financiers on improving welfare and creating opportunities for employment and decent work ("green jobs").

As part of the project, in the academic year 2020 the streamlining of basic ideas of green economy into other academic disciplines has started. Three new courses on "Waste management", "Economics and sustainability", and "Ecotourism" developed under the ERASMUS+ EGEEA project "Strengthening green economy in three countries: India, Kyrgyzstan and Nepal" have been introduced into the curricula of the Business Administration department.

The process of ecologization in modern society is impossible without changes in the educational process, which are take place through integration of environmental values, modern approaches and ideas in the content of curricula; organization of a set of environmental extracurricular activities; motivation in conducting research work on environmental issues. This approach will facilitate development of ecological literacy.

After conducting the research, the following conclusions can be drawn:

- The term "green economy" is not yet widespread in higher education, even among teachers of interdisciplinary courses at the interface of ecology, economics, management, geography, biology and other sciences;
- Among HEIs, certain aspects of green economy are predominantly studied in science and technical faculties/fields/specialties where knowledge of green economy has applied nature;
- Experience has shown that the rollout of either general or applied ecology courses in higher education programmes is not sufficient to achieve the goals of environmental education.

In my opinion, elements of ecological knowledge should permeate the teaching of all fundamental and special disciplines, and at all levels of facts, laws, theories and ultimately contribute to the formation of ecological thinking.

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**UDC 371.127**

**THE PROCESS OF HUMANIZATION**

## OF THE ADDITIONAL PROFESSIONAL EDUCATION SYSTEM IN PRESENT CONDITIONS

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**Abstract.** *The article responds to an urgent problem - the humanization of continuing education. There is a significant role played by institutions of continuing professional education. The authors explore an example of the M. Rakhimova Institute of the professional development and retraining under the I. Arabaev KSU and showed the need to improve and humanize the system of continuing professional education based on current social requirements.*

**Key words:** *professional development, retraining, innovations, National Qualifications Framework, continuing professional education, competences.*

Current social conditions of constantly changing information space, high technologies, social change, crises both in spiritual and economic domains, boost teachers' role, presenting them as "key figures" of education and translation of culture. Accordingly, quality requirements to future teacher training and professional development process (hereinafter - PD) of teachers, as professionals of new generation, are raised.

All the current changes are aimed at preparing a specialist who is able to project his or her own activities in various situations, accordingly identify the problem and find ways of solving it, including innovative ones.

The education system, due to constant and fast-changing knowledge renewal, should form a strong motivation to independently acquire new knowledge through self-education, as one of the conditions for continuing professional education.

Accordingly, professional education is undergoing reformation. One of methodological components of the reform is innovation, in other words the transition to an innovative type of education. Innovation (from lat. *in* - in, *novus* - new) means novelty. Main indicator of innovation is a progressive beginning in the development of one or another.

The authors on pedagogical innovation M.S. Burgin, V.I. Zagvyazinsky, S.D. Polyakov, V.M. Polonsky, M.M. Potashnik, N.R. Yusufbekova and others relate the concept "new in pedagogy" to such characteristics as useful, progressive, positive, modern, advanced [3].

At the same time, it is worth noting that the challenges of today's higher education system are different and require a significant change in the educational process:



- An increasing number of applicants - today, most school or college graduates will continue their education at a university;
- Students' self-motivation and self-discipline have been severely weakened in recent years;
- Inability to meet the demands of rapidly changing labour market; today's graduates mostly do not meet the employers' needs and do not possess necessary competences;
- "A digital generation" of learners;
- The need for lifelong learning;
- Redundancy of information flows;
- "Digital transformation" of the teacher [4].

Analysis of professional education in recent years has shown: insufficient financing of the education and the PD system as well; methodical rooms have long been liquidated; there is no proper interconnection between PD institutes within the Republic in terms of unified requirements for the organization of continuous professional development of teachers.

The teacher certification system was abolished, but as time has passed, analysis of the school methodological services and experience have shown the need to bring back the teacher certification as one of the levers for improving the quality of methodological work and teachers' self-education at local level. Practice has shown that teachers are not willing to take PD courses on their own, which, in turn, affects the issues of self-education and, as a consequence, there are no conditions that would stimulate teachers' PD.

To trace the relationship between professional development and certification of teachers to ensure the teaching quality, it is necessary to consider the impact on the educational process of the learning outcomes achieved during PD. This helps to ensure that certificates obtained by teachers in various types and instances of training, which together constitute the required number of hours (72 hours) of PD, and certificates of scheduled subject courses for a certain period of time specified in the State Educational Standards are not the only ones to be considered.

Experience shows that continuous conscious learning of teachers contributes to their professional development, which has a direct impact on educational process quality.

The PD system of teachers in the Republic has its own features in terms of objectives, content, students, composition and forms of teacher training and is not similar to any of the subsystems of education. It continues to provide professional assistance to teachers, continuous pedagogical education and growth of professional competence [5].

As of 1 January 2021, 116,674 persons had contacted the employment services. Of these, 84,610 persons received advice on labour and employment legislation, professional training and retraining opportunities and on the choice of occupation.

Based on data from the National Statistical Committee of the Kyrgyz Republic, a large number of people need to be retrained and upgraded [6]. This includes different population categories, including the education system employees. Therefore, to meet the needs of this category of people there is a network of institutes for professional development.

The updated State educational standard for higher professional education in Pedagogical education prescribes about 20 professional and 5 generalized universal competencies for teachers. It is understood that a young professional who has graduated from the university should possess these competencies and improve them at professional development courses. But young teachers do not always correspond to these competencies and at professional development courses they have to build these competencies again, not to mention improving them.

In recent years, the Kyrgyz Republic has adopted documents on the formation and development of qualifications taking into account the recent trends of labour market, such as the Concept of National Qualifications System (Decree of the Government of the Kyrgyz Republic No. 505 of 30 September 2019), National Qualifications Framework (Decree of the Government of the Kyrgyz Republic No. 491 of 18 September 2020). This was done in order to implement the National Development Strategy of the Kyrgyz Republic for 2018-2040, approved by Presidential Decree No. 221 of 31 October 2018 and in accordance with the Law of the Kyrgyz Republic "On Education", with Articles 10 and 17 of the Constitutional Law of the Kyrgyz Republic "On the Government of the Kyrgyz Republic".

The National Qualifications Framework (hereinafter NQF) defines a unified scale of qualification levels for development of sectoral qualifications frameworks, professional standards, which ensures inter-industry comparability of qualifications and serves a basis for the system of compliance assessment and awarding of qualifications to professionals.

Continuing professional education is education aimed at continuous professional development and retraining of persons with professional education and training outside the basic professional education and training programme in accordance with professions' qualification requirements. It contributes to the development of business and creative abilities of persons and enhances their cultural level.

"Continuing professional education and adult education aims to meet individual needs and requirements at different stages of life. It allows to develop and enhance skills and qualifications, and provides opportunities for lifelong learning". Thus, the following is ensured: access of all citizens to quality education, including residents of rural, mountainous and remote areas; increased employment; effective system of social protection of population, especially young professionals; maximum reduction of mass internal migration of residents from the country's regions; i.e. stimulation and retention of local staff, etc. On the whole, this contributes to strengthening the human resources potential in remote regions of the Republic.

Shortage of qualified teaching staff and the need to create conditions for teachers to fulfil their need for continuous learning and development determine the search for effective ways of learning in a shorter time and by updating the current educational content and applying new educational technologies. This in turn implies development and improvement of the system of professional development and retraining of teaching staff.

This once again underlines the importance of educational activities of faculties, centers, institutes, including our M.R. Rakhimova Institute for professional development and retraining under the KSU named after I. Arabayev (hereinafter referred to as the Institute).

The Institute implements a programme of continuing professional education. According to regulatory documents, the Institute has the right to conduct educational activities in full higher education in pedagogical areas and provide continuing professional education: professional retraining on the basis of secondary and higher professional education, as well as professional development:

- Professional retraining is carried out to broaden qualifications of specialists in order to adapt them to new economic and social conditions and to carry out new professional activities in educational area.
- The purpose of professional development is to enhance professional knowledge, improve business skills and update professional competences in connection with increasing demands on qualifications and the need to master novel methods of solving professional tasks.

According to NQF, a unit of qualification is one of the elements (modules) within a course or programme, the acquisition of which leads to an approved document (certificate) [1].

At present, part-time learning has gained new opportunities through information technologies, implemented as a non-contact form of mastering educational programmes, as a system of pedagogical, information and communication technologies that ensure optimal management of active interaction between a teacher and students, students with learning facilities, regardless of their location and time, thereby ensuring the learning without leaving one's job and with a plan to get a job promotion and a salary raise.

Consequently, part-time learning will be increasingly improved through information technologies. Recent times have shown the importance of improving digitalization. Moreover, the COVID-19 pandemic requires a different perception and response to contemporary challenges of the education system. Based on the NQF we note:

- Cognitive skills - the use of logical, intuitive and creative thinking in learning and/or professional activities;
- Personal competences - behavioural actions aimed at the most effective solution to a specific life and/or professional situation;
- The object of labour is a thing or set of things that is an object of human influence in the production process [1].

Activities of the Institute aim to humanise the learning process and develop a modern system of continuing professional education, that provides everyone with an opportunity to get the profession they need for further professional, career and personal growth.

The form of distance learning itself dictates students' independent cognitive activity, and this is also based on the NQF concept:

- Increase the flexibility of educational programmes and support learners in shaping their educational trajectories;
- Promote lifelong learning (through increased access, targeted investment, recognition of non-formal and informal (spontaneous) learning) [1].

This requires providing students with a considerable amount of additional literature, modern digital technologies - EduTech, quality teaching and learning material.

The developed system, fully equipped with animations and additional information, allows the student to work through studied material independently at any level of complexity, and the teacher to control the level of mastering of the material.

Analysis of data on professional development and income-generation courses shows the urgency of tasks: meeting the needs of teachers and administrators to acquire the latest knowledge, acquiring experience in organizing the educational process in line with current trends in educational development, and mastering modern ways of solving professional tasks set for educational organizations.

It should be noted that the Institute is actively engaged in improving professional competencies of teachers in modern conditions, forming an effective system of professional development and retraining, creating conditions for deepening professional knowledge and skills, acquiring new professions and additional qualifications based on existing education, that are necessary to perform a new type of professional activity.

The Institute's teaching staff and trainers take an active part in the implementation of professional development and retraining activities through seminars, training sessions, round tables, etc., both in Bishkek and in the regions of the country.

By constantly improving its work, the Institute contributes to the process of humanization of the system of continuing professional education in modern conditions. The Institute also actualizes the issue of human resources policy, by ensuring continuous improvement of professional retraining, lifelong learning and training in psycho-pedagogical, natural-mathematical and humanitarian areas through various modern teaching technologies.

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# DIGITALISATION OF EDUCATION

UDC 378.4

## DIGITAL PEDAGOGY AS A FACTOR IN IMPROVING THE QUALITY OF EDUCATIONAL SERVICES IN THE KYRGYZ REPUBLIC

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**Abstract.** *The article explores digital pedagogy as one of the main factors for improving the quality of educational services in the Kyrgyz Republic. The role of information and communication technologies in the development of professional activities of teachers, as well as their impact on students is analyzed. The importance of practical application of such technologies is confirmed, and the specifics of digital pedagogy are defined. The article concludes that digital technologies are bound to take their place in educational process, they will be used along with traditional forms of education due to their comprehensive features. Thus, latest information and communication technologies will have a positive impact on all indicators of educational quality. This approach helps teachers to achieve dynamics, efficiency and effectiveness in professional activity.*

**Key words:** *digital education, digital pedagogy, information society, education system, educational services, quality of educational services.*

It is known that the education system guides students' professional development. Development of local and global economy, information and technological progress, development of new territories and facilities - all this directly depends on the quality of educational services and requires new rules of the state labor market, which nowadays needs dynamically trained specialists who are constantly upgrading their qualifications. Moreover, S.D. Ilyenkova expressed her opinion on the use of modern digital technologies in practice and quality management [2]. Thus, the quality educational process and the result of this process are interconnected links of one chain and must develop simultaneously and quickly. The educational process is carried out through innovation and digital pedagogy, and the specialist - through the educational process.

Russian and Kyrgyz scientists E.I. Yaroslavtseva and S.K. Kaldybaev [6] offer their opinion on the theoretical foundations of improving the quality of educational services through digital pedagogy. A scientific approach to the study of any problem begins with the development of a conceptual apparatus. To understand how digital pedagogy affects the quality of educational services and what technologies are involved in this, as well as what the concept of "quality of educational services" consists of, it is necessary to consider these phenomena in more detail. Consequently, digital pedagogy is a pedagogical process that incorporates various digital technologies (computers, gadgets, software, etc.) and, as a consequence, provides a high quality of educational services.

The quality of education is, first of all, a multidimensional and complex structure. Based on the approach to understanding this system, let us present the following blocks of information:

1. Quality of the teaching staff.
2. State of material and technical base of the educational organization.
3. Motivation of the teaching staff.
4. Quality of curricula.
5. Student quality.
6. Quality of infrastructure.
7. Quality of education.
8. Innovative activities of management.
9. Implementation of innovative processes.
10. Graduation Requirements.
11. Competitiveness of graduates in the labor market.
12. Alumni achievements.

Of course, these indicators are closely related and interact with each other in the system. Based on this, we can say that the impact on the education system and improvements in the quality of educational services also have an impact on all of the above elements. This article will consider the impact of information and communication tools and will identify the features of this impact.

Often the concept of "digital pedagogy" is put as a synonym with the term "online pedagogy," which is not quite true, because "digital" is a much broader and technologically equipped environment. I.V. Sergeyeva believes that "the essence of digital pedagogy consists not so much in the direct use of digital technologies in teaching, but rather in the application of these tools in terms of critical pedagogy" [4]. The use of a computer in the learning process can not always be attributed to the above concept, as a traditional form of teaching often allows the use of various information technologies, that is, the learning process remains familiar (traditional), unchanged. As an example, we can consider text editors, which allow you to create and edit messages, reports, essays, etc.

The student may not need to use a computer because there are traditional material media for receiving, editing and storing information (textbook, notebook, paper). The digital approach to learning includes information and communication technologies that transform the educational process itself and create new learning opportunities. In this case, the student and the teacher "depend" on the Internet, because the tasks are directly connected to the global network. For example, unlike text editors, there are software types for creating a multimedia project (designing, creating presentations) that do not have a feature to publish scientific work in electronic form, keep accurate statistics and do not have a frequently updated database.

Modern realities not only imply the use of new means of communication in various spheres of social life, but also impose them, force to resort to them. This is facilitated not only by the progress in information technologies, but also by the improvement of educational process and training of competent personnel in these areas.

Nowadays, electronic media are the main tool in the learning process, because education system is focused on continuous development and aims not only to provide the student with knowledge, but also to develop creativity, identify their strengths and weaknesses, to help them find, integrate and promote complete development of personality. In addition, digital pedagogy greatly simplifies

the learning process (but does not lead to its primitivization, does not facilitate or minimize the knowledge itself), reduces the time of both the teacher and the student. From this we can conclude that the teacher spends more time improving his or her teaching skills, gaining new experiences and motivating students. The teacher does not waste time on homework and control assignments, because computer technologies provide follow-up processing, but are focused exclusively on professional activities.

Students, in turn, receive voluminous and varied tasks that include not only basic types of work (testing, exercises, solving examples, graphing), but also additional ones that help expand their horizon (creating projects, presentations, video films and audio files, analysis of various multimedia elements). Assignments can be distinguished according to a hierarchical system: for example, after testing at the beginning of the year, all students receive assignments that correspond to their level of knowledge, which has a positive impact on the educational process and supports students' aspirations. Thus, they participate in the educational process, improve their knowledge and training, their overall performance and acquire practical skills. The first one is suitable for universities, where the student and the teacher themselves create a model of the educational process and make a common work plan. This also saves time, as assignments can be completed in a variety of settings and later emailed to the teacher. Use of such approaches has been observed for a long time and is not currently considered an innovation. For example, most term papers and theses are designed so that the student and teacher can communicate via email and make changes to the text, agree on structure, etc.

Speaking about digital pedagogy as a factor of increasing educational services, it is worth mentioning its mobility and frequency of data update. Currently, there are many applications and services available in Kyrgyzstan, through which teachers are invited to track the dynamics of problem-solving and identify the most difficult tasks, evaluate execution and enter the data obtained into public databases. Some algorithms can analyze a student's progress and even make several "assumptions" about their future education. Thus, digital learning has a positive impact on both student achievement and motivation to learn.

In this study, the specifics of digital pedagogy were identified as one of key factors in improving the quality of educational services. This is, firstly, absolute impact on educational process as a whole through various aspects that make up key indicators of the quality of educational services. Second, the digital teacher is partly a student herself, as she is constantly learning not only in the field of pedagogy, but also in information technology, which shows progressive application of this approach. The teacher herself organizes the process of training and learning in educational environment, via technologies that reflect peculiarities of a subject area and correspond to age, psychophysical features of students, and their special educational needs. Thirdly, this type of pedagogy, in addition to creating favorable conditions for interaction of all participants in the educational process, provides information security through closed databases.

Many scholars are grappling with the problem of digital knowledge dissemination. Their opinions often differ from each other and probably can never come to a common point. E.I. Yaroslavtseva believes that "total distancing is the separation of an individual directly from educational process [5], rather than isolation and increase of accessibility of education". D. Badarch believes that "ICT is a driving force as teachers understand that the combination of digital technology and resources"

provides more opportunities to expand horizons to improve the quality of education, learning and training [1].

Innovation has always been perceived with great caution, but it cannot be avoided. Therefore, teachers are now increasingly turning to digital technologies, successfully mastering them, significantly improving their professional skills, that increases the quality of educational services. Based on the above, it can be noted that the quality of education is a key aspect of development of professional and personal qualities of students, their competence and ability to learn. Its growth is facilitated by modern information technologies, in particular, electronic information and educational environment. This leads, firstly, to the training of a competent specialist, and secondly, to the formation of an individual with high information competence and developed critical thinking. The use of digital educational resources expands possibilities of the educational process, while becoming only a tool in the hands of competent professionals.

It should be noted that digital technologies occupy an important place in the state educational process, due to their comprehensive and versatile features that are used in combination with traditional forms of education. Thus, latest information and communication technologies have a positive impact on all indicators of educational quality and on the use of digital laboratories in HEIs and schools, as noted in M.V. Iashvili work [2]. This approach helps teachers to achieve dynamics, efficiency and effectiveness of professional activity.

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**UDC 378.146**

### **DEVELOPMENT OF DIGITAL EVALUATION INFRASTRUCTURE AS A TOOL FOR IMPROVING THE QUALITY OF EDUCATION**

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***Abstract.*** *The article deals with improving the quality of education through the transformation of the educational process to provide formative and summative assessment of students' work through the formation of digital infrastructure in the form of electronic information educational environment by implementing electronic document management, including communication, online collaborative work on documents, organizing storage of work results and access rights management in accordance with the functional responsibilities of participants in educational*

***Key words:*** *digital transformation, quality of education, formative and summative assessment, electronic information educational environment, feedback, digital didactics, check for textual borrowing.*

Digitalization of education is a significant component of the process of forming a "new person", a person in all their personal aspects - from a citizen to a professional specialist. The need for such formation is caused by change of stages in development of human society - at new stage, the importance, accessibility and volume of information have increased manifold, integration of sciences has become so complex that it is sometimes difficult to find support in the disciplines studied in educational organizations when mastering new technologies. A modern person, especially a student, is a "digital person" who already lives in a digital environment, for whom gadgets, smartphones, websites, web services are simple and understandable things of daily use. Digitalization is what is required to make the educational process more flexible, ready for the realities of modern day and useful in the formation of competitive professionals in emerging "digital world".

Strategic goals of the country's digital development are presented in normative documents of the Kyrgyz Republic [1], [2]. They set the task of creating new opportunities for population through digital skills' development.

When planning achievement of the goals set out in these documents, it is necessary to take into account that digitalization of education has two sides:

- First, formation of a digital learning environment as a set of digital learning tools, online courses, electronic educational resources;
- Second, profound modernization of educational process designed to prepare a student a digital society and professional activity in a digital economy.

Thus, "digitalization of educational process is an oncoming transformation of educational process and its elements, on the one hand, and digital technologies and tools used in educational process, on the other. The purpose of the educational process's transformation is the maximal possible use of potential didactic capabilities of digital technologies. The purpose of digital technologies' transformation is their maximal possible adaptation to effective solution of key educational tasks, not solved or poorly solved by traditional technologies. [3].

"Expected educational and educationally significant results of digitalization of professional education and training are associated with identification and maximal possible use of digital technologies. Such results include:

- full-fledged individualization of educational process, based on construction of individual educational routes and personalized continuous monitoring of educational progress and personal and professional development of students;
- increased opportunities for use of various group (team) forms of organization of learning activities;
- ensuring complete assimilation of educational results - professional knowledge, skills, competencies required to obtain a professional qualification;
- expanding opportunities for pedagogically effective professional education and training of persons with disabilities;
- building a system of continuous diagnostic and formative assessment based on instant feedback during the learning tasks;
- significant reduction in the time period required to develop, deploy, and master professional educational programs, which is a central requirement of modern employers;
- freeing the educator from routine operations." [4].

Modern technologies allow students to effectively use educational and methodical literature and materials, to assimilate professional knowledge, to develop problem-solving thinking, to formulate professional judgments, to intensify research work, to expand opportunities for self-monitoring of acquired knowledge. Approaches to learning based on digital models allow teachers to promptly update educational and methodological support, to implement modular learning technologies, to expand opportunities for monitoring students' knowledge, to improve the quality of existing technologies of training professionals through granting young generation new educational opportunities, to ensure adequate methods of information transmission and distribution in educational process, development on their basis of necessary competencies, as well as effective management of education process and accessibility of education.

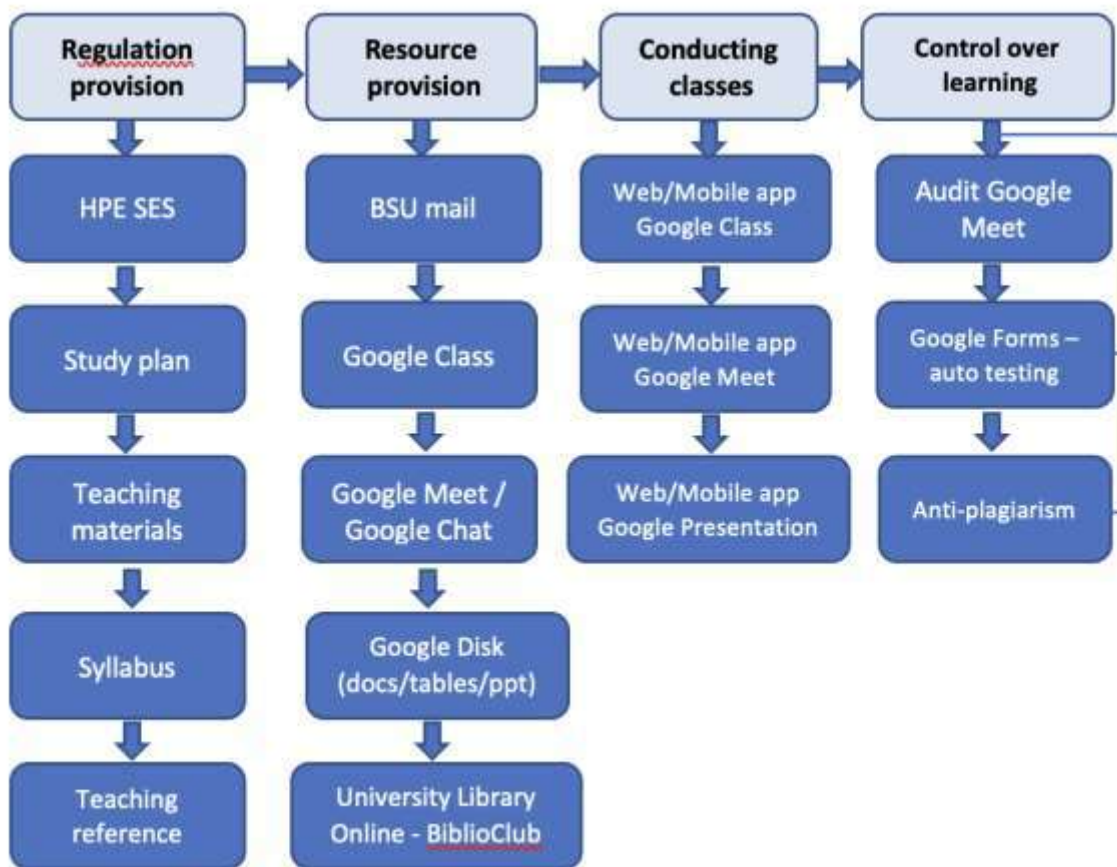
Digitalization as a process of digital transformation of educational and management activities of educational institutions through interrelated stages: digitization of data, rollout of digital technologies, formation of a digital space for user interaction and digital educational ecosystem to ensure education quality.

Great possibilities of digital representation of information lead to digitalization forming an integral technological "habitat" (ecosystems, platforms), within which a user can create a necessary friendly environment (technological, instrumental, methodological, document-wise, partnership, etc.), in order to solve entire classes of tasks through a systematically organized set of information, technical, educational and methodological support, which is inextricably linked to the human subject. This environment can be called "electronic information educational environment" (hereinafter - EIEE). This environment is characterized by its technological infrastructure, information resources (which are available through appropriate automated information systems), digital educational tools and means of participants' interaction. The electronic information educational environment is a part of the information educational environment of the university (hereinafter - IEE). In addition to the EIEE, the IEE includes traditional information environment (didactic support, such as printed educational and methodical sets, textbooks and manuals,

handouts and library collection), social and communication environment (space of live communication of educational process subjects).

The EIEE helps to improve education quality through the introduction of electronic document management, including communication, collaborative work on documents, storage of work outputs and management of access rights based on functional responsibilities of participants in educational process. The EIEE at Bishkek State University named after K. Karasayev is presented below.

Figure 1. Diagram of distance learning



Under an agreement with Google Corporation, since April 2014, the university has introduced Google G Suite for Education system (a set of free Google tools and services designed specifically for educational institutions and organizations), which includes 10,000 accounts of the University domain bhu. kg, as well as the bhu.kg website, Google disk document storage system - drive.bhu.kg, Google documents collaborative services (documents, tables, presentations) and interaction system for students and teachers Google Class - classroom. google.com, which helps organize a paperless learning process between the teacher and students, regardless of their physical location, and allows to easily publish tasks and automatically evaluate them via Google Forms, also organize collaborative and effective interaction of all participants, including real-time video meetings via Google Meet. Creating courses, handing out assignments, and commenting on student

work can all be done in one service. E-mail addresses with the bhu.kg domain serve as a link between the authorization system in teacher-student interaction (Google Classroom), educational and methodological support based on the electronic library system (ELS) "University Library Online - Biblioclub", and checking text/qualification works of students for plagiarism (Anti-plagiarism.Structure).

Assessment of students' learning results is an important stage of educational process. Currently, there are two types of assessment: formative, which helps to determine the current level of knowledge and skills assimilation in the process of daily in-class and/or home work, to ensure student-teacher operational interaction in the learning process using digital tools to allow students to understand how well they perform tasks during the learning of new material and achieve goals and learning objectives; and summative, which using digital didactics methods allows to identify compliance of students' knowledge with norms and standards after processing results and automatic reporting on student testing at the end of a thematic period, a semester and an academic year.

Creating a digital learning environment full of diverse opportunities is a necessary but not sufficient condition for organizing a pedagogically effective digital learning process. A system for organizing students' activity (learning process) in a digital environment is required. This is the subject of digital didactics. Only specially organized digital educational process allows us to advance in solving the problem of students' learning motivation.

In digital didactics there is such a concept as "active assessment, which is an effective method of improving learning outcomes, as it is a learning strategy that allows the learner to constantly monitor, evaluate and adjust their own achievements in the development of a particular discipline and the educational program as a whole, that is, in fact to manage personal learning and motivate learning; it improves learning outcomes; promotes the formation of key competence: learning to learn; builds positive collaboration of a teacher and a student" [5].

In order to improve the effectiveness of assessment, it is necessary to be fluent in modern information technology when choosing digital tools and applications that help:

- create learning tasks, distribute them and obtain results;
- focus on a real, specific product, which is independently created by an individual in the process of learning and practical activities;
- determine the correspondence between planned and obtained results;
- provide assessment tools, which allow an integrated assessment of achievements through tests, quizzes and surveys, allowing for instant evaluation of results, get their visual representation, analyze results to coordinate further action;
- organize and create virtual classes, track activity of the class as a whole and each student, and provide timely feedback to students;
- publish documents electronically and exchange with selected users;
- feedback in the classroom should technologically allow an active assessment both in the classroom and at home as part of independent work.

An example of successful information technology implementation in evaluation process is the "Anti-Plagiarism.Structure" system, which helps identify plagiarism in written works of students

and graduate students to ensure academic honesty and students' compliance with authors' intellectual property rights. The use of the university e-mail addresses (mail.bhu.kg) as an authorization system helps ensure teacher-student interaction in educational process and check students' research papers in the Anti-Plagiarism system.

The total size of the database of the Anti-Plagiarism system is over 290 million sources indexed in Russian, more than 200 million sources in English and more than 730 thousand Kyrgyzstan-related sources. More than 1200 universities, research institutes, libraries, publishing houses, government agencies and other companies in Russia and CIS countries use this system to recognize plagiarism.

The created digital infrastructure provides access to digital tools, materials, resources and services, as well as all types of certification tests (including comprehensive interdisciplinary examination and final state certification) using digital technologies and solving problems (current and prospective) in education management.

Thus, digital transformation of educational environment will improve education quality through productive use of mobile and Internet technologies. It will also expand horizons of students' knowledge and grant graduates a competitive advantage of advanced knowledge and its further support throughout life, this will form their "digital" age competencies.

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# ACCREDITATION IN EDUCATION

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## FROM PRACTICE TO METHODOLOGY: THE WAY TO IMPROVE ACCREDITATION IN EDUCATION

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**Abstract.** *This article compares the experience of Kazakhstan and Kyrgyzstan in applying European standards and guidelines in independent accreditation. The article considers differences and similarities of accreditation standards in the context of international trends in external quality assurance.*

**Key words:** *education quality, European standards and guidelines, accreditation, quality policy.*

Accreditation refers to the process by which an accreditation body assesses quality of the university's operation as a whole or individual educational programs of the university in order to recognize their compliance with certain standards and criteria. Expansion of international relations of HEIs leads to diversification of their educational programs, helps HEIs review and adopt experience from each other. In this context, accreditation bodies are also adapting to the changing conditions. Joint activities of accreditation bodies of Kyrgyzstan and Kazakhstan should be illustrational in this respect. For example, Kazakh Independent Accreditation and Rating Agency successfully accredits Kyrgyz HEIs. On the basis of the memorandum on joint activities between EdNet Agency for Education Quality Assurance and Astana Accreditation Agency, the latter seconds its experts to participate in the EdNet accreditation process.

However, cooperation between these agencies is not limited to purely practical issues. The following are examples of improving accreditation in education based on methodological research. The article [1] analyzes which quality assurance models that can serve as a basis for building a quality assurance system in HEIs are most appropriate for accreditation purposes. It is shown how the output parameter of the model corresponds to the indicators of external quality assurance system accepted in the European educational space and displayed in the standards of Kazakh and Kyrgyz accreditation agencies (Table 1).

*Table 1. Comparison of standards*

<b>ESG-2015 Standards and Guidelines</b>	<b>ARQA agency standards (Republic of Kazakhstan)</b>	<b>EdNet Agency Standards (Kyrgyz Republic)</b>
1.3 Student-centered learning and assessment	Standard 3, Criterion 2a: the use of clear criteria and	Standard 2

	objective consistent procedures for assessing learning outcomes that conform to established rules and are designed to achieve planned learning outcomes and goals of the educational program	The goals and learning outcomes of the educational program. Standard 4. The content of the educational program and the educational process that promote student-centered learning
1.2 Developing and approving programs	Standard 2. Educational programs: development and approval	Standard 2. Quality assurance of educational programs, Standard 3. The content of the educational program and the educational process that promotes student-centered learning
1.4 Admission, Academic Performance, Recognition, and Certification	Standard 4. Students: admission, performance, graduation	Standard 3. The content of the educational program and the educational process that promotes student-centered learning
1.5 Teaching staff	Standard 5. Professorial and teaching staff	Criterion 5 Professorial and teaching staff

From the table we can see:

- 1) There is great similarity and even overlap (last row) in the formulation of standards and criteria;
- 2) All standards consider learning outcomes, i.e., implementation of the competency-based approach in education.

Thus, comparison of quality assurance models of higher education in European countries, Kazakhstan and Kyrgyzstan shows that there is an opportunity to harmonize accreditation standards. This circumstance is a significant factor in achieving world-class education systems in Kazakhstan and Kyrgyzstan and international recognition of qualifications. Moreover, such an attempt has already been made in 2009-2012 during the implementation of the Tempus project "Central Asian Network for Quality Assurance - CANQA".

The next step in development of integration processes in international accreditation was awareness of the need to revise the content of accreditation agencies' standards for more compliance with the trends in the European Higher Education Area. Thus, in the article [2] pedagogical research methodology was applied to solve the issue: matrix and retrospective methods, method of comparative analysis. As it is known, the matrix method is a method of scientific research of objects' properties on the basis of matrix models, i.e. application of the matrix theory rules that help calculate model elements' content which reflects objects' connection.

Retrospective analysis is the study of tendencies of certain past period that provides exhaustive characteristic of the process in statics (level in the chosen time interval) and in dynamics for the past period.

Comparative analysis method is the method of comparing two and more objects (phenomena, ideas, research results etc.), and identifying in them common and different elements. Below is this matrix with the updated EdNet Agency standards, which were revised at the end of 2019. By the way, the practice of EdNet Agency on annual revision of standards and their descriptions demonstrates an effective approach to the adaptation of European standards to a country with due consideration of not only the legislative and regulatory framework, but also perception of European practices by academic community of another country.

*Table 2. Matrix of Relationship of Standards and Criteria of Kazakh and Kyrgyz Accreditation Agencies with ESG-2015 Standards*

EdNet Agency	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10
Standard 1. The university's mission and the educational program development strategy										
Standard 2. Quality assurance of the educational program	⊞			#					#	⊞
Standard 3. Goals and learning outcomes of the educational program		#								
Standard 4. Content of the educational program and educational process that facilitate student-centered learning			⊞							
Standard 5. Professorial and teaching staff					⊞					
Standard 6: Infrastructure and Support for Graduate Students								#		
Standard 7. Transparency and reliability of information						⊞	#	#		
ARQA		1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10
Standard 1. Quality assurance policy										
Standard 2. Educational programs: development and approval		⊞								
Standard 3. Student-centered learning, teaching, and assessment			⊞							
Standard 4. Students: admission, performance, graduation				⊞						
Standard 5. Professorial and teaching staff					⊞					



Standard 6. Research work										
Standard 7. Educational resources and student support system						☐				
Standard 8. Information analysis and management							#			
Standard 9. Public awareness raising								☐		
Standard 10. Continuous monitoring and periodic evaluation of educational programs									☐	
Standard 11: Periodic external quality assurance										☐

Legend:

Designations:	☐	exact match
	#	semantic overlap

1.1 - Quality Assurance Policy, 1.2 - Program development and approval, 1.3 - Student-centered learning and assessment, 1.4 - Admissions, performance, recognition and certification, 1.5 - Faculty, 1.6 - Educational resources and student support system, 1.7 - Information management, 1.8 - Public awareness, 1.9 - Continuous monitoring and periodic program evaluation, 1.10 - Periodic external quality assurance procedures

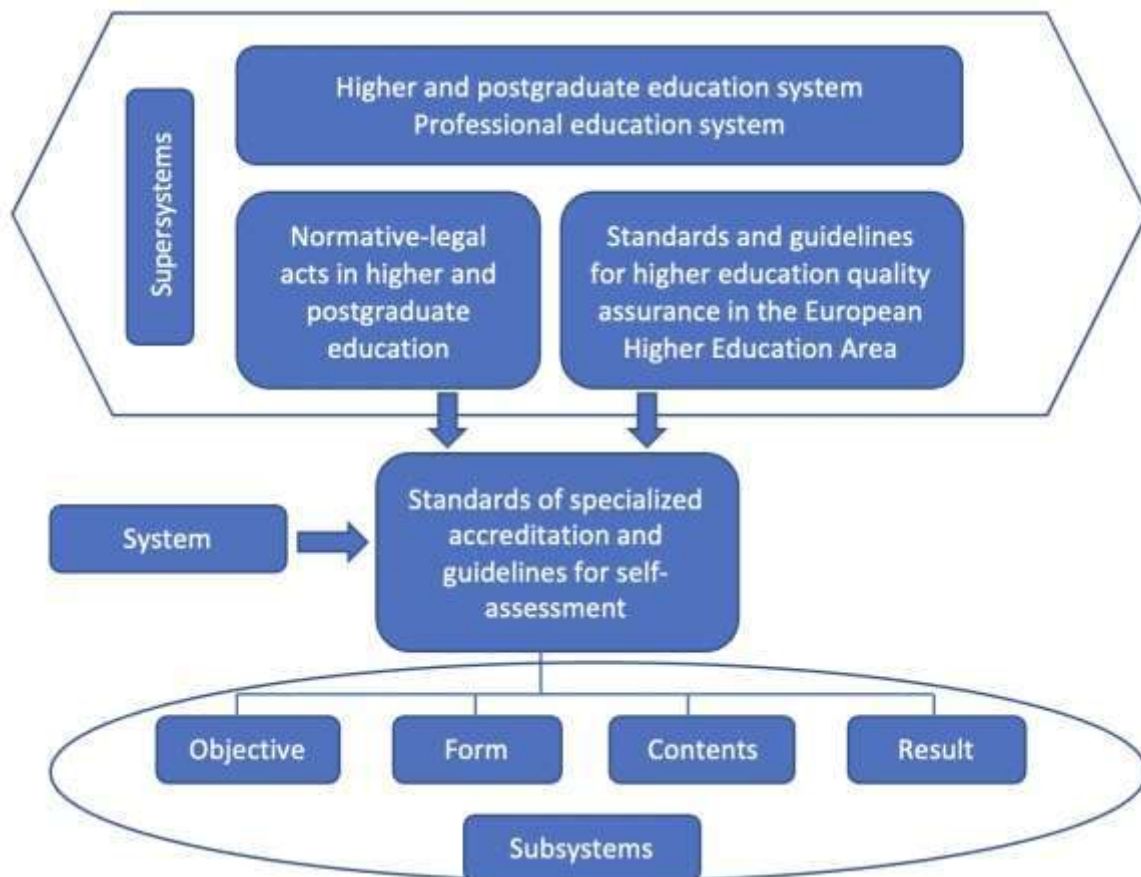
As a result of using the methodology, the following results were obtained:

- 1) A retrospective analysis of the development of accreditation systems in Kazakhstan and Kyrgyzstan showed that these systems developed in line with global trends;
- 2) The matrix with the ESG-2015 standards (horizontally) and standards and criteria of the Kazakh and Kyrgyz accreditation agencies (vertically) has been developed. According to the matrix, the criteria of the Kyrgyz agency have 50% complete and 50% semantic overlap with the ESG-2015 standards; the standards of the Kazakh agency have 90% complete and 10% semantic overlap.
- 3) Comparative analysis of the content of standards and criteria has demonstrated that the standards and criteria of Kazakh and Kyrgyz accreditation agencies mostly correspond to the ESG-2015 standards. The frequency of use of ESG-2015 key terms given the number of standards / criteria is an indicator of not formal, but semantic overlap of approaches to the use of ESG-2015. These findings have led to adjustments in the ARQA agency standards, in particular, more attention has been paid to learning outcomes;
- 4) It was concluded that the adoption of ESG-2015 as the basis of criteria and standards of accreditation agencies of Kazakhstan and Kyrgyzstan is one of essential factors in creating world-class education systems in Kazakhstan and Kyrgyzstan and international recognition of qualifications and degrees conferred by universities of these countries.

Pedagogical research methodology allows using a systemic approach to the development of accreditation standards. A system is understood as a set of multiple interrelated elements that form a certain integrity and necessarily involve interaction of elements.

Indeed, in the development of standards we deal with a set of interdependent elements. This is shown in the article [3] based on the term "Educational program". Figure 1 visualizes a concretization of the system approach to the development of standard "Educational programs: development and approval".

Figure 1. Visualization of the system approach applied to the standard "Educational programs: development and approval"



The reviewed methodological approaches applied to the accreditation theory development allow us to see the prospects for the theory development. In particular, from a scientific viewpoint, it is necessary to justify expansion in application of other accreditation models, besides the ESG-15, such as the EFQM model. After all, the application of comparative analysis even to such a formal indicator as the naming of standards and indicators shows not only the relationship between the models, but also indicates the difference in application to two accreditation types: institutional and programmatic. Indeed, the "Processes" criterion in EFQM [4] does not fully reflect such important university processes as "design and approval of programmes", "student-centred learning", "teaching and assessment, student admission, progression, recognition and certification", "on-going monitoring and periodic review of programmes" [5]. However, lack of necessity for "cyclical external quality assurance" in EFQM reflects the essence of this model: in HEIs, the process of self-improvement should be carried out continuously, not periodically. Besides, the

presence of such criteria as Leadership, Strategy, Partnerships & Resources and Results group in EFQM indicates the institutional nature of the model. This is logical, since the leaders of academic programs do not develop a strategy, do not have resources; results of the program implementation should be considered in the context of entire activity of the organization. Consequently, compared to ESG-15, EFQM is more adapted for institutional accreditation of HEIs.

The past experience of cooperation between accreditation agencies forces us to state that the recommendations developed within the CANQA project (2008-2010) were not justified methodologically, but found practical application in the foundation of accreditation agencies, in particular the EdNet Agency. Results of the International Forum "The global in the regional: Kazakhstan in the Bologna Process and EU Projects" held in Nur-Sultan in October 2020 prove that the idea of establishing the Central Asian Network for Quality Assurance in Education is still relevant. The communiqué of the forum states: "Given the successes achieved through the implementation of the Bologna process principles in higher education system of Kazakhstan, the forum participants support the proposal to form a Central Asian Higher Education Area".

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#### **UDC 378.4**

#### **INTERNATIONAL ACCREDITATIONS AND IMPLEMENTATION OF NEW ACCREDITATION STANDARDS INTO THE NATIONAL EDUCATION SYSTEM OF KYRGYZSTAN: EXPERIENCE OF AN EXTERNAL EXPERT**

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**Abstract.** *This article is an empirical study on the implementation of international and national accreditation standards in higher education. A comparative analysis of international and national accreditation criteria and standards is provided. The article deals with the external/international expert's experience in national education system of Kyrgyzstan in the context of applicability of standards and criteria of independent national accreditation.*

**Key words:** *standards, international and national accreditation, quality assurance, independent evaluation, education system, higher education.*

The modern education system is largely based on numerous principles and mechanisms to ensure internal quality of educational services provided to population. At the same time, external monitoring of the internal quality assurance system in educational institutions is important. The main mission of many HEIs is to ensure the integrity of quality management system in the university and the quality of implemented educational programs. Nevertheless, given mass demand for quality professional knowledge, there is an urgent need to verify quality assurance mechanisms of educational services provided by HEIs.

A system of values, criteria and standards is necessary for a full-fledged verification of this kind, which should fully disclose peculiarities of implementation of educational programs in HEIs. Such a system is called accreditation, i.e. external verification of the university's compliance with the declared quality requirements, or compliance of the university and the educational programs it implements with the quality criteria established by accreditation agencies. At the same time, an important element of such accreditation should be its independent assessment. It is an independent, i.e. free from bias and one-sided judgment, assessment of learning outcomes that largely stimulates the development of multifaceted and universal higher education.

Also, an independent assessment based on monitoring of quality of educational activities should be fully separated from influence of national authorized body in the field of higher education, because only assessment of the results of university and its students' activity that is independent from the authorized body's policy can verify actual state of affairs in one or another area in the system of higher education subjects.

The subject of accreditation is always an idea of improving the quality of processes, educational services, satisfaction of direct and indirect consumers. Definition of the university's compliance with these qualities is based on level of compliance with established standards. In its turn, the standard is a template, its essence is disclosed in a set of criteria, which must be met by the examined institution.

International accreditations do not set quantitative measures of standards and criteria - they all act as qualitative, descriptive indicators. The conditional measurement used by accreditation expert teams is their experience as managers, professors, and members of audit expert teams at international universities. The level of these institutions depends on the specific organization within which a particular accreditation is offered. In case of a high-status accreditation agency, a Kyrgyz university will be compared to the best universities in the world.

There is a number of differences between national and international accreditations. Factors such as internationalization, relations with corporate world, social responsibility, ethics and sustainable development, academic and research status of a university are firmly embedded in the system of criteria underlying international accreditation. In turn, not many Kyrgyz accreditation agencies pay much attention to the above-mentioned areas.

The second difference is the presence of screening questions among the criteria of international accreditation aimed at clarifying the HEI's position on a particular issue, its objective assessment and cross-criteria verification. These questions are in their essence akin to elements of a sociological test developed by a professional industrial psychologist, that aims to give a neat assessment of the respondent's honesty.

The next difference is in regulated lists of documents within the framework of international accreditation. These lists are obligatory for submission as annexes of self-assessment reports and should be provided in an accreditation office, where the expert team will subsequently work.

The third difference is specialization of international accreditation agencies in the field of economic and business education, while Kyrgyz accreditation agencies are not highly specialized, but they accredit educational institutions of any profile, from medical and agricultural to business schools. A number of international accreditations for economic and business education are accreditations of international professional organizations. For example, such accreditations as EQUIS and EPAS are accredited by an international organization European Foundation for Management Development (EFMD), which includes more than 800 HEIs and business companies from over 80 countries.

The next difference is composition of an expert team that visits the university to conduct the audit. The expert team for international accreditation usually consists of 3-5 people depending on the accreditation agency. Experts should be part of academic environment of good international universities (dean, program director or equivalent). One expert should have experience in corporate world or be a member of a professional association. Another expert should be familiar with local specifics of the higher education field if the accreditation examines a HEI that is different from the main target audience. The team of experts of Kyrgyz accreditation agencies includes representatives of the academic community, and Kyrgyz stakeholders, including employers and students, and often one international expert.

The fifth difference is that the Accreditation Council of Kyrgyz agencies is composed of representatives of HEIs, employers, students, experts, NGOs and the public. The same board of an international agency is represented by members of high-profile organizations from different countries, which are stakeholders in improving education management quality, taking into account cross-cultural aspect of membership of certain organizations' representatives.

The sixth difference lies in the fact that international accreditation agencies have international target market, and provide expertise to HEIs in different parts of the world. Very few of them may cover over 70 countries of the world, e.g. AMBA Accreditation of MBA Association. The target audience of national accreditation agencies are universities within the same country whose standards and criteria are primarily based on state educational legislation. In this case the focus is

on the status and potential for further development of the accredited program and its compliance with the requirements established by the accreditation agency.

Consequently, if a university meets national requirements, it can certainly be accredited by the national accreditation agency. Another thing is international accreditation, which is given to an educational institution if it meets international standards. But international accreditation is also subject to gradation.

It should not be forgotten that the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) are basic principles that should be expanded, deepened and developed by accreditation agencies. A number of accreditations offered by European national accreditation agencies contain these requirements virtually intact as they were proposed, without much depth and amplification. For example, the Accreditation, Certification and Quality Assurance Institute (ACQUIN) headquartered in Germany, AQAA Austria and the Foundation for International Accreditation of Business Administration Programs (FIBAA) followed this path. These accreditations are based on the idea of ensuring declared quality and customer satisfaction. The predominant majority of accredited universities are local institutions: German, Austrian, Swiss. As accreditations created at local or regional level, they practically do not attach due importance to the international dimension of a HEI and its programs.

In contrast to the above, there are leading and globally recognized premium accreditations, the so-called "triple crown": AMBA Association of MBAs, Quality Improvement System EQUIS EFMD, Association to Advance Collegiate Schools of Business AACSB. These accreditations have a clear focus on business education, and members of their boards and expert groups are true professionals who know specifics of this type of education. Their target audience is best business schools all over the world, that operate in all continents, such as the University of Oxford, INSEAD, London Business School, Harvard Business School, University of Stanford, Berkley University and others.

As for national accreditation in Kyrgyzstan, we can say that the basis of the Kyrgyz education system is credit-based learning technologies, therefore the focus of national accreditation is projected on ensuring internal and external quality assurance of educational services and stakeholders' involvement in decision-making process within all necessary mechanisms for implementation of educational programs. The so-called necessary mechanisms include a whole range of activities of HEIs in Kyrgyzstan. It should be noted that Kyrgyzstan is trying to introduce a model of academic accreditation largely based on a universal approach, which takes into account such criteria as quality assurance, content of educational programs, quality of the learning system, stakeholder involvement in the system of academic quality. It also takes into consideration graduates' employment rates, employers' satisfaction, student support and self-actualization.

There is a number of agencies in Kyrgyzstan that carry out independent accreditation of HEIs. Among them the EdNet Agency for Quality Assurance in Education should be highlighted. It is a member of INQAAHE (International Network for Quality Assurance in Higher Education) and has recently achieved membership in the authoritative APQN network. It is this agency that implements a set of criteria and standards that most deeply reveal peculiarities of academic policy and internal quality assurance in Kyrgyz HEIs. Based on my expert experience, I believe that according to the standards of EdNet Agency, independent national accreditation is carried out

according to adapted criteria of international accreditation, which mostly considers not quantitative but qualitative measures. Adaptation of international accreditation criteria is essential for national accreditation in developing countries, which are constantly undergoing changes, such as systemic reforms in national educational environment.

According to my observations, in its activities to implement an independent evaluation of universities, the EdNet Agency tries to apply international standards for measuring learning outcomes in each of the university's educational programs. Members of the EdNet expert team mainly try to help the university, educational programs, teachers, students and other stakeholders to identify weaknesses of the university/educational program, to strengthen quality assurance in all areas of the university/educational program. Experts are not mentors and classical examiners, they are positioned more as consultants who conduct independent audit and provide educational consulting services. This fundamentally changes their relation to the examined university, and has a positive effect on determining the external evaluation results of the university itself.

Based on my experience as an external expert in accreditation of universities in Kyrgyzstan, I believe that the national system of independent accreditation standards largely meets labor market requirements, and in many ways helps universities to identify their weaknesses in working with external stakeholders. The standards of independent accreditation enable Kyrgyz HEIs to continuously improve their educational programs, and to develop the infrastructure of resources and intellectual capital (teachers). The quality of educational programs begins not with a competently composed syllabus or curriculum taken from a foreign university and adapted to local needs, but with quality up-to-date knowledge, and practice-oriented professional disciplines. Thus, efficiency of received knowledge, as well as practical orientation of professional (profile) disciplines is maintained thanks to intellectual capital of each HEI which has been accumulated in years, even decades based on qualified teachers' input. That is, in Kyrgyzstan, when determining accreditation procedures, it is necessary to focus to a greater extent on professional and personal development of teachers, on internationalization in the form of outgoing academic mobility of teachers, and on industrial work experience of university teachers. Since a teacher's academic degree and title are not always a guarantee of quality and relevance of the knowledge they convey to students.

Also, when conducting external evaluation and assessment of universities, it is necessary to monitor more deeply presence of systemic communication of academic environment with employers and industry, as well as with other external stakeholders, because very often universities are trying to pass off formal things as real.

Implementation of international accreditation criteria in national framework does not always provide proper result, as it is necessary to adapt standards to needs of the national education system. These should be dynamic rather than static standards, which can fully verify actual state of affairs in the system of quality assurance and mechanisms of implementation of educational services in HEIs of Kyrgyzstan.

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#### **UDC 378.4**

#### **IAAR INTERNATIONAL ACCREDITATION: APPROACHES AND PROSPECTS**

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***Abstract.*** *The profound changes taking place in the education system have a serious impact on the quality of educational services. The formation of new approaches, forms and methods of improving the quality of educational services should be given priority in the context of the transformation of the education system. In this regard, the role of international accreditation and its importance as the main mechanism to improve the quality of education is increasing.*

***Key words:*** *quality of education, educational services, international accreditation, competitiveness.*

Globalization in recent decades has been one of significant impact factors in development of higher education worldwide. This process has been dynamically developing and acquiring new forms and methods. In order to boost HEIs' competitiveness, it is necessary to fully enter the global educational community. Transformation of education and development of human resources will allow improving quality of education and effectively integrating into the global educational space.

We live in a world of constantly evolving information technologies. In the context of digitalization, the goal of modern educational system is to create more effective models of learning based on global trends in education quality assurance. These trends are globalization, internationalization and openness, new IT-technologies and up-to-date forms of knowledge assessment, digitalization and practice-orientation, as well as the need and requirement for continuity of education [1].



It is important to note that international accreditation is an effective mechanism of compliance with global quality standards, aimed at development of internationalization and human resources, and at increasing competitiveness of higher education while implementing principles of external quality assurance. Main principles of international accreditation are: independence, objectivity, transparency and trust. International accreditation actively contributes to:

4. Integration of the higher education system into global educational space.
5. Development of nation's intellectual potential and boost of its competitiveness.
6. Sustainable growth and development of knowledge economy.

In this regard, the role and importance of international accreditation as a key indicator of education quality assurance is increasing.

International accreditation is of two types: institutional and specialized (programmatic). It is a procedure of official confirmation of compliance of an educational organization or an educational program with quality standards.

International accreditation plays a key role in enhancing a university's image and credibility. International accreditation makes HEIs more responsible for the quality of education. Providing universities with practical assistance is the "golden" feature of international accreditation.

Today, IAAR is the leading international accreditation agency, which has gained high status and authority in the global educational space over the years of its active work. IAAR's position results from gradual development and sustainable growth of the agency's potential in education quality assurance system.

IAAR has been included in the Register of Recognized Accreditation Bodies of Kazakhstan since 2012 and is also a full member of leading international quality assurance networks, primarily a full member of ENQA (European Association for Quality Assurance in Higher Education).

IAAR's inclusion in the EQAR (European Quality Assurance Register for Higher Education) demonstrates high level of recognition and credibility in global educational community.

In 2016, the ENQA Council based on the external evaluation results, confirmed compliance of IAAR activities with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG-2015). At the end of 2016 IAAR became the first accreditation body in Kazakhstan with the status of a full member of the European Association for Quality Assurance in Higher Education (ENQA).

In 2018 the IAAR successfully passed the post-monitoring of the European Association for Quality Assurance in Higher Education – ENQA. The expert commission of ENQA highly valued the IAAR activities and confirmed full compliance with international standards of education quality assurance [2].

The IAAR is the first and only organization in the CIS and Eurasian region recognized by the WFME (World Federation for Medical Education) and is eligible to conduct international accreditation of medical schools.

IAAR-accredited HEIs enable students earn international ECFMG certification and gain employment at job market.

Today, IAAR conducts international accreditation of educational programs and educational organizations not only in Kazakhstan, but also far beyond its borders. Thus, IAAR has completed institutional and specialized (program) international accreditation of universities in Kyrgyzstan, Russia, Tajikistan, Uzbekistan, Moldova, Romania and Ukraine.

To date, IAAR conducts the following types of cross-border accreditation abroad:

- institutional accreditation, including primary accreditation (Ex-Ante);
- program accreditation, including primary accreditation (Ex-Ante);
- institutional accreditation of medical educational organizations;
- program accreditation of educational programs of medical educational organizations, including primary (Ex-Ante).

Conducting international accreditation in any foreign country fully complies with the principles and provisions of ENQA "Cooperation in Cross-Border Higher Education: Toolkit for Quality Assurance Agencies" and "Guidelines for Quality Assurance in Cross-Border Higher Education (UNESCO and OECD)". For cross-border accreditation abroad, IAAR has developed unified Standards and Guidelines for international accreditation of foreign educational organizations and educational programs, based on the experience of international accreditation and implementation of the Bologna Process. The distinctive feature of these standards is their compliance with ESG and WFME, their universality and possibility to use them in any country taking into account national legislation [3].

In 2018, the first foreign country for IAAR to conduct international accreditation was the Kyrgyz Republic. IAAR was included in the Register of the Ministry of Education and Science of the Kyrgyz Republic in April 2017. IAAR is recognized in Kyrgyzstan as an international agency for accreditation of universities and educational programs and is a transnational accreditation body. In 2016-2019, IAAR actively provided consulting assistance to the Ministry of Education and Science of the Kyrgyz Republic on the establishment of the quality assurance system for higher education. IAAR also held training seminars to explain the quality assurance system, based on the European and Kazakh experience and ESG principles. IAAR developed standards and guidelines for accreditation of HEIs of the Kyrgyz Republic.

IAAR in the Kyrgyz Republic conducted more than 5 training seminars on accreditation and ranking studies in 2017-2019. During this period, IAAR trained more than 240 teaching staff from KR universities at training seminars. IAAR is an active participant in the activities conducted by the Ministry of Education and Science of the Kyrgyz Republic to ensure the quality of education. The first university to undergo international IAAR accreditation in May 2018 was the oldest state university in Kyrgyzstan, the M.M. Adyshev Osh Technological University. Then IAAR conducted cross-border institutional accreditation in Osh State University, Kyrgyz-Uzbek University, International Higher School of Medicine, Ala-TOO International University [4].

IAAR international accreditation is conducted with active participation of stakeholders: employers, students, foreign and national experts, as well as an independent observer - a

representative of the agency. Stakeholders are involved both in the self-assessment process carried out by the university and during a visit of the external expert commission (EEC) that helps ensure quality of EEC activities.

IAAR actively engages students from different regions in collegiate bodies, in the EEC, and to participate in development of standards and guidelines to improve the accreditation procedure for educational programs and organizations.

The EEC experts play a great role in the accreditation procedure, that is why the IAAR expert base is constantly growing. Every year IAAR conducts free training seminars for experts to increase their qualification and expand the geography of experts. As of today, the pool of IAAR experts includes more than 4000 people from 35 countries both near and far abroad and is constantly growing.

An educational organization, which has passed international accreditation in IAAR, gets serious competitive advantages at educational services market:

First of all, it is international recognition;

Secondly, comparability and convertibility of qualifications;

Third, proof of high quality of education;

Fourth, compliance with international standards;

Fifth, expanding opportunities for international cooperation with the world's best universities.

Sixth, high demand for graduates and their employment.

IAAR's international accreditation procedure actively helps:

- to improve educational activities of HEIs;
- to identify shortcomings and make recommendations to address them;
- to develop effective measures to improve quality of education;
- to provide society with the human resources it needs.

Education quality assurance throughout developed world today is considered as a key factor of stability and development of society, as an important vector of progress and sustainable growth of a country. Therefore, HEIs and society should be deeply interested in improvement of educational programs of universities and in increasing competitiveness of educational services [5].

High social demand for higher education and growing need for specialists in labor market make the society interested in accessible and reliable information about quality of education in different HEIs. One of effective mechanisms for achieving such quality are ratings of leading universities. Ratings are of interest not only to those who are going to get higher education, they are in demand by employers, the state and academic community.

The rating surveys that have been conducted annually by IAAR since 2014 are important. A strategic achievement of IAAR was successful passing of an international audit by the IREG Observatory on Academic Ranking and Excellence in 2019 and receiving the high quality mark "IREG Approved". IAAR is the first and so far the only organization in Central Asia to receive such high status. High recognition of IREG implies integration of IAAR into international expert community and confirms quality of ranking of educational institutions. It proves that IAAR HEIs rating methodology fully complies with international quality standards. This means that it

objectively stimulates and guides HEIs to world standards and quality of education provided by the ranked universities.

In 2020 the Independent Agency for Accreditation and Rating conducted the International IAAR Eurasian University Ranking (IAAR-EUR). In order to conduct the international ranking of universities, IAAR developed a methodology to assess the HEIs performance based on digital technologies. The methodology of the IAAR Eurasian University Ranking (IAAR-EUR) is based on observance of the Berlin principles: transparency, objectivity, verifiability and accessibility of information sources. Indicators that demonstrate the university activities are analyzed using a software based on a database of domestic and international information resources and do not require any paper support. The universities are evaluated according to 18 parameters in four areas: academic reputation of the university, qualitative composition of university students, concentration of scientific potential of the university, and internationalization of the university.

According to the methodology of the IAAR Eurasian University Ranking (IAAR-EUR), universities independently fill in information about their achievements and are responsible for non-biased completion of indicators. Therefore, the university's position in the rating depends on the completeness and correctness of data provided. Such an approach inspires trust of the academic community and educational organizations in results of the International IAAR Eurasian University Ranking (IAAR-EUR).

Universities of Russia, Kyrgyz Republic, Belarus, Kazakhstan and Moldova actively participated in the International IAAR Eurasian University Ranking (IAAR-EUR)-2020. This demonstrates that the International IAAR Eurasian University Ranking (IAAR-EUR) is becoming respected and popular in the academic community.

Participation in the International Rating "IAAR Eurasian University Ranking (IAAR-EUR)" allows HEIs to evaluate competitiveness of their universities according to the latest world trends, attract a larger number of foreign applicants, boost internationalization of education, meet PR ambitions of not only the universities themselves, but also the country as a whole.

Thus, high position of universities at the global level is a major contribution to the country's image, and as market of educational services globalizes, it ensures growth of human capital in the region, attracts investment, and increases share of educational services in the country's export structure.

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## **ACCREDITATION AND QUALITY OF HIGHER EDUCATION IN KYRGYZSTAN**

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***Abstract.*** *The article analyzes issues of ensuring and developing education quality in universities of Kyrgyzstan, examines the accreditation process affecting education quality, as well as issues of accreditation and the quality of higher education. Recommendations are given for qualitative transformation of universities in Kyrgyzstan.*

***Key words:*** *quality of education, educational programs, organizational processes, accreditation of higher education, universities in Kyrgyzstan.*

Introduction. Higher education can make an important contribution to building a stronger society, ending extreme poverty, and boosting shared prosperity. It can serve the community by contributing knowledge and advanced skills as well as basic competencies and research. Knowledge plays a growing role in the global economy, driving economic growth and productivity. Economic studies have shown a positive relationship between education and economic growth, particularly those that take into account the quality of education [1] (Barro 2013; Hanushek and Woessmann 2008, 2012).

Higher education in developing countries plays an important role as they are expanding basic education systems and increasingly moving towards knowledge economy. Every country seeks to improve “Quality in Education” for their own education systems.

As you know, one of the most important factors in the development of economy and prosperity of a country is availability of highly qualified personnel and their constant improvement [2].

Like many other developing countries, Kyrgyzstan is passing through a critical phase of developing and integrating quality into higher education. The graduates face great difficulties while competing within international employment markets. The only way to meet these challenges is to focus on quality assurance and emphasize quality improvement.

The world experience of educational activity of HEIs illustrates that different mechanisms of regulation, control and quality rating are imperative attributes of national models of quality assurance despite their specific character. There are following mechanisms in Kyrgyzstan: licensing, governmental certification and accreditation. The above-mentioned mechanisms accept that accreditation is an obligatory part of the system of external control and quality rating [3].

Accreditation in different countries has its own specific characteristics. For example, in France it is more imposition-oriented. This is due to the fact that accreditation is mandatory, and laws impose certain standards and limit participant's ability to influence the process [4].

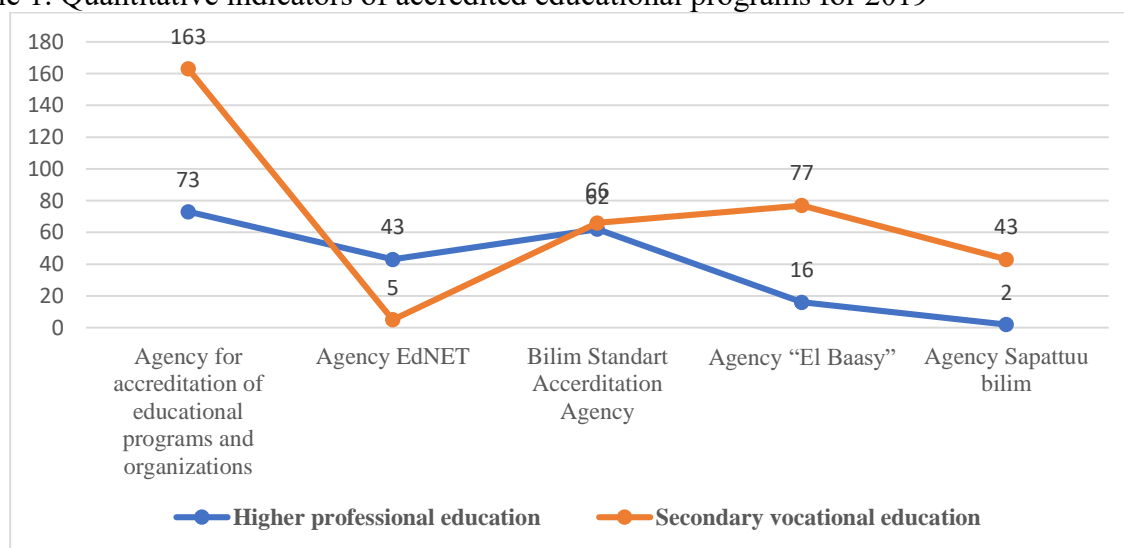
Accreditation is not only confirmation of success and recognition of performance results. First, this implies constant work of the university to improve the quality of services provided and testifies to the quality compliance of educational programs with high international requirements. Key point of accreditation procedure is self-assessment of the university, analysis of progress achieved in development and, at the same time, identification of possible areas for improvement.

Accreditation in the Kyrgyz Republic. In Kyrgyzstan, accreditation evaluation of educational programs is carried out in the bodies registered in the National Register of Accreditation Bodies of the Ministry of Education and Science of the Kyrgyz Republic, where the university receives confirmation and recognition of the demand and quality of graduates in the labor market.

In 2016 the National Accreditation Board of the Ministry of Education and Science in the Kyrgyz Republic recognized only 6 accreditation agencies. Accreditation has had a positive impact on the quality of education in Kyrgyzstan. Educational institutions began to work systematically to improve the quality of education. The interaction of all interested parties has increased. If earlier there was practically no communication between educational institutions and social partners, now it is permanent, and partners began to participate in improving educational programs.

In 2019, 196 educational programs of different levels of education in Kyrgyzstan were accredited through the accreditation procedure. Table 1 indicates that out of the total number of 196, Agency for accreditation of educational programs and organizations accredited 73 higher professional educations [5].

Table 1. Quantitative indicators of accredited educational programs for 2019

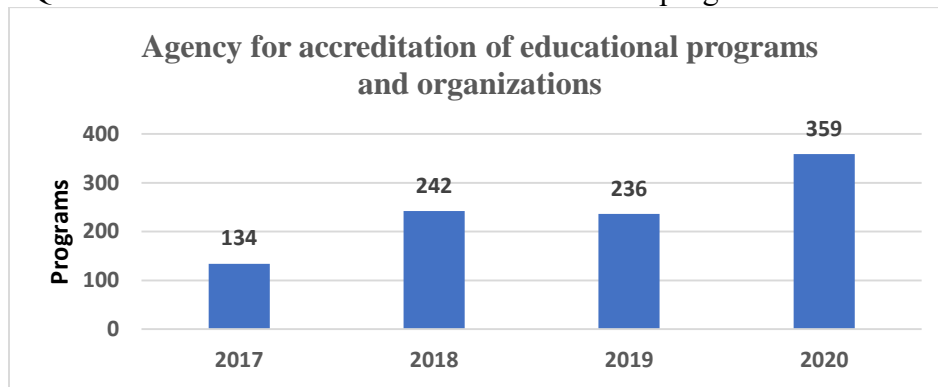


Source: Calculated by authors, <http://www.aapo.kg/> (accessed: 04.01.2020).

Also, as a result of annual monitoring, many educational institutions have installed and are using automated management systems for an educational institution, which has improved the

manageability and efficiency of the educational institution. In addition, this circumstance helped them to quickly establish distance education during the coronavirus pandemic [6].

Table 2. Quantitative indicators of accredited educational programs between 2017-2019



Source: Calculated by authors, <http://www.aapo.kg/> (accessed: 04.01.2020).

As can be seen from the table 134 educational programs of various levels of education were accredited in 2017. In 2020, it increased by 359 educational programs of various levels of education [7].

The results showed that accreditation brings great benefits to educational institutions, as it shows their strengths and weaknesses, mobilizes them to improve the quality of education, attracts social partners to cooperate and provides assistance to educational institutions. And it is accreditation that forces educational institutions to do this [8].

Accreditation is the process whereby an authority, recognized by institutions and government, determines that an institution offering courses in higher education may become self-accrediting, or offer its own higher education awards subject to periodic review. An accreditation agency certifies that the standards of a course are appropriate for the award to which it leads; and that the methods are appropriate for the purpose [9].

The objective of accreditation is to ensure that awards given in Kyrgyzstan are of a high standard intellectually and professionally. Accreditation depends on government laws and the protection of key terms including ‘university’ and ‘degree’.

Many countries have gained enormous experience in areas relevant to accreditation, assessment and quality assurance of education in educational institutions by now. Quality assurance bodies carry on academic accreditation activities on different levels: institutional and program accreditation as well as accreditation activities with the participation of labor market.

The Ministry of Education and Science of the Kyrgyz Republic is the public authority of executive power pursuing state policy and exercising control in the fields of education and sciences and the state control for availability and quality of education, ensuring constitutional right of citizens of the Kyrgyz Republic on education. The ministry is also responsible for the distribution of financial resources, monitoring of quality by means of the department of licensing and certification, keeps

the statistical account and cooperates with Academy of Sciences on the identification of priorities for research.

But there is no complex policy providing systematic modernization of structure and the maintenance of higher education. Bachelors and master's degrees are not known in the labor market as well as the existing skepticism concerning the equivalence of these degrees to the expert degree. This situation causes an imbalance in the market of demand and offers in education.

In Republic of Kyrgyzstan, accreditation is in the making now. Unfortunately, the experience of its realization, professional organizations, respective personnel, detailed procedures, indices and criterions are absent. This requires governmental control and regulation at all stages of accreditation process. On the other hand, state centralization of authority to carry out governmental certification is one of the subjects being discussed. As a result of this the most obvious and efficient decision is decentralization and repartition of authorities for accreditation between government (Ministry of Science and Higher education) and society [10].

Conclusion and recommendations. After the accreditation of educational programs, universities began to pay attention to the quality of education and clearly began to implement the strategic and current plans of the university, educational goals and analysis of their implementation. The accreditation assessment conducted by the agencies helps to improve the quality of the accredited program and university activities in general.

In order to improve the quality of education, each university should approach the issue of quality at the conceptual level.

We need to set the following goals;

- analysis of the conditions for ensuring the quality of education;
- development of a structure for managing a quality assurance system;
- develop a culture of quality education.

To achieve this goal and implement the tasks, it is necessary to develop the following mechanisms:

- development of indicators and criteria for evaluating the quality of training;
- definition of quality assessment indicators;
- development of a mechanism for ensuring the quality of training;
- development of a mechanism to support and improve or develop the quality of training.

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## **UDC 378.14**

### **MEDICAL EDUCATION IN KYRGYZSTAN. INTEGRATION OF INTERNATIONAL STANDARDS IN THE EDUCATIONAL PROCESS**

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***Annotation.*** *The article analyzes transformations in the system of pre-graduate medical education in Kyrgyzstan. It also examines the role of the World Federation of Medical Education in the globalization and integration of international standards of medical education. Authors explore the influence of medical universities of the Kyrgyz Republic on the development of medico-biological science. General patterns and trends of medical education in the world, despite some negative elements of its development, create prerequisites for the formation of medical professionalism of the XXI century.*

***Keywords:*** *medical education, reform, international standards.*

Development of the health care system and medical science depends on success of medical education and the extent to which it is saturated with advances in biomedical research.

The system of medical education in Kyrgyzstan, since independence in 1991 and up to and including 2014, continued to develop within the methodological framework, structure and content formed during the years of the Union State as part of the USSR. In its time, this system, as evidenced by the graduates of the Kyrgyz State Medical Academy, was very effective.

However, the reforms initiated in the health care system, global trends in education in general and in medical education in particular, have changed the requirements for content.

Progress in biomedical science stimulates the development of medical education and its symbiosis with science, shapes curricula, determines their quality, hence their effectiveness.

At present, there are more than 16 thousand medical higher education institutions in the world, which operate at the national level, and their activities are stimulated by leading international

organizations: The World Health Organization, the World Federation for Medical Education, UNESCO, the Council of Europe, the International Institute for Medical Education, the Association of Schools of Public Health in the European Region, the European Medical Education Association and others.

Bringing together international and national efforts promotes medical education worldwide and ensures progress in this important area of human endeavour.

The experience gained in medical education internationally is very extensive and is characterized by the diversity of national schools, their specificities and traditions. The curricula take into account priority groups of diseases specific to different regions of the world, principles of primary and secondary prevention, etc.

Despite national differences, general patterns in development of medical education prevail. In all countries, three stages of the process are differentiated at pre-university level (First stage), with strictly regulated theoretical and clinical training. Specialization (Second stage) is implemented according to the needs of health care. Ongoing demographic shift towards increased life expectancy, especially in industrialized countries, dictates the need for more training in geriatrics, cardiology, oncology, psychiatry, ophthalmology, etc. However, the COVID-19 pandemic has dramatically changed priorities. Thus, the problem of acute shortage of specialists such as infectious disease specialists, epidemiologists, pulmonologists, intensive care specialists has been exposed in our republic. Continuing professional education (Third stage) is based on achievements of biomedical science and application of advanced medical technologies.

In recent years, development and implementation of standards for each stage of continuing education has been emphasized in many countries and internationally. In particular, the World Federation for Medical Education (hereinafter referred to as WFME) has developed international standards for different stages of medical education, which were discussed and adopted by participants at the World Conference on Medical Education in Copenhagen in March 2003 [1].

The WFME introduced the International Standards for Medical Education by a Memorandum in 1998. The aim of the standards was to provide a mechanism for improving the quality of medical education worldwide, universally applicable to medical schools and continuing medical education programmes in all medical specialties.

In early stages, the original document was the standards for basic medical education, from which it became clear that precise development of worldwide standards for any particular stage of medical education had insufficient impact on medical education institutions and their training programmes and, indeed, reduced the quality of medical education. In relation to this document, criticism emerged that medical education had inadequately adjusted both to changing conditions in the health care system and to changing needs and expectations of society. These standards needed to combine a pathway for both change and improvement in quality of medical education. This led to the idea of creating WFME standards, precisely divided into two levels of education: (a) basic standards or minimum requirements for basic medical education and (b) standards for improving the quality of postgraduate and continuing medical education.

The WFME standards in question would be an accredited method scrutinized from the outset. After consideration of this document, the WFME concluded that only government ministries could be explicitly responsible for the accreditation methods, with the WFME needing to facilitate accreditation process of the standards. Globally accepted standards should act as a template for government ministries for formal recognition/accreditation processes. They can also be used by WFME to develop techniques and methods for the use of standards for accreditation.

In order to improve the quality of medical education, self-monitoring by the institution, external evaluation and peer review are necessary components. Both the structure and functions of the WFME allow for the participation of a diverse group of experts in all regions of the world.

The main constraints to further progress in higher medical education were the old-style state educational standards, which provided for a rigid disciplinary approach, detailed specification of all academic disciplines and assessment methods. The content of education under such conditions was factual and was not based on a competency-based approach. The rigid structuring and limited programme content did not allow for the development of academic mobility and international cooperation with leading foreign universities, did not allow for the creation of joint educational programmes and participation in the Bologna process. The analysis of this situation led to the need to develop a Concept for Reforming Medical and Pharmaceutical Education in Kyrgyzstan.

Health professionals are, in principle, able to work around the world, and WFME standards guarantee adequate education for physicians who have migrated. However, motivation of remaining trained doctors to work in their home regions subsequently remains an important problem. The WFME standards are not contributory factors to increase physician migration and encourage a 'brain drain' from the developing world. The world is characterized by integration, from which health professionals are not immune. The standards should serve as a necessary quality assurance document for health professionals in every region of the world.

Ensuring that knowledge and skills of health professionals are globally applicable and internationally relevant should be assured by accessible and comprehensible documentation of all levels of educational programmes and their quality. The World Guidelines for Medical Institutes, published by the World Health Organization, have never been intended to be anything other than a qualitative discussion. The WFME already stated in its 1998 Memorandum that the development of a World Register of Medical Institutes, which was intended to provide a list of quality guarantees for medical education institutions, was envisaged. And, in particular, it points out that the institutes already on the register have achieved worldwide recognition and have adopted standards for medical education programmes.

The WFMO World Standards, as presented in three documents mentioned above, bring together all three stages of medical education: basic medical education, postgraduate medical education and continuing professional education. These documents were essential background material for the World Conference on Medical Education (World Health Education Standards for Better Health, Copenhagen, 15-19 March, 2003).

In this article we set out the transformation of pre-university medical education in Kyrgyzstan. In Kyrgyzstan, there are about 20 higher medical education institutions and the same number of institutions training paramedical staff.

Information on graduates for the academic year 2019-20 (according to the Ministry of Health of the Kyrgyz Republic - hereinafter the MoH of the Kyrgyz Republic) is presented in Table 1.

*Table 1. Graduation of students of higher education institutions training medical and pharmaceutical specialists in the academic year 2019-2020*

№	Name of educational organization	Number of graduates, people				
		Medicine budget/contract (foreign nationals)	Pediatrics budget/contract	Preventive health care budget/contract	Dentistry budget/contract	Pharmacy budget/contract
1	2	3	4	5	6	7
1	I. K. Akhunbaev K SMA	243/359	84/51	24/45	-/176	-/82
2	KRSU (Faculty of Medicine)	-/239	-/139	-	-/258	-
3	Osh State University (Faculty of Medicine)	1/364	-/96	-	-/191	-
4	S. Tentishev AzMI	-/59	-	-	-/49	-
5	IHSM IUK Kyrgyzstan	-/506	-	-	-	-
6	JASU (Faculty of Medicine)	-/168	-	-	-	-
7.	ADAM University (Faculty of Medicine)	-	-	-	-	-
8.	AlaToo International University	The graduation will be in 2022.	-	-	-	-
9.	International Medical University	-/10	-	-	-	-
10.	Medical and Social Research Institute	No graduates yet	-	-	-	-
11.	International University of Science and Business	No graduates yet	-	-	-	-
12.	Kyrgyz-Pakistani International Institute of Medical Sciences International University of Kyrgyzstan	No graduates yet	-	-	-	-
13.	Salymbekov University	No graduates yet				
14.	Avicenna International Medical Institute	No graduates yet				
	<b>Subtotal:</b>	<b>244/1705</b>	<b>84/286</b>	<b>24/45</b>	<b>-/674</b>	<b>-/82</b>
	<b>Total:</b>	<b>1949</b>	<b>370</b>	<b>69</b>	<b>674</b>	<b>82</b>

Training of medical personnel with higher medical education in Kyrgyzstan, as elsewhere in the world, involves three compulsory stages:

- higher medical education;

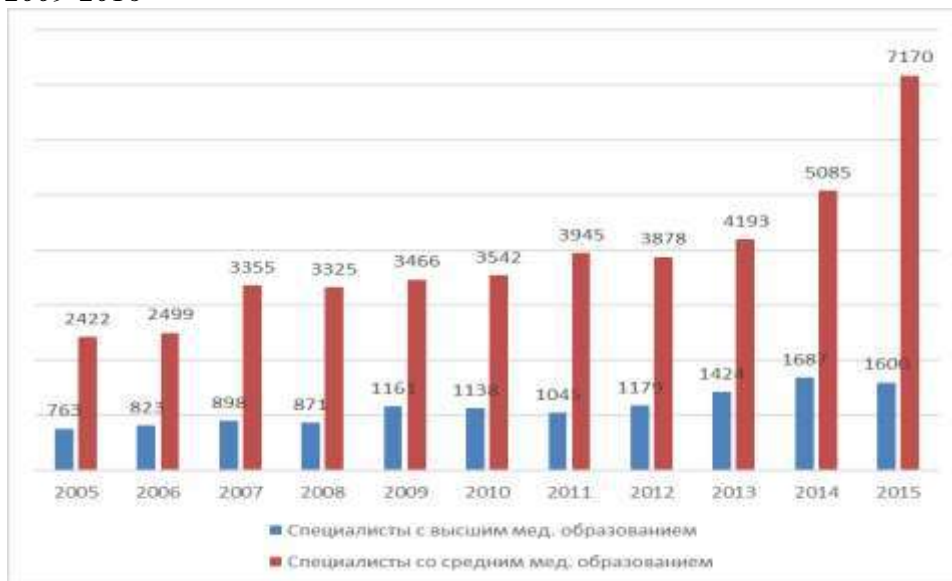
- postgraduate medical education (residency);
- continuing medical education (continuing professional development/refresher training).

At present in Kyrgyzstan the training of specialists in the field of medicine and public health is carried out at HEIs in the specialties of "Medicine", "Pediatrics", "Dentistry", "Medical and preventive medicine", "Higher nursing" and "Pharmacy".

The number of medical universities and their graduates tends to increase every year (Figure 1). In 2016, there were 12 medical HEIs in the country, with 20,000 students in the 1st-6th years of the academic year 2016-17, of which 7,000 were foreign students and 13,000 were citizens of the Kyrgyz Republic. The annual graduation rate of medical students is about 2,500, including 445 foreign nationals. But the increase in the number of medical universities does not solve the problem of staff shortages in the regions. It is difficult for the Ministry of Health to control the number of applicants. Firstly, the admission plan for most HEIs is approved by the MES; secondly, there is no clear understanding of the need for doctors in various specialties; and thirdly, the vast majority of applicants to medical HEIs are enrolled on a contract basis, being a source of income for HEIs, and their planning mechanisms remain untested.

Large number of medical schools and excessive number of medical students enrolled in them, recruitment and training without regard to staffing needs and capacity of clinical bases leads to a decline in the quality of medical education.

*Figure 1. Training of medical and pharmaceutical personnel with higher and secondary medical education, 2009-2016*



As part of reforms to the health care system, medical education reforms are currently underway, with two objectives:

- improve the quality of medical services provided by doctors and their level of professional competence;
- contribute to solving the problem of personnel crisis in the regions.

The need for reforms in medical education is dictated by following challenges in the area of human resources in healthcare:

- A shortage of doctors in rural and remote areas, especially family doctors, and of some subspecialties;
- Low professional competence of medical professionals due to poor quality of medical education;
- Too many medical schools that recruit large numbers of students and residents without taking into account staffing needs and capacity of clinical bases;
- Over-training of narrow specialists in a short period of time (1-2 years).

In general, the system of medical education in the country has little to do with needs of practical health care.

To address the challenges, the Medical Education Reform (MER) Project in Kyrgyzstan was initiated in 2007 and repeated over two consecutive mandates from 2014 to 2017 and 2017-2020 with financial support from the Swiss Agency for Development and Cooperation.

The project engaged experts from the University of Geneva Faculty of Medicine (UGFM) to provide technical support and expert advice to the Kyrgyz State Medical Academy (hereafter KSMA) and the Faculty of Medicine of Osh State University (hereafter OshSU) in developing, reorganizing, implementing and managing reform of higher medical education and curricula [2].

Since 2012, a revised 6-year study programme for General Medicine has been implemented. The first graduation from this programme took place in 2018. The new educational programme is focused on outcomes and Dublin Descriptors. The competence-based approach is widely used in teaching. Places of competence achievement in each discipline of the working curriculum of the specialty are defined. Disciplines of students' choice are introduced, which aim to strengthen the fundamental training of specialists, allowing to form the skill of selecting managerial, preventive, diagnostic and therapeutic measures on the basis of evidence. The educational programmes reflect needs of the labour market and are coordinated with all stakeholders: employers, students, teachers and others. Integration of basic and clinical sciences into the preclinical years has been implemented. A preclinical curriculum on modular/organ systems has been organized to facilitate integration.

A spiral curriculum was rolled out by introducing students from less complex clinical cases to more complex practical skills. Representatives from all medical schools as well as international experts have been actively involved in the development of new educational standards.

Each medical school has a degree of academic freedom in creation of educational programmes. The following have been introduced in the educational process: problem-based learning, project method (work in laboratories), team-based learning, learning based on clinical cases, inter-professional learning, acquisition and consolidation of self-education skills. Simulation technologies are widely used, which are aimed at improving clinical training and enhancing the quality of medical care. Students of all specialties are trained at the Practical Skills Centre.

Objective and group objective structured clinical examination, clinical mini-examination, progressive testing and oral examinations based on clinical cases are used in order to objectify the assessment of knowledge, skills and abilities. Analysis of student feedback questionnaires improves quality of arrangement of examinations and assessment of students' learning achievements.

The formation of health care professionals in accordance with modern requirements dictates the need for fundamental knowledge of basic disciplines, which is possible with expansion of laboratory work in educational programmes and introduction of research-based teaching methods. Assessment of knowledge, skills and competences according to current standard has a disciplinary rather than an integral approach.

The introduction of new educational technologies and modular training programmes requires a change in assessment methods. It is advisable to assess not knowledge, but the quality of formed and developed professional competencies of future medical professionals, the study and analysis of which will allow to revise, update and improve medical education programmes.

Today we have to admit that current system of professional medical education in the country has a number of shortcomings: quality of specialists' training does not meet modern requirements; there is no integrated system of professional training in "university-real clinical practice" environment; there is no standardized technology for external evaluation of quality of professional education; insufficient use of innovative types of training; poor work on academic mobility of students.

It is worth noting separately the export of medical education, internationalization, integration into the world educational process as a manifestation of opportunities for reforming medical education.

In conclusion, it should be noted that general regularities and tendencies of medical education in the world, despite certain negative elements of its development, create prerequisites for medical professionalism of the XXI century, so necessary for socio-economic development of modern society.

Today's healthcare system should value not just "qualified professionals" in narrow terms, but creative individuals capable of acquiring necessary competencies and based on them new methods of training other professionals. Creative pedagogical individuality, which is always mediated by personal qualities of the teacher, is important, because creative originality is the highest characteristic of a teacher. Kyrgyzstan should join international system of training medical personnel. In doing so, our country should not destroy the foundations of its education, but hone them, while further improving the system of national medical education, taking into account educational standards. Kyrgyzstan should ensure innovative character of medical education of a qualitatively new level, based on modern requirements and global trends, and also shape a system of continuous education as a tool for professional development. Implementation of this goal involves addressing strategic areas: launch of competence-based approach, development of variability of educational programs using new educational technologies, introduction of effective quality training and retraining of specialists.

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# **DEVELOPMENT OF EDUCATION QUALITY ASSURANCE SYSTEM**

## **ANALYSIS OF THE ACCREDITATION RESULTS CONDUCTED BY THE AGENCY FOR ACCREDITATION OF EDUCATIONAL PROGRAMS AND ORGANIZATIONS IN 2020 AND PROPOSALS FOR ITS DEVELOPMENT**

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The Agency for Accreditation of Educational Programs and Organizations (AAEPO) was founded in 2014. Its future staff started preparing for this event much earlier. They were the most active participants of the German Society for Development (GIZ) Program "Vocational Education and Employment Promotion in the Kyrgyz Republic", which was implemented from 2009 to 2016. The program had 3 components: accreditation, certification, and information systems in employment. Under this program, the Council for Accreditation and Certification of Vocational Education of the Kyrgyz Republic (KR) was organized. The author of these lines, the future director of AAEPO, was elected as the Chairman of the Council.

During the period from 2009 to 2016 the regulatory and methodological framework and technologies of accreditation of the future AAEPO were polished. AAEPO employees were trained in methods and technologies of accreditation in the German accreditation agency AQAS. Pilot accreditation of 28 educational institutions was conducted, in the course of which the staff of AAEPO gained practical experience in conducting accreditation with the help of German experts. Training of experts and representatives of educational institutions was conducted. The number of trained experts during this period exceeded 200 people. Thus, a long period of time was spent on serious training before launching the agency.

In addition, AAEPO staff participated in other international programs, projects and other accreditation activities (projects of TEMPUS, ERASMUS+, etc.). The author of these lines completed an internship in the U.S. under the Fulbright program on "Accreditation of Higher Education in the Kyrgyz Republic" in 2008-2009.

In 2017, after receiving a certificate of recognition, AAEPO accredited 134 educational programs at 30 educational institutions. In 2018, 242 educational programs at 52 educational institutions were accredited. In 2019, the Agency completed an accreditation of 236 educational programs at 49 educational institutions and institutional accreditation at 7 educational institutions. In 2020, AAEPO accredited 359 educational programs at 26 educational institutions and institutional accreditation at 9 educational institutions.

In addition to accreditation, AAEPO is also engaged in research on education quality. The Agency received an authorship certificate for the automated information system of accreditation process management developed by it. The database of the automated management system includes information on more than 700 international and national accreditation experts. International

experts are drawn from Kazakhstan, Uzbekistan, Tajikistan, Russia, Bulgaria, Great Britain, Germany, India and Pakistan. The geography of international experts is expanding every year.

The Agency closely cooperates with the accreditation agency AQAS (Germany), National Center of Professional and Public Accreditation (Russia), Independent Educational Quality Assessment Agency and the Eurasian Center of Accreditation and Quality Assurance and Healthcare (Kazakhstan). The Agency is a member of International Network for Quality Assurance in Higher Education INQUAAHE, Eurasian Association for Quality Assurance in Education EAQAE and Asia Pacific Network for Quality Assurance in Higher Education APQN. The Agency's staff took an active part in many activities of these international organizations (conference presentations, publication of articles, etc.).

Accreditation has had a positive impact on education quality in Kyrgyzstan. Educational institutions began systematic work to improve education quality. Interaction of all stakeholders has been invigorated. Whereas previously there was virtually no communication between educational institutions and social partners, now it is permanent, and partners started participating in improvement of educational programs.

The annual post-accreditation monitoring of implementation of the expert commissions' recommendations conducted by our Agency keeps educational institutions on their toes and prepares them for continuous and systematic work to improve education quality. One example is the expert commission's recommendation for KTU Manas to participate in one of reputable international university ratings. Following this recommendation, KTU Manas ranked 190th among 250 universities in prestigious QS international rating for Eastern Europe and Central Asia. Also, as a result of annual monitoring, many educational institutions have installed and are using automated management systems. This has improved manageability and efficiency of the institutions. In addition, it helped them establish distance education more quickly during the Coronavirus pandemic.

As a result of the experts' recommendations, many educational institutions introduced educational and methodological sets that meet the requirements of the latest generation of state educational standards.

Finally, as a result of post-accreditation monitoring, many educational institutions started developing and streamlining education quality management systems that comply with the international standard ISO 9001:2015, which is an important step toward a true culture of quality. A big problem for many educational institutions was the formulation of their mission, educational goals, expected learning outcomes, development and design of core educational programs. However, with each subsequent accreditation and post-accreditation monitoring the situation is gradually improving.

Independent accreditation is recognized worldwide as the most effective external tool for ensuring education quality. Many international documents note that accreditation agencies should be independent of state bodies and educational institutions. In the beginning, in Kyrgyzstan accreditation was conducted only by independent agencies. A few years later the right to accredit school and secondary vocational education was granted to the Ministry of Education and Science

of the Kyrgyz Republic (MES KR). Accreditation by the MES can in no way be called independent, as it manages educational institutions. It turns out that the one who manages is the one who evaluates in that case. The producer evaluates the products she/he produces, not the consumer! Thus, today, accreditation in higher education institutions remains independent, and in secondary vocational education institutions and schools – it is both independent and state-run. The situation is exacerbated by the fact that the National Accreditation Council (NAC) is established under the Ministry of Education and Science of the Kyrgyz Republic and is chaired by the Minister of Education and Science of the Kyrgyz Republic. The Ministry of Education and Science gives permission to work to agencies and itself. This is a conflict of interest. Therefore, it is necessary to make accreditation fully independent, like in all developed countries.

The regulatory framework for accreditation is also facing challenges. Minimum requirements for accreditation (standards and criteria) were approved by the Government in 2016 and thus assumed the status of a law that everyone must comply with. However, not all accreditation agencies adhered to these standards and criteria. Some agencies used their own standards and criteria. For example, certain programs were accredited for 3 years conditionally by one of the agencies, even though no such rule existed in the KR legislation. Legally, this means that the agency violated the law, which is unacceptable. At the same time, in developed countries standards and criteria are not approved by governments, which stems from the principle of independence of accreditation agencies from state bodies and educational institutions. This situation should be reconsidered and, perhaps, agencies should be allowed to formulate standards and criteria themselves. Validity of standards and criteria can be determined by the NAC during regular review of an agency. Agencies' accreditation standards and criteria should be consistent with international best practice. It is also necessary to revise the composition of the NAC, which is currently dominated by representatives of government agencies, as highlighted by international expert Volker Hausberg (Germany).

In accreditation in the Kyrgyz Republic a market principle operates - the number of agencies is not limited and they must compete with each other. On the one hand, this is good, because theoretically competition should improve quality of services and lower prices. There are 6 Kyrgyz and 2 Kazakh accreditation agencies operating in the country. Over the past 4 years, prices for accreditation services have actually decreased due to the large number of accreditation agencies recognized by NAC. There is a strong competition among agencies and this should be attributed to positive factors.

However, a decrease in prices for accreditation services is not always accompanied by an increase in the quality of services provided. The best agencies do not always win accreditation services tenders. There were cases when agencies recently established without any help from international organizations and with little experience won tenders. The quality of accreditation by different agencies varies greatly. Therefore, it is necessary to create conditions for fair competition and culling of weak and unscrupulous agencies.

The coronavirus pandemic has made work of both educational institutions and accreditation agencies very difficult. Because of this, the AAEPD has reworked its internal regulations, program, and accreditation technologies.

For online accreditation we used Zoom software, which, as practice has shown, proved convenient for this purpose. A walk-through of the institution's infrastructure was replaced by watching a video. Each expert received additional videos as needed to inspect laboratories, classrooms, equipment, etc. A report with all necessary attachments was sent by e-mail. The educational institution was tasked to ensure that the videos provided full information about the infrastructure, equipment, information support, and other resources of the examined program.

When the expert committee interacted online with representatives of the educational institution, the following features were revealed:

- Decrease in quality in presentation of experts and announcement of preliminary findings was minimal;
- Communication became insufficient with a large number of programs;
- Informative and high-quality video footage, in general, is quite a full substitute for assessing the infrastructure, but not enough for experts;
- With a large number of programs, it is necessary to organize communication at several platforms.

Analysis of online accreditation results revealed the following features of experts' work:

- The running time has increased because of additional video footage;
- Insufficient communication with colleagues from the examined program;
- Insufficient communication with other members of the expert committee;
- A holistic perception of the program, the university as a whole, and its atmosphere becomes harder to reach;
- Insufficient communication limits development of experts and improvement of their qualifications.

Remote accreditation revealed the following features of online stakeholder interviews:

- The first accreditation has demonstrated insufficiency of online communication with interviewees;
- Then an online questionnaire has been drafted that participants are asked to fill in at the beginning of an interview;
- Filled in questionnaires are sent to all experts;
- After the questionnaire, experts ask additional questions;
- It proved difficult to gather a sufficient audience of participants if they were in other countries (India, Pakistan);
- In general, an online questionnaire improved documentation of an interview and its results.

Online meetings of the Accreditation Council of the agency had the following features:

- Online meetings of the Accreditation Council did not cause any particular difficulties;
- All members of the Accreditation Council were sent external evaluation reports and other decision-making materials in advance;
- Presentations on the external evaluation results were delivered by chairmen of expert commissions;
- Meetings were held via Zoom platform and there were no problems with reports, discussion and voting.

In autumn, after the state of emergency was lifted, we began a hybrid external evaluation, which has the following features:

- A part of external evaluation is done offline, the other part is online;
- Whenever possible, such a method should be used instead of an online external evaluation;
- Some of experts (for problematic programs) travel to a university, while others work remotely;
- Experts can choose a method of external evaluation, especially if this is not the first time they have been involved in evaluating a given program.

Summarizing results of online accreditation, following conclusions can be made:

- Agencies' losses due to online accreditation are less than universities' losses due to online learning;
- If one follows suggested guidelines, one can minimize the losses in online accreditation;
- All technology and regulations for external evaluations must be fundamentally revised;
- Research is needed on optimal use of online platforms in external evaluation of programs and HEIs.

## **THE ROLE OF IAAR IN ENSURING THE QUALITY OF EDUCATION IN THE KYRGYZ REPUBLIC**

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**The state will advance, together with stakeholders, the revision of content of higher education, taking into account requirements of market and modern society, as well as prospects of the country's development.**

**National Development Strategy of the Kyrgyz Republic for 2018-2040**

**Task 1.10. Improving the quality of education**

The Independent Accreditation and Rating Agency (IAAR) is a leading international accreditation agency for ensuring quality of higher education and increasing competitiveness of educational institutions both nationally and internationally.

IAAR is a full member of the European Association for Quality Assurance in Higher Education (ENQA), it is included in the European Quality Assurance Register (EQAR) and is a full member of European, Asian and American networks, educational quality assurance and accreditation agencies (INQAAHE, CIQG, AQAIIW, CEENQA, APQN, APQR) as well as the Observatory on Academic Ranking and Excellence (IREG). The IAAR Standards and Guidelines are fully aligned with the European ESG Education Quality Standards.

IAAR is the first and only international accreditation agency among the countries of Eastern Europe and Central Asia recognized by the World Federation for Medical Education (WFME). Successful implementation of strategic tasks, according to the mission of the agency, led to high recognition of IAAR by the world academic community, educational organizations, authorized bodies in the field of education of Kazakhstan, Kyrgyzstan, Tajikistan, Russia, Belarus, Ukraine, Moldova, Romania and other countries.

Independent, transparent and nonbiased activity of IAAR is ensured by the agency's internal quality assurance system, high professionalism of its staff, collegial bodies, significant expert potential (over 4000 experts), and high culture of interaction with authorized bodies in education, with partners at national and international levels.

Since its inclusion in the Register of accreditation agencies of the Ministry of Education and Science of the Kyrgyz Republic in 2017 (Certificate of Recognition No. CV170000027, Order No. 395/1 of MES KR dated 6 April 2017), IAAR has been continuously helping HEIs of Kyrgyzstan in developing educational and scientific activities, introducing best international practice of quality assurance, contributing to update of the quality culture methodology and recognition of KR's universities in the international educational space.

IAAR works closely with the Ministry of Education and Science of the Kyrgyz Republic, which provides great support to promote a culture of quality and development of higher and postgraduate education.

In 2017-2020, IAAR in accordance with established criteria for institutional accreditation standards provided recommendations for further improvement to 5 universities, in accordance with international accreditation standards to 33 educational programs.

An empirical analysis of the IAAR External Expert Committee (EEC) reports on evaluation of universities and educational programs identified the following advantages:

- Consistency of vision, mission, and strategy with national development priorities and programs, and education policy;
- Elaboration of specific documents on individual areas of activity and processes (plans, programs, regulations and other organizational documents) according to the development strategy of universities;
- Transparency of the university management system, which is ensured by the organizational structure;
- Reporting system in universities, including the evaluation of effectiveness of an educational program and effectiveness of departments, research and their interaction are functioning at a sufficient level.

Along with best practices, analysis of the evaluation findings allowed IAAR to identify directions for further improvement of the internal quality assurance system aimed at:

- Improvement of the innovation management system, monitoring and effective implementation of innovative proposals.
- Improvement of the risk assessment system and determining risk reduction trajectories.
- Expansion of cooperation with leading foreign and domestic universities in order to harmonize the content and develop joint educational programs, as well as further facilitate export of education.

Since 2018, Kyrgyzstan has successfully applied an effective system of rating studies of educational programs that cover areas and levels of specialists' training developed by IAAR. IAAR rating has been awarded the high quality mark - IREG "Approved" by the Observatory on Academic Ranking and Excellence (IREG).

Independent rating of the KR's universities conducted annually by IAAR is considered a tool to assess performance of universities, and at institutional level is understood as an opportunity to improve quality management, recognition of educational programs and competitiveness of teaching staff.

Ranking technology of IAAR in independent rating of the KR's universities determines competitiveness of educational programs as a mechanism for quantitative assessment of educational programs' effectiveness, HEI activities, or higher education system.

The number of the KR's universities that participate in the IAAR Independent Rating is growing annually. In 2020, 174 bachelor's (specialist) programs and 46 master's programs were examined in the rating, which is a 4-fold increase compared to previous years. Universities of Kyrgyzstan presented 19 areas of training, the popular ones are:

- Economics and Management
- Pedagogical sciences
- Humanities
- Computer Science and Information Technology.

Evaluation of the ranking results of educational programs shows an increase in the number of talented students at universities in Kyrgyzstan and an increase in the number of holders of the "Golden Certificate" and the Presidential Scholarship, as well as a high concentration of intellectual youth, which affects the image and position of universities in the Independent rating of universities of the Kyrgyz Republic.

HEIs in the Kyrgyz Republic are experiencing an increase in academic mobility and internationalization in line with global trends in development of higher education system. Kyrgyz universities actively cooperate with leading universities in Europe, Turkey, China, India, and Japan.

The indicators of competitiveness of teachers' publications and indexability of their academic outputs have significantly increased in the Kyrgyz Republic. High level of citations indicates the demand for academic outputs and effectiveness of universities.

IAAR methodology based on digital technologies of educational programs ranking, along with positive trends in development of higher education allows to see directions for national training system which require identification and revision of strategic objectives focused on meeting the needs of society and international labor markets. Results of the IAAR Independent Rating are demanded by the state, employers and academic community.

Today, challenges of an innovation era can serve as main reference points for HEIs. These challenges include introduction of high standards of teaching and learning efficiency, increasing publication work of faculty, passing international accreditation, increasing internationalization, these are necessary for present and future development of knowledge, technologies and transnational education.

The Independent Rating of universities of the Kyrgyz Republic conducted annually by IAAR is not only an incentive to increase credibility of universities, a reference for applicants and parents in choosing an institution, but also a key indicator of the quality of higher education in the country. Thus, participation in the Independent Rating of universities of the Kyrgyz Republic and passing international accreditation of IAAR allows universities in Kyrgyzstan to raise their credibility and competitiveness, improve the quality of education, attract talented applicants and foreign students, and enter the world educational space.

## **CHALLENGES AND ACHIEVEMENTS IN HIGHER EDUCATION AS A RESULT OF INDEPENDENT ACCREDITATION IN THE KYRGYZ REPUBLIC. EXPERIENCE OF THE EDUCATION QUALITY ASSURANCE AGENCY EDNET**

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The launch of independent accreditation in the Kyrgyz Republic has resulted from international integration of national education system and an urgent need to meet requirements of global educational processes in order to gain recognition at international level. The system of education quality assurance in the Kyrgyz Republic was significantly modernized after adoption of the Law "On Amendments to the Law of the Kyrgyz Republic "On Education" of July 4, 2013 № 110, when the concept of independent accreditation for educational organizations and programs was introduced. According to this law and the regulations developed on its basis, independent institutional and program accreditation was introduced in higher, secondary and primary vocational education from 2016.

EdNet Education Quality Assurance Agency was the first accreditation agency registered in the Kyrgyz Republic, which started consistent training of academic community, students and employers on accreditation and quality assurance issues back in 2012. Together with EdNet Association of Educational Institutions and European partners, since 2008 the Agency's staff has been building the country's first internal quality assurance system based on the EFQM model. In addition, the Agency has conducted the first pilot accreditations of educational programs in five HEIs of the country within the Tempus project of the Central Asian Network for Quality Assurance - CANQA, as well as the Soros Foundation project Modernization of Higher Education Content and Quality Assurance System. Results of these projects have informed the adaptation of content and procedures of independent accreditation to conditions of the Kyrgyz Republic.

Thus, the Agency's staff has been part of the changes taking place in this area over the past 12 years and has witnessed the entire process of developing a system of quality assurance and independent accreditation in the country.

This article presents most important problems and achievements drawn on the analysis of self-evaluation reports and expert opinions of more than 150 educational programs of HEIs in the country, which have been accredited by EdNet Agency over the past 4 years. We believe, these



problems and achievements can be considered the most evident for the higher education system and the national system of professional education quality assurance in the future.

1. One of the first most evident problems we have encountered in accreditation was the lack of a system of performance analysis within universities and, consequently, lack of data-driven decision-making system. When undergoing independent accreditation, employees of an educational program need to demonstrate an analysis of their performance, namely an analysis of achieving program's learning outcomes. Such an analysis may consist of a variety of data, which are not restricted by assessment of students' achievements, but should also be based on graduates' employment rates, employers' opinions, analysis of their own performance in comparison to other similar programs (benchmarking). However, the first accreditations held in 2016-2017 showed that universities did not conduct a proper analysis of their performance. For example, in 2016, as part of the accreditation of one educational program of a metropolitan university, the administration made a statement during the accreditation process that their program was the best in Kyrgyzstan. However, there was no data that could confirm the superiority of this program compared to others. Subsequently, the administration of this program began to develop a series of criterion indicators that could demonstrate their achievements and more systematically track, and analyze the data for given indicators. It should be admitted that every year the practice of analyzing data on the performance of a university or an educational program is improving, as the employees of educational institutions understand that such practice is a necessary factor for passing the accreditation in the next cycle.

2. Analysis of the reports showed that accurate and correct formulation of program learning outcomes is still difficult for the academic community, while it is the learning outcomes that define content of a program and which faculty should be involved. Most often formulated learning outcomes are general in nature, that is, they are formulated in such a way that they can be applied to any educational program of any university, they are also unclear or vague, cannot be achieved or measured, or may not apply to the stated educational program at all. For example, during the accreditation of one of educational programs in 2018, the following 2 learning outcomes out of the declared 7 were presented:

- "creative and critical thinking skills, self-improvement, professional and academic ethics, and responsibility for proposed project solutions."
- "ability to use interdisciplinary knowledge and scientific methods of research, analysis and technology in solving professional problems."

As we can see, the wording of these learning outcomes does not allow us to clearly identify which educational program we are talking about; it is not quite clear how these learning outcomes can be achieved and measured. Due to the absence of an action verb in the first learning outcome, it is not clear what "skill ... of self-improvement" might mean and how it can be formed by a student in learning process. In the second learning outcome "ability to use interdisciplinary knowledge...in solving professional problems" it is not clear at the junction of which disciplines interdisciplinarity will be studied. Obscurity of the main reference point, or rather "compass", of the educational program negatively affects the program content quality and appropriate teacher preparation for classes, which is demonstrated by the accreditations' results.

3. Because of deficiencies in learning outcomes there is a weak link between learning outcomes of all disciplines that constitute an educational program. Each discipline (D) should have clear relevance and weight to achieve learning outcomes (LO) of the program. When teachers understand their role in a particular learning outcome, they will be able to select appropriate tasks for students, and to build their teaching activities accordingly. Thus, each learning outcome in its own way represents a whole symphony of disciplines, which should qualitatively fill with content the entire educational program. This matrix can be conventionally represented as follows: horizontally, disciplines in the program are presented, and vertically, learning outcomes of the same program are presented.

	D1	D2	D3	D4	D5	D6
LO1	X		X		X	X
LO2	X	X		X	X	
LO3		X	X		X	

However, today there is no understanding of such a matrix interaction between teachers and a matrix relationship between disciplines, which does not always result in integrity and consistency in the design of program content.

4. Accreditation has revealed a serious problem with disconnect between results of scientific developments and educational process: most often results of the scientific activities of teachers are not integrated into content of the disciplines which they teach. Program content often lacks references to the most recent scientific developments that have been made both by faculty members themselves at universities and in international scientific community. On the one hand, such a problem has been due to a missing requirement in current (and sometimes non-existent) policy for quality assurance in HEIs. We have universities with a very rigorous traditional scientific school with dozens of doctors of science who have been recognized academically not only nationwide, but also internationally. But these scientific achievements are almost never reflected in the materials taught to students; thus, students are taught not yesterday's knowledge, but the day before yesterday's, while a source of the latest discoveries is just nearby. In our opinion, this happens because science in our country is disconnected from education, and universities are perceived almost exclusively as educational centers, rather than as a synthesis of science and education, as a modern university should be.

5. One of the most important results of accreditation was the identification of deficiencies and assumptions in the State Educational Standards (SES). For example, in 2018 the Agency conducted accreditation of the "Linguistics" field at one of the country's universities. As you know, linguistics is the science that studies languages, and different languages - those that existed before, those that exist now, and those that are yet to emerge. However, during the accreditation the Agency experts found out that according to the SES, the objects of professional activity of graduates of "531100 Linguistics" were:

- theory of foreign languages under study;
- theory and methods of teaching (foreign) languages and cultures;
- translation and translation studies;
- theory of intercultural communication;
- linguistic components of electronic information systems;

- foreign languages and cultures of the languages being studied.

This list demonstrated that the SES have completely dropped the possibility of learning a native or official language, and provides for the study of foreign languages only. In the Kyrgyz Republic, Kyrgyz is a native language for the majority, but for someone it is still a foreign language, and what will be the status of the Russian, Uighur or Uzbek languages? In this regard, the situation is unclear - is it possible to study Kyrgyz or Russian languages under "531100 Linguistics" and whether it is possible to conduct accreditation of such a program.

This example demonstrates one of few problems that were revealed during the accreditation and assessment of programs for compliance with the SES. And most often shortcomings were identified in the SES.

6. Accreditation has manifested an urgent need to streamline the interaction between different levels of education. On the one hand, experts note that there is almost no connection between different levels, especially in goals and learning outcomes, which causes repetition of subjects at different levels, for example, in schools and universities, secondary vocational schools (SVS). On the other hand, it is also noted that the SES still draw a blurry boundary between different levels of education - between primary and secondary vocational schools, between SVS and higher professional education, between Bachelor and Master, which negatively affects the formation of content of specific educational programs. This, in turn, affects formulation of learning outcomes by educational program staff - there are cases when teachers themselves find it difficult to present a clear difference between learning outcomes of a particular program at different levels of education.

At the same time, despite the difficulties faced by both universities and accreditation agencies, it should be noted that over the past 4 years of practical implementation of independent accreditation in the system of higher professional education, there have been significant achievements, and one of the factors of such progress is the introduction of independent accreditation. Thus, observations of EdNet Agency indicate the following developments.

The universities are developing a conscious approach to the concept of "culture of quality", actively forming holistic quality assurance systems at the level of the entire organization, and introducing policies for quality assurance, which didn't happen before at all. Every year we observe that educational process in HEIs is more and more focused on specific quality policies that are developed by HEIs themselves. The system of document management is being streamlined, allowing for continuity of record keeping and tracking progress in a particular section of the educational process based on data. A culture of quality is being formed, which is reflected in a specific organizational culture, formation of new standards and behavioral values that are focused on quality end-result.

The need for conducting a self-evaluation and drafting of a self-evaluation report, as well as other activities facilitate a culture of teamwork in coworkers, where everyone is responsible not only for their own area, but also for their colleagues' areas of work. This helps to clearly demonstrate the relationship between teachers and taught disciplines to achieve final learning outcomes. ...

The last 4 years have demonstrated that independent accreditation is still in its development stage and at country level the accreditation system itself still contains some shortcomings. Thus, we need to continue working with academic, student community and employers, as well as accreditation agencies themselves in order to foster a national culture of quality education. However, we can observe a positive effect today already: identification of gaps (based on international practice) in the state standards or in activities of the universities themselves allow to draft an agenda for developing a national system of quality assurance and the entire system of higher education in general.

## **SUCCESSFUL PRACTICES OF DISTANCE ACCREDITATION, COMPARATIVE ANALYSIS AND PROMOTION OF ONLINE LEARNING BY THE EDUCATIONAL QUALITY ASSURANCE AGENCY EDNET**

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Obviously, the year of 2020 has prompted a profound change in existing processes and was not easy for the whole world community. When all the institutes were redirecting their activities to online format, the Agency's key task was to maintain and even improve quality of the services provided. Given unprecedented character of the pandemic and that previously neither universities nor accreditation agencies had to work remotely, in order to cope with this task all resources of the Agency were mobilized. Within a short time of intensive work, a new mechanism of activity was integrated, that covered technical and methodological aspects of work. As a result, a new form of education quality assessment in the accreditation mode exceeded all the bold expectations in terms of quality.

First of all, the Agency revised the procedures of independent accreditation, taking into account the quarantine measures and limited mobility within the city. The Agency staff prepared a methodological basis for conducting accreditation using remote access technologies; this allows an accreditation being conducted without physical presence at university premises. Instructions and guidelines for universities and experts involved in accreditation were developed, with detailed instructions on how to work online. In particular, Provisional Guidelines for educational organizations on conducting accreditation of an educational program via remote access technologies and online conferences in conditions of the coronavirus pandemic were sent to the Ministry of Education and Science of the Kyrgyz Republic.

A clear algorithm of actions greatly facilitated the work during such a difficult period. All parties involved in the accreditation procedure clearly understood which requirements were imposed on them and what they could expect from other participants. In this case, it was important to ensure

compliance with regulated rules and clearly communicate to the partners the consequences to be faced in case they did not comply with pre-agreed, strict deadlines.

In particular, given the importance of maintaining education quality in online format, the Agency put forward requirements outlined in the standards and procedures for passing accreditation for educational organizations. These requirements aimed to guarantee the quality of educational process. Distance learning is a set of technologies to help students get the bulk of material studied, communicate interactively with the teacher during training, and also work independently to master the material. Thus, it was necessary to trace a smooth transition of educational institutions to a new training format with mandatory use of interactive teaching methods, new forms, models, technologies and approaches, to help students completely comprehend new material and ensure an increase in effectiveness and quality of education.

It was necessary to see the adoption of flexible methodologies to facilitate the educational process. The educational organizations needed to select appropriate online platforms, online tools and electronic applications and to develop necessary methodological guidelines to clearly understand and structure further learning process. Educational institutions needed to demonstrate the use of modern educational technologies, which include online learning tools, digital tools for interactive online classes and independent student work, support and accompaniment of students using messengers, social networks, collaborative services for working with documents, etc. To this end, it was also necessary to have properly structured communication, both among students and faculty, and by the administration of educational organizations.

The process of distant accreditation was directly aimed at updating, transforming and structuring the content of existing educational programs in close interaction with stakeholders. In this regard, it was necessary to see tools and practices of interaction with stakeholders during online learning and get acquainted with new ways to construct and develop the content of educational programs. Educational programs had to demonstrate their effectiveness through relevance and quality of the content of more flexible educational programs that would allow students to obtain unique and necessary competencies demanded in labor market.

During distance accreditation the Agency needed evidence of mechanisms for individual approach to specifics and needs of each learner, as well as mechanisms for the formation of self-organization and self-reflection competencies, which can be traced, in particular, in the learner's independent work.

One of essential points in the course of distance accreditation was to make sure that there were tools in place for students to complete their internships. In this regard, educational institutions had to demonstrate and provide for new procedures and algorithms for internships in a pandemic environment. An important factor in achievement of learning outcomes and involvement in educational process should have been students' motivation and developed ability to learn. It was also important to see demonstration of students' mobilization in educational process and their direct participation both in development of educational programs and in making important decisions on educational organizations and support of student initiatives by the administration of universities.

As for the teaching staff, among other things, it was necessary to see new approaches of educational organizations with regard to competent staffing, professional development through the provision of online training and special courses to support teachers, including the mastery of digital tools and practices. To this end, the Agency needed to see a system of monitoring and incentives for teachers, including encouragement of their use of digital technologies in teaching process, which should contribute to digital literacy in general. In the process of accreditation of educational programs, the Agency has always paid special attention to the support and development of research activities, where the support of young teachers and researchers occupies an important place.

Within the framework of the Agency's standards, an important factor is increasing the role and qualifications of administrative and support staff in the administration and support of educational process in online format, launch of various electronic services that manage feedback from students and faculty to monitor the quality of programs and their regular update.

The process of distance accreditation has exposed the issues of providing students and teachers with digital devices, software, and Internet access. For successful online learning, learners and teachers should have a digital device (laptop, personal computer, mobile device or tablet) that has appropriate software and high-speed Internet access. Accordingly, during the accreditation it was necessary to pay special attention to how these issues were solved by educational organizations and to find possible alternative methods of providing quality services to students in the shortest possible time.

After the development of documents that outline the work procedure, training was organized for the Agency's experts on how to carry out an objective evaluation of the quality of educational programs in distance mode. Before starting work, each expert clearly realized the amount of work to do and expressed their agreement with the requirements put forward by signing a contract and a commitment.

As for the issue of reviewing the procedures and requirements for educational programs in independent accreditation, the Agency conducted preparatory works to make sure all parties were ready to proceed directly to the evaluation process. Since all the activities were conducted online, technical readiness of the Agency, HEIs and experts was crucial for fulfilling their obligations. All the technical nuances were also regulated by relevant internal document of the Agency, including requirements to quality of documents provided, their size, formats, also the platform where the work would be carried out was agreed upon in advance. Thus, prior to the start of evaluation process a lot of work was done in terms of preparing educational organizations for new procedures of remote accreditation.

To ensure successful process, the Agency conducted detailed online consultations with representatives of educational programs and separately with local and foreign experts of the Agency. The online consultations outlined all the main issues regarding necessary accreditation procedures, preparation of relevant documentation and evidence to confirm the quality of educational process and the achievement of learning outcomes in online format. New procedures and new accreditation methodologies brought the Agency to a new level of quality and also allowed to rollout and consolidate certain evaluation and accreditation procedures in regular work of the Agency.

The agency also purchased special equipment, including a special camera with a microphone and a licensed version of ZOOM, which helped guarantee a smooth and uninterrupted accreditation process.

Distance accreditation of educational programs has demonstrated that it is necessary to revise the approaches in education system, introduce new methodologies of training, administration of educational organizations and a new approach to education quality assessment in general. It is necessary to introduce new approaches and methods in expert evaluation of education quality with the view of existing global conditions of online learning.

After the analysis of online learning environment and findings that draw from independent accreditation of educational programs, the Agency worked to improve the competence level of all Agency employees and experts on new methods and methodologies of online learning, distance learning accreditation, successful accreditation practices and international accreditation.

To this end, all staff members of the Agency underwent first-class training with the best trainers of the Innovative Projects Laboratory, Republic of Belarus, within the framework of the UNESCO project "Development of online training program for mainstreaming intersectoral competencies for sustainable development in Kyrgyzstan" from August to October 2020. The training enabled learn how to work effectively in online teaching mode. This knowledge and practical skills, online tools, feedback methods and approaches helped to introduce new methodologies of trainings and online consultations into procedures of the Agency.

For this purpose, from July 27 to August 6, 2020, EdNet Agency together with the Innovative Projects Laboratory (Belarus) organized and conducted an "Online training course for experienced trainers, teachers and methodologists on effective work in online teaching mode" - online TOT (training of trainers). Moreover, on August 12, additional consultation was organized for the participants on application of the acquired skills. Given the uniqueness of this course, EdNet has become the first organization in the Kyrgyz Republic to have trained trainers for effective online teaching. The training course was attended by trainers-experts of the project, trainers of the Republican Institute for teacher training, methodologists of the Ministry of Education and Science KR, teachers of I. Arabayev KSU, UNESCO staff, EdNet Agency staff, teachers of the Foundation for Education Initiatives Support, who are engaged in the development of online lessons.

It is worth mentioning the training workshop "Education for Sustainable Development" for the teachers of pilot schools in online learning mode from August 17 to 24, 2020. In this workshop, participants were able to learn about the design and content of the SDG course modules and the Framer Space platform. This project was aimed at linking key competencies and tasks presented in the project; creating conditions for mastering the module structure, discussing the main components of the module and the Framer Space digital platform; explaining the methods and techniques used in mastering the SDG modules; organizing a practical simulation-modeling of the upcoming SDG lessons.

Along with trainings, seminars and online consultations, the Agency staff took an active part in numerous international online trainings, seminars and conferences. This helped to draw clear parallels in the procedures for remote accreditation and offline accreditation using remote access

technologies, including: Regional online launch of ESD for 2030 Roadmap: Asia and the Pacific region; Quality OER content for skills development, Education for Sustainable Development in remote and digital settings (October 14, 2020), Online Workshop: The big conversation: ESD and the world beyond Covid-19, (Virtual) Central Asia Symposium on ICT in Education 2020 and a number of other international online seminars and conferences.

EdNet staff also participated in the Let a thousand flowers bloom, responses to a pandemic: innovation and quality assurance, organized under the auspices of INQAAHE (International Association of Quality Assurance Agencies in Higher Education), with broad participation from world-renowned accreditation agencies, including Tertiary Education Quality and Standards Agency (Australia); Distance Education Accreditation Commission (United States); UK NARIC (UK); and Malaysian Qualifications Agency (Malaysia).

Thus, analysis of successful experience of accreditation in online and offline formats, in particular, the American Commission on Distance Education Accreditation has revealed common procedures, methods and approaches in evaluation of educational organizations and educational programs, which were presented by Ms. Leah Mathews, Executive President of the Commission. The Agency has also conducted an analysis to identify positive and successful practices on interaction of the Agency with educational organizations/programs, experts and stakeholders during the accreditation and accreditation procedures of different formats. The analysis revealed general trends and common practices of the Agency's evaluation and accreditation of educational programs with the leading accreditation agencies for education quality assessment and assurance. This indicates that the Agency promotes and supports new trends in the system of international accreditation and keeps up with the times and the development of accreditation system in general.

In closing, we remind the leadership of institutions whose employees have to work online of the importance of thoughtful leadership in today's world. Working remotely creates stress that people can't easily deal with alone, so please make sure you are sensitive and attentive to the needs of your employees. Looking back at the experience of EdNet Agency, we can confidently state that the key factor that contributed to the quality of work during this difficult period was professionalism of the team, which clearly understood that the most important thing was to conduct accreditation remotely, without losing quality, and to help educational institutions to adapt to new conditions of accreditation in a pandemic environment. Obviously, it is possible to achieve high results and systemic quality changes for the better only through joint efforts.