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[1]**Yermek Komekbayev**, [1]**Dina Kurmangalieva,** [2]**Khanat Kassenov**

[1]S. Seifullin Kazakh Agro-technical Research University, Astana, Kazakhstan
[2]Kazakh National University of Sport, Astana, Kazakhstan

JOINT DOUBLE DEGREE EDUCATION AS A NEW STANDARD OF EDUCATIONAL PROGRAM QUALITY

Abstract. This article analyzes joint double degree programs as institutional instruments for improving the quality of higher education and strengthening the international competitiveness of Kazakhstan universities. Based on an updated review of international research for 2019-2024, regulatory materials of the European Higher Education Area, and national monitoring data, the article examines joint program models, the conditions for their development and implementation, as well as the limitations and risks inherent in national practice. A model of measurable indicators of the quality of double degree programs is proposed, covering program design, resource provision, learning outcomes, and graduate trajectories. It is shown that the development of double degree programs in the Republic of Kazakhstan requires a transition from the predominance of quantitative indicators to evidence-based quality management, aligned with ESG principles and the European approach. The authors also highlight the challenges faced by such educational programs and provide prospects and recommendations for their successful implementation. The article concludes with a summary of the research findings, supported by an extensive literature review.

Keywords: double degree education, quality assurance, ESG, European approach, internationalization, Kazakhstan.

Introduction

In modern education, there is a growing need for new methods and standards capable of solving the problems of modern society and the labor market. Among the many innovative educational models, joint double degree programs stand out as very promising, providing students with unique opportunities to gain a rich educational experience. Double degree programs (hereinafter referred to as DDP) are understood to be programs based on the comparability and synchronization of educational programs of partner universities and characterized by the acceptance by the parties of common obligations on issues such as defining the goals of the program, preparing the curriculum, organizing the educational process, degrees awarded or qualifications awarded.

Over the past decade, the internationalization of higher education has evolved from forms of entry-level academic mobility to institutional models for the joint development and implementation of educational programs. Within the framework of this concept, double degree programs are considered as integrated technological trajectories that ensure the alignment of learning outcomes, mutual loans and the shared responsibility of partners for the training of highly qualified specialists.

For the development of joint double degree programs in Kazakhstan, both increasing the efficiency of national universities and, to a certain extent, modern quality assurance tools are strategically important. National analytical materials document the growing number of such programs and the expansion of the range of participating universities. However, they also point to an imbalance in the geography of the partnership, as well as the uniform effectiveness of the programs in terms of student enrollment and language of instruction.

The purpose of the study is to substantiate double degree programs as a potential "new quality standard" of educational programs in Kazakhstan and to propose a set of measurable indicators to confirm the claimed effects.

Double degree programs inevitably face numerous difficulties, such as difficulties in developing curricula, organizational and managerial problems, and differences in teaching methods. In this regard, the following tasks have been set:

- to systematize the modern international discourse on the models and types of DDP
- to propose models of quality indicators and guidelines for their verification at the level of organizations of higher and postgraduate education.

Joint double degree programs represent innovative models that embody the pursuit of high educational standards. These models not only develop students' deep knowledge and skills, but also form them into global citizens who are able to function effectively in a diverse social and professional environment.

Methods

The study was developed using a mixed methodology and included three complementary components. First, a systematic review of the literature for the period 2020-2024 on the subject of double-degree programs was conducted using publications indexed in Scopus and Web of Science, as well as analytical materials from international organizations. The sources were selected based on the relevance of the DDP topic, the availability of descriptions of quality models and empirical results.

Secondly, a secondary statistical analysis of the data of the national monitoring on the implementation of DDP for 2020-2024 was carried out with a comparison of the dynamics of the number of programs by education level, the number of students and universities prevailing in the quantitative indicator of DDP. The information component for testing the DDP quality indicator model was formed from analytical reports of the National Center for Higher Education Development of the Republic of Kazakhstan and analyzed on the basis of the Digital Database of the Unified Platform of Higher Education, which includes 182 programs (bachelor's degree - 75, master's degree - 109, doctoral degree - 4).

Thirdly, an expert assessment of the proposed model of quality indicators was carried out. Representatives of international cooperation units, educational and methodological services and quality assurance services of higher educational institutions of Kazakhstan with experience in launching or maintaining DDP were invited to participate in the expert group. The indicators were agreed upon through ranking and discussion until consensus was reached.

The selection of programs for testing the DDP quality indicator model included programs that meet the criteria: the existence of a signed interuniversity agreement on joint training; ongoing or completed academic mobility of students for at least one semester; aligned curricula and discipline matching matrices; availability of data on academic results and completion of studies for 2020-2023.

Programs that were at the stage of preliminary negotiations without an approved curriculum and without a set of students were excluded. To validate the author's model of quality indicators, an expert group has been formed from several universities, including 10 experts (heads and staff of international cooperation services, educational and methodological units and quality assurance systems, teaching staff). The average work experience of experts in the field of education, internationalization and DDP support was 5-7 years; 5 experts had experience in developing or coordinating at least 40 double-degree programs.

The selection of experts was carried out according to the criteria:

1) having practical experience in the development, launch, or internal evaluation of DDP

2) participation in program accreditation and self-assessment or in institutional quality committees

3) representation of various types of universities (national, regional).

In this article, experimental verification refers to the testing of the proposed indicator model based on existing programs in specific higher education institutions, followed by a comparative analysis of management practices and learning outcomes. Under the approbation, the indicator model was applied to 56 existing DDPS at the L.N.Gumilyov Eurasian National University. For each program, the following were analyzed:

- availability of jointly approved learning outcomes and a discipline matching matrix
- allocation of credits and mobility periods
- language and staffing provision
- academic results and completion rates
- financial support of the parties
- demand in the international educational market
- elements of joint quality management and monitoring.

At the same time, the principles of scientific ethics were observed, in particular, maintaining high standards of intellectual honesty and preventing the fabrication of scientific data, falsification, plagiarism, and false co-authorship.

Literature review and international context

Komekbayev et al. (2023) conducted the research within the framework of double degree education, where modern studies of double degree programs increasingly view them not as private bilateral university initiatives, but as an indicator of the maturity of interinstitutional integration related to quality, mobility, and curricular harmonization. Ospanova et al. (2025) and Skliar et al. (2025) mentioned that double degree programs in the EHEA are one of the most developed forms of institutional cooperation, as they combine mobility, content harmonization, and managed quality mechanisms within the framework of general principles of academic recognition. Shenderova (2023) demonstrated in her study that the European model sets a maturity criterion for international comparison: double degree programs are recognized as effective not by the existence of an agreement, but by the degree of integration into an ecosystem of shared governance and quality. Authors such as Hou et al. (2020), Vellamo et al. (2023) and Kralova et al. (2023) mentioned in their studies that in the EHEA, the development of joint double-degree programs has institutionally accelerated after the launch of the Bologna Process in 1999, the strengthening of the legal framework for academic recognition by the Lisbon Convention 1997 and 1999, and the programmatic support of Erasmus Mundus consortium master's programs since 2004, and the mature requirements for their external quality assurance were unified by the European Approach in 2015.

In Kazakhstan, a systemic framework for the development of credit-based learning programs emerged after joining the Bologna Process in 2010 and institutionalizing the credit-based learning system through Order №152 dated from April 20, 2011 (MES RK, 2011; IQAA, n.d). Currently, all universities develop and implement programs based on their own regulatory documents, such as developed Regulations, which are often interpreted differently and do not have a unified development and implementation model.

Contemporary research on double degree programs is developing in the context of transnational and networked education. Recent analytical frameworks in the field of cross-border higher education emphasize that the sustainability of such forms is ensured not by formal agreements, but by the shared responsibility of partners for quality, the transparency of qualifications, and the presence of built-in quality assurance mechanisms at the program and institutional levels. In the European Higher Education Area, these approaches are further reinforced by the general logic of the ESG as a framework for internal and external quality

assurance in cross-border formats and the specialized European Approach, which views double degree programs as integrated curricula leading to joint or double qualifications with agreed-upon design, recognition, and assessment procedures (EQAR, n.d.).

Comparing double degree education development models, several principles stand out that are particularly relevant to the Kazakhstani context. European experience shows that the highest sustainability of double degree programs is achieved when they are designed as a single double degree program with pre-agreed learning outcomes, assessment procedures, and transparent credit recognition, as enshrined in the requirements of the European Approach and based on ESG standards (European Comission, n.d.).

American practice and related research discourse emphasize the importance of interdisciplinarity and program flexibility focused on developing cross-cutting competencies and responding to labor market demands and scientific and technological development (Bear & Skorton, 2019).

The Singaporean approach offers a useful management idea of reasonable overlap: for double degree pathways, acceptable limits for double credit are formalized, ensuring accelerated learning without formally duplicating requirements; This is reflected in the regulations of leading universities, which specify the proportions and volumes of permissible overlap (NUS, NTU, 2022).

The Malaysian model emphasizes the critical role of qualification transparency and institutionalized distribution of responsibility between partners: MQF requirements and MQS-MQR tools guide universities toward publicly verifiable descriptions of learning outcomes, accreditation status, and program characteristics, including the specifics of joint/double formats (MQA, 2017).

The Chinese experience highlights the importance of long-term, resource-backed partnerships: government regulation of Chinese-Foreign Cooperation in Running Schools is focused on ensuring quality and attracting high-quality foreign educational resources within sustainable institutional cooperation formats (Hou et al., 2020).

As a result, Kazakhstan, compared to leading global models, is at a strategically favorable point of development: political support for internationalization and the expansion of international partnerships create the conditions for a transition from quantitative growth of DDP to their qualitative standardization and methodological maturity. To enhance the effectiveness of this system, key areas remain the deepening integration of curricula, the unification of mechanisms for recognizing learning outcomes, the development of joint quality procedures, and the anchoring of DDP in long-term strategic partnerships with a clear distribution of academic and resource responsibilities, consistent with the logic of international quality frameworks for cross-border education and double degree programs.

Empirical research in recent years has shifted its focus from describing double degree program formats to analyzing the sustainability of partnerships and the factors that determine their institutional success. In particular, it has been shown that the role of internal stakeholders and organizational support critically impacts the viability of collaborative degree programs (Shenderova, 2022). At the same time, research continues to focus on student perceptions of double degrees and on measuring the acquired competencies and mobility effects; such studies emphasize the importance of assessing not only quantitative indicators but also the qualitative outcomes of participation.

International and national literature converge on a common conclusion: the effectiveness of double degree programs is determined not by their quantity, but by the degree of integration of content, governance mechanisms, and evidence-based quality procedures. European research demonstrates that double degree programs become an "advanced outcome" of institutional internationalization only in the presence of agreed-upon standards and sustainable collaborative networks. The experience of Kazakhstan confirms the relevance of this approach

and at the same time indicates the need to develop measurable quality indicators and methods for assessing the effectiveness of the DDP, including scientific and personnel effects (Komekbayev et al. 2025; Kuzhabekova, 2024; Mukhatayev et al., 2024).

Despite the growing number of double degree programmes in national systems, a contradiction persists between the rapid quantitative expansion of programmes and the limited development of sustainable supranational mechanisms and comparable approaches to their quality. The heterogeneity of national external assessment regimes continues to complicate transnational cooperation and hinder the development of joint educational formats, while the implementation of the European Approach remains limited due to differences in national approaches (Europen Comission, 2022). As a result, in some contexts, the quality of double degree programmes continues to be determined primarily through formal agreements and mobility, while more integrated systems strive to harmonize procedures and share responsibility for learning outcomes and internal quality mechanisms.

Results and discussion

The expert evaluation was conducted using a modified questionnaire procedure. In the first round, experts ranked and assessed the significance and relevance of double degree program development and the implementation experience of two universities from the national cities of Astana and Almaty (Kazakh-British Technical University and Astana International University) and one regional university (West Kazakhstan Medical University named after Marat Ospanov). The expert responses from the three universities confirm the existence of systemic challenges in implementing double degree programs. Moreover, the nature of the problems is consistent across organizations, allowing them to be considered typical for national practice.

The most frequently cited challenges include coordinating curricula and formalizing mechanisms for mutual recognition of disciplines. Universities point to the high labor intensity of coordinating course correspondence matrices, as well as the need for additional regulatory guidance on credit-based learning procedures.

The second persistent set of problems relates to the recognition of diplomas and qualifications, including differences in national requirements for program structure and the scope of mandatory training components. These barriers are exacerbated by the lack of detailed methodological recommendations and uniform minimum standards for the design of credit-based programs.

The third significant limitation is the financial model. Experts emphasize that the cost of the program's international component often becomes a critical factor limiting student recruitment and the sustainability of mobility pathways. Additionally, they note a shortage of time and human resources for developing and regularly updating curricula and personalizing student support.

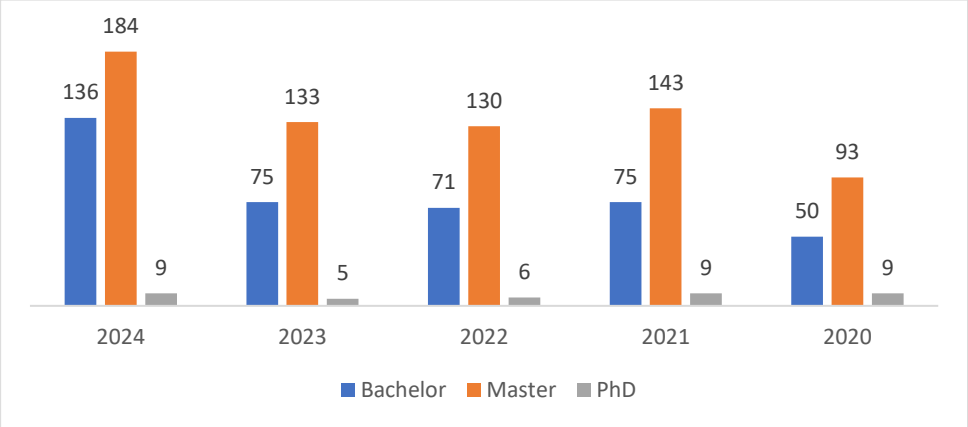
Two out of three universities explicitly point to the need to amend national credit-based education regulations to regulate the development and implementation of credit-based programs, taking into account the practical nuances of managing such programs. Thus, expert assessments indicate the need to update the regulatory framework and expand institutional support mechanisms, including financial instruments and standardized approaches to quality monitoring.

After receiving the data, an assessment of the problematic issues and their solutions was conducted at the country level. After summing up the results, the expert group prepared methodological recommendations for the implementation of the DDP. These recommendations were sent to the universities by the expert group members: L.N. Gumilyov Eurasian National University, Kazakh-British Technical University, and Pavlodar Pedagogical University. In addition, the final methodological recommendations were sent to the Committee for Quality

Assurance in Science and Higher Education of the Ministry of Science and Higher Education of the Republic of Kazakhstan.

National monitoring data show that in 2024, 56 universities in Kazakhstan implemented 329 double degree programs with foreign partners. Compared to 2020 (152 double degree programs), the number of double degree programs in 2024 increased by approximately 90%, although, according to unofficial data, by over 100% (Figure 1). A general statistical analysis revealed that only a few universities, such as L.N. Gumilyov Eurasian National University, Kozybayev SSU, Aktobe Regional University named after Zhubanov, Maksut Narikbayev University, and Al-Farabi KazNU offer 50% of the programs offered by Kazakhstan universities, and universities from different regions recruit the largest number of students, demonstrating the versatility of the DDP's implementation (Komekbayev, Y.S., Kurmangaliyeva, D.B., 2023).

Figure 1.
Implementation of double-degree programs by levels of education, units

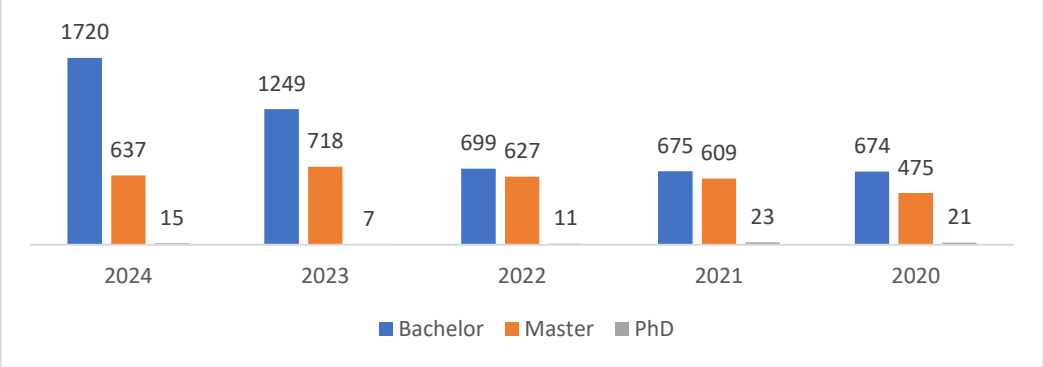


The number of students enrolled in double degree programs in 2024 reached 2372, doubling the 2020 figures (Figure 2). The figure also shows that in 2022, the number was almost flat due to the geopolitical situation, but continued to increase in 2023.

Challenges highlighted include a lack of financial resources (costs for flights and accommodation abroad), visa difficulties, and the need to adapt to other educational systems.

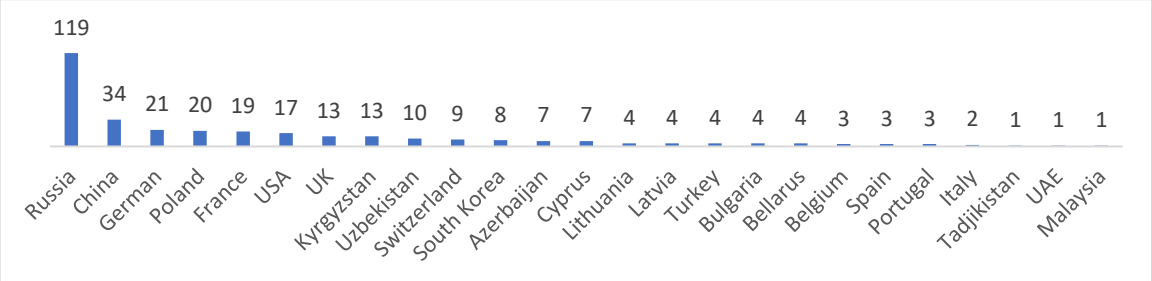
Faculty members report increased workload in coordinating curricula, but note an increase in research activity and publications in international journals.

Figure 2.
The contingent of students in the DDP, by levels of education (number of people)



The structure of the DDP by level of education demonstrates a predominance of master's programs, consistent with international practice, where master's programs often serve as the foundation for intensive joint academic programs. However, national analytical data indicates that the effectiveness of program implementation remains uneven: only a limited number of universities ensure stable student enrollment, and partnerships remain concentrated primarily in the CIS countries. A comparative analysis of data across university groups reveals heterogeneity in the national picture. National and large research universities demonstrate faster rates of expansion of their DDP portfolios, while for some regional and industry-specific universities, development is more targeted. This allows us to interpret the current stage as a transition from extensive growth"to the need for institutional alignment of program quality and managerial maturity (Figure 3).

Figure 3.
Number of DDP by country (units)



A comparison of national practices with the European approach reveals three development areas. The first stage is the formalization of the joint design of learning outcomes and course equivalence matrices. The second stage is the standardization of procedures for the automatic recognition of periods of study and credit transfer. The third stage is the implementation of inter-university quality monitoring mechanisms adopted by all program participants.

The growth rate of the number of DDPs from 2020 to 2023 reflects the institutional expansion of the internationalization tool. However, structural differences across levels of education and languages of delivery indicate the need for a differentiated approach to quality management. The concentration of programs at the master's level allows this level to be considered the most promising for piloting expanded quality indicators related to the measurement of learning outcomes and curricular comparability. Thus, the graphs confirm the conclusion that the national system is transitioning from a stage of quantitative growth to a stage of evidence-based quality mechanisms.

Based on the work of the expert group, statistical data on the participation of Kazakhstani universities in double degree programs was processed and analyzed. The analysis (as of the first half of 2023) shows that:

- Approximately 50-60 Kazakhstani universities systematically participate in v degree programs.

- There are approximately 300 active programs in total, most of which are focused on management, finance, IT, and engineering.

- The share of double degree programs in master's and bachelor's degrees is higher (approximately 70% of the total) compared to doctoral programs, as research components require international collaboration.

A comparative analysis of v degree programs in various regions of Kazakhstan was conducted:

- KIMEP, Al-Farabi Kazakh National University, KBTU (Almaty): high level of internationalization, extensive network of partners in Europe, North America, and Asia. The financial stability of universities (through government procurement, private investment, and endowments) allows for program development.

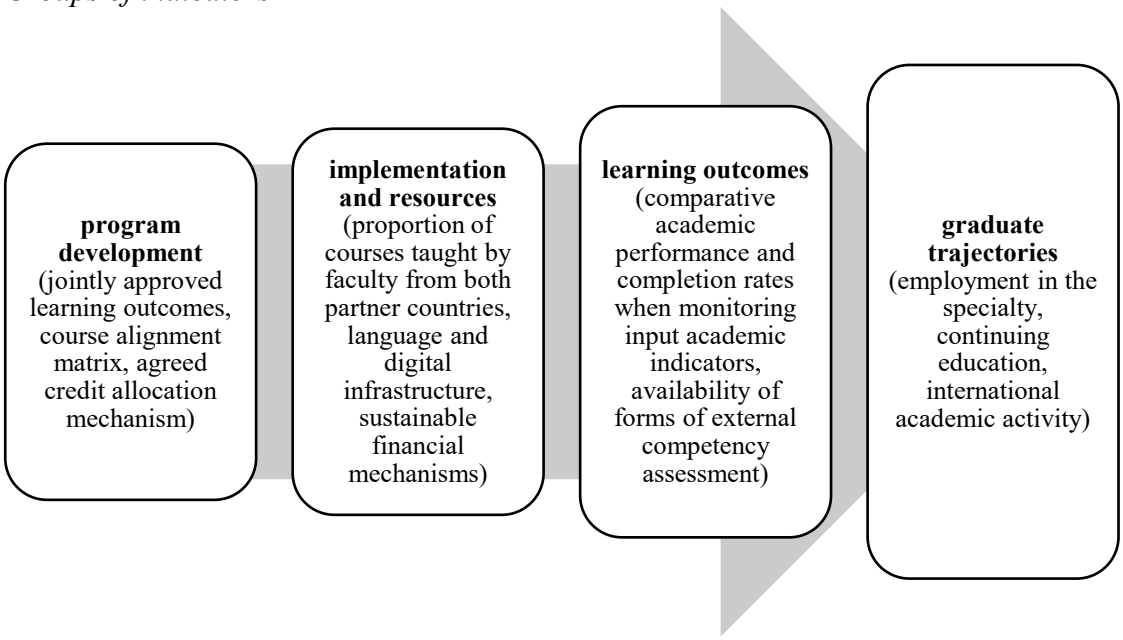
- L.N. Gumilyov Eurasian National University and S. Seifullin Kazakh Agrarian University (Astana) are gradually introducing joint programs, primarily in engineering and the natural sciences.

- Regional universities (Karaganda, Shymkent, Ust-Kamenogorsk, etc.)

Face a lack of funding and a weaker infrastructure. They primarily implement exchange programs (incomplete double degrees) and short internships.

Based on analysis and national data, experts propose a model of measurable indicators for the quality of development programs, including four groups of indicators identified through best practices in developing development programs in Europe, the United States, and Asia (Figure 4).

Figure 4.
Groups of indicators



To operationalize the proposed model of DDP quality, a system of indicators was used, grouped into four blocks: A) program development, B) implementation and resources, C) learning outcomes, and D) graduate trajectories. The indicators were formulated in such a way as to be verifiable against national monitoring data, internal university documents, and performance indicators. The list of indicators was validated by an expert group (n=10) using ranking and discussion until consensus was reached. After approval, the model was tested on 56 existing DDPs of the L.N. Gumilyov Eurasian National University (Table 1).

Table 1.
Model of measurable indicators of the quality of the DDP

Block	Indicator code	Indicator (what is being checked)	How to measure / scale	Data source
Program development	A1	Jointly agreed learning outcomes (LOs)	0 - absent; 1 - approved by one party/partially agreed upon; 2 - jointly approved and set out in appendices to the agreement	Agreement, educational program passport, minutes of joint committees
	A2	Matrix of correspondence of disciplines/modules	0 -absent; 1 - present, but not regularly updated; 2 - present and updated at least once every 2 years	Educational plan, syllabi, conversion matrix
	A3	An agreed mechanism for the distribution of credits and mobility periods	0 - not defined; 1 - defined in general terms; 2 - formalized with indication of mandatory periods/ECTS equivalents	Curricula, appendices to the MoU/agreement
Implementation and resources	B1	The share of courses implemented with the participation of faculty from both organizations	Fact/percentage of the total volume of program disciplines; recommended maturity benchmark: ≥ 20-30%	Teaching staff workload, schedules, and course catalogs
	B2	Language and digital infrastructure for collaborative learning	0 - absent; 1 - partially provided; 2 - provided in all key modules	LMS, regulations, IT/academic services reports
	B3	Sustainable financial mechanisms (mobility, joint modules)	0 -episodic support; 1 - individual sources; 2 - a fixed model of co-financing/grants/benefits and access rules	Program budgets, grant provisions, agreements
Learning outcomes	C1	Comparable academic results when controlling for input indicators	Comparison of GPA/grades and the proportion of outstanding students between streams, taking into account the entry level (language, academic ranking)	Student databases, department/dean's office reports
	C2	Completion rates	Percentage of students completing the program within the standard timeframe; comparison with similar non-joint programs	National monitoring, internal reports
	C3	Availability of forms of external/joint assessment of competencies	0 - none; 1 - occasional; 2 - regular joint/external assessment	Minutes of the State Attestation Commission/joint commissions, QA reports
Graduate trajectories	D1	Employment in your specialty	The proportion of those employed in their field within 6–12 months after graduation	Career center, graduate surveys, government statistics (if available)
	D2	Continuous education	The proportion of graduates admitted to the next level/international programs	Alumni surveys, admissions/academic services databases
	D3	International academic activities of alumni	Participation in international projects, internships, publications or professional associations (share/cases)	Surveys, bibliometric and project data (if available)

The difficulties in aligning curricula and matching matrices identified by the experts correlate with the Block A indicators (A1-A3), which reflect the maturity of the joint program design. Limitations of the financial model and differences in the resource endowment of universities are reflected in the Block B indicators (B1-B3). The observed heterogeneity in completion rates and student retention highlights the need to monitor the Block C indicators (C1-C3), while assessing the long-term effects of internationalization requires the inclusion of Block D (D1-D3) in the internal and external quality assurance system.

The proposed model addresses a key issue identified during the analysis of the original article and national data: the claimed effects of DDP (including improved academic performance) must be confirmed by comparable measurements. The use of standardized indicators will allow for a transition from descriptive interpretation to evidence-based positioning of joint programs as an element of the quality assurance system.

Overall, to strengthen their internal quality assurance systems, Kazakhstan universities are recommended to strengthen the quality of their academic services and departments. Internal documents and regulations governing university academic and research policies must be fundamentally revised. This work must be carried out within the context of the new regulatory framework within the institutional, academic, and managerial autonomy of Kazakhstan universities.

Based on an expert survey conducted among three universities from different regions, it was revealed that higher education institutions of the Republic of Kazakhstan suffer from a lack of experience and a regulatory framework, as it is evident that higher education institutions are making requests regarding the regulatory framework, which has recently been expanded, based on the fact that all universities are aiming to increase the foreign contingent, which was set by the President of the Republic of Kazakhstan at the International Forum of Strategic Partners “Kazakhstan - Territory of Academic Knowledge”, which leads to the provision of better conditions and the preparation of the educational programs themselves (Tokayev, 2025).

This research explores the problem and identifies its scientific novelty, which lies in the development and validation of a model of measurable indicators of joint program quality. This model is adaptable to national monitoring data and simultaneously aligns with the international logic of quality assurance for joint programs. Unlike descriptive approaches, the model structures quality into four blocks: design, resources, learning outcomes, and graduate trajectories, and enables comparison of programs across universities based on a unified framework of indicators.

Validity and reliability are ensured by multi-stage expert validation of the indicators using questionnaires, interviews, and quantitative consensus-building criteria. Additional internal consistency testing of the scales during the questionnaire confirms the reliability of the assessment instruments.

The authors continue their work examining new methodologies for c degree programs, which will establish a new quality standard for Kazakhstan's educational system (Komekbayev & Kurmangaliyeva, 2023).

Conclusions

Joint double degree educational programs in the Republic of Kazakhstan demonstrate their expanding institutional reach and potential to become a tool for systematically improving the quality of educational programs. The international experience of the European Higher Education Area confirms that the sustainability of such programs is ensured by uniform quality standards, transparent procedures for recognizing learning outcomes and joint program management.

National data indicate the need to move from primarily quantitative expansion of programs to strengthening their impact in terms of coverage, language of instruction, geographical coverage of partnerships, and evidence-based quality indicators. The proposed model of indicators can be used by organizations of higher and postgraduate education and the regulator as a basis for internal and external assessment of the quality of joint programs, as well as a methodological basis for further standardization of the practice of developing and implementing double-degree programs.

The study of the article highlights the importance of double-degree education and highlights the need for further research and the development of effective strategies for the implementation of such programs in various educational contexts.

The analysis confirms that DDP in Kazakhstan are moving into the stage of sustainable institutional dissemination and are considered by universities as a tool for internationalization and a potential mechanism for improving the quality of educational programs. At the same time, a key contradiction has been revealed between the quantitative growth of the DDP portfolio and the lack of evidence-based, comparable mechanisms for assessing their quality at the level of the national system and individual universities.

A systematic review of international studies and a comparison of practices from the EHEA, the United States, and Asian countries show that the greatest sustainability and quality of DDP are achieved when they are designed as integrated joint programs with pre-agreed learning outcomes, transparent credit allocation, and formalized procedures for joint management and quality assurance. For the Kazakh context, this means the need to shift the managerial focus from formal indicators of agreement availability and mobility to an analysis of the maturity of educational design, resource model and learning outcomes.

The results of an expert survey of three universities confirm the systemic nature of barriers to national DDP practice. The most significant difficulties remain the coordination of curricula and discipline matching matrices, issues of recognition of qualifications, limitations of financial mechanisms and the increased workload of academic and international services. The fact of the request for clarification and development of regulatory procedures for credit technology training in terms of DDP indicates the need to update the regulatory framework, taking into account practical management nuances.

Based on the identified gaps, a model of measurable quality indicators of DDP has been proposed and tested, structuring the assessment into four blocks. The testing of the model on existing programs has shown its applicability to national monitoring data and the possibility of using it to compare programs between universities, identify risk areas and assess managerial maturity. Thus, the model closes the identified research and practical gap and forms the basis for the transition to evidence-based quality management of DDP.

The practical significance of the research lies in the fact that the proposed indicator system can be used by universities to strengthen internal quality assurance and strategic planning of international programs; recommendations for the formation of unified methodological requirements and the development of national monitoring; accreditation structures as a tool for assessing the maturity of joint programs in the logic of ESG and European Approach.

In general, the development of DDP in the Republic of Kazakhstan requires institutional strengthening of mechanisms for joint curriculum design, standardization of credit recognition procedures and study periods, the development of sustainable financial models and the introduction of joint quality monitoring procedures. The implementation of these areas will make it possible to consolidate the DDP not only as a format of international cooperation, but also as a new evidence-based quality standard for the national higher education system.

The study is based on national monitoring data and open international analytical materials, which limits the depth of analysis of students' individual educational trajectories and long-term effects on their careers. Not all indicators are presented in a uniform format by year, and some key information (such as detailed internal quality assessment results for specific programs) is not publicly available. The expert assessment also depends on the context and requires periodic updating as regulatory conditions and DDP implementation practices change.

Conflict of Interest Statement

The authors declare no potential conflicts of interest regarding the research, authorship, or publication of this article.

Author Contributions

Yermek Komekbayev: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing - Original Draft Preparation. Dina Kurmangaliyeva: Supervision, Validation, Writing - Review and Editing. Khanat Kassenov: Formal analysis, Visualization, Writing - Review and Editing.

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Information about authors

Yermek Komekbayev - PhD student at the Department of Standardization, Certification and Metrology, S. Seifullin Kazakh Agro-technical Research University, Astana, Kazakhstan, email: stranger6592@mail.ru, ORCID 0009-0004-4866-855X

Dina Kurmangalieva - Doctor of Technical Sciences, Associate Professor at the Department of Standardization, Certification and Metrology, S. Seifullin Kazakh Agro-technical Research University, Astana, Kazakhstan, email: omimk@mail.ru, ORCID 0000-0002-7583-7919, ***(corresponding author)***

Khanat Kassenov – PhD, Kazakh national University of Sport, Astana, Kazakhstan, email: kh_kassenov@apems.edu.kz, ORCID 0000-0002-7555-4919