



Research Article

## A Holistic Framework for Assessing Uzbekistan's Higher Education System Through Quantitative and Qualitative Metrics

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**Abstract:** This article proposes a new comprehensive methodology for evaluating the Uzbekistan higher education system based on quantitative and qualitative indicators. The suggested methodology integrates advanced international experiences such as QS, THE, and Shanghai ARWU, while considering national values. The new method enhances global competitiveness while supporting Uzbekistan's spiritual and social goals.

**Keywords:** higher education, quality assessment, ranking methodology, research activity, international cooperation, education quality, global competitiveness.



### Introduction

The higher education system plays a pivotal role in the socio-economic and spiritual development of modern society. In Uzbekistan, the evaluation of higher education institutions' performance is regulated by Resolution No. 467 of the Cabinet of Ministers dated June 7, 2019, aimed at improving educational quality and meeting national economic needs. However, to ensure global competitiveness and further integrate national cultural characteristics, there is a recognized need for a new methodology. This article proposes a novel evaluation framework for Uzbekistan's higher education system, combining advanced international practices with local values.

### Literature Review

The evaluation of higher education systems globally is conducted through various methodologies.

The QS World University Rankings emphasize academic reputation (40%) and research citations (20%), Times Higher Education (THE) focuses on teaching environment (15%) and industry income (2.5%), while the Shanghai ARWU prioritizes research output and prestigious awards (60-70%) (Hazelkorn, 2015; Liu & Cheng, 2005; Marginson, 2014). These systems aim to foster global integration, transparency, and innovation, leveraging digital platforms for data analysis (Baty, 2017). While international practices often limit attention to student experience and social impact, some countries (e.g., the UK) independently employ student surveys.

key criteria (Resolution, 2019). While this system addresses local economic needs and state oversight, it lacks sufficient focus on international cooperation and innovation. Concurrently, Uzbekistan's youth policy underscores the necessity of integrating national cultural characteristics into the education system. Research indicates that an effective evaluation framework must balance global standards with national priorities.

### **Research Methodology**

The evaluation of higher education institutions' performance is based on collected data, surveys, and assessment results. The ranking is calculated on a 100-point scale, with outcomes determined according to approved criteria.

The scoring process is as follows: the institution with the highest performance in each indicator receives the maximum score, while others are assigned points proportionally:

$$\text{Score} = (\text{Institution's Indicator} / \text{Highest Indicator}) \times \text{Maximum Score}$$

For instance, international publications or student test results are distributed using this method. Scores for each indicator are aggregated to form the overall ranking.

### **Analysis and Discussion of Results**

While the current methodology for evaluating higher education institutions has contributed to assessing education quality and institutional development, it exhibits several shortcomings. These limitations are analyzed below by comparing the existing system with advanced international practices (QS, THE, ARWU) and national needs.

The current system assigns minimal weight to international collaboration, with the share of foreign faculty and students (7 points) and international exchange programs (5 points) totaling only 12 out of

100 points. In contrast, international presence accounts for 10% in QS, underscoring its importance for global competitiveness.

Although research activity is allocated 40 points, publications in internationally prestigious journals (3 points) and citations (9 points) constitute a small fraction of the total weight. In Shanghai ARWU, research accounts for 60-70%, highlighting a gap in the current system.

Graduate knowledge and employability (27 points) represent 27% of the total score. In QS, employer reputation is only 10%, with greater emphasis on academic and research aspects. While employability addresses economic needs, it should not be the sole measure of educational quality.

National cultural characteristics, such as spiritual education and patriotic upbringing, are not included as distinct indicators. The “social-spiritual environment” is only partially covered within student surveys (2 points).

Although results are published on an authorized agency’s website, detailed data per indicator are not provided. Unlike QS and THE, which offer transparent breakdowns, the current system limits visibility, reducing trust and hindering institutions’ ability to identify weaknesses.

Innovative products (patents, startups) are assessed within research activity (part of 4 points) but lack specific evaluation of economic impact or industry integration. Infrastructure is evaluated solely from a sports perspective (1 point), neglecting laboratories or digital resources—criteria present in THE and QS.

Some indicators, such as student surveys or sports activities, lack clear measurement standards. For example, the calculation of “social-spiritual environment” is unspecified, and no standardized metrics exist for spiritual or sports effectiveness.

The evaluation is fully managed by a state authority, excluding independent experts or international organizations. In QS and THE, assessments are conducted transparently by private entities, whereas strict state control limits institutional initiative and raises objectivity concerns.

The proposed methodology addresses these shortcomings by emphasizing research prestige, international collaboration, and spiritual-educational efforts (Table 1).

The new framework ensures a comprehensive evaluation: research activity (45 points) prioritizes international publications (13 points) and academic reputation (10 points), education quality (25 points) focuses on student surveys (8 points) and knowledge levels (7 points), international cooperation (12 points) encourages foreign participation (9 points total), socio-economic impact (8 points) covers graduate quality (4 points) and infrastructure (4 points), and a newly added spiritual-educational

component (10 points) evaluates national value promotion (5 points) and youth engagement (5 points).

Results suggest that the new system enhances research prestige and education quality while supporting Uzbekistan's spiritual-social goals. Transparent publication of outcomes prepares institutions for international rankings.

The new methodology offers several advantages. First, greater emphasis on research (45 points) and international cooperation (12 points) aligns with QS and Shanghai experiences, enhancing global competitiveness. Second, the spiritual-educational component (10 points) integrates national culture, fostering patriotism and social engagement. Third, digital platforms and transparent reporting, inspired by THE, ensure process reliability.

**Table 1. Criteria for Evaluating Higher Education Institutions' Performance  
(Recommended)**

No.	Evaluation Indicators	Score
<b>I. Research Activity and Academic Reputation</b>		<b>45</b>
1.	Articles published in internationally prestigious journals (Web of Science, Scopus) and citations	13
2.	Number of doctoral dissertations (PhD and DSc)	7
3.	Funding from research (international grants, local contracts, state grants)	6
4.	Academic reputation (based on international and local expert surveys)	10
5.	Innovative products (patents, startups, industry-implemented projects)	4
6.	Articles in local journals (listed by the Higher Attestation Commission)	5
<b>II. Education Quality and Learning Environment</b>		<b>25</b>
7.	Student surveys (learning conditions, teaching quality, assessment fairness)	8
8.	Student knowledge in specialized subjects (assessment results)	7
9.	Textbooks and teaching manuals (authored and registered)	5
10.	Faculty qualifications (foreign language and ICT test results)	5
<b>III. International Cooperation and Integration</b>		<b>12</b>
11.	Share of foreign faculty and students (relative to total)	5
12.	Participation in international exchange programs and joint research projects (students and faculty)	4
13.	Proportion of subjects taught in foreign languages (relative to specialized subjects)	3
<b>IV. Socio-Economic Impact and Infrastructure</b>		<b>8</b>
14.	Graduate employment rate (within 6 months) and employer feedback	4

15.	Overall infrastructure quality (laboratories, libraries, sports, digital resources)	4
<b>V. Spiritual-Educational Work and Youth Engagement Effectiveness</b>		<b>10</b>
16.	Spiritual-educational events (promoting national values, patriotism, sports-health activities)	5
17.	Effectiveness of youth engagement (student participation in public activities, social projects)	5
<b>TOTAL</b>		<b>100</b>

*Source: Compiled by the author based on QS, THE, and ARWU methodology data.*

However, limitations exist. High demands for research publications and international collaboration may challenge institutions with limited infrastructure or funding. Subjective assessment of spiritual-educational efforts (e.g., event effectiveness) could raise objectivity concerns. Additionally, reducing graduate quality weight (from 27 to 4 points) slightly diminishes economic impact focus.

### Conclusion and Recommendations

In conclusion, the proposed methodology brings Uzbekistan’s higher education system closer to global standards while balancing national cultural characteristics. Research (45 points) and international cooperation (12 points) align with QS, THE, and ARWU practices, while the “spiritual-educational work and youth engagement” section (10 points) reflects Uzbekistan’s policies on patriotism, national values, and youth involvement. The scoring distribution balances national needs (spirituality, economic impact) with global demands (research prestige, international integration).

To further refine the system, future efforts should focus on developing research infrastructure and clear metrics for spiritual indicators. Recommended measures include:

Expanding access to modern laboratories, digital libraries, and international databases (Web of Science, Scopus);

Establishing joint education and research programs with foreign universities (e.g., dual degrees, joint research projects);

Developing standardized metrics for spiritual-educational events (5 points) and youth engagement (5 points), such as event frequency, participant numbers, and social project outcomes;

Incorporating student involvement in startups and innovative initiatives into youth engagement assessments;

Conducting pilot testing of the new methodology in selected institutions (e.g., 5-10 universities) before full implementation;

Organizing training for evaluation personnel (state representatives, institutional leaders) based on international best practices.

### References

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