ISSN 1346-020X

since 1947

INQAAHE
Since 1991

University Evaluation Review

Special Issue:
Papers Submitted by Presenters of the
INQAAHE 18th Biennial Conference 2025

Theme:
"The Big Bang Theory:
the Quality Assurance Paradigm Shift"

INQAAHE
CONFERENCE
2025 TOKYO

Vol. 24 – Special Issue

Table of Contents

Foreword

Olgun Cicek

Chair of the Organising Committee, INQAAHE Board Director

It is with great pleasure and sincere appreciation that I introduce this Special Issue of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) Conference 2025 Proceedings, which reflects upon the exceptional gathering held in Tokyo earlier this year. With nearly 300 participants representing diverse regions of the world, the Tokyo Conference became a dynamic meeting point for ideas, perspectives, and shared aspirations aimed at strengthening quality assurance in higher education. The high level of engagement—evident in both personal feedback and post-conference survey results—affirmed not only the success of the event but also the collective readiness of our global community to advance toward new horizons in quality assurance.

We extend our deepest gratitude to the Japan University Accreditation Association (JUAA) and the INQAAHE Secretariat, whose dedication, professionalism, and steadfast support were central to delivering a conference of such distinguished quality. Their contributions ensured that the Tokyo Conference not only met expectations but set a new benchmark for the standards to which future INQAAHE events will aspire.

The 18th INQAAHE Biennial Conference, titled "The Big Bang Theory: the Quality Assurance Paradigm Shift," was held in Tokyo, Japan from 13-16 May 2025. The program provided a comprehensive platform for exploring the rapidly evolving landscape of higher education. Plenary discussions, panel sessions, workshops, and thematic dialogues revealed several key insights from global experts that shape the reflections presented in this volume.

During the conference, the global challenges as well as opportunities from all aspects ware discussed. Specifically, this year's topics focused on the following four sub-themes:

The first sub-theme emphasized the role of quality assurance (QA) in Sustainability agenda referring to the growing importance and engagement of the Sustainable Development Goals (SDGs) in QA practices.

The second sub-theme highlighted the new, flexible, and innovative Learning Pathways including Microcredentials and their contribution to the higher education (HE).

The third sub-theme focused on the QA and Artificial intelligence referring to the responsible use of AI in QA processes as well as highlighting the human-AI balance in the application of it.

The fourth sub-theme analysed the global awareness of QA vs Recognition of qualifications and credentials focusing on the mobility concerns globally.

This Special Issue brings together these reflections, offering a rich overview of the

substantive dialogue and expertise shared in Tokyo. It serves not only as a record of the conference but also as a meaningful contribution to the wider global discourse on quality assurance challenges as well as added value in higher education.

As Chair of the INQAAHE Conference 2025, I am honored to present this volume. My heartfelt appreciation goes to all contributors, participants, and partners whose engagement made the Tokyo Conference a significant milestone in our shared journey. I hope the insights captured here will inspire continued collaboration, innovation, and collective progress in the years ahead.

The Impact of the iJAS Plus Implementation in Thailand : Nakhon Si Thammarat Rajabhat University

Kittiya Evans and Nualsupak Phunsap

Office for National Education Standards and Quality Assessment (ONESQA)

Abstract

The structural shift in Thailand's External Quality Assurance (EQA) occurred in 2019 with the enactment of the Higher Education Act of 2019 by the Ministry of Higher Education, Science, Research, and Innovation (MHESI) . The Act provides Thai higher education institutions (HEIs) with the autonomy to voluntarily select to receive external quality assessments through various systems. In this context, the Act has introduced challenges for the Office for National Education Standards and Quality Assessment (ONESQA) as the external quality assurance body, prompting it to further strengthen its EQA framework, procedures, and strategies to ensure an effective system that aligns with the evolving landscape. Additionally, this would lead to the development of a more diverse EQA framework for HEIs that meets international standards. Currently, various internal and external factors are influencing the quality of Thai higher education, including the need to improve the standards of HEIs and graduates domestically. Moreover, the challenges posed by globalization and the impact of ASEAN integration, particularly in terms of cross-border education and the movement of students and graduates, further emphasize the necessity of ensuring the quality of higher education.

In 2021, ONESQA has had the opportunity to engage in the expansion of the International Joint Accreditation Standards concept known as "iJAS" which was originally developed and implemented by the Japan University Accreditation Association (JUAA) and the Taiwan Assessment and Evaluation Association (TWAEA) , three of whom have been long-standing partners. In doing so, EQA is extended into a new dimension, signifying a paradigm shift toward joint accreditation as an alternative assessment model in Thailand. This transformation will serve as a significant gateway of opportunity for Thai higher

kittiya.evans@onesqa.or.th
nualsupak.p@onesqa.or.th

education to reach international standards and support the future of cross-border higher education and transnational education.

Keywords: External Quality Assurance, International Joint Accreditation, Institutional Accreditation, Cross-border Higher Education, Transnational Education.

Introduction

The VUCA world, along with the Higher Education Act of 2019, has become a significant factor motivating the Office for National Education Standards and Quality Assessment (ONESQA) to explore alternatives to the EQA system, as external quality assessment has no longer been compulsory since then. ONESQA, as one of the two certified bodies under the Ministry of Higher Education, Science, Research, and Innovation (MHESI), subsequently developed a strategic plan and conducted an impact analysis of external quality assessment in 2022. This analysis identified the need to advance toward global standards, encompassing all levels of educational assessment systems, including higher education[1].

The project of joint accreditation, known as the International Joint Accreditation Standards (iJAS), was launched in 2018 through a collaboration between the Japan University Accreditation Association (JUAA) and the Taiwan Assessment and Evaluation Association (TWAEA). Their partnership led to set the joint standards, which were initially conducted in HEIs in Japan and Taiwan. This collaboration expanded with the inclusion of ONESQA in 2021. It is acknowledged by ONESQA that international joint accreditation provides additional benefits to the EQA system when partnered with foreign agencies: 1) Enhancing the university's competitiveness and global status; 2) Providing a reference for international cooperation agreements between universities involving academic equivalence, dual/joint degrees, and exchanges and overseas students; 3) Facilitating the recruitment of international students and outstanding scholars from abroad. In adopting these joint standards and indicators, ONESQA recognizes the importance of harmonization among ASEAN and Asian higher education communities, which will strengthen connections among them. As part of the joint accreditation system, it also promotes cross-border higher education and transnational education.

While ONESQA recognizes the advantages of participating in the iJAS project and the broader benefits, implementing the iJAS system in Thailand must align with existing laws and regulations governing higher education. This is to ensure that the developed joint accreditation aligns with the latest higher education standards that identified by MHESI. As

1) This information is based on an unpublished institutional research report conducted by the Office for National Education Standards and Quality Assessment (ONESQA) in 2002.

a consequence, the iJAS standards were compared with Thailand's Higher Education Standards.

Comparison of iJAS standards with Thailand's 2022 higher education standards

Thailand's 2022 Higher Education Standards for comparison are categorized into 2 main parts: 1) the performance of duties and authority of HEIs, comprising 4 standards and 18 indicators; 2) the institutional management, comprising 1 indicator covering 5 areas and 6 outcome monitoring aspects, resulting in a total of 19 indicators, while the iJAS is composed of 6 standards and 24 indicators. The iJAS Handbook is available through the provided link (https://www.onesqa.or.th/upload/download/202405071335493.pdf).

A comparison, of the iJAS with Thailand's 2022 Higher Education is shown in the APPENDIX, was found to align with Thailand's 2022 Higher Education Standards. A detailed comparison revealed that 3 out of the 4 Thailand's 2022 Higher Education Standards (75%) align with the iJAS standards. The one standard not aligned is the preservation of arts and culture.

At the indicator level, 17 out of the 19 indicators of Thailand's 2022 Higher Education Standards (89.47%) align with the iJAS indicators. If the iJAS system is planned for implementation in Thai HEIs, the summary is shown in Table 1.

In summary, Thailand's 2022 Higher Education Standards and the iJAS standards are mostly aligned. However, to adopt the iJAS system for Thai HEIs, it is recommended to include an additional standard for the Preservation of Arts and Culture. To address this issue, the iJAS Plus was introduced.

The iJAS Plus framework was subsequently presented to the Higher Education Board of

Table 1: The Alignment Result and Recommendations

No.	Alignment with Thailand's 2022 Higher Education Standards	Recommendations
1	The alignment with the performance of duties and authorities of HEIs includes 4 standards. Of these, 3 align with the iJAS standards, specifically: ✓ Standard 1 Teaching and Learning ✓ Standard 2 Research and Innovation ✓ Standard 3 Contribution of Academics to Society	In order to fully align with Thailand's 2022 Higher Education Standards framework when implementing the iJAS system, an additional standard for Standard 4 Preservation of Arts and Culture should be included.
2	Outcome monitoring encompasses 6 areas, 5 of which align with the iJAS standards as follows: 1) Student learning outcomes 2) Outcomes in benefiting the local community and society 3) Outcomes related to personnel 4) Governance outcomes 5) Financial outcomes	It is recommended to include the outcome monitoring related to the satisfaction and engagement of learners and stakeholders.

ONESQA, which approved it and recommended presenting the Framework to MHESI's Higher Education Standard Committee. The MHESI has expressed favorable feedback on the Framework, recognizing it as a significant step toward developing an assessment system aligned with international standards. It was agreed that the Framework should be trial through a pilot assessment for a selected HEI, with the results to be discussed in detail following its implementation. Then the following actions have been taken by ONESQA:

1. University Recruitment and Preparation: After completing the assessment framework, which included the addition of 2 indicators related to the preservation of arts and culture, ONESQA developed an assessment manual and invited universities to take part in a pilot assessment. Out of 172 universities, 43 expressed their interest in the system, with 5 showing a willingness to join the pilot assessment. However, the Higher Education Board of ONESQA selected only one university for the pilot assessment, based on key criteria such as the administration's willingness to cooperate and the university's five-year evaluation cycle as required by law.

Once Nakhon Si Thammarat Rajabhat University (NSTRU) was selected, ONESQA provided the University with the assessment manual for preliminary review one month before a joint briefing with ONESQA. This briefing explained the project's details, the University's roles in the assessment process, the standards and indicators, the composition of reviewers, and the assessment schedule. Following this, NSTRU held internal discussions to prepare for the assessment, which is scheduled for July 2024. They spent about three months completing their self-assessment report (SAR), following the template provided in the manual, and submitted it to the iJAS Secretariat. All supporting evidence is attached in English via the hyperlink platform.

2. Organization Structure and Reviewers: JUAA, TWAEA, and ONESQA have agreed on a structure for the reviewer team, which will include representatives from all three countries. Each country will contribute two reviewers, except for the country of the assessed university,

Table 2: The Composition of the Review Team (6 People)

Location of Applicant Institution: NSTRU, Thailand	
Reviewer Members	**Number of Reviewer**
Japanese	2
Taiwanese	2
Thai	2*
Chair	Appoint Japanese member
Remark* one extra reviewer from Thailand to responsible for Preservation of Arts and Culture standard	

which will have only one reviewer. However, due to Thailand having an additional standard with 2 indicators, the iJAS Committee agreed to include one additional Thai reviewer in the team. The final composition of the reviewer team is presented in Table 2.

3. Reviewer Recruiting and Training: The iJAS Plus initiative marks ONESQA's first joint accreditation effort.

Due to the international composition of the reviewers and the use of English as the working language, this became a critical consideration. ONESQA revisited its pool of reviewers and selected three out of fourteen reviewers listed in the ASEAN University Network (AUN), as AUN employs English throughout its quality assessment process.

A one-day training session was conducted by the three collaborating organizations, with experienced reviewers who had previously assessed universities in Japan and Taiwan sharing their insights. Some participants attended onsite at ONESQA, while others joined remotely via an online platform. The training followed the same standard used by JUAA and TWAEA. To ensure transparency in its operations, ONESQA invited five representatives from NSTRU to observe the reviewer training. This initiative received positive feedback from the University team, as it provided them with a clearer understanding of the standards, indicators, and assessment guidelines compared to the information shared during the initial preparation session for the University. The selected candidates were subsequently presented for approval by both the ONESQA Executive Board and the iJAS Committee subsequently.

4. Document Review: The reviewers examined NSTRU's SAR and accompanying evidence, which the University submitted electronically to iJAS Secretariat. Following this, the entire review team read through before meeting with each other the day before the onsite assessment.

5. On-site Review: The on-site review visit took place on July 11, 2024. The reviewers conducted interviews with various stakeholder groups, including NSTRU's management team, faculty members, students, support staff, and a separate group of students. Additionally, they reviewed supplementary documents to clarify specific areas after studying the SAR and other supporting evidence. Another critical aspect of the review involved assessing the adequacy and readiness of NSTRU facilities, such as buildings, laboratory, dormitory, research center, as well as Business Incubator Center. This included interviews with personnel from these organizations to evaluate their readiness, supervision processes, learning outcome assessments, and their attitudes toward students. At the end of the day, the reviewers met to determine the result.

6. Accreditation Result: The reviewers spent considerable time discussing the findings to determine the quality level of each indicator. Once a consensus was reached, the iJAS Secretariat informed the parties of the remaining schedule leading up to the conclusion of the accreditation process. The review team took six weeks to finalize the report before submitting it to NSTRU for approval. NSTRU agreed with the report but requested the Secretariat to include the results of the Thai standards in the radar chart. Unfortunately, this could only be reflected in the written assessment results rather than in the radar chart. The accreditation results were reviewed and approved by the iJAS Committee on October 31st, granting NSTRU a six-year accreditation.

7. Pilot Evaluation: Following the completion of the pilot evaluation, ONESQA held a feedback meeting to review and summarize the results of the iJAS Plus accreditation. Although the University highly appreciates and satisfies this initiated opportunity, there are some opinions on how to further improve iJAS Plus in the future:

7.1 There were recommendations to extend the on-site visit to two days, with the University recommending to focus on reviewing self-assessment report (SAR) data and conducting interviews with stakeholders on the first day. The second day focuses on recommending visits to the University's key areas in accordance with each standard, as part of the assessment, ongoing improvement and development are intended.

7.2 The on-site schedule should be settled at least a week in advance, so that the university will have enough time to schedule within their team.

Moreover, Thai reviewers and the ONESQA secretariat team also have some observations and recommendations, which were discussed in the iJAS Committee. It was agreed that ONESQA will develop a set of rubrics and revise the internal communication process with the iJAS Secretariat team. Here are the observations and recommendations

1) Given that the assessment team includes reviewers from three countries who may come from different backgrounds and cultures, to standardize the assessment decisions and reduce subjectivity, it was suggested that a rubric be developed. This rubric would provide a unified guideline for reviewer across various faculties when making assessment decisions and evaluating specific indicators.
2) During this pilot assessment, there were secretariat representatives from each country, which led to occasional duplicate communications, while some tasks were overlooked because one secretariat team assumed that another team would handle them. Therefore, it was recommended to establish a centralized system for coordinating assessments at the University level in each country to ensure clarity in communication and streamline processes.

8. Impact on NSTRU after Conducting the iJAS Plus Assessment: The pilot implementation of the iJAS Plus system has brought remarkable impacts on the University, including:

8.1 The University signed an agreement with Chengdu University to offer a Dual Degree program at the undergraduate level. The program is designed for students to study three years at NSTRU and one year at Chengdu University. Additionally, NSTRU is currently in contact with universities in Japan and Taiwan that are accredited under the iJAS system. This collaboration aims to develop partnerships, particularly in dual or joint degree programs, to support student mobility and meet the demands of stakeholders.

8.2 The University invited faculty members from Chengdu University to teach in NSTRU's Educational Administration program.

8.3 The University arranged for Chengdu University to establish the Professional Teacher Training Center on the NSTRU campus.

Furthermore, the administrators of NSTRU noted that since the announcement of the upcoming assessment using an international evaluation system, NSTRU staffs have become more proactive and adapted their working methods. Additionally, there is an increasing interest in undergoing evaluations under other international standards. The University Council is currently supporting NSTRU's plan to seek an external assessment through other international joint accreditation system in the fiscal year 2025, namely the ONESQA-ASIIN Joint Accreditation.

All of the aforementioned are seen as the ultimate outcomes of fostering collaboration among higher education institutions. Lastly, fostering cross-border education through external quality assurance has shown that joint accreditation efforts, conducted in partnership with international collaborators, can effectively promote cross-border and transnational education.

Conclusion

The iJAS, an innovative external quality assessment system, initially developed through the collaboration of JUAA and TWAEA. After the collaboration was extended to include ONESQA, the system was optimized to align with Thai higher education law, resulting in the introduction of the iJAS Plus.

Following the recommendations of MHESI and the ONESQA Higher Education Board, the iJAS Plus was to be implemented through a trial assessment as a pilot at one Thai higher education institution. A pilot evaluation was conducted at NSTRU, and upon completion, it was accepted by the University, proving its applicability for assessing Thai

HEIs. Building on this positive outcome, ONESQA is working on enhancing the system by developing detailed rubrics and scheming a promotion plan to introduce it to other HEIs. This initiative is in line with ONESQA's strategic plan and offers Thai HEIs an alternative external assessment option, paving the way for advancing quality assessment to an international standard.

Importantly, the three agencies (ONESQA, JUAA, and TWAEA) involved in the new system have been certified by INQAAHE. To sum up, the iJAS (Plus) complies with the requirements set forth by MHESI, Thailand, ensuring its alignment with national and international standards.

APPENDIX

Comparison of International Joint Accreditation Standards (iJAS) with Thailand's 2022 Higher Education Standards

Thailand's 2022 Higher Education Standards for comparison are categorized into 2 main parts: 1) the performance of duties and authority of HEIs, comprising 4 standards and 18 indicators; 2) the institutional management, comprising 1 indicator coving 5 areas and 6 outcome monitoring aspects, resulting in a total of 19 indicators, while the iJAS is composed of 6 standards and 24 indicators. The iJAS Handbook is available through the provided link (https://www.onesqa.or.th/upload/download/202405071335493.pdf).

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
Standard Comparison	**Standard Comparison**	
Standard 1: Teaching and Learning	Standard 1: Mission, Goal & Strategy Standard 3: Teaching & Learning	The iJAS is compliant with Thailand's 2022 Higher Education Standards.
Standard 2: Research and Innovation	Standard 5: Social Connection	
Standard 3: Contribution of Academics to Society	Standard 2: IQA Standard 4: Faculty Standard 6: Governance	
Standard 4: Preservation of Arts and Culture	----------	
Indicator Comparison	**Indicator Comparison**	
Performance of duties and authorities HEIs		
Standard 1: Teaching and Learning		
1.1 Formulating policies and directions for graduate production and learner development that are aligned with national and international development approaches, as well as the needs of communities, societies, and countries, according to each higher education institution's expertise and unique identity.	1.1 The university appropriately defines its mission and goals. In addition, it appropriately defines the goals of each school and department in light of the university's mission and goals. 1.2 The university appropriately specifies its mission and goals and the goals of each school and department in written university rules or other rules equivalent thereof, made known to university staff and students, and made public to society. 3.1 The university specifies and publishes policies on degree **award**, curriculum design and implementation, and student admission in order to realize its mission and goals. It ensures that these policies are appropriately linked and consistent with each other.	iJAS is compliant with Thailand's 2022 Higher Education Standards, focusing on teaching and learning standards.
1.2 Provide a wide range of educational opportunities, both degree and non-degree, to promote lifelong learning.	3.1 The university specifies and publishes policies on degree award, curriculum design and implementation, and student admission in order to realize its mission and goals. It ensures that these policies are appropriately linked and consistent with each other. 3.2 The university systematically designs the curriculum and offers courses suitable for each degree program based on the policies for curriculum design and implementation. 3.5 The university appropriately implements evaluation of students' learning outcomes, granting of credits and awarding of degrees.	
1.3 Develop and manage educational programs to ensure learning outcomes align with higher education qualification standards.	3.2 The university systematically designs the curriculum and offers courses suitable for each degree program based on the policies for curriculum design and implementation.	

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
	3.7 The university appropriately admits students based on student admission policy. It puts student support systems in place and offers appropriate student services so that students can concentrate on learning and lead stable campus lives.	
1.4 (1) Faculty development is provided in the design of learning processes, both in the classroom and through information technology, using various methods, (2) with a focus on student-centered approaches, (3) evaluation of learning outcomes and student learning progress, and (4) offering guidance and support to help students succeed in their studies.	(1) 3.3 The university clarifies the ideal image of faculty members and the policy for organizing faculty organization. It develops faculty organizations based on this policy to implement educational and research activities by the schools and departments 4.1 The university implements systematic and multifaceted Faculty Development (FD) programs to promote the qualitative improvement of faculty members and faculty organization. 6.3 The university establishes administrative organizations that properly function to undertake work related to the operation of the legal entity and university, support for educational and research activities, and other necessary work. It also puts measures in place to motivate and promote the qualitative improvement of administrative staff members to ensure the effective administration of the university. (2) 3.4 The university implements various measures to stimulate students' learning and effectively provide education. (3) 3.5 The university appropriately implements evaluation of students' learning outcomes, granting of credits and awarding of degrees. (3) 3.6 The university appropriately assesses and evaluates learning outcomes as specified in the policy on degree award. (4) 3.7 The university appropriately admits students based on student admission policy. It puts student support systems in place and offers appropriate student services so that students can concentrate on learning and lead stable campus lives.	

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
1.5 (1) Regulate the implementation of quality assurance at all relevant educational levels, particularly (2) the measurement of student learning outcomes specified in each educational program.	(1) 2.1 The university specifics university-wide policies and procedures for internal quality assurance. 2. 2 The university puts in place a university-wide system responsible for promoting internal quality assurance. 2.3 The internal quality assurance system is effectively functioning based on the policies and procedures. 2.4 The university appropriately publishes information on educational and research activities, the results of self-studies and self-evaluation, finance and other various activities of the university to achieve accountability to society. (2) 3.6 The university appropriately assesses and evaluates learning outcomes as specified in the policy on degree award.	
Standard 2: Research and Innovation		
2.1 (1) prescribed research policies and directions that align with the country's development goals and (2) connect with economic, social, cultural, arts and culture, or environment, based on the expertise and unique identity of each group of higher education institutions	(1) 3.3 The university clarifies the ideal image of faculty members and the policy for organizing faculty organization. It develops faculty organizations based on this policy to implement educational and research activities by the schools and departments. 3.8 The university specifies policies for ensuring the environment and conditions for students' learning and educational and research activities by faculty members. Based on such policies, the university must have sufficient school sites and buildings and maintain facilities and equipment necessary for educational and research activities. It must also have a library and systems for providing academic information services and ensure they are functioning appropriately. (2) 5.1 The university specifies policies on social cooperation and contribution to appropriately share educational and research outcomes of the university with society. Furthermore, it implements specific measures for social cooperation and contribution based on the policies.	iJAS is compliant with Thailand's 2022 Higher Education Standards, focusing on research and innovation.

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
2.2 Encourage the development of research and innovations that address the development needs of both the country and local communities.	2.4 The university appropriately publishes information on educational and research activities, the results of self-studies and self-evaluation, finance and other various activities of the university to achieve accountability to society. 3.3 The university clarifies the ideal image of faculty members and the policy for organizing faculty organization. It develops faculty organizations based on this policy to implement educational and research activities by the schools and departments. 3.8 The university specifies policies for ensuring the environment and conditions for students' learning and educational and research activities by faculty members. Based on such policies, the university must have sufficient school sites and buildings and maintain facilities and equipment necessary for educational and research activities. It must also have a library and systems for providing academic information services and ensure they are functioning appropriately. 6.3 The university establishes administrative organizations that properly function to undertake work related to the operation of the legal entity and university, support for educational and research activities, and other necessary work. It also puts measures in place to motivate and promote the qualitative improvement of administrative staff members to ensure the effective administration of the university. 4.3 Faculty members incorporate the outcomes of research and development and/or cooperation with industry into education to offer enhanced learning opportunities to the students. 5.1 The university specifies policies on social cooperation and contribution to appropriately share educational and research outcomes of the university with society. Furthermore, it implements specific measures for social cooperation and contribution based on the policies.	
2.3 (1) Enhance the capabilities of faculty, researchers, and students to produce research and innovation, as well as support and promote access to funding sources (2) Allocate sufficient budgets and resources to support the creation of research and innovation.	(1) 3.3 The university clarifies the ideal image of faculty members and the policy for organizing faculty organization. It develops faculty organizations based on this policy to implement educational and research activities by the schools and departments.	

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
	4.1 The university implements systematic and multifaceted Faculty Development (FD) programs to promote the qualitative improvement of faculty members and faculty organization. 4.2 The university recruits, hires and promotes faculty members and evaluates their performance appropriately in accordance with rules and regulations. 4.3 Faculty members incorporate the outcomes of research and development and/or cooperation with industry into education to offer enhanced learning opportunities to the students. (2) 3.8 The university specifies policies for ensuring the environment and conditions for students' learning and educational and research activities by faculty members. Based on such policies, the university must have sufficient school sites and buildings and maintain facilities and equipment necessary for educational and research activities. It must also have a library and systems for providing academic information services and ensure they are functioning appropriately.	
2.4 Promote the integration of research with teaching to enhance research competencies among students.	4.3 Faculty members incorporate the outcomes of research and development and/or cooperation with industry into education to offer enhanced learning opportunities to the students.	
2.5 Establish an efficient management system for research, innovation, and intellectual property, enabling access to research and innovation databases based on the potential of higher education institution clusters. Additionally, create a database of research and innovation outputs from these institutions.	3.8 The university specifies policies for ensuring the environment and conditions for students' learning and educational and research activities by faculty members. Based on such policies, the university must have sufficient school sites and buildings and maintain facilities and equipment necessary for educational and research activities. It must also have a library and systems for providing academic information services and ensure they are functioning appropriately.	

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
2.6 Regulate the adherence to ethical standards in research, quality assurance in research and innovation, and evaluate the impact of the research and innovation outcomes of higher education institutions	3.8 The university specifies policies for ensuring the environment and conditions for students' learning and educational and research activities by faculty members. Based on such policies, the university must have sufficient school sites and buildings and maintain facilities and equipment necessary for educational and research activities. It must also have a library and systems for providing academic information services and ensure they are functioning appropriately.	
2.7 Foster the application of research and innovation for commercial or societal advantages.	4.3 Faculty members incorporate the outcomes of research and development and/or cooperation with industry into education to offer enhanced learning opportunities to the students. 5.1 The university specifies policies on social cooperation and contribution to appropriately share educational and research outcomes of the university with society. Furthermore, it implements specific measures for social cooperation and contribution based on the policies.	
Standard 3: Contribution of Academics to Society		
3.1 Establish policies and directions for academic services and regional development, in line with the expertise and identity of each group of higher education institutions.	5.1 The university specifies policies on social cooperation and contribution to appropriately share educational and research outcomes of the university with society. Furthermore, it implements specific measures for social cooperation and contribution based on the policies.	iJAS is compliant with Thailand's 2022 Higher Education Standards, focusing on contribution of academics to society.
3.2 (1) Oversee the academic service process to ensure transparency and accountability, both for services provided by departments and faculty members, with a focus on (2) outcomes that meet the needs and benefit the community, society, and the country, in line with the expertise and identity of each group of higher education institutions.	(1) 5.1 The university specifies policies on social cooperation and contribution to appropriately share educational and research outcomes of the university with society. Furthermore, it implements specific measures for social cooperation and contribution based on the policies. (2) 2.4 The university appropriately publishes information on educational and research activities, the results of self-studies and self-evaluation, finance and other various activities of the university to achieve accountability to society.	

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
3.3 Promote collaboration among faculty, students, and the community to jointly learn and develop the local area, creating real-life learning experiences and fostering regional development.	4.3 Faculty members incorporate the outcomes of research and development and/or cooperation with industry into education to offer enhanced learning opportunities to the students. 5.1 The university specifies policies on social cooperation and contribution to appropriately share educational and research outcomes of the university with society. Furthermore, it implements specific measures for social cooperation and contribution based on the policies.	
3.4 Promote the integration of academic services with teaching to provide students with learning experiences.	4.3 Faculty members incorporate the outcomes of research and development and/or cooperation with industry into education to offer enhanced learning opportunities to the students.	
Standard 4: Preservation of Arts and Culture		
4.1 Establish policies and directions to promote local and national arts and culture for the preservation, continuation, and dissemination of Thai arts and culture, or for the development, enhancement, and creation of new value, in line with the expertise and identity of the higher education institution.	----------	iJAS **does not** comply with Thailand's 2022 Higher Education Standards regarding the preservation of arts and culture.
4.2 Provide courses in the curriculum and activities that promote knowledge and understanding of the history, arts, culture, and diverse traditions of both local communities and the nation.	----------	
Institutional Management		
1. Management and Administration (A focus on operations to ensure the institution becomes a quality higher education institution)		
1.1 (1) Develop strategies to achieve success in line with the defined vision by formulating and executing a higher education development plan that aligns with the national human resource development strategy, (2) establish an annual action plan that includes the execution of the strategy and mission, (3) implement the plan with efficiency and effectiveness, and (4) establish measurable indicators to accurately assess the outcomes.	(1) 1.1 The university appropriately defines its mission and goals. In addition, it appropriately defines the goals of each school and department in light of the university's mission and goals. 1.3 The university established mid- and long-term plans and other measures with a view to the future of the university, in order to realize its mission and goals, and the goals of each school and department. (2) 6.1 The university specifies policies on the administration of the university as necessary for realizing its mission and goals and the mid- and long-term plans established with a view to the future of the university.	iJAS is compliant with Thailand's 2022 Higher Education Standards, focusing on operations to ensure the institution becomes a quality higher education institution (Management and Administration).

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
	(3) 1.2 The university appropriately specifies its mission and goals and the goals of each school and department in written university rules or other rules equivalent thereof, made known to university staff and students, and made public to society. 6.2 The university must be administered appropriately based on the policies. (4) 1.3 The university established mid- and long-term plans and other measures with a view to the future of the university, in order to realize its mission and goals, and the goals of each school and department.	
1.2 Create a process to engage students and stakeholders in providing feedback to guide the development and enhancement of the higher education institution's operations, ensuring they meet their needs and consistently improve satisfaction for both students and stakeholders.	3.4 The university implements various measures to stimulate students' learning and effectively provide education.	
1.3 Monitor, review, and revise the plan as outlined in (1) to align with changes effectively. This includes collecting, analyzing, and managing data appropriately to support decision-making.	2.5 The university regularly verifies the adequacy of the internal quality assurance system through reviews and evaluation and utilizes the results of such reviews and evaluation to make improvements.	
1.4 Evaluate workforce needs and personnel capabilities, develop an adequate and suitable work environment to effectively achieve the mission, implement a human resource management system that maximizes staff potential, and ensure career stability for employees.	3.8 The university specifies policies for ensuring the environment and conditions for students' learning and educational and research activities by faculty members. Based on such policies, the university must have sufficient school sites and buildings and maintain facilities and equipment necessary for educational and research activities. It must also have a library and systems for providing academic information services and ensure they are functioning appropriately.	
1.5 Outcome monitoring, and implement the improvement plans to enhance results in the following 6 areas:	2.5 The university regularly verifies the adequacy of the internal quality assurance system through reviews and evaluation and utilizes the results of such reviews and evaluation to make improvements.	

Thailand's 2022 Higher Education Standards	International Joint Accreditation Standards (iJAS)	Compliance
a) Student learning outcomes, advancements in research and innovation, academic services in arts and culture, and mission-driven outcomes publicly declared by the higher education institution.	3.5 The university appropriately implements evaluation of students' learning outcomes, granting of credits and awarding of degrees. 3.6 The university appropriately assesses and evaluates learning outcomes as specified in the policy on degree award.	
b) Outcomes in benefiting the local community and society.	2.4 The university appropriately publishes information on educational and research activities, the results of self-studies and self-evaluation, finance and other various activities of the university to achieve accountability to society.	
c) Outcomes in learner and stakeholder satisfaction and engagement.	----------	Recommendation for iJAS to enhance its focus on Teaching & Learning Satisfaction.
d) Outcomes related to personnel, including workforce and capabilities, work environment, job stability, and employee benefits and compensation.	4.2 The university recruits, hires and promotes faculty members and evaluates their performance appropriately in accordance with rules and regulations.	
e) Governance outcomes, including the ability to define its vision, mission, and goals, establish organizational culture and values, govern effectively, and implement strategies.	6.2 The university must be administered appropriately based on the policies.	
f) Financial outcomes, budgeting, and the sustainability or expansion of service recipients. The committee shall publicly release outcome reports in accordance with (5.5) (a), (b), and (c) for general public awareness.	2.4 The university appropriately publishes information on educational and research activities, the results of self-studies and self-evaluation, finance and other various activities of the university to achieve accountability to society.	

Embedding Sustainability Knowledge into Higher Education
The Role of Accreditation and Quality Assurance

Scott G. Blair

Sulitest Impact

Abstract

In the struggle to guide humanity towards addressing the Earth environmental crisis characterized primarily by climate change, declining biosphere integrity, and mass extinction, higher education institutions (HEIs) and the quality assurance (QA) agencies that accredit them have important roles to play. Yet only now and only timidly are they beginning to appreciate how great these roles are—and this only after considerable delay. Upon this premise, this paper traces early efforts to address the challenge of sustainability in higher education, identifies a lack of robust quality assurance guidance on sustainability within accreditation standards, highlights the potential effectiveness of such guidance when explicitly formulated, provides examples of initial efforts to embed sustainability into accreditation indicators, and identifies an innovative instrument that measures student sustainability knowledge, helps effect curricular transformation, and helps demonstrate societal impact to institutional stakeholders such as accreditation commissions and quality assurance agencies.

Keywords: Sustainability, assessment, curriculum, UN Sustainable Development Goals, Sulitest, quality education

Sustainability and Higher Education

Early appeals calling for serious and urgent engagement with the challenge of sustainability by higher education were made over two decades ago and rereading them today in 2026 is a painful reminder of just how much time has been lost.

Higher education institutions bear a profound, moral responsibility to increase the

> awareness, knowledge, skills, and values needed to create a just and sustainable future. Higher education plays a critical but often overlooked role in making this vision a reality. [Yet] it is the people coming out of the world's best colleges and universities that are leading us down the current unhealthy, inequitable, and unsustainable path. (Cortese, 2003, p.16)

The reasons proffered over 20 years ago for inaction remain the same today: the complexity of sustainability issues, that the issues cross disciplinary boundaries jealously guarded by professionals ill-prepared for cooperative efforts and responsive mainly to long-established incentives of tenure and publication gained within very specific disciplinary limits, and that faculty are loathe to challenge common assumptions held both by students and themselves: i.e., that "humans are the dominant species and separate from the rest of nature; resources are free and inexhaustible; the Earth's ecosystems can assimilate all human impacts; technology will solve most of society's problems; all human needs and wants can be met through material means; and individual success is independent of the health and well-being of communities, cultures, and the life support system" provided by a healthy planet (Cortese, 2003, p.17).

The declaration of the 'United Nations Decade of Education for Sustainable Development' (ESD), Resolution 57/254 of 2003 constituted a similar early appeal to infuse sustainability into the ethos and outcomes of higher education via an international movement to green university curriculum. The promise of ESD was grounded in the belief that there had been a growth in awareness that changes to the curriculum for sustainable development must suffuse all of education and the whole of HEI's approach to the external world. And despite identifying similar barriers to curricular change—i.e., lack of funding, perverse subsidies, departmental and disciplinary barriers, ivory-tower teaching traditions, and the persistence of obsolete mindsets—the ESD declaration fostered a sense that higher education was ready to engage earnestly with the growing Earth crisis. As one educator concluded in 2005: "there now seems to be growing agreement that HEIs should equip all their students with 'environmental literacy' and that sustainability should be central to concerns both in HEI curricula and in operational practice." (Haigh, 2007, p.1).

That this transformative change across higher education has not taken place in the last two decades can be attested by the 2023 report *Climate Change Education: A summary of research reviews, assessment instruments, and ways forwards* (ASSA, 2023), published by the Academy of the Social Sciences in Australia. The authors of this report remind us that scientific research has enabled unprecedented advances in our understanding of Earth's climate processes, presenting us with "a clear and reliable view of the changes taking place in our climate, the direction in which those changes could be headed, and the significance

and potential consequences of human activities in initiating, escalating, and reversing those changes." However, the authors continue:

> This paper does not set out to rehearse these findings or to reassert the urgency of addressing them. Its impetus comes instead from the observation that developments in societies' knowledge of climate change have not been matched by our efforts to develop, update, co-ordinate, and disseminate educational initiatives in the general domain of climate, environment, and sustainability. This is despite the extensive efforts of a number of educational associations. The time now seems right to marshal the efforts of researchers in support of the efforts of education systems and teachers to align productive policies and practices with advances in knowledge about the nature and significance of changes in our climate. (ASSA, 2003, p.4)

Twenty years have since passed, and the message remains as unchanged as it is urgent—i.e., that it's time that HEI's start teaching about sustainability in earnest and that accrediting bodies require them to do so as an indicator of quality education.

Sustainability and Accreditation Standards

The inertia of HEI's in the greening of the curriculum, however, is due in part to how little guidance and encouragement they have historically received from the quality assurance profession. As we see below, it is unlikely that HEI's will address the Earth crisis earnestly when quality assurance agencies themselves have not greened their own accreditation standards and indicators, not to mention the definition of what constitutes a quality education on a planet in existential crisis. Using accreditation to get HEI's to engage more earnestly and urgently in greening both curriculum and campus is an action lever as powerful as it is neglected.

Indeed, it is instructive appreciating the extent to which national and international accrediting and quality assurance bodies in higher education—through formal accreditation standards—require or encourage HEI's to address SDG issues and goals as a mark of quality education as described by SDG-4.7.[1)] To gain initial insight into such a question, a simple and intuitive approach presents itself—a word search of quality assurance compliance standards.

1) UN Sustainable Development Goal 4.7 reads: "By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development." The corresponding achievement indicator for SDG-4.7 reads: "Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education and (d) student assessment."

Indeed, by using a selection of major accreditation standards most widely used in higher education today (both institutional and programmatic), we can perform a textual search for key words, concepts, and ideas potentially relatable to major ecological concepts or environmental issues as described in the 17 *UN Sustainable Development Goals*. Key words can be selected for their relevance to the SDGs, to the larger systemic threats to climate stability, as well as to ethical principles that should guide HEI's in defining what constitutes a quality education. To increase the accuracy and reliability of the findings, we should perform word searches only upon language included in formal accreditation standards and indicators, i.e., the only text with which institutions are required to demonstrate compliance. As such, we should exclude auxiliary procedural or promotional text related to the accreditation process or agency profile. Similarly, key words that are found, but whose meaning is clearly non-ecological in intent (e.g., the learning *environment*; a *climate* of collegiality; *sustainable* revenue streams, etc.), can be listed but should not be tallied as positive indicators.

In this spirit, we applied this very method to twenty-four accreditation regimes and oversight bodies located across Europe, the United States, and Africa, and included major oversight agencies such as CHEA (Council for Higher Education Accreditation), INQAAHE (International Network for Quality Assurance Agencies in Higher Education), ENQA (European Association for Quality Assurance in Higher Education) and others. Together, these associations, commissions and QA agencies accredit some 10,000+ HEI's or business programs. The results of this text-based investigation are displayed in Figure 1 and evoke a number of initial remarks. First, while words traditionally used in standard guidelines indicating quality, professionalism, and positive behavior—such as *ethic, responsibility, integrity, impact*, and *social impact*—appear in large numbers, they are not used in the specific context of sustainability or environmental protection. The words *environment* and *sustainability* are used 140+ and 70+ times respectively but only 8 and 15 times respectively as applied to *environmental* sustainability. We note not a single use—ecologically or otherwise—of the word *sustainable/sustainability* in any US accrediting commission that was studied. The couplet *climate change* was found twice, and *global warming* once—both in Europe. The acronym *SDG* was found three times. Most of the remaining words—*energy, PRME, carbon, footprint, planet*, and *waste*—were found only once and only in European contexts.

Admittedly reductive as it is, when using this word-search method as described to gauge the impact accreditation regimes have on HEI's motivation to engage with sustainability and the SDGs via, for example, the greening of curriculum, it certainly appears that institutional accreditation lacks explicit operational engagement with the human-generated climate crisis and imminent collapse of biodiversity. At least on paper, accreditation in higher education

appears both unable and unwilling to exercise significance influence over HEI's in their respective institutional responses to the Earth crisis. As has been seen, sustainability is absent, for example, within standards related to traditional notions of how ethics and integrity are to be demonstrated within higher education. The situation in the US, Africa, and among international and regional oversight bodies is even more egregious than in Europe. In short, engaging with sustainability gains HEI's little in terms of demonstrating compliance with existing standards when applying for institution accreditation and re-accreditation. However, to address the climate crisis seriously and to re-imagine the role colleges, universities, and business schools can and must play in leading societal transformation, HEI leaders require the support, guidance, and validation provided by accrediting and quality assurance agencies.

Accreditation Standards as Levers for Transformative Change in Higher Education

The influence accreditation regimes have upon institutional efforts to integrate sustainability into operational practice is demonstrated in one recent study of how European business schools responded to recent changes in accreditation standards vis-à-vis the concept of social impact (SI). Educators taking part in this study—noting that accreditation agencies in the field: i.e. AACSB (Association to Advance Collegiate Schools of Business), AMBA (Association of MBAs) and EQUIS (EFMD Quality Improvement System) have recently included measures of social impact in their accreditation criteria and certifications—affirm that such measures constitute a strong external driver of institutional change (Godonoga, 2023, Section 4.1, online). Such external pressures for change are mostly normative and coercive, driven by accreditation agencies, governments, and professional networks (such as PRME: Principles for Responsible Management Education), in that order.

> All-in-all, findings show that pressures for SI assessment are both environment- and organisation-driven, and there are elements of a market and a state logic that support it. Externally, norms of accreditations and networks, as well as coercion by state laws and funding agencies are most prominent. Internally, leadership and organisational strategy play a major role. (Godonoga, 2023, Section 4.1, online)

A separate study (Godonoga, 2022) showed the importance of similar institutional pressures vis-à-vis the adoption of social responsibility (SR) practices in universities as another important aspect of institutional accountability and legitimacy.

> Today, universities operate in an institutional environment that increasingly demands SR

> and this includes generating benefits for a wider range of stakeholders. SR is increasingly called for in funding instruments (e.g., *Horizon Europe*), international accreditations (e.g. EQUIS: *The European Quality Improvement System*), global networks (e.g., The Talloires Network of Engaged Universities) and rankings (e.g. *THE Impact Rankings*). (Godonoga, 2022, p.445)

Examples of Effective Sustainability Indicators

What follows are examples of standards and indicators related to sustainability that demonstrate how accreditation agencies complement socially and ecologically engaged university missions by providing "incentives to recognize and reward not only excellent research and teaching but also commitment to SR" (Godonoga, 2022, p.459).

From EFMD-EQUIS (2023):
Summarize the School's commitment to the global environmental protection agenda and any steps the School takes to monitor its carbon footprint and to decarbonize, including the use of digital technologies. (p.77)

From AMBA (2022):
Impact. 4.1 The institution should have a clearly articulated definition of impact, with an authentic and measurable analysis of the way in which the business school and its MBA portfolio make a positive contribution to the sustainable development of individuals, organizations, its immediate ecosystem and wider society. (p.20)

From NECHE—New England Commission of Higher Education (2021):
Information, Physical, and Technological Resources—7.23. Facilities are constructed and maintained in accordance with legal requirements to ensure access, safety, security, and a healthy environment with consideration for environmental and ecological concerns.

From AABS—Association of African Business Schools (2018):
8.1 Program portfolio—Describe how the programs provided contribute to sustainable development of the country and region.

Teaching, Learning, and Assessment Around Sustainability

As we have seen, accreditation and quality assurance agencies electing to embrace sustainability as an indicator of quality education face a significant challenge: how to

imagine quality assurance standards that align to *Sustainable Development Goal* 4.7 specifically and to the 17 SDGs generally. The several examples of accreditation standards and indicators presented above suggest how individual accrediting bodies are starting to take up this challenge. However, what is needed is a larger paradigm shift in the programmatic learning outcomes articulated by academic leadership across higher education—a shift that breaks with business-as-usual teaching and learning practices and commits to building sustainability literacy across the curriculum, campus, and community. To achieve this, a second and related paradigm shift is needed within accreditation and quality assurance—a shift that breaks with validating business-as-usual teaching and learning practices and commits to requiring HEI's to assess sustainability literacy and provide evidence that they are building sustainability knowledge as the key metric of a quality education. Meeting this challenge effectively and urgently is at the heart of the paradigm shift now laboring to take place across accreditation and quality assurance in tertiary education.

A recently developed process for such curricular review and revision, as well as a corresponding instrument for assessing sustainability knowledge, now provide both HEI's and accreditation bodies with practical tools to begin effecting this long-awaited paradigm shift. The Sulitest Impact organization has designed and developed an online tool—*TASK*™ *The Assessment of Sustainability Knowledge* (Stough, 2025) to assess student sustainability knowledge as an incentive and support for articulating a new set of Earth-friendly learning outcomes, to drive corresponding curricular and pedagogical transformation, and to provide HEIs (and their accrediting bodies) with a means to measure and demonstrate meaningful institutional and societal impact (Decamps, 2017, 2021). *TASK*™ is based upon insight and expertise gained since 2014 via the administration of its first assessment tool—the *Sulitest*—to some 350,000+ students across the globe (Mason, 2019). The new 2023 tool called TASK™ is an online, 80-minute, 112-item, multiple-choice, psychometric test measuring the quantity and quality of knowledge about sustainability possessed by test-takers. *TASK*™ issues a certificate to each participant that details the numerical scores and acts as a sustainability micro-credential.

Conclusion

Accreditation and quality assurance processes are potentially well-adapted to helping HEI's lead the transition to a sustainable future if both educational and quality assurance leadership embraces the importance, inevitability, and urgency of effecting a paradigm shift in the ethos and outcomes of higher education as described in this short essay. As indicated in the research literature, two particularly powerful leverage points present themselves.

Full Name	Acronym	Focus	Type	Accredited Members	Standards Version	ethic	responsib	integrity	impact	societal impact	environment	sustainab	climate change	global warming	SDG	energy	PRME	carbon	footprint	planet	waste
Europe				Year 2021																	
EFMD-European Quality Improvement System (European Foundation for Management Development)	EQUIS	Business	Programmatic	197	2023	72/72	40/98	0/5	3/40	0	2/40	6/24	1	0	1	1	1	3	2	0	1
EFMD-Programme Accreditation System	EPAS	Business	Programmatic	100	2023	5/9	4/6	0/2	0	1/2	1/7	4/9	0	0	1	0	1	1	1	1	1
Association of MBAs	AMBA	Business	Programmatic	277	2022	2/2	3/3	1/4	14/26	1/4	1/9	4/10	1	1	0	0	0	0	0	1	0
United States																					
Accreditation Board for Engineering and Technology (BA)	ABET-EAC	STEM	Programmatic	846	2022	1/1	1/1	0	1/1	0	2/3	0	0	0	0	0	0	0	0	0	0
ABET – Applied and Natural Science Accreditation Commission	ABET-ANSAC	Ap/Nat Science	Programmatic	901	2020	2/2	2/4	0	0	0	1/2	0	0	0	0	0	0	0	0	0	0
Association to Advance Collegiate Schools of Business	AACSB	Business	Programmatic	910	2022	0	0	0	4/117	4/53	0/8	0	0	0	1	0	0	0	0	0	0
New England Commission of Higher Education	NECHE	US Regional	Institutional	200	2021	3/9	2/39	30/35	0	0	1/7	0	0	0	0	0	0	0	0	0	0
Accrediting Council for Business Schools and Programs	ACBSP	Business	Programmatic	961	2021	4/4	4/5	0	2/2	0	0/10	0	0	0	0	0	0	0	0	0	0
Higher Learning Commission	HLC	US Regional	Institutional	1200	2020	0/5	1/3	3/5	0	0	0/2	0	0	0	0	0	0	0	0	0	0
Northwest Commission on Colleges and Universities	NWCCU	US Regional	Institutional	156	2020	1/1	0	0/4	0	0	0/5	0	0	0	0	0	0	0	0	0	0
Middle States Commission on Higher Education	MSCHE	US Regional	Institutional	600	2023	0/9	0/14	2/5	0	0	0/1	0	0	0	0	0	0	0	0	0	0
WASC Senior College and University Commission	WSCUC	US Regional	Institutional	221	2022	0	1/4	2/2	0	0	0	0	0	0	0	0	0	0	0	0	0
Southern Association of Colleges & Schools Commission on Colleges	SACSCOC	US Regional	Institutional	780	2017	0	0/17	5/12	0	0	0/5	0	0	0	0	0	0	0	0	0	0
Accrediting Commission for Community and Junior Colleges	ACCJC	US Regional	2-yr Institutional	137	2014	4/4	1/8	16/22	0	0	0/2	0	0	0	0	0	0	0	0	0	0
Accrediting Commission of Career Schools and Colleges	ACCSC	Prof Education	Non-degree	650	2022	0	0	0	0	0	0/8	0	0	0	0	0	0	0	0	0	0
International / Regional																					
Association of African Business Schools	AABS	Business	Institutional	28	2018	12/13	13/13	2/2	0/35	0	0/28	1/28	0	0	0	0	0	0	0	0	0
African Standards and Guidelines for Quality Assurance in Higher Ed. ASG-QA — Internal Quality Assurance (A) (pp.13-26)	IQA	Institutional	Institutional	0	2018	4/4	4/11	2/6	0	0	0/2	0	0	0	0	0	0	0	0	0	0
International Accreditation Council for Business Education	IACBE	Business	Programmatic	2075	2022	2/2	2/2	1/1	0	0	0/2	0	0	0	0	0	0	0	0	0	0
African Standards and Guidelines for Quality Assurance in Higher Ed. ASG-QA — External Quality Assurance (B) (pp.27-31)	EQU	Institutional	Institutional	0	2018	0	0/3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oversight Agencies																					
CHEA Standadrds of Recognition (2021)	CHEA	Oversight	General	62	2021	1/0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Department of Education	DOE	Oversight	General	37	2020	0	3/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
International Network for Quality Assurance Agencies in Higher Ed.	INQAAHE	Oversight	General	191	2022	0/1	0/12	0/3	0	0	0/1	0/4	0	0	0	0	0	0	0	0	0
European Network for Quality Assurance	ENQA	Oversight	General	54	2015	0	0/1	0/1	0	0	0	0	0	0	0	0	0	0	0	0	0
ASG-QA — Quality Assurance Agency (C.) (pp.32-37)	QUU	Oversight	General	0	2018	3/3	0/3	5/5	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 1: Results of word search for sustainability concepts and issues within selected accreditation standards and indicators, by author.

First, the reform of accreditation standards requires that sustainability be embedded across all existing standards—not as a "stand-alone" sustainability standard or silo. A sustainable world requires a systemic and holistic approach. Stakeholders should embed sustainability thinking into all areas that accreditation normally evaluates, i.e., the vision-mission-values statement, student learning-development-achievement, instructional design-delivery-assessment, student support services, leadership-governance-administration, facilities-safety-maintenance, quality assurance-institutional effectiveness, and ethics-institutional integrity. Second, the accreditation profession must recognize that little will change without prescriptive standards and indicators. If ever there was a time in Earth history to be prescriptive in what constitutes good practice and quality in higher education, it is now. Just as our collective survival as a species requires that we prescribe to ourselves a very different way to think, to value, to be, and to behave, so too must accreditation professionals embrace the responsibility to speak and prescribe truth to the HEIs that educate our species. What HEI's and accreditation bodies have been doing to date in terms of defining, delivering, and demonstrating "quality education" not only hasn't worked; it is causing the very problems we face—a society driving over-consumption, systemic pollution, the destruction of nature, and the desecration of our beautiful and fragile blue-green home—planet Earth.

Finally, higher education professionals and their many quality assurance stakeholders must also act with conviction and urgency. H.G. Wells characterized civilization as a race between education and catastrophe. By revising and rewriting accreditation standards in line with the SDGs and the building of a sustainable and just society, accreditation professionals change the rules of the race in ways that favor the survival of civilization. That truly would be a quality education.

References

Academy of the Social Sciences in Australia (2023). *Climate Change Education*. Canberra, Australia. ISBN: 978-0-908290-11-6 (online) https://socialsciences.org.au/publications/climate-change-education/

Cortese, Anthony D. "The critical role of higher education in creating a sustainable future." *Planning for higher education* 31, no. 3 (2003): 15-22. https://www.redcampussustentable.cl/wp-content/uploads/2022/07/6-CorteseCriticalRoleOfHE.pdf

Décamps, Aurélien, Oihab Allal-Chérif, and Anne Gombault (2021), "Fostering Knowledge of the Sustainable Development Goals in Universities: The Case of Sulitest" *Sustainability* Vol. 13, No. 23. https://doi.org/10.3390/su132313215

Décamps, Aurélien, Guillaume Barbat, Jean-Christophe Carteron, Victoria Hands, Carole Parkes (2017), "Sulitest: A collaborative initiative to support and assess sustainability literacy in higher education." *The International Journal of Management Education*, Volume 15, Issue 2, Part B, pp. 138-152. https://doi.org/10.1016/j.ijme.2017.02.006

Godonoga, A., & Sporn, B. (2022). The conceptualisation of socially responsible universities in higher education

research: a systematic literature review. *Studies in Higher Education*, 48(3), 445–459. https://doi.org/10.1080/03075079.2022.2145462

Godonoga, A., Sporn, B., & Reidl, K. (2023). Walking the talk: organising for social impact through performance management in European business schools. *European Journal of Higher Education*, 14(4), 621–640. https://doi.org/10.1080/21568235.2023.2255398

Haigh, M. (2005). Greening the University Curriculum: Appraising an International Movement. *Journal of Geography in Higher Education*, 29(1), 31–48. https://doi.org/10.1080/03098260500030355

Mason, A.M. (2019). "Sulitest®: A mixed-method, pilot study of assessment impacts on undergraduate sustainability-related learning and motivation". *Journal of Sustainability Education*, Vol. 20. ISSN: 2151-7452 https://digitalcommons.pittstate.edu/communication_faculty/8/

Talia Stough, Alexander Brewer, Aurélien Decamps, Scott Blair, Wim Lambrechts, Estela Castelli Florino Pilz, Marjolein C.J. Caniëls, Jean-Christophe Carteron (2025), "Towards valid and reliable measurement of sustainability knowledge". *Journal of Cleaner Production*, Volume 529. https://doi.org/10.1016/j.jclepro.2025.146762

Quality Assurance as a Catalyst for Achieving SDGs in Higher Education

Cary Y.L. Chou and Veronica Y.C. Huang

Taiwan Assessment and Evaluation Association (TWAEA)

Abstract

This study explores how quality assurance (QA) mechanisms serve as catalysts for advancing the United Nations Sustainable Development Goals (SDGs) within Taiwan's higher education institutions (HEIs). In 2023, the Taiwan Assessment and Evaluation Association (TWAEA) conducted a national survey to assess the current status of SDG integration across HEIs. The findings underscore the strategic role of institutional leadership, dedicated SDG units, and sustainability offices in driving progress. While most HEIs recognize the importance of SDGs—particularly SDG 4 (Quality Education)—challenges such as limited awareness, resource constraints, and inadequate policy support persist. This paper provides data-driven insights into institutional motivations, priority SDGs, and ease of alignment, offering recommendations for more effective integration of sustainable development principles into institutional practices and governance structures.

Keywords: Quality assurance, Sustainable Development Goals (SDGs), Institutional effectiveness, Sustainability governance

1. Introduction

Commissioned by the Ministry of Education in Taiwan, the Taiwan Assessment and Evaluation Association (TWAEA) has conducted the 2024–2028 academic year evaluation of technical universities. This evaluation integrates four key components, with a particular emphasis on "Strategies for Enhancing Institutional Effectiveness." Central to this approach is the alignment with University Social Responsibility (USR) and the United Nations Sustainable Development Goals (SDGs). Higher Education Institutions (HEIs) are thus required to develop and operate governance mechanisms that address social and

environmental issues through rigorous research and analysis.

TWAEA, established to advance assessment standards and internal quality assurance (QA) in Taiwan, conducted a nationwide survey in May 2023. This initiative aimed to gauge the implementation status of SDGs across HEIs, strengthen quality assurance methodologies related to sustainability, and explore the potential for developing a standardized sustainability report evaluation mechanism.

2. Survey on the Implementation of SDGs in HEIs

Responses were collected from 119 HEIs, comprising 54 general universities and 65 technical colleges. Most respondents were senior administrators or heads of SDG-related departments. The findings underscore the pivotal role of institutional leadership, particularly university presidents, in promoting sustainability. The establishment of dedicated SDG units and the operation of sustainability offices were also found to be critical enablers.

The progress of SDG mapping in curricula and industry-academic research projects varies across HEIs. While some institutions have completed a comprehensive assessment, more than 30% have yet to begin. Moving forward, HEIs should enhance SDG integration into curricula and research projects and establish a systematic evaluation mechanism to improve the effectiveness of SDG implementation.

Moreover, 57.1% of HEIs have not yet published sustainability reports, but most of those that have started doing so in recent years, with 84.3% publishing them annually, indicating that the sustainability reporting system is gradually maturing. However, the allocation of dedicated personnel for SDG-related tasks remains generally insufficient across HEIs.

3. Motivations for Promoting SDGs in Higher Education

Table 1 outlines institutional motivations for engaging with SDGs. The top four drivers—with mean scores above 4.5—include demonstrating university social responsibility, guiding students' understanding of SDGs, responding to global and societal trends, and showcasing institutional performance.

Table 1: Objectives Behind HEIs' Promotion of SDGs

Item	N	Mean	Standard Deviation
Q1 Display university social responsibility	119	4.87	0.358
Q2 Enhance university reputation	119	4.32	0.758
Q3 Demonstrate institutional performance	119	4.50	0.609
Q4 Benefit student recruitment and publicity	119	4.03	0.906

Item	N	Mean	Standard Deviation
Q5 Strengthen SDG-related research	119	4.28	0.791
Q6 Attract faculty and students with social responsibility and SDG awareness	119	4.22	0.875
Q7 Guide students to understand SDGs and expand their impact	119	4.69	0.593
Q8 Align with international standards and enhance university competitiveness	119	4.48	0.675
Q9 Participate in QS or THE world university rankings	119	3.94	1.099
Q10 Comply with government regulations and project requirements	119	4.16	0.930
Q11 Evaluate administrative processes	119	3.94	0.886
Q12 Risk management and control	118	3.94	0.860
Q13 Respond to social trends and global developments	118	4.56	0.621

These motivations reflect a broader strategic alignment of SDG activities with educational impact, institutional visibility, and global engagement.

4. Key SDG Areas of Responsibility

Table 2 presents the SDGs that HEIs identify as key areas of responsibility. SDG 4 (Quality Education) ranks highest, with 96.6% of institutions acknowledging it as a core focus, followed by SDG 8 (Decent Work and Economic Growth), SDG 17 (Partnerships for the Goals), and SDGs 5 and 10 (Gender Equality and Reduced Inequalities).

Table 2: SDGs Most Frequently Targeted by HEIs

Category	Institutions (N)	Percentage
SDG 1 No Poverty	14	11.8%
SDG 2 Zero Hunger	5	4.2%
SDG 3 Good Health and Well-Being	48	40.3%
SDG 4 Quality Education	115	96.6%
SDG 5 Gender Equality	49	41.2%
SDG 6 Clean Water and Sanitation	9	7.6%
SDG 7 Affordable and Clean Energy	19	16.0%
SDG 8 Decent Work and Economic Growth	61	51.3%
SDG 9 Industry, Innovation, and Infrastructure	38	31.9%
SDG 10 Reduced Inequalities	49	41.2%
SDG 11 Sustainable Cities and Communities	44	37.0%
SDG 12 Responsible Consumption and Production	19	16.0%
SDG 13 Climate Action	28	23.5%
SDG 14 Life Below Water	4	3.4%
SDG 15 Life on Land	6	5.0%
SDG 16 Peace, Justice, and Strong Institutions	11	9.2%
SDG 17 Partnerships for the Goals	54	45.4%

This data highlights a concentrated effort in educational quality, workforce preparedness, and societal equity.

5. Institutional Alignment with SDGs

Table 3 details the SDGs HEIs believe they can most readily align with. SDG 4 (Quality Education) again tops the list, followed by SDGs 3 (Good Health and Well-Being), 8 (Decent Work and Economic Growth), 5 (Gender Equality), and 11 (Sustainable Cities and Communities).

Table 3: SDGs Most Easily Integrated by HEIs

Category	Institutions (N)	Percentage
SDG 1 No Poverty	10	8.4%
SDG 2 Zero Hunger	10	8.4%
SDG 3 Good Health and Well-Being	55	46.2%
SDG 4 Quality Education	107	89.9%
SDG 5 Gender Equality	44	37.0%
SDG 6 Clean Water and Sanitation	14	11.8%
SDG 7 Affordable and Clean Energy	19	16.0%
SDG 8 Decent Work and Economic Growth	55	46.2%
SDG 9 Industry, Innovation, and Infrastructure	40	33.6%
SDG 10 Reduced Inequalities	40	33.6%
SDG 11 Sustainable Cities and Communities	44	37.0%
SDG 12 Responsible Consumption and Production	21	17.6%
SDG 13 Climate Action	14	11.8%
SDG 14 Life Below Water	8	6.7%
SDG 15 Life on Land	9	7.6%
SDG 16 Peace, Justice, and Strong Institutions	12	10.1%
SDG 17 Partnerships for the Goals	39	32.8%

This reveals a strong institutional readiness to support quality education, health initiatives, and community sustainability.

6. Challenges and Future Prospects

While progress is evident, significant challenges persist. Key barriers include:

- Limited institutional awareness of SDGs (65.0%)
- Insufficient resources for implementation (50.4%)
- Inadequate policy support from government bodies (24.8%)

Addressing these gaps is essential for enhancing the depth and impact of SDG

integration in higher education. HEIs are encouraged to foster a campus-wide culture of sustainability, improve policy alignment, and secure dedicated resources for long-term success.

7. Conclusion

The integration of SDGs into Taiwan's higher education landscape is gradually taking shape, with increasing institutional awareness and participation. The survey findings highlight that HEIs are strongly aligned with goals such as quality education, economic development, and gender equality, reinforcing the sector's commitment to social responsibility and sustainable progress.

However, systemic challenges—including insufficient internal capacity, funding limitations, and lack of cohesive government policy—pose significant barriers to deeper and more comprehensive SDG adoption. Addressing these barriers will require coordinated efforts among stakeholders, including educational institutions, government agencies, and external partners.

As quality assurance frameworks continue to evolve, they hold significant potential to embed sustainability into the fabric of higher education. TWAEA's ongoing initiatives aim to not only assess but also empower institutions to turn SDG commitments into measurable outcomes. Through strategic planning, robust evaluation, and collaborative learning, HEIs in Taiwan can lead transformative change in pursuit of a sustainable future.

Micro-credentials from Design to Assurance: Strengthening Institutional Capacity in Latin America and the Caribbean

Anna Prades[1], Susanna Karakhanyan[2] and Ariana De Vincenzi[3]

[1]AQU Catalunya, [2]Global Tertiary Education Expert, [3]Rector's Network of Privates Universities

Abstract

This paper presents the outcomes of an international capacity-building initiative developed by INQAAHE, in collaboration with REALCUP, aimed at strengthening higher education leaders across Latin America and the Caribbean in the design, implementation, and quality assurance of micro-credentials. Engaging 104 participants from 75 universities in 13 countries, the programme deployed a highly innovative and interactive teaching and learning approach that combined a flipped-classroom model with skills-based learning, capstone projects culminating in a portfolio, authentic assessment, and rubric-guided self, peer, and facilitator assessment within a structured blend of synchronous and asynchronous activities. Evidence from surveys, capstone projects evaluations based on predefined rubrics, and facilitator feedback indicates that the initiative enhanced institutional capacity in the design of micro-credentials in line with strategic objectives and labour market needs and supported by robust quality assurance solutions. The programme demonstrates how international collaboration, grounded in contextual adaptation, can promote innovation and trust in embedding innovative solutions (e.g., micro-credentials) across diverse higher education systems.

Keywords: micro-credentials, quality assurance, international collaboration, higher education, Latin America, capacity building

1. Introduction

As higher education institutions navigate new prospects to meet ever-changing societal and labour market demands, **micro-credentials** have emerged as a flexible, learner-centred response to the need for *lifelong learning, employability, and relevance*. Their potential to

connect formal, non-formal, and professional learning pathways has positioned them as a key innovation in tertiary education policy and practice worldwide (Iucu et al. 2021; OECD 2023). Furthermore, micro-credentials, when recognised within formal education, might offer a more accessible way for a diverse group of learners to acquire qualifications (UNESCO 2022, 16). Further research supports that flexible learning pathways are particularly important to disadvantaged learners (Martin, Michaela and Furiv, Uliana 2022) and thus, have a potential to advance the equity agenda (Oliver, Beverly 2022, 6).

However, for the micro-credentials to succeed, their value must be clear for its diverse stakeholders: a shared understanding of what they are and what they are not, a clear QA framework to ensure they are credible and trustworthy, and critical and unique features ensuring their stackability, portability and interoperability are crucial to support flexible learning pathways. For this reason, the **credibility and recognition** of micro-credentials depend largely on Quality Assurance (QA) frameworks capable of addressing their unique nature (Council of the European Union 2022; Cirlan, Elena 2023). Recent research and practices suggest, however, that this area is still in its emergence phase: institutional approaches to QA of micro-credentials are still relatively new and largely invisible in publicly available documentation (Brown and Duart 2024, 15).

In Latin America and the Caribbean (LAC), universities are increasingly exploring micro-credentials as a solution for bridging the skills gap, yet institutional expertise in the design, implementation and QA of Micro-credentials is still emergent, partially also due to the regional QA mechanisms, which remain uneven (Gutovic, Vanja and Xia, Tiantian 2025). In this context, the *International Network for Quality Assurance Agencies in Higher Education* (INQAAHE)[1] and the Latin American and Caribbean Network of Associations of Private Universities (REALCUP)[2] partnered to design a joint bespoke capacity-building program addressed to the leaders in HE in LAC. Its goal was to empower higher education leaders in the development, implementation, and quality assurance of micro-credentials aligned with institutional and socio-economic needs.

This paper presents the design, implementation, and outcomes of this collaborative project, highlighting evidence from surveys and evaluations that demonstrate its success as a model for *international cooperation* in higher education in Latin America and the Caribbean.

2. The Collaborative Framework

The programme was developed by INQAAHE, a worldwide network of more than 300

1) Access to the website for more information about the scope of the network: www. Inqaahe.org

2) Access to the website for more information about the scope of the network: www.realcup.org

members that promotes quality assurance practices across all continents in collaboration with REALCUP, which advances the development of quality assurance in higher education through 16 associations of private universities from 13 countries in the LAC region. The collaboration was formalised through a Memorandum of Understanding (MoU), ensuring joint governance, shared resources, and mutual recognition of certification.

The target audience included institutional leaders—rectors, vice-rectors, curriculum directors, and QA coordinators—representing 75 universities from 13 countries. The programme's objective was to build institutional and individual capacity to design micro-credentials that are credible, relevant, and portable across educational systems.

By embedding QA principles into the design of the programme itself, the collaboration aimed to ensure that the new micro-credentials are developed with sound quality foundations, thereby strengthening confidence in their value and legitimacy from the outset.

Beyond technical training, the initiative fostered peer learning and regional collaboration, creating a community of practice among participating institutions. By integrating diverse cultural and institutional perspectives, the partnership exemplified how international collaboration can generate contextually adapted QA approaches for emerging credentials.

At the same time, several challenges and limitations should be acknowledged. The programme took place in a rapidly evolving sociopolitical and technological landscape, which requires ongoing updates to content and case studies. The maturity level of participant institutions with respect to micro-credentials and QA varied significantly. In addition, this study is based on immediate post-programme evidence; longitudinal research is needed to assess to what extent the designed micro-credential strategies are implemented, sustained and recognised over time. Future work could also analyse the programme against existing maturity models for micro-credentials providers (Iatrellis et al. 2024), in order to more precisely situate institutional progress.

Despite these limitations, the convergence of evidence from learner surveys, facilitator feedback, and rubric-based assessment provides a robust basis for arguing that the programme contributed to strengthening institutional capacity and trust in micro-credentials across diverse higher education systems in Latin America and the Caribbean.

3. The Teaching and Learning Approach

3.1 The Interactive Learning Model

The programme adopted an interactive methodology centred on participants' engagement and a *flipped classroom* model. Learning was structured in three sequential modules, each lasting four weeks and combining asynchronous and synchronous components. A learning management system (LMS) was used to support the planning and management of all

synchronous and asynchronous activities. The core logic of the training was built on the concept of *learning through doing*, hence culminating in a hands-on solution in the form of a complete design of a micro-credential with all its unique features ensuring trust, credibility and portability.

- **Week 1 – Asynchronous learning**: Participants engaged in independent learning through readings, videos, and collaborative forums.
- **Week 2 – Synchronous session**: Facilitators led interactive discussions and case-based group exercises.
- **Week 3 – Asynchronous collaboration**: Teams designed institutional projects, such as micro-credential strategies or QA frameworks.
- **Week 4 – Synchronous feedback**: Sessions focused on reflection, synthesis, and application to participants' contexts.

3.2 The Assessment framework: Ten-dimensional evaluation rubrics

The assessment methodology was purpose-built to support *learning through doing*, hence both **formative and summative methods were deployed**. Progressive feedback was provided throughout the programme via the digital platform. Participants, working in groups of three, developed their micro-credential projects across the three modules. The final assessment considered the ongoing feedback and was based on the group submission addressing the three required components: a) an institutional micro-credential strategy; b) design of an actual micro-credential based on the market skill gap identified at the outset of the programme; c) a quality assurance framework with indicators and monitoring mechanisms.

To ensure coherent guidance for both learning and assessment, the programme facilitator team co-designed a ten-dimensional analytic rubric to evaluate the teams' achievement of the learning outcomes (LOs) in the form of an actual real-world micro-credential with its unique features. Each dimension was rated on a four-level scale (from level 1 = emerging to level 4 = exemplary). The rubric served a dual purpose: a) it made expectations transparent for the learners, who used it for self-assessment prior to receiving feedback; and b) it provided a structured framework for facilitator evaluation of final projects, aligned with key quality dimensions for micro-credentials. Table 1 summarises the ten components of the rubric.

To illustrate the structure and level of detail of the rubric, Table 2 presents the four performance levels for one of the key dimensions: Value proposition for learners.

Beyond their use in assessment, the rubrics functioned as a guiding framework for the programme. Their explicit and shared criteria modelled the transparency that should characterise robust micro-credential design and institutional strategy development.

Table 1: Overview of the ten rubric dimensions used to assess institutional micro-credential projects

Component	Focus of the dimension
1. Institutional alignment and vision	Alignment of the micro-credential strategy with the institution's mission, priorities, and strategic goals.
2. Alignment with the labour market	Use of labour market data, stakeholder engagement, and relevance of the micro-credential type and target audience.
3. Value proposition for learners	Clarity and depth of the benefits and costs for learners, and alignment with diverse learner needs.
4. Innovation and impact	Degree of innovation and potential impact on learners, the institution, and the wider educational landscape.
5. Micro-credential design	Learner-centred design with LOs defined as standalone skills and competencies that support valid assessment and offer a clear value proposition aligned with industry/discipline requirements.
6. Process development	Robustness of the methodology: clearly defined stakeholder roles, constructive alignment of LOs, content, teaching approaches, and authentic assessments that foster active learning.
7. Modes of delivery and recognition	Flexibility of delivery and robustness of recognition, stackability, portability, and interoperability.
8. Policy quality	Clarity, structure, and feasibility of institutional policy for micro-credentials.
9. Internal quality assurance processes	Identification and definition of internal QA processes for micro-credentials.
10. Self-assessment report	Quality of evidence-based self-evaluation and critical reflection on strengths and weaknesses of the micro-credential, and corresponding improvements.

Table 2: Example of the four-level rubric for the "Value proposition for learners" component

Level	Descriptor
4	The proposal clearly articulates the value proposition of micro-credentials from a learner-centred perspective, comprehensively addressing both the benefits (outcomes, certification, career advancement, etc.) and the costs (time, financial effort). The types of micro-credentials offered are well aligned with the diverse needs and aspirations of learners, ensuring relevance, accessibility, and explicit paths for the achievement of LOs.
3	The proposal demonstrates a good understanding of learner needs and expectations, with micro-credentials aligned with those needs. However, the benefits or the specific ways in which micro-credentials address the diverse demands of learners need to be defined in more detail. Costs and outcomes are mentioned, but they are not fully developed.
2	The proposal lacks depth or specificity with respect to the needs of learners. The types of micro-credentials offered are not clearly justified in relation to learner demands, and there is limited information on the benefits or costs to learners. The alignment between the offering and learner needs is superficial.
1	The proposal does not demonstrate an understanding of learners' needs. The proposal is disconnected from learner demands, and the value proposition, including benefits and costs, is absent or poorly defined. The types of micro-credentials are not aligned with learner expectations.

Finally, certificates to those participants who achieved the LOs were issued by INQAAHE through a digital certification platform that uses blockchain technology, ensuring transparency, authenticity and security. Each certificate includes the participants' portfolio and project artefacts embedded as verifiable NFTs (non-fungible tokens), which provide tamper-proof, traceable evidence of their work.

3.3 The Portfolio as an Authentic and Integrated Assessment

The portfolio constituted the main learning product of the programme and served as an authentic assessment, requiring participants to apply their knowledge and skills to generate real, context-specific institutional solutions. It provided the primary evidence of achievement across the learning outcomes of the three modules: (1) understanding the potential and institutional relevance of micro-credentials, (2) designing credible and portable micro-credentials, and (3) establishing internal and external quality assurance processes.

Each module concluded with a portfolio submission that combined: (a) a team-produced artefact assessed with the corresponding rubric, (b) a self-assessment, and (c) written feedback from the facilitators. These iterative cycles of production, reflection, and improvement enabled teams to strengthen their work feeding into a final portfolio.

The final integrated portfolio brought together three required components: (1) an institutional micro-credential strategy, (2) the design of a micro-credential based on an identified skills gap and its delivery plan, and (3) an internal quality assurance policy and process framework. The ten-dimensional rubric ensured coherence across components and transparency in the evaluation.

As a cumulative and practice-oriented demonstration of learning, the portfolio represented the core outcome of the programme. For this reason, it was embedded in the digital certificates **as a verifiable artefact, highlighting its relevance and authenticity**.

4. Methodology

The object of analysis is defined as the degree to which the programme is designed to build on the capacity of HE leaders in the design, implementation and QA of micro-credentials. Two sources of evidence were used to carry out the analysis: learner surveys, and the narrative feedback that learners received from facilitators at different stages of the programme.

As far as the learners are concerned, the total population is 104 learners to whom the questionnaire was sent, with a sample of 72, which represents a 69% response rate and a sampling error of 6.4%. Responses were collected on a Likert scale from 1 to 5 (1 = lowest, 5 = highest). These responses have been dichotomised to Satisfied (4 and 5), vs Not Satisfied (1-3), using SPSS.

Table 3: Population and sample

	Population	Sample	Response rate	Sampling error
Total	104	72	69.2%	6.4%

Regarding facilitator feedback throughout the entire programme, a total of 32 feedback reports (one per group of three participants) were analysed. The qualitative analysis of facilitator feedback was conducted using Atlas.ti applying thematic coding approach based on the rubric dimensions.

In the following section, we present evidence from these surveys and facilitator feedback from project evaluations.

5. Findings and Evidence of Impact

5.1 Participant Engagement and Evaluation

Figure 1 presents the results of the learner survey items directly related to the achievement of LOs. As described in the Methodology section, these items were dichotomised to facilitate interpretation.

Across the six items analysed, the proportion of learners satisfied with the programme's contribution to LOs' achievement is consistently high, ranging from 89 % to 94.5 % . The highest levels of satisfaction correspond to the alignment of activities with the LOs and the support provided by synchronous and digital learning resources. Together, these results indicate a strong perceived contribution of the programme's andragogical design – activities, resources, and peer learning- to the achievement of intended LOs.

These consistently high satisfaction rates suggest that participants perceived the micro-credential programme as a reliable and coherent learning experience, which is a key foundation for trust in the resulting credentials.

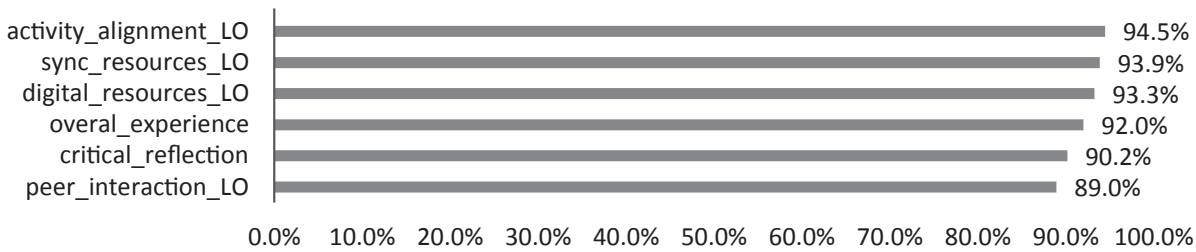


Figure 1: Percentage of learners reporting satisfaction with items related to the achievement of LOs, presented in descending order[3)].

3) Items correspond to the following questions: 1) activity_alignment_LO: Were the proposed activities algned with the LO?: 2) sync_resources_LO: Did the contents and resources presented in the synchronous sessions facilitate the achivement of the LO?; 3) digital_resources_LO: Did the contents and resources available on the digital platform facilitate the achievement of the learning outcomes?, 4) overall_experience: How would you rate your overall experience in the course?; 5) critical_reflection: Were critical reflection processes enouraged through the activities?; 6) peer_interaction_LO: Did interaction with peers support the achivement of LO?

5.2 Facilitator Evaluation of the Final Projects

The programme facilitators applied the ten-dimensional rubrics to assess institutional projects, ensuring alignment between design, implementation, and QA standards. Overall, participants achieved strong performance across all criteria, particularly in innovation, institutional alignment, and QA processes.

The systematic use of a ten-dimensional rubrics reinforces the reliability of these judgements and contributes to a more transparent and trust-enhancing QA culture around micro-credentials.

These findings confirm that not only did the participants master the LOs, but they also produced institutional tools with the potential for real-world implementation.

5.3 Broader Outcomes: the value added of the programme

As a value added, the programme fostered cultural and professional integration among university authorities across the region, leading to collaborative agreements for the development of 32 micro-credential projects involving 75 universities from 13 countries. These projects are distinguished by their comprehensive institutional approach, which includes a governance structure and policy framework to ensure feasibility and sustainability; a quality assurance model for micro-credentials; strategies for alignment with labour-market

Table 4: Summary of facilitators' feedback by rubric component

Component	Main Strengths	Recommendations for Improvement
Institutional Alignment & Vision	Integration with institutional innovation strategies.	Provide explicit evidence of institutional support.
Labour Market Alignment	Use of contextual data and labour trends.	Incorporate up-to-date market data and measurable indicators.
Value Proposition for Learners	Clear articulation of benefits, employability focus.	Add self-assessment tools for learners.
Innovation & Impact	Integration of new technologies and relevant topics.	Define indicators for social/professional impact.
Micro-credential Design	Coherent alignment of outcomes and assessments.	Add entry-level outcomes for diverse audiences.
Process Development	Contextualized learning methods and practice links.	Clarify stakeholder roles and responsibilities.
Delivery & Recognition Modalities	Adaptability and inter-institutional recognition.	Define credit equivalence and workload.
Quality Policy	QA policy design aligned with international standards.	Include employability tracking and content review cycles.
Quality Assurance Processes	Comprehensive QA from design to certification.	Add benchmarking and flexibility mechanisms.
Self-Assessment Report	Evidence-based reflection and structured analysis.	Include accessibility and inclusion considerations.

needs; and robust assessment designs for short learning programmes linked to micro-credentials.

This collaborative approach also strengthened **trust networks** among HEIs, paving the way for future regional initiatives and mutual recognition of micro-credentials. The programme has been identified by UNESCO IESALC in its 2025 working paper as one of the regional capacity-development initiatives, underscoring its relevance for advancing the design, implementation, and quality assurance of micro-credentials in higher education (Gutovic, Vanja and Xia, Tiantian 2025, 22).

These broader outcomes suggest that the programme's impact extends beyond individual learning, contributing to regional ecosystems of trust and potential mutual recognition in micro-credentials.

6. Discussion

The findings of this study show that a bespoke, well thought-through design of a capacity-building programme can contribute not only to participants' learning, but also to building trust in micro-credentials. In this sense, the learner survey data, the rubric-based evaluation of team projects, and the shared assessment framework operate as complementary forms of evidence.

First, the learner survey results indicate that participants perceived a strong contribution of the programme to the achievement of the intended LOs. This is particularly relevant for micro-credentials, where doubts often arise regarding the depth and reliability of learning: participants' perception of their achievement of the intended outcomes reinforces the idea that the resulting micro-credential is academically credible.

Second, the rubric-based evaluation of final projects provides convergent evidence from the facilitator perspective. The facilitators concluded that participants achieved strong performance across all criteria, with strengths in innovation, complete design of a micro-credential, institutional alignment, and QA processes. The projects did not remain at the hypothetical level only, rather they incorporated real-life and relevant QA policies, stakeholder engagement strategies, and mechanisms for monitoring and continuous improvement. This indicates that participants were able to translate conceptual knowledge into hands-on institutional tools that can realistically be implemented in their universities.

These two strands of evidence are anchored in a third element: the role of the shared rubrics as a core quality assurance mechanism. From the outset, the rubrics were made available to participants, who were required to complete self-assessment before receiving facilitator feedback on the same set of rubrics. This approach had several effects. First, it promoted self-regulation, reflection, and clarity of expectations, reinforcing participants'

understanding of what "quality" means in the context of micro-credentials. Second, the rubrics provided a structured model for conceptualising micro-credentials, articulating dimensions such as institutional alignment, labour market relevance, learner value and innovation in a way that can be adapted to different contexts. Third, the rubrics functioned as both an assessment tool and a reference framework for QA in micro-credentials. In this sense, the rubrics play a central role in addressing the three conditions identified by Oliver as essential for making micro-credentials work: building trust, adding value, and achieving sustainability (Oliver 2019). By incorporating components related to design quality, delivery processes, and institutional QA mechanisms, the rubric strengthened trust in the credibility of the resulting micro-credentials. Elements such as labour market alignment and the value proposition for learners reinforce the added value of the micro-credential. Last, but not least, the criteria related to institutional alignment and the development of a micro-credential strategy have become firm foundations for sustainability, ensuring that micro-credentials are embedded within the institution's long-term vision and operational structures.

7. Conclusions and Recommendations

This international collaborative initiative developed by INQAAHE in collaboration with REALCUP demonstrates that a robust design of a capacity building programme can ensure both participants' achievement of LOs while also contributing to the credibility and trustworthiness of micro-credentials at institutional and regional levels. It highlights how international and regional partnerships can serve as powerful catalysts for educational innovation, especially in contexts where systemic support for micro-credentials is still emerging. The key success factor was the integration of global expertise with regional relevance. While INQAAHE brought an established framework for quality assurance in higher education, REALCUP ensured that the design and implementation of the training responded to the specific institutional realities and policy environments of Latin American and Caribbean universities. This hybrid model exemplifies *glocalization* - adaptation of global principles to local contexts. The collaborative design of 32 institutional projects by international teams from 75 universities in 13 countries, fostered a regional community of practice, building horizontal trust among institutions.

Three major insights emerge from this experience. First, collaboration enhances credibility and contextualisation. The joint INQAAHE–REALCUP model balanced global QA principles with local institutional and cultural needs, ensuring both rigor and relevance. Furthermore, collaborative learning fostered a regional community of action with potential the longer term, for broader policy impact (alliances between universities, recognition agreements, etc.).

Secondly, shared rubrics and transparent assessment foster trust in micro-credentials. By making the rubrics explicit, using them for both self-assessment and facilitator evaluation and aligning them with key dimensions of micro-credential quality (institutional alignment, labour market relevance, learner value proposition, innovation, QA), the programme offered a clear communicable standard of what a "good" micro-credential looks like. Furthermore, the innovative teaching and learning approach, with flipped classroom, collaborative projects, self-assessment, synchronous and asynchronous activities, offered a practical experience of innovative practice. This was complemented by technology, which reinforced trust and innovation. Not only did the blockchain-based certification secure credential integrity but also modelled how emerging technologies can be leveraged for QA and recognition.

Thirdly, convergent evidence from learners and facilitator strengthens claims of quality. High levels of learner satisfaction with LOs, combined with positive facilitator evaluations of institutional projects, provide triangulated evidence that not only did the programme transmit knowledge, but also enabled participants to achieve the LOs - specifically, the design of robust micro-credentials.

By positioning micro-credentials within institutional strategies and QA systems, not only has the initiative built on the capacity of HE leaders in the design, implementation and quality assurance of micro-credentials, but also contributed to a culture shift towards flexible, quality-assured lifelong learning across the region. This shift is central to promoting the trust and recognition that micro-credentials require to fulfil their promise in higher education.

8. Acknowledgements

The authors gratefully acknowledge the contributions of the facilitator team who developed the ten-dimensional rubrics that guided the learning and assessment processes of this programme. The rubrics were conceptualised and refined through a collaborative initiative led by Romita Iucu and Alexandru Cartiş from the University of Bucharest, and Martí Casadesús from the University of Girona and the three co-authors of this paper: Susanna Karakhanyan (Past President INQAAHE and Global Tertiary Education Expert), Ariana De Vincenzi (President's Council of Private Universities from Argentina), and Anna Prades (AQU Catalunya, Spain).

9. References

Brown, Mark, and Josep M. Duart. 2024. 'Exploring Gaps in the Quality Assurance of Micro-Credentials: A Global

Mapping Review of Current Practices'. *Journal of Open, Distance, and Digital Education* 1 (1): 1–16. https://doi.org/10.25619/2bwhvw68.

Cirlan, Elena. 2023. 'TMINQA. Approaches to Quality Assurance of Micro-Credentials. A Report on Policies and Practices to Assure the Quality of Micro-Credentials in the European Higher Education Area'. ENQA. https://www.enqa.eu/wp-content/uploads/IMINQA-MC-report_Approaches-to-Quality-Assurance-of-Micro-credentials.pdf.

Council of the European Union. 2022. 'Recommendation on a European Approach to Micro-Credentials for Lifelong Learning and Employability'. https://education.ec.europa.eu/education-levels/higher-education/micro-credentials.

Gutovic, Vanja, and Xia, Tiantian. 2025. *Mapping Micro-Credentials in Latin America and the Caribbean: Towards a Common Framework - UNESCO Biblioteca Digital*. Vol. 11. IESALC Working Papers. UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC). https://unesdoc.unesco.org/ark:/48223/pf0000393794.

Iatrellis, Omiros, Nicholas Samaras, and Konstantinos Kokkinos. 2024. 'Towards a Capability Maturity Model for Micro-Credential Providers in European Higher Education'. *Trends in Higher Education* 3 (3): 504–27. https://doi.org/10.3390/higheredu3030030.

Iucu, Romiţă, Lucian Ciolan, Anca Nedelcu, and Alexandru Carţiş. 2021. *Why Micro-Credentials Should Become Educational 'Macro-Policies' for Defining the Future European Study Programmes*. https://doi.org/10.5281/zenodo.6088135.

Martin, Michaela and Furiv, Uliana, eds. 2022. SDG-4: *Flexible Learning Pathways in Higher Education – from Policy to Practice*: An International Comparative Analysis. UNESCO International Institute for Educational Planning. https://unesdoc.unesco.org/ark:/48223/pf0000383069.

OECD. 2023. 'Public Policies for Effective Micro-Credential Learning'. https://www.oecd.org/en/publications/public-policies-for-effective-micro-credential-learning_a41f148b-en.html.

Oliver, Beverley. 2019. *Making Micro-Credentials Work for Learners, Employers and Providers*.

Oliver, Beverly. 2022. *Towards a Common Definition of Micro-Credentials*. UNESCO (United Nations Educational, Scientific and Cultural Organization). https://unesdoc.unesco.org/ark:/48223/pf0000381668.

UNESCO. 2022. *Beyond Limits: New Ways to Reinvent Higher Education*. Working document for the World Higher Education Conference 18-20 May 2022. https://unesdoc.unesco.org/ark:/48223/pf0000389912.

Negotiating Binaries in Modes of Provision: A Higher Education Practice Standard for Blended and Online Learning

Robert N. Stegmann[1], Jacqueline Batchelor[2], Heather A. Goode[3], Siyanda Makaula[4], Juliet Stoltenkamp[5] and Britta E. Zawada[6]

[1]Boston City Campus and Stellenbosch University, [2]University of Johannesburg, [3]University of Pretoria, [4]Cape Peninsula University of Technology, [5]University of the Western Cape, [6]Council on Higher Education, SA

Abstract

The Council on Higher Education (CHE) in South Africa was legislated into being through the Higher Education Act (Act No. 101 of 1997), with the primary responsibility for quality assurance in higher education. As part of the implementation of its new *Quality Assurance Framework* (QAF), the CHE is developing a number of new Higher Education Practice Standards (HEPS). In this paper, we reflect on the process of developing the HEPS as an exercise in reflexive practice for the community of practice responsible for developing the standard. The paper also brings the HEPS for *Modes of Learning and Teaching Provision* into focus, offering insight into the standard as a clear example of the CHE's new reflexive-generative methodology.

Keywords: Higher Education Practice Standards (HEPS), Quality Assurance Framework (QAF), Blended and Online Learning, Reflexive-Generative Methodology, Modes of Provision, Community of Practice (CoP)

1. Introduction

Negotiating the myriad complexities marking the higher education landscape is fraught with challenges. Institutions must constantly adapt to regulatory contexts that are either slow to change or are too reactive, as well as unstable technological advancements and shifting societal and commercial expectations to remain relevant and effective. In addition to this, there is the precarity that characterises most higher education provision across the globe. Moreover, "the challenge of sustaining a learning system that implements the culture of

[1] ORCID: 0000-0002-9655-5136, [2] ORCID: 0000-0001-6837-3864, [3] ORCID: 0000-0001-5615-2837, [5] ORCID: 0000-0003-4103-738X, [6] ORCID: 0000-0002-9327-5235

constant and immersive learning in relation to disruptive technologies" (Abad-Segura, González-Zamar, Infante-Moro and Ruipérez García 2020, 5) remains constant, necessitating continuous innovation, investment in faculty development, and a commitment to integrating emerging technologies into the design of programmes.

Amid these evolving challenges, the role of quality assurance (QA) becomes increasingly critical. Ensuring that educational standards are met and maintained requires a dynamic and responsive approach. QA processes must evolve to address new educational paradigms and technological advancements, ensuring institutions deliver high-quality education consistently. This paper focuses on the development of a higher education practice standard (HEPS) for modes of learning and teaching provision—as an example of evolving external quality assurance practice. This standard is one of a series of HEPS that the Council on Higher Education (CHE) in South Africa is currently developing as part of its newly implemented Quality Assurance Framework (QAF) (CHE 2021).

The CHE has adopted a reflexive-generative methodology as a critical feature of the QAF. This methodology informed the approach taken by the appointed Community of Practice (CoP) responsible for developing the HEPS for modes of learning and teaching provision. In addition to surfacing key aspects of learning in the process of developing the HEPS, this paper reflects on the process of the community of practice as an exercise in reflexivity.

The work of the CoP in developing a higher education practice standard for modes of provision for learning and teaching is contextualised against the backdrop of a still-persistent binary system that recognises two modes of provision: contact and distance. As a guide for the work, the CoP needed to ensure it aligned with the Department of Higher Education and Training's (DHET) *Policy for the Provision of Distance Education in South African Universities in the Context of an Integrated Post-School System* (DHET, 2014). This required negotiating a shift in thinking and practice, accelerated by the COVID-19 pandemic, which recognises increased flexibility across various teaching methods, including contact, blended, and distance, as well as new modes of provision such as multimodal, hybrid, and hyflex delivery.

While national policy lags, the process described in this paper reveals a deeper level of negotiation that occurred within the practice of the CoP. This negotiation involved navigating existing policy constraints while striving to address a more fundamental question beyond the choice of provision mode for institutional programmes. This fundamental question centres on how institutions should foreground pedagogically informed decision-making in the service of learning, asking how the learning environments they seek to create enable and enrich learning.

The paper is structured as follows: First, it situates the work of the CoP within the

broader framework of the Council on Higher Education's (CHE) mandate, the implementation of the new QAF, and the development of Higher Education Practice Standards. Second, the paper turns to a review of the literature that has influenced the development of the Higher Education Practice Standards (HEPS) for *Modes of Provision of Learning and Teaching* (hereafter not capitalised), highlighting key terminology prevalent in contemporary discussions. Following a concise overview of the CoP's constitution and activities, the paper transitions to discussing insights derived from the HEPS for modes of provision for learning and teaching. This section illustrates the application of the generative reflexive methodology. The paper concludes with a reflection on the overall process.

2. Background

2.1 The Council on Higher Education (CHE)

The CHE is the sole quality assurance council for South African higher education as mandated by the Higher Education Act (Act 101 of 1997) (HEA) and the National Qualifications Act (Act 67 of 2008) (NQF Act). In addition to several mandates, ranging from research, monitoring, and advice to the Minister of Higher Education, the CHE is mandated to fulfil the external quality assurance (EQA) functions of programme accreditation and institutional audits or reviews. A basic premise for such external quality assurance functions to be carried out is that there is a common set of standards against which peer evaluative judgements can be made.

2.2 The Quality Assurance Framework (QAF)

Following 25 years of external quality assurance (EQA) in South Africa, the CHE has embarked on an ambitious new phase of quality assurance, as published in the *Quality Assurance Framework* (QAF) (CHE 2021). The principles underpinning the QAF include institutional responsibility and accountability for quality and quality assurance, integration of the various EQA functions, fitness of purpose and fitness for purpose, differentiation in the higher education sector in South Africa in terms of institutional identity, types and missions, as well as in terms of their performance and functionality in terms of internal quality assurance, simplification of the EQA processes, collaboration and innovation. Moving from a more prescriptive, compliance-based approach, the CHE is investing in an approach that is explicitly developmental, reflexive, and committed to continuous improvement and enhancement. The Higher Education Practice Standards (HEPS) that are being developed in the QAF are an important tool in achieving these objectives.

2.3 Higher Education Practice Standards (HEPS): Definition, Purpose and Methodology

The Higher Education Practice Standards (HEPS) are codes of practice that promote flexibility, innovation, and a commitment to exceeding minimum compliance. Moreover, they are designed to promote reflection and ongoing improvement and enhancement. The guidelines that support each of these standards are therefore developed as a set of open-ended reflexive questions that will support institutions in this journey to greater reflexivity and continuous improvement.

Criteria are the instruments used to determine whether or not the standard is being met. They are benchmarks for evaluation and for making quality judgements about higher education activities based on the standards and guidelines agreed upon by the higher education (HE) sector. The Criteria depend closely on the purpose of the quality judgement for which it is meant to be used.

Criteria are not included in the standard description of the HEPS. This absence of criteria in the HEPS statement is because the criteria will be developed to be relevant to the specific quality assurance exercise that is being conducted. This could be an internal quality assurance exercise conducted by an institution or a specific external quality assurance activity to be conducted by the CHE. Criteria are, therefore, activity, time, and context specific. Some criteria, for example, the criteria for the accreditation of new programmes, will be in place for a longer period. It is understood that the HEPS will be regularly reviewed and revised in an iterative way to account for change.

3. Literature Review

In the initial stages of the Community of Practice's (CoP) work, engagement with literature was driven by a desire to settle and stabilise the meaning of key terms used in discussions about modes of provision. This engagement was itself an exercise in reflexivity as CoP members wrestled with how the lexicon in this area reinscribes the binary conceptualisation that characterises much of the discourse. This part of the work was informed by several key inputs from CHE activities, namely,

- The Report of the Review of the Higher Education Qualifications Sub-Framework (HEQSF) (CHE 2022)
- The Report of the Higher Education Quality Committee (HEQC) Task Team on the Modes of Provision
- The feedback received during the broad stakeholder consultation that was undertaken by the CHE in preparation for the development of the HEPS

Arriving at a shared meaning of key terms was enabled by the conceptual framework

that began to emerge over the course of much debate within the CoP. The framework took the following as key points of departure, derived from the three inputs listed above. First, the framework needed to navigate and transcend binary formulations characterising discussions about modes of provision. Second, the framework needed to work within existing regulatory parameters. Third, the framework needed to assist higher education institutions, conceptually, to analyse their approaches to the (intentional) design of learning and teaching environments. Fourth, the framework needed to enable generative reflexivity on the quality arrangements of an adopted mode of learning and teaching provision. Fifth, the framework needed to ensure that accepted understandings of key terms as a stable starting point could be reimagined by starting with the question of what kind of learning environment an institution wanted to create, rather than what modality it wanted to adopt. These key points of departure are also in line with the new approach adopted by the CHE through the QAF, which is moving away from minimum compliance and tick-box exercises to an expectation of deeper reflection and engagement by institutions with key quality assurance activities.

The literature review, therefore, surveyed what terms are in use and how they are used and sought to do so through the lens of the framework to create a conceptual grid for reimagining learning and teaching provision.

3.1 Negotiating Binaries in Educational Provision: Key Concepts and Debates

A survey of the literature easily overwhelms, not least because the post-pandemic world has revived and ignited a florilegium of research. To ensure focus, the CoP settled on a provisional framework for thinking about modes of provision that recognised that much of the decision-making about learning and teaching provision plays out along a series of continua. A survey of the literature served as a guide for the deliberations of the CoP, signposting key ideas and terms for the emerging framework. These markers included the following.

3.1.1 Student attendance and performance

In the ever-changing landscape of higher education, it has become increasingly crucial to understand the nuanced impact of attendance on student performance. A study by Finlay, Simpson and Tinnion (2022, 1) investigated the relationships between attendance, time spent in online course activities, and the grades of students during blended learning engagement. Research in higher education generally showed positive correlations between attendance and performance. Their study of a blended learning environment suggests that there was a higher correlation with performance in online course engagement compared to face-to-face attendance. A blended learning course with fewer face-to-face classes enabled

better monitoring of 'at-risk' students rather than focusing on the monitoring of student attendance.

In contrast, Goode, Nieuwoudt and Roche (2022, 87) suggest the advantages of class attendance, highlighting the impact it has on creating a more connected and supportive learning environment, which evidently positively influences student achievement and perseverance.

Furthermore, Secreto and Tabo (2023, 123) noted the impact of synchronous online class attendance on student performance, further supporting the viewpoint that there is a positive correlation between student attendance and academic performance in several studies.

3.1.2 Student monitoring and the fidelity of implementation

Monitoring and evaluation in learning and teaching offer reliable information regarding student progress, struggles and potential and encourage "a continuous reflection action cycle" (Chukwu, Mezieobi, Uguwanyi and Okpoebo 2019, 177).

Researchers suggest that assessment and monitoring of students in online environments is important to maximise the affordances of online learning (Meyen, Aust, Bui and Isaacson 2002). Monitoring student engagement makes provision for the creation of personalised learning experiences, considering student learning styles, choices, and competencies (Ferreira, Sabino, Canesche, Neto and Nacif 2024, 2).

Another feature of online monitoring refers to student log-file data to monitor the fidelity of the implementation, which is critical to measuring the impact of an online programme. However, log-file data should be thoughtfully used when attempting to improve student outcomes (Vanacore, Ottmar, Liu and Sales 2024, 16-17).

In addition, another aspect of ensuring quality online learning is through real-time monitoring and feedback by making use of autonomous online behavioural data retrieved within learning management systems across higher education institutions (Sajid, Mirzah, Mustafa and Shabala 2024, 54).

3.1.3 Student participation and success

In their study of online learning and teaching strategies for student participation and success, Thomas, Herbert and Teras (2014) suggest that many students and educators strive to experience a community within an online context, whereby there is a provision of various levels of participation aligned to student needs.

To underwrite student success within online environments, institutions should make provision for more supportive resources that encourage the academic and social engagement of students. In addition, discipline-specific educator support encourages online

and blended learning and teaching and fosters the overall success of the online environment (Fan, Trimble, Kember, Muir, Douglas, Wang, Masters and Mainsbridge 2024, 416-418). Previous research showed the important relationship between active online participation and student performance, and especially how active student engagement enables a high level of academic learning outcomes (Soffer and Cohen 2019, 379). Results also indicated that engagement in the "interpersonal dimension", such as reading discussion forum posts, in addition to engaging with course material and submitting assignments, was highlighted as a predictor of student success (Soffer and Cohen 2019, 386). Furthermore, research found that student success is negatively impacted by a low level of engagement within online environments, and evidently also influences attrition levels (Lawrence, Brown, Redmond, Maloney, Basson, Galligan and Turner 2021).

3.1.4 Inclusive technologies and spaces for staff and students

The World Health Organisation recommends the implementation of flexible working provisions in relation to online work, and the necessary assistive technologies for people with disabilities (World Health Organization 2020, 13).

In relation to inclusive technologies for students and staff with disabilities, higher education institutions should be mindful of the overall infrastructure, teaching approaches, resources, and performance appraisals (De Klerk, Palmer and Alexander 2021, 5).

Differently-abled people require additional support and access to specific software to engage in online environments. This encourages not only suitable and flexible spaces but also more "equal participation" (Öhrstedt, Käck, Reierstam and Ghilagaber 2024, 1).

While online learning can improve the quality of learning for students with disabilities (SWD), student satisfaction varies due to contextual impact. Positive student feedback aligns with more inclusive and flexible approaches, whereas negative feedback is due to students not being able to fully socialise like others and their apparent perceptions of academic standards (Öhrstedt et al. 2024, 1).

Higher education institutions need to be cognizant that online experiences for SWD are different, and it is important to recognise the obstructions and benefits for student success. Flexibility, reinforcement (e.g. uploading lectures to rewatch), and varied teaching modes are valuable for online participation of SWD (Öhrstedt et al. 2024, 1). In addition, it is important to acknowledge that SWD needs differ. For example, it may be that one student views cameras within venues as beneficial, while another sees them as an interference (Öhrstedt et al. 2024, 10).

3.1.5 Learner/Student support for diverse learning environments

The terms learner support and student support are used interchangeably. In general,

learner support relates to the provision of access to learning content, educators, resources, community professionals, library services and media facilities (Garrison and Baynton 1987, 7). According to Brindley, Walti and Zawacki-Richter (2004), learner support activities include those "interactive processes that are intended to support and facilitate the learning process". It is a term that incorporates engagement between educators and students to help them attain their learning objectives from the time they first make inquiries about the institution and up to their graduation and even beyond (Brindley, Walti and Zawacki-Richter 2004, 1).

Emerging technologies have a great impact on learner support approaches and practices (Brindley, Walti and Zawacki-Richter 2004, 1). Traditional student support differs from online support. In the classroom, the support could be handled on demand, whereas in the online environment, there is a need to plan for various challenges in advance (Govindasamy 2001, 294). Online interventions should cater for peer, social, and academic (task-orientated) support (McLoughlin 2002).

Higher education institutions should implement learner-support approaches that develop the students' awareness and competencies to make use of diverse learning styles and develop their "graduate qualities" where they are able to engage in diverse learning environments (Nunan, George and McCausland 2000, 91).

3.1.6 Infrastructure and resourcing

The provision of infrastructure and resources is critical to creating quality learning environments with valuable learning and teaching (Khawaja 2022, 2). Sound infrastructure and the provision of resources "are the backbones of education", especially as learning and teaching approaches are impacted by their environments (Khawaja 2022, 11). Infrastructure and resources need to be utilised in ways that enable learning and teaching to achieve its objectives aligned to the institutional strategy.

3.1.7 Security Procedures and Policies

Online security is aimed at maintaining the privacy, integrity, and accessibility of online resources while simultaneously ensuring the effective use thereof (Chen and He 2013, 121). Higher education institutions depend more on information systems and technologies to support the needs of students in face-to-face classrooms and online learning platforms. Thus, institutions are more at risk of cyber threats due to an increasing number of people making use of various connected devices linked to the internet (Ntloedibe, Foko and Segooa 2024).

Consequently, security policies in higher education institutions should clearly articulate the provision of the overall protection of the student for online participation and engagement, highlighting factors that impact student learning, including the students' home

surroundings, use of technology, and the ability to interact with the lecturer/educator (Ali and Zafar 2017, 558). Relevant security policies should entail broader national and regional legislation, and institutional security obligations. In addition, it is important for staff and students to be made aware of security policies and copyright protocols and inevitably accept accountability for their understanding (Ali and Zafar 2017, 562).

There is also a need for increasing information security awareness amongst students to avert cybersecurity occurrences. Information includes various sections related to password controls, email, internet, social media, and mobile utilisation (Setiawan and Rizal 2024, 1397). This has escalated with the deployment of AI tools and chatbots within higher educational contexts.

The increasing collection, storage and production of data must be securely controlled (Djeki, Dégila, Bondiombouy and Alhassan 2024, 8). Therefore, staff and students should be encouraged to protect their personal data, including awareness related to the safekeeping of digital devices, securely setting passwords, updating operating systems, and ensuring regular backups (Djeki et al. 2024, 12).

Furthermore, the Protection of Personal Information Act (POPI Act or POPIA) of South Africa, a data protection law, encourages the protection of personal information handled by both public and private institutions (S.A. Government, 2013). This Act provides people with rights to control electronic and automated requests, controlling the movement of personal data across South African borders, and providing the legal framework for the processing of personal information (Djeki et al. 2024, 10).

3.1.8 Concluding thoughts on the literature

This literature review synthesises recent research on key aspects of learning in higher education. The findings highlight the complex interplay between student engagement, performance, support systems, technological infrastructure, and the role the mode of provision plays.

From the literature, it is clear that the multiplicity of cross-cutting design elements and their implications, as well as the pace and intensity of the change in the ICT space, requires a conceptualisation of the HEPS that will consider the many different combinations of choices that institutions may make in the future in various flexible ways. This variety of combinations, choices and potentialities leads to blurred boundaries, contested categorisations and definitional conundrums regarding provision modalities.

Thus, beyond challenging the contact/distance binary and avoiding categorisations and their definitional difficulties, the CoP approached the development of the HEPS in such a way as to enable institutions to ask questions about creating and arranging supportive learning habitats that speak to a clarity of purpose in higher education. In so doing, the

conceptualisation of the HEPS—as informed by the literature—elevates the importance of the particular chosen arrangements, and how these can be considered effective and purposeful as an explicit approach to achieving the outcomes of learning. In turn, this enables the inclusion of relevant and appropriate aspects of learning in the contact, online, spatial, virtual, etc., all as part of the constructed learning habitat, which serves the design and learning outcomes.

4. Methodology for Developing a HEPS

The development of the HEPS was informed by the QAF development, from which the CHE convened various CoPs for a variety of HEPS. In the context of the QAF, the Communities of Practice are expert groups of peers representing knowledge fields and disciplines or professional practices in higher education. CoPs are the preferred origins of standards for the QAF (2021: 18).

The CHE issued a public call for nominations to all HEIs in South Africa. The CVs of each of the nominees were reviewed, and selected nominees were invited to constitute the CoP. In the composition of each CoP, consideration was given to the representativity of the sector, for example, by combinations of various types of institutions, both in terms of public and private HEI experience, as well as considering demographic issues such as race and gender. Different voices from outside the traditional QA domain were also included, for example, instructional designers, teaching and learning specialists, academics, academic developers, and others with practical experience in higher education leadership.

The CoP then worked together over the course of several days in person and thereafter online to develop a community and fulfil the task of developing the draft HEPS against a template. The template developed for the HEPS document included sections such as a preamble, the rationale, the standard statement, guidelines for practice, a glossary, references, etc. The various CoPs approached this differently but were required to present their work to other CoPs for feedback. The development of the standards was a lengthy, reflexive, and iterative process that involved negotiated and contested discussions. Over several months, the community of practice debated ideas and engaged in meaningful conversations to establish a mutual understanding of the HEPS. This involved negotiating priorities, assessing existing formal frameworks, and refining key terminology—all done as part of a reflexive process.

The CoP started with a first conceptualisation of the model, which then underwent an iterative reworking of the model. The aspects of the model were renamed, policy was challenged, and policy was returned to, and key definitions and how these are changing over time were explored.

During the narrow consultation process, a final draft was submitted to the Higher Education Quality Council (HEQC) for feedback and review. Drafts were also circulated for comment to various stakeholders and publicly presented in an online webinar to the sector. Feedback was collated and addressed to result in an improved document.

5. The HEPS for Modes of Learning and Teaching Provision

Arrangements for learning and teaching provision are often complex and consider decisions along the continua[1] developed as conceptual decision lenses. The framework created by the CoP for this HEPS intentionally amplified the importance of thinking in terms of continua. These continua function heuristically, inviting institutions to think through the conceptualisation of the modalities of learning and teaching provision. The continua are grouped into five clusters: (1) Modes of Contextuality; (2) Invitational Engagements; (3) Place and Presence; (4) Relational Positioning; and (5) Interactional Experience.

Each cluster is accompanied by a generic description and an overarching question intended to orient the reader. Clusters are associated with key dimensions for which a general description is provided. The sliders for each dimension of learning and teaching modalities can be used across a range of units of analysis. For example, if the unit of analysis is a programme, the institution considers where to position the sliders with the programme firmly in focus. Guiding questions are also provided, and these serve the purpose of enabling a deeper and reflexive unpacking of each dimension. Guiding questions do not represent an exhaustive list. Rather, they are designed to encourage institutions to use them as a springboard into deeper reflection on institutional quality practice.

The continua enable the consideration of key dimensions of learning and teaching provisioning within the institution and the broader societal and cultural context. These considerations include (i) complex aspects of time, context and fidelity; (ii) sound pedagogical practices that support learner and teacher autonomy, self-paced learning and multilingual opportunities; (iii) optimal decision-making in relation to geographical proximity, spatial location, infrastructure and resources; (iv) relevant learner support and the related impact factors of staff-to-student-ratio, staff competency and student preparedness; and the (v) holistic integration of innovative and technological advancements that impact the relationship between humans and technology.

The first iteration was essentially an attempt to conceptualise and draft questions to allow institutions to adopt a generative reflexive practice and enable a paradigmatic shift in thinking. The continua were leveraged as the primary means of challenging the status quo, encouraging a rethinking of decision-making processes (see Table 1).

1) These continua were adapted from Suo and Shi (2008).

Table 1- Summary of Learning and Teaching Modalities of Provision (HEPS draft, 2024)

Cluster	Dimension	Continuum slide left	Continuum slide right
Modes of contextuality	Time	Synchronous	Asynchronous
	Context	Responsive	Non-responsive
	Fidelity	High	Low
Invitational engagement (Accommodation)	Languages	Defined language of learning	Multilingual
	Autonomy in higher education	Staff-led	Full self-directed
	Pace	Prescriptive	Self-paced
Place and presence	Geographical proximity	On-campus	Remote/at a distance
	Spatial location	Physical	Virtual
	Infrastructure & resourcing	Suitable/fit-for-purpose	Enriching/innovative
Relational positioning	Staff & student ratios	1-to-1	1-to-large class
	Staff competency	High competence	Low competence
	Learning support	Continuous support	Triggered-on-need
Interaction experience	Humanness	Human	Machine/AI
	Technology-mediated	Fully offline	Fully online

The initial continua, as framed in Table 1, became a constraint reinscribing the binary formulation within which we needed to operate while still attempting to move beyond this precisely as an attempt to foreground pedagogical decision-making before selecting modes of provision. Moreover, the perception created by the continua was that the outer parameters could be viewed as either positive or negative. For example, staff and student preparedness as either 'high' or 'low' could be viewed as evaluative rather than as the extent of possibility.

In response to feedback, the CoP returned to the model and attempted a simplification of the various categories, creating a set of clusters as overarching concepts for modes of provision, namely, time-pace-space, preparedness, responsiveness, integrity, and institutional support (see Table 2). To each of these clusters, we allocated a set of dimensions intended to unpack the various aspects of each cluster. For example, for time-pace-space, the CoP identified time, pace, geographical proximity, and spatial location as integral aspects for which institutions would need to account.

By bringing pedagogical purpose into sharper focus, the HEPS for modes of learning and teaching provision foregrounds the importance of intentional design and, with it, the multiple cross-cutting implications for all aspects of the academic project. By centring design, institutions would be invited to consider a range of possibilities to maximise impact in the learning engagement that includes careful attention to the student context (accessibility and inclusivity), staff competence, and infrastructural forms (i.e., material, epistemological, and affective) (Chan, Ghali and Prinsloo 2023). Consequently, this HEPS would serve as a catalyst for a thorough reframing and reconsideration of student success,

Table 2- Revised continua (HEPS, draft 2024)

Cluster	Dimension
Time-Pace-Space	Time
	Pace
	Geographical proximity
	Spatial location
Preparedness	Staff preparedness & competency
	Languages
	Autonomy & Agency
	Student preparedness
Responsiveness	Context
	Humanness
	Learning Support
	Technology-mediated/mediation
	Staff & Student complement
Integrity	Ethical considerations & accessibility
	Sustainability
	Assessment of modes of provision
	Real-world authenticity
Institutional Support	Infrastructure & resourcing

the longevity of credits, the duration of programmes, and the notion of full-time and part-time students during the process of generative reflection.

Beyond challenging the contact/distance binary, the HEPS was developed to enable institutions to ask questions about creating and arranging supportive learning habitats in the SA HE environments that speak to a clarity of purpose in higher education provision. In this sense, the particular institutional arrangements would be considered effective and purposeful when they support the explicit outcomes of learning, encapsulating the mission and vision of the institution. Thus, including aspects of contact, online, spatial, virtual, etc.—as part of the constructed habitat—serves the design and learning outcomes.

One strategy in the CoP was to invoke existing national policy and negotiate within that space to explore fissures for new ways of framing provision. National Policy represented a stable and consistent point of reference. There was also a recognition that the policy, while stable, invites further engagement and consideration of the changing landscape, noting that policy itself represents a moment in time. While existing policy is not currently subject to change, the CoP sought to challenge and explore opportunities for reframing practices to be more future-oriented and flexible. Disruption was, therefore, used as a deliberate strategy to

explore the limits of possibility in this new and fast-changing environment.

As noted, each HEPS was structured according to a template provided by the CHE. In this section, we focus attention not so much on the form the HEPS takes but on the importance of key aspects of the standard.

A key feature of the HEPS is the HEPS Statement, which is an overall statement that describes the requirements for modes of provision to ensure acceptable levels of higher education provision, experiences and operations for the students, staff and the public. For this HEPS, the statement reads:

> *The learning and teaching provision in a HEI articulates the inherent identity, agency and espoused pedagogy/pedagogies of the institution, its administration and support and is expressed in policies, structures, plans, processes, resource allocation and measures that are in place to effectively implement, evaluate and continuously improve its institutional position.*
> *The effective provision of the full range of current and future planned programmes to enable student success is achieved through intentional reflexive design by attending to the interrelated dimensions of time-pace-space, preparedness, responsiveness, integrity and institutional support.*

The statement is further elaborated and supported by a set of open-ended and reflexive questions to guide institutions, already alluded to. Guidelines indicate how HEPS might be interpreted and implemented. They guide good practice in the relevant area for consideration by the actors involved and provide the basis for differentiation between institutions, e.g., differentiation in terms of size, niche area and NQF (National Qualifications Framework) level. The guidelines are, therefore, open-ended and allow for innovation.

The guidelines are posed as questions that enable institutions to engage with them in generative, reflexive, and contextually responsive ways to constantly improve practice in the area. They are also used evaluatively in internal and external quality assurance processes to form the basis for the Criteria that will be developed for future external quality assurance (EQA) functions, as described in the QAF, such as accreditation and quality reviews.

The following set of guiding questions for the cluster time-pace-space, dimension, time, illustrates how the questions are formulated as open-ended (see Figure 1):

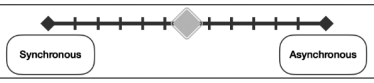
Aspects for Consideration	Guiding Questions
Time: the concept of time considers when learning and teaching happens and has implications for the other dimensions addressed below.	1. What arrangements have been put in place for learning and teaching to be conveyed in asynchronous and synchronous modalities, ensuring parity of quality where more than one mode of provision is operational? 2. How flexible is the academic schedule to accommodate diverse learning preferences and individual student needs? 3. In what ways are the limits of flexibility of learning and teaching provision in different contexts recognised, measured, and monitored? For example, how is contact time monitored and quality assured? Or, how is the quality of hybrid[4]/hyflex/hi-flex method (blend of both asynchronous/synchronous methods manage to ensure parity)? 4. How does the academic calendar support awareness of and alignment to seasonal considerations/academic rhythms and the implication of these for learning optimisation? For example, the timing of work integrated learning given professional considerations; or daylight hours based on seasonal changes. 5. How have the implications of the time-pace-space continua been considered for logistical planning, resourcing, implementation, integration for the chosen mode of provision?
	

Figure 1-Example of Time aspect with guiding questions (HEPS draft, 2024)

In working with the guidelines, institutions would need to note that the questions do not represent an exhaustive list, nor would it be expected that each question be addressed. Instead, the various stakeholders in an institution would be encouraged to use these reflexive questions as a springboard into deeper reflection on institutional quality practice.

The guiding questions and interconnectedness between various dimensions would also be foregrounded, requiring institutions to carefully attend to the intersectionality of the quality aspects of the dimensions. For instance, in large classes, the responsiveness may be low due to constraints on resources and staff workload. However, the quality aspects would then be mitigated by deliberate and other structured design elements (for example, through tutor support programmes, peer learning, automated responses to quizzes in the materials, bots, and a host of other possibilities).

By taking a certain institutional position and crafting a particular learning and teaching environment, the institution carries the responsibility to evaluate both the conceptualisation and the outcomes of its implementation with a view to identifying strengths and weaknesses and opportunities for improving learning and teaching. Self-evaluation — informed by the HEPS and its guidelines—should result in the identification of other dimensions or decision matrices that play out in the provision of learning and teaching.

6. Conclusion

The development of the Higher Education Practice Standard (HEPS) for Modes of Learning and Teaching Provision represents a significant shift in conceptualising and evaluating educational delivery in South African higher education. Through the reflexive-generative methodology employed by the Community of Practice, this HEPS moves beyond the traditional binary of contact versus distance education to embrace a more nuanced, flexible approach that centres pedagogical purpose and student learning.

This paper drew attention to several key aspects of the HEPS, including:

- The use of continua across multiple dimensions encourages institutions to think holistically about their learning and teaching provision.
- A focus on intentional, reflexive design that considers interrelated factors such as time-pace-space, preparedness, responsiveness, integrity, and institutional support.
- Open-ended, reflexive guiding questions that promote deeper engagement with quality practices rather than prescriptive checklists.
- Recognition of the rapidly evolving technological landscape and the need for adaptable frameworks.
- Emphasis on creating supportive learning environments that align with institutional identity and pedagogical approaches.

As described, this HEPS aims to facilitate a paradigm shift in how institutions conceptualise and evaluate their modes of provision. Moving away from rigid categorisations and towards a more flexible, pedagogically-informed approach allows for innovation and adaptation in response to changing educational contexts and technologies.

The development process itself, involving extensive debate and negotiation within the community of practice, exemplifies the reflexive approach advocated by the new Quality Assurance Framework. This process enabled the challenging of existing norms and the exploration of new possibilities within the confines of current policy.

As higher education continues to evolve, this HEPS will hopefully provide a framework for institutions to critically examine and improve their learning and teaching provision. It encourages a focus on creating transformative learning experiences that enable student success, regardless of the specific mode of delivery. By promoting reflexivity and continuous improvement, this standard intends to enhance the quality and effectiveness of higher education in South Africa, preparing institutions to meet the challenges of a rapidly changing educational landscape.

Developing this HEPS through a Community of Practice using a reflexive-generative methodology enabled the negotiation of the binaries of contact and distance provision usually surfaced in discussions. Negotiating these binaries through reflexivity and creative and generative engagement enabled a transformative approach that is hoped will change the way in which institutions frame their choices for provision into the future.

7. References

Abad-Segura, Emilio, Mariana-Daniela González-Zamar, Juan C Infante-Moro, and Germán Ruipérez García. 2020. "Sustainable management of digital transformation in higher education: Global research trends." *Sustainability*

12 (5): 2107.
Ali, Radwan, and Humayun Zafar. 2017. "A security and privacy framework for e-Learning." *International Journal for e-Learning Security*.
Brindley, Jane E, Christine Walti, and Olaf Zawacki-Richter. 2004. "The current context of learner support in open, distance and online learning: An introduction." *Learner support in open, distance and online learning environments* 9: 28.
Chan, Leslie, Mona Ghali, and Paul Prinsloo. 2023. "Imagining higher education as infrastructures of care." In *Higher Education for Good: Teaching and Learning Futures*, edited by Laura Czerniewicz and Catherine Cronin, 111-136. Cambridge: Open Book Publishers.
CHE. 2021. A Quality Assurance Framework (QAF) for higher education in South Africa. Pretoria: Council on Higher Education.
CHE. 2022. Report for the Review of the Higher Education Qualifications Sub-Framework. Pretoria: Council on Higher Education.
Chen, Yong, and Wu He. 2013. "Security risks and protection in online learning: A survey." *International Review of Research in Open and Distributed Learning* 14 (5): 108-127.
Chukwu, Chinyere Loveth, Dan I Mezieobi, Benedict Ejiofor Uguwanyi, and Casmir Chukwudi Okpoebo. 2019. "Monitoring and Evaluation on Effective Delivery of Social Studies for Improved Academic Performance." *Rev. Eur. Stud.* 11: 175.
De Klerk, Edwin Darrell, June Monica Palmer, and Greg Alexander. 2021. "COVID-19 and Technology: Higher Education's Responses to Inclusive Practices for Pre-Service Teachers with Disabilities." *Research in Social Sciences and Technology* 6 (2): 1-21.
Djeki, Essohanam, Jules Dégila, Carlyna Bondiombouy, and Muhtar Hanif Alhassan. 2024. "Data protection in digital learning space: An overview." AIP Conference Proceedings.
Fan, Si, Allison Trimble, David Kember, Tracey Muir, Tracy Douglas, Yanjun Wang, Jennifer Masters, and Casey Mainsbridge. 2024. "Supporting engagement and retention of online and blended-learning students: A qualitative study from an Australian University." *The Australian Educational Researcher* 51 (1): 403-421.
Ferreira, Ricardo, Carlos Sabino, Michael Canesche, Omar Paranaiba V Neto, and José Augusto Nacif. 2024. "AIoT tool integration for enriching teaching resources and monitoring student engagement." *Internet of Things* 26: 101045.
Finlay, Mitchell J, Thomas Simpson, and Daniel J Tinnion. 2022. "Association between attendance, online course activity time, and grades: Analysis of undergraduate sport science cohorts during the COVID-19 pandemic." *Journal of Hospitality, Leisure, Sport & Tourism Education* 31: 100397.
Garrison, D Randy, and Myra Baynton. 1987. "Concepts: Beyond independence in distance education: The concept of control." *American journal of distance education* 1 (3): 3-15.
Goode, Elizabeth, Johanna Nieuwoudt, and Thomas Roche. 2022. "Does online engagement matter ? The impact of interactive learning modules and synchronous class attendance on student achievement in an immersive delivery model." *Australasian Journal of Educational Technology* 38 (4): 76-94.
Govindasamy, Thavamalar. 2001. "Successful implementation of e-learning: Pedagogical considerations." *The internet and higher education* 4 (3-4): 287-299.
Khawaja, Sarwar. 2022. "Some insight on infrastructure and resources for private higher education institutions in the UK." *European Journal of Education Studies* 9 (3).
Lawrence, Jill, Alice Brown, Petrea Redmond, Suzanne Maloney, Marita Basson, Linda Galligan, and Joanna Turner. 2021. "Does course specific nudging enhance student engagement, experience and success ? : A data-driven longitudinal tale." *Student Success* 12 (2): 28-37.
McLoughlin, Catherine. 2002. "Learner support in distance and networked learning environments: Ten dimensions for successful design." *Distance Education* 23 (2): 149-162.
Meyen, Edward L, Ronald J Aust, Yvonne N Bui, and Robert Isaacson. 2002. "Assessing and monitoring student progress in an e-learning personnel preparation environment." *Teacher education and special education* 25 (2): 187-198.

Ntloedibe, Tshepiso, Thato Foko, and Mmatshuene A Segooa. 2024. "Cloud leakage in higher education in South Africa: A case of University of Technology." *South African Journal of Information Management* 26 (1): 1783.

Nunan, Ted, Rigmor George, and Holly McCausland. 2000. "Rethinking the ways in which teaching and learning are supported: The Flexible Learning Centre at the University of South Australia." *Journal of Higher Education Policy and Management* 22 (1): 85-98.

Öhrstedt, Maria, Annika Käck, Helena Reierstam, and Gebrenegus Ghilagaber. 2024. «Studying online with special needs: A student perspective." *Journal of Research in Special Educational Needs*.

SA-Government. 1997. Higher Education Act 101 of 1997. Pretoria: South African Government.

SA-Government. 2008. National Qualifications Framework Act 67 of 2008. edited by SA-Government. Pretoria: SA-Government.

Sajid, Wafaa Adnan, Nubogh Mirzah, Firas Mahmood Mustafa, and Yevheniia Shabala. 2024. "Educational Institution Management Information System." 2024 35th Conference of Open Innovations Association (FRUCT).

Secreto, Percia, and Eudora Tabo. 2023. "Impact of Synchronous Class Attendance on the Academic Performance of Undergraduate Students." *International Journal of Educational Management and Development Studies* 4 (1): 109-128.

Setiawan, Bambang, and Muhamad Ainur Rizal. 2024. "Measurement of Information Security and Privacy Awareness in College Students after the Covid-19 Pandemic." Procedia Computer Science 234: 1396-1403.

Soffer, Tal, and Anat Cohen. 2019. "Students' engagement characteristics predict success and completion of online courses." *Journal of computer assisted learning* 35 (3): 378-389.

Suo, Yue, and Yuanchun Shi. 2008. "Towards blended learning environment based on pervasive computing technologies." International Conference on Hybrid Learning and Education.

Thomas, Lisa, James Herbert, and Marko Teras. 2014. "A sense of belonging to enhance participation, success and retention in online programs."

Vanacore, Kirk, Erin Ottmar, Allison Liu, and Adam Sales. 2024. "Remote monitoring of implementation fidelity using log-file data from multiple online learning platforms." *Journal of Research on Technology in Education*: 1-21.

World Health Organization. 2020. Disability considerations during the COVID-19 outbreak. World Health Organization.

Case Study: Comparing the Concept of RPL with Japan's Initiatives

Miharu Kato

Japan University Accreditation Association

Abstract

As lifelong learning gains importance in a rapidly changing society, the Recognition of Prior Learning (RPL) has emerged as a key framework for validating competencies acquired through formal, non-formal, and informal learning. International organizations such as UNESCO and the European Union (EU) have issued guidelines to support its implementation, and RPL is actively promoted in ASEAN countries. However, Japan has shown limited interest in adopting the international RPL framework, largely due to its unique employment practices. Instead, the Japanese government has introduced several initiatives that share conceptual similarities with RPL. As employment mobility increases and industrial structures evolve, the visibility and validation of prior learning are becoming more critical for both individuals and employers. Against this backdrop, this paper examines Japan's existing and emerging approaches to skill recognition, analyzes their conceptual proximity with the international RPL framework, and discusses the challenges and opportunities.

Keywords: Recognition of Prior Learning (RPL); Japan; Skill Validation; Lifelong Learning; Employment Mobility; Career Development

1. Introduction

In today's rapidly changing world, recognizing individuals' lifelong learning—acquired through both formal education and informal experiences—has become increasingly important. The Recognition of Prior Learning (RPL) serves as a key mechanism to validate existing knowledge and competencies, thereby facilitating access to career advancement and further educational opportunities.

While many countries, international organizations, and regional bodies, such as the International Labour Organization (ILO) and the EU, have actively promoted RPL systems, Japan has taken a somewhat distinct approach, shaped by its unique employment practices. Traditional Japanese employment systems have placed limited emphasis on formally recognizing employees' skills, which, in turn, has prevented the development of a strong culture of lifelong learning. This, however, is gradually changing, driven by technological advancements and shifts in the labor market. Therefore, the need to make competencies more visible and to promote lifelong learning is becoming increasingly important. This paper examines the current state of RPL in Japan, analyzes the governmental strategies implemented thus far, and explores potential future directions in light of the ongoing transformation of the nation's employment landscape.

2. Definition and role of RPL

According to the ILO (2023), the term "recognition of prior learning" (RPL) should be understood as a process, undertaken by qualified personnel, of identifying, documenting, assessing and certifying a person's competencies, acquired through formal, non-formal or informal learning, based on established qualification standards. RPL is also referred to as "validation of informal and non-formal learning."

RPL is increasingly seen as a key mechanism for promoting social inclusion, particularly by enhancing the employability of socially disadvantaged groups and immigrants through the formal recognition of experiential learning. At the same time, RPL can foster lifelong learning by broadening access to higher education and helping to bridge the skills gap in societies undergoing rapid transformation.

3. Process of RPL

The internationally agreed concept of the RPL process has four key components: Identification, Documentation, Assessment, and Certification.

Identification refers to recognizing the learning outcomes—such as knowledge, skills, and other competencies—acquired by individuals through non-formal and informal learning. Documentation involves recording individual's learning into a portfolio, which typically includes a CV and work history. Assessment refers to the evaluation of these learning outcomes against specific reference points and/or standards. Finally, certification involves awarding a formal qualification or partial qualification. Throughout this process, National Qualification Frameworks (NQFs) are recommended to be used as frameworks (Cedefop 2023; ILO 2015).

4. Case Study: Comparison Between Japanese Practices and the Concept of RPL

This case study examines how Japan's employment and skill development practices align with the internationally recognized RPL framework. Rather than assuming a direct alignment, the analysis explores points of convergence and divergence. The discussion is structured into two parts. The first examines employment practices and skill recognition mechanisms in Japan prior to 2000, while the second focuses on shifts in the employment landscape since 2000 and the corresponding policy responses. Through this comparative lens, the study seeks to uncover structural and cultural factors that have shaped Japan's approach to skill recognition, explore the similarities and differences in relation to RPL principles, and draw insights for the potential future integration of RPL into national workforce development strategies.

4.1 Employment Practices in Japan Before 2000 and Initiatives by the Government and Private Sector

In Japan, RPL has not traditionally been a central element of the national policy. Several structural and cultural factors contribute to this situation.

A key factor is the high enrollment and completion rates in upper secondary education. For instance, as of 2020, Japan's high enrollment rate stood at 98.8%, with a dropout rate of only 1.1% (MEXT 2021, 2023). Since high school completion is the primary prerequisite for entering higher education, and the vast majority meet this criterion, the demand for alternative educational pathways has remained limited.

Another factor is Japan's traditional employment practices, which have historically diminished the need for formal RPL systems. These practices include regular hiring of new graduates, long-term employment, and seniority-based promotion and wage structures.

Regular hiring of new graduates refers to the widespread practice where large corporations recruit university students during their final year, with employment commencing immediately after graduation.

Long-term employment denotes the norm where employees, once hired, typically remain with the same organization until reaching the mandatory retirement age.

The **seniority-based promotion and wage system** is one in which wages rise with employees' age and length of service, rather than on demonstrated competencies or qualifications.

Under these norms, job roles are often loosely defined, granting employers considerable discretion over work assignments, locations, and schedules. Consequently, specific skills and formal qualifications have played a minor role in recruitment or promotion decisions. Instead, companies assumed primary responsibility for employee training. On-the-job

training (OJT) is widely practiced, and many firms also invest in off-the-job training (Off-JT). Some companies have even established in-house training schools to cultivate workforce capabilities.

However, efforts to visualize and formalize skills have been promoted in certain sectors, particularly in construction and manufacturing. The **National Trade Skill Test**, established in 1959, serves as a national certification system that assesses and certifies workers' competencies across 133 occupational categories.

In addition, some enterprises have developed their own in-house qualification systems to facilitate the acquisition of company-specific practical skills. These initiatives have received government support through the **System to Certify In-house Trade Skills Tests**, under which the Minister of Health, Labour and Welfare certifies examinations conducted by employers or employer organizations that meet designated criteria.

However, these mechanisms have shown limited success in facilitating labor market mobility or aligning workers' competencies to job requirements. Rather, they have functioned mainly as internal tools for promotion and productivity enhancement within specific industries and enterprises.

4.2 Changes in the Employment Environment since 2000 and Government Initiatives

Since the early 2000s, Japan's employment landscape has undergone notable transformations, driven by rapid shifts in industrial structure and labor law reforms, which

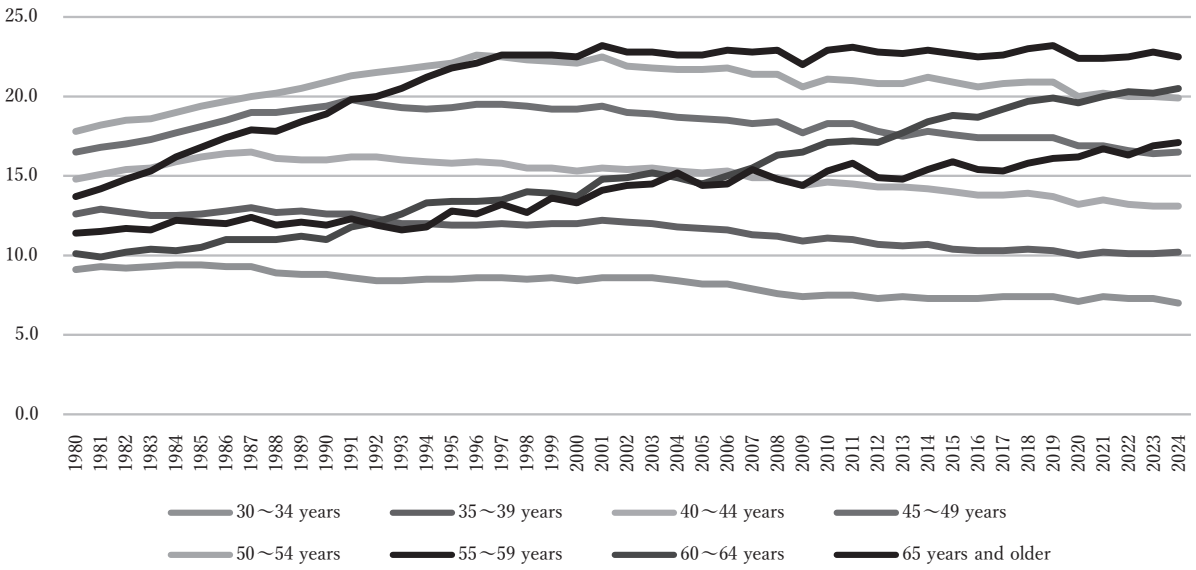


Figure1: The avarage years of continuous employment by age group (male)

Adapted from Graphical Overview of Long-Term Labour Statistics, by Japan Institute for Labour Policy and Training, 2024, https://www.mhlw.go.jp/stf/wp/hakusyo/roudou/24/backdata/01-02-05.html

have contributed to greater labor market mobility. As Figure 1 illustrates, average job tenure has notably declined, particularly among younger male workers.

At the same time, as Figure 2 shows, the proportion of non-regular workers—such as part-time and temporary employees—has steadily increased.

In this context, individuals' ability to effectively articulate and demonstrate skills and competencies has become increasingly critical. The rise of non-regular employment has also underscored the need to establish mechanisms that support career development and ensure fair and transparent assessment of workers' skills. This approach helps employers make informed decisions about recruitment and promotion.

In response to these challenges, the Japanese government has introduced a range of policy measures to enhance skill visibility and recognition. While a comprehensive review of all such initiatives is beyond the scope of this discussion, the three measures are particularly noteworthy.

1) Vocational Ability Evaluation Standards

These standards provide a structured framework for categorizing and systematizing 'knowledge,' 'techniques and skills,' and 'job performance' across four proficiency levels. They are designed to support corporate practices in recruitment, promotion, and human resource development and are also utilized in career counseling and the design of assessment systems. The standards encompass a broad spectrum of occupational fields, including 56 industries and 9 clerical roles such as accounting and human resources.

2) Job Card System

The Job Card System aims to enhance the visibility of individual competencies by enabling job seekers and workers to document their skills, qualifications, educational background, work experience, and other relevant competencies. The system facilitates more efficient job matching through API integration with private recruitment agencies. Although career

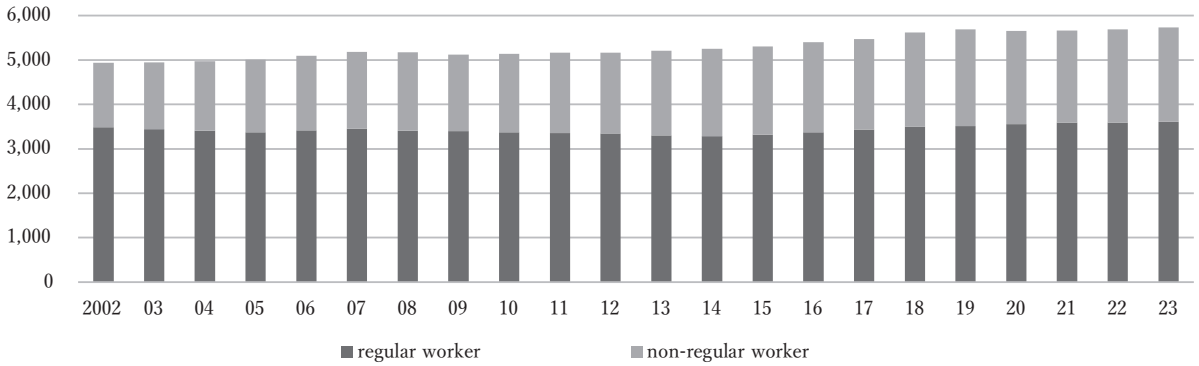


Figure2： Number of workers by employment type（Ten thousand）

Adapted from White Paper on the Labour Economy 2023（Ministry of Health, Labour and Welfare, 2023）.
https://www.mhlw.go.jp/stf/wp/hakusyo/roudou/24/backdata/01-02-05.html

counseling is recommended when creating a job card, it is not mandatory.

3) Credit Recognition for Practical Skills Acquired through Work Experience

This initiative allows universities offering vocational programs to formally recognize practical skills acquired through prior work experience. By exempting individuals from coursework that covers competencies already acquired, the system promotes both economic and time efficiency in educational attainment. While some rules have been established regarding what information should be used to recognize credits, the establishment of specific standards is left to each university.

5. Comparison with the Concept of RPL

From a comparative perspective, Japan's recent initiatives demonstrate partial alignment with key elements of the internationally recognized RPL framework. Specifically, the Credit Recognition System for practical skills acquired through work experience in university vocational programs most closely reflects RPL's core principles of recognizing and accrediting experiential learning.

Moreover, all three contemporary measures—the Vocational Ability Evaluation Standards, the Job Card System, and the Credit Recognition System—share a common objective, i.e., to standardize and make visible the competencies individuals have developed through diverse learning experiences. These efforts contribute to career development and facilitate more effective alignment between workers' skills and employment opportunities.

However, several notable differences remain. Japan lacks a comprehensive, integrated system for validating a broad spectrum of skills and competencies through flexible and inclusive methods. While the Vocational Ability Evaluation Standards offer a structured framework, there is no national mechanism for assessing job seekers' skills against these standards. Furthermore, the Job Card System does not require the involvement of qualified personnel in its preparation, and there is no provision for awarding formal qualifications based solely on prior learning. Finally, none of these initiatives is fully incorporated into Japan's newly developed National Qualifications Framework, limiting their potential for systemic coherence and international comparability.

6. Discussion

Drawing on the preceding analysis, three key implications emerge for Japan's policy development.

First, while the National Trade Skill Test has long played a central role in certifying occupational skills, increasing labor market mobility underscores the need for third-party

mechanisms to recognize a broader, more diverse range of competencies acquired through formal, non-formal, and informal learning. Such mechanisms would contribute to more effective career development and enable smoother transitions within and across sectors.

Second, Japan must consider integrating existing skill recognition mechanisms into the National Qualifications Framework (NQF). In European contexts, NQFs have shown promising results in translating individual competencies into formal qualifications, thereby enhancing transparency and comparability across education and employment systems. Although Japan has recently established its own NQF, its societal acceptance and operational implementation remain limited. Particularly in sectors with high demand for foreign labor, it is essential to integrate existing instruments—such as the National Trade Skill Test and Vocational Ability Evaluation Standards—into the NQF. Doing so would strengthen the coherence of Japan's qualifications system and better align it with international standards.

Third, in spite of the broader scope of this issue, it is important to harmonize and reorganize labor and educational strategies. As discussed above, numerous policies have been introduced in response to specific needs at different time points. However, this fragmented approach has created a complex, difficult-to-navigate landscape. The NQF can serve as a basis for Japan to establish a system that makes competencies visible—not only those acquired through formal education, but also through training, work experience, and other forms of non-formal and informal learning. Such a system would help streamline labor and educational strategies, enabling a more efficient and coherent approach to skill recognition while promoting lifelong learning and fostering social inclusion.

References

Cedefop. 2023. *European guidelines for validating non-formal and informal learning*. Publications Office of the European Union. http://dx.doi.org/10.2801/389827

Hiroshi Ishida "Japanese Companies' In-house Education in the Post-War Period: Educational Qualification and Personnel Management." *Japanese Research in Business History* 37 (2020): 61-83. https://doi.org/10.5029/jrbh.37.61

International Labour Organization (ILO). 2015. *Recognition of prior learning: Key success factors and the building blocks of an effective system*. International Labour Organization. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_emp/%40ifp_skills/documents/publication/wcms_625895.pdf

ILO. 2023. *Standard-setting Committee on Apprenticeships: Final Text of the Recommendation Concerning Quality Apprenticeships*. ilo.org/sites/default/files/wcmsp5/groups/public/@ed_norm/@relconf/documents/meetingdocument/wcms_885099.pdf

Kyushu University. 2015. *Kyoiku to kunren no togo－teki na shokugyo kyoiku koto kyoiku shikaku wakugumi purojekuto[Integrated Vocational and Higher Education Qualifications Framework Project]*. https://rteq.jp/pdf/2014EQGC_report_vol.9.pdf

Ministry of Education, Culture, Sports, Science and Technology (MEXT). 2017"Senmonshoku daigaku oyobi senmonshoku tanki daigaku no seidoka-tō ni kakaru gakkō kyōiku-hō no ichibu o kaisei suru hōritsu-tō no

kofu ni tsuite (tsūchi)" [Notice on the Promulgation of the Act Partially Amending the School Education Act, etc. for the Institutionalization of Professional Universities and Junior Colleges] . https://www.mext.go.jp/b_menu/hakusho/nc/__icsFiles/afieldfile/2017/09/29/1396636_01.pdf

MEXT. 2021. *Kotogakko kyoiku no genjo ni tsuite [The Current State of High School Education]*. https://www.mext.go.jp/a_menu/shotou/kaikaku/20210315-mxt_kouhou02-1.pdf

MEXT. 2023. *Reiwa5nendo jidoseito no mondaikodo・futoko nado seitoshidojo no shokadai ni kansuru chosakekka [Results of the 2023 Survey on Problematic Behavior, Truancy, and Other Student Guidance Issues for Students]*. https://www.mext.go.jp/content/20241031-mxt_jidou02-100002753_1_2.pdf

MEXT. n.d. "*Senmonshoku daigaku secchi kijun oyobi senmonshoku tanki daigaku secchi kijun ni tsuite [Standards for the Establishment of Professional and Vocational Universities and Professional and Vocational Junior Colleges]*". https://www.mext.go.jp/a_menu/koutou/senmon/mext_01340.html

Ministry of Health, Labour and Welfare (MHLW). 2014. "*Rodo shijo seisaku ni okeru shokugyo noryoku hyoka seido no arikata ni kansuru kenkyukai hokokusho [Report of the Study Group on the Vocational Ability Evaluation System in Labor Market Policy]*. https://www.mhlw.go.jp/file/04-Houdouhappyou-11806001-Shokugyounouryokukaihatsukyoku-Nouryokuhyoukaka/0000042207_1.pdf

MHLW. 2019. *Koyo seisaku kenkyukai hokokusho [Report of the Employment Policy Study Group]*. https://www.mhlw.go.jp/content/11601000/001389999.pdf

MHLW. 2023. *The white paper on health, labour and welfare*, 2023. https://www.mhlw.go.jp/wp/hakusyo/kousei/23/dl/zentai.pdf

MHLW. n.d. "*Ginokenteiseido ni tsuite [About the Technical Skills Test System]*." https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/koyou_roudou/jinzaikaihatsu/ability_skill/ginoukentei/index.html

MHLW. n.d. "*Jobu kado seido [the Job Card System]*." https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/koyou_roudou/jinzaikaihatsu/jobcard_system.html

MHLW. n.d. "*Shanai kentei nintei seido no sosetsu ni tsuite [About the Launch of the System to Certify In-house Trade Skills Test]*." https://www.mhlw.go.jp/web/t_doc?dataId=00tb2471&dataType=1&pageNo=1

MHLW. n.d. "*Shokugyo noryoku hyoka kijun no sakutei gyoshu ichiran [List of Industries for which Vocational Ability Evaluation Standards Have Been Established]*." https://www.mhlw.go.jp/stf/newpage_04653.html

Minoru Sawai. (2020). "*Vocational Training and Vocational Education in Postwar Japan: An Overview*." *Japanese Research in Business History*, 37. 1-10. https://doi.org/10.5029/jrbh.37.1

NIAD-QE. n.d. "*Kyouiku shikaku wakugumi [the Educational Framework]*." https://niadqe.jp/information/higher-education-degree-2/

Terada, M. 2024. "*Japanese System of Vocational Education and Training in Historical Comparison: Focusing on the Role of Schools and Companies in the Formation of Vocational Competencies*." *Japan Labor Issues*, 8(48), 19-34, https://www.jil.go.jp/english/jli/documents/2024/048-00.pdf

The Japan Institute for Labour Policy and Training. 2012. *Shogaikoku ni okeru nouryoku hyouka seido — Ei, Futsu, Doitsu, Bei, Chuu, Kan, EU ni kansuru chousa — [Competency Assessment Systems in Other Countries: A Survey of the UK, France, Germany, the US, China, Korea, and the EU]*. https://www.jil.go.jp/institute/siryo/2012/documents/0102.pdf

UNESCO. n.d. "*TVETipedia Glossary*." "https://unevoc.unesco.org/home/TVETipedia + Glossary/show=term/term=Recognition + of + prior + learning

Striving for Excellence in Quality Assurance: TWAEA's Experience with INQAAHE ISG Recognition

Shu-Yuan Wu and Jan Fell

Taiwan Assessment and Evaluation Association

Abstract

As Taiwan's higher education grapples with declining enrollment and increasing global competition, quality assurance mechanisms must evolve accordingly. This paper presents the Taiwan Assessment and Evaluation Association's (TWAEA) in-depth journey toward recognition by the International Network for Quality Assurance Agencies in Higher Education (INQAAHE), specifically under the Guidelines of Good Practice (ISG). It outlines TWAEA's strategic motivations, implementation process, and the tangible benefits achieved through international alignment. The narrative highlights the critical role of stakeholder engagement, policy adaptation, and continuous improvement in fostering a resilient and globally competitive quality assurance (QA) ecosystem in Taiwan.

Keywords: Quality assurance, INQAAHE ISG, International recognition, Institutional development, Stakeholder engagement

1. Introduction: Facing the Future of Higher Education

Globalization, digital transformation, and demographic decline are reshaping the landscape of higher education. Taiwan is no exception, facing declining birthrates, tighter budgets, and growing demands for accountability. In this context, TWAEA recognizes the urgency to position Taiwan's QA system as both nationally robust and internationally aligned. This case study highlights how a national QA agency can transform itself by embedding international best practices into its core operations.

2. Background on TWAEA

Established in 2003 and formally recognized by Taiwan's Ministry of Education (MOE), TWAEA has developed a reputation for integrity and excellence in educational evaluation. TWAEA's evaluations span institutional, program-level, and overseas contexts, providing a comprehensive QA ecosystem. Its core mission is to uphold fairness, professionalism, and developmental feedback, thereby transforming evaluation into a force for sustainable academic progress. TWAEA also actively participates in international collaborations and benchmarking to stay aligned with global trends.

3. Strategic Rationale for INQAAHE ISG Engagement

TWAEA's decision to pursue INQAAHE ISG recognition was grounded in a strategic vision of internationalization and quality uplift. The ISG provides a recognized framework for excellence, ensuring that QA agencies operate with transparency, relevance, and continual progress. For TWAEA, this initiative was essential to:

- Enhance Institutional Credibility: International validation strengthens the agency's legitimacy and influence both at home and abroad.
- Align with Global Standards: Adoption of INQAAHE's ISG ensures adherence to globally accepted principles of transparency, consistency, and fairness.
- Promote Continuous Improvement: The peer review process serves as a mirror, reflecting strengths and revealing gaps in TWAEA's systems.
- Support Global Mobility: By assuring international stakeholders of Taiwan's QA rigor, TWAEA supports student and professional recognition globally.
- Foster International Partnerships: Recognition enables deeper collaboration with QA bodies, universities, and research institutions worldwide.

4. Implementation Process

4.1 Phase 1: Internal Consensus and Planning (2022–2023)

A shared vision across TWAEA's leadership laid the groundwork for initiating the ISG application. The organization aligned its efforts with INQAAHE's Baseline Standards, which focus on foundational elements of QA effectiveness. Early consensus helped ensure organizational readiness and staff buy-in.

4.2. Phase 2: Self-Assessment and Documentation (2023)

A comprehensive internal review was conducted, aligning TWAEA's practices with each of

the ISG domains. Supporting documentation was compiled, translated, and reviewed for accuracy. This process involved cross-department collaboration, enhancing internal understanding of standards.

4.3 Phase 3: Communication and Preparation for Site Visit

Clear and proactive communication with the INQAAHE ISG coordinator helped align expectations and logistics. TWAEA developed tailored checklists, assigned team leads for each standard, and organized simulation exercises to prepare interviewees. Internal workshops were held to enhance understanding and comfort with the international review process.

4.4 Phase 4: Site Visit (April 8–10, 2024)

The site visit featured interviews with a diverse array of stakeholders, including university leaders, faculty members, students, and government officials. An office tour and evidence review were conducted, followed by a comprehensive oral report summarizing preliminary findings and commendations. TWAEA's transparency and open dialogue were commended by the visiting panel.

5. Outcomes and Benefits

5.1 Benefits

- Global Recognition: Achieving international accreditation places TWAEA on the global stage, increasing our recognition and prestige.
- Compliance with Best Practices: Ensuring compliance with global best practices helps TWAEA maintain high standards and remain updated with the latest developments in quality assurance.
- Stakeholder Confidence: Reassuring stakeholders that TWAEA operates with integrity and excellence, ensuring high-quality educational outcomes.
- Further Advancement: Constructive suggestions from the review panel highlight areas for improvement, fostering a culture of continuous quality enhancement within TWAEA.

5.2 Value-added Outcomes

- Increased Institutional Confidence: Higher education institutions may have increased confidence in TWAEA's assessments and accreditations, knowing TWAEA is backed by an internationally recognized body.
- Benchmarking Performance: The review provides benchmarks against international standards, allowing TWAEA to measure the performance and identify areas for growth.

- Broadened Perspectives: Engagement with international experts provides new perspectives and innovative ideas that can be integrated into TWAEA's practices and policies.
- Enhanced Strategic Planning: Insights gained from the review can inform strategic planning, helping TWAEA set more informed and effective goals and priorities.

6. Barriers and Challenges

- Time Investment: Significant time is required for preparation, documentation, and coordination.
- Language Barriers: Translating extensive documentation, including policies, procedures, reports, and evidence, can be time-consuming and costly. Ensuring that translations accurately reflect the original content without losing nuances can be difficult.
- Coordination Efforts: Coordinating meetings and interviews with stakeholders during the review process requires careful planning and effort.
- Stakeholder Buy-in: Securing the support and engagement of various stakeholders, including students and MOE representatives, can be challenging.

7. Move on to the Next Phase: Opening a New Page for TWAEA

- Alignment with Global Standards: Continue to align TWAEA's standards and practices with international benchmarks to enhance the recognition and competitiveness of Taiwan's universities on the global stage.
- Integration of Technology: Increasingly leverage technology to streamline assessment processes, collect and analyze data on educational outcomes, and facilitates communication and collaboration among stakeholders.
- Addressing Emerging Challenges: Adapt to emerging challenges in higher education, such as demographic shifts, technological disruptions, and evolving demands from employers and society.
- International Benchmarking and Collaboration: Go from acting not only as a national accreditor but also transform into a global player. Strengthen the collaboration with international counterparts and participate in benchmarking exercises to ensure that Taiwan's higher education system remains competitive on a global scale.
- Promotion of Innovation and Best Practices: Play a more proactive role in promoting innovation and disseminating best practices across the higher education.

8. Conclusion: QA as a Continuous Journey

TWAEA's engagement with INQAAHE has helped solidify its role as a change agent—not just a regulator. Through a commitment to global alignment, innovation, and stakeholder inclusiveness, TWAEA is building a future-ready QA system that reflects both local needs and international expectations. This journey offers a replicable model for other agencies seeking to scale their impact and global visibility.

Evaluation in the Era of Artificial Intelligence: The Roles of AI and Human Evaluators

Akinori Matsuzaka

Japan University Accreditation Association

Abstract

Revolutionary changes to human life are emerging as artificial intelligence (AI) brings multiple benefits to society. However, it also poses critical challenges to conventional practices. Higher education is not exempt from its effects, and quality assurance (QA) is now at a transitional phase. This paper explores external quality assurance (EQA) in the era of AI, highlighting the roles of AI and human evaluators. Glancing at a set of evaluator competencies which the American Evaluation Association (AEA) has stipulated, it poses two questions: (i) what roles should (and can) AI assume? And (ii) what responsibilities should human evaluators maintain? By discussing these two key questions, it is expected to gain insights into what human roles can and should not be replaced by AI.

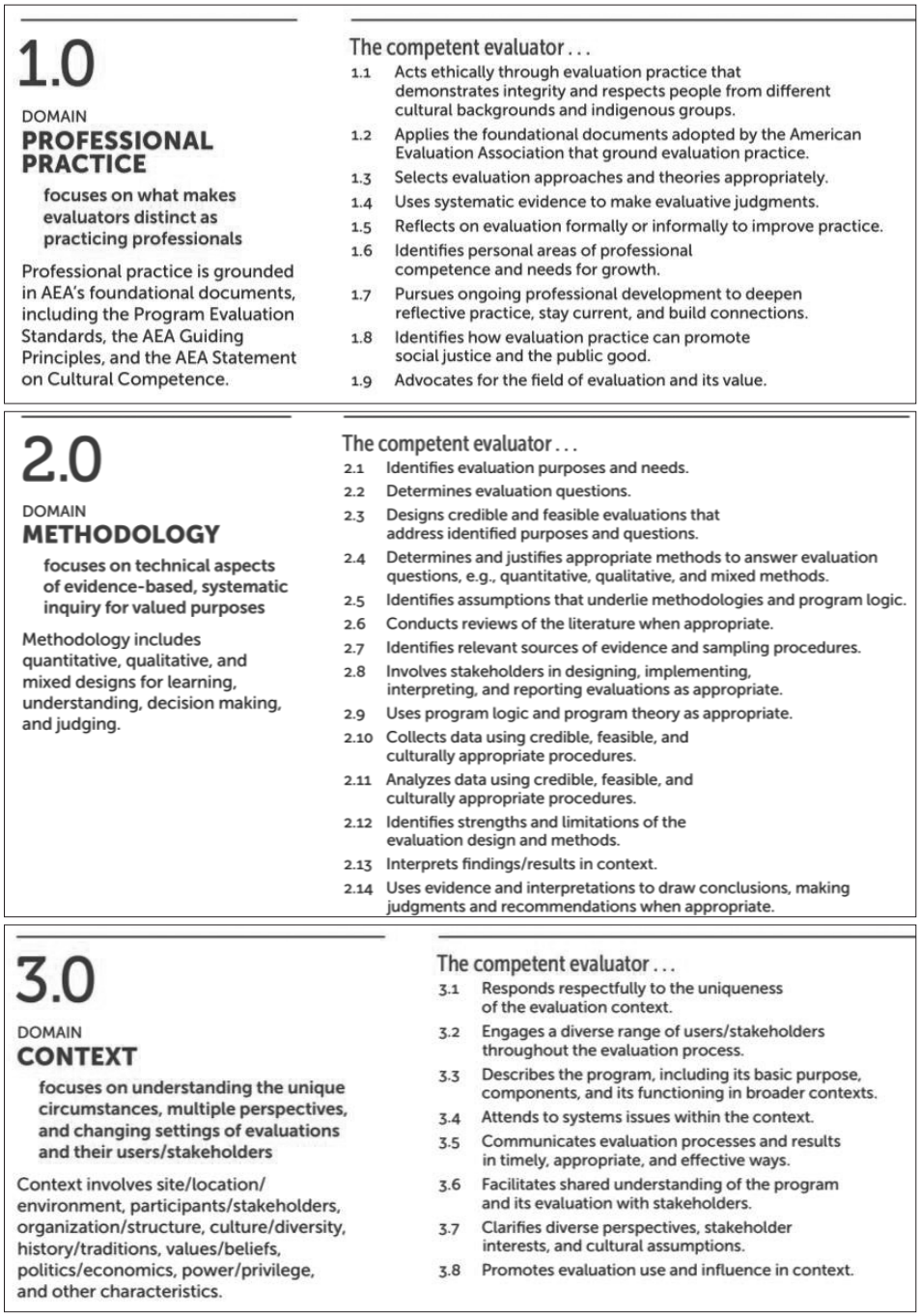
Keywords: external quality assurance (EQA), artificial intelligence (AI), evaluator, context-responsiveness, holistic view

Introduction

Revolutionary changes to human life are emerging as artificial intelligence (AI) brings multiple benefits to society. However, it also poses critical challenges to conventional practices. Higher education is not exempt from its effects, and quality assurance (QA) is now at a transitional phase. This paper explores external quality assurance (EQA) in the era of AI, highlighting the roles of AI and human evaluators. By reviewing some prior research and evaluative practices by the Japan University Accreditation Association (JUAA), the paper explores new approaches and perspectives in evaluation.

1. Changed Circumstances for Evaluation

Many practitioners and researchers have discussed over evaluators including their behaviours or thinkings in evaluative operations. For example, Patton (2018) speaks of



1.0

DOMAIN
PROFESSIONAL PRACTICE

focuses on what makes evaluators distinct as practicing professionals

Professional practice is grounded in AEA's foundational documents, including the Program Evaluation Standards, the AEA Guiding Principles, and the AEA Statement on Cultural Competence.

The competent evaluator . . .

1.1 Acts ethically through evaluation practice that demonstrates integrity and respects people from different cultural backgrounds and indigenous groups.
1.2 Applies the foundational documents adopted by the American Evaluation Association that ground evaluation practice.
1.3 Selects evaluation approaches and theories appropriately.
1.4 Uses systematic evidence to make evaluative judgments.
1.5 Reflects on evaluation formally or informally to improve practice.
1.6 Identifies personal areas of professional competence and needs for growth.
1.7 Pursues ongoing professional development to deepen reflective practice, stay current, and build connections.
1.8 Identifies how evaluation practice can promote social justice and the public good.
1.9 Advocates for the field of evaluation and its value.

2.0

DOMAIN
METHODOLOGY

focuses on technical aspects of evidence-based, systematic inquiry for valued purposes

Methodology includes quantitative, qualitative, and mixed designs for learning, understanding, decision making, and judging.

The competent evaluator . . .

2.1 Identifies evaluation purposes and needs.
2.2 Determines evaluation questions.
2.3 Designs credible and feasible evaluations that address identified purposes and questions.
2.4 Determines and justifies appropriate methods to answer evaluation questions, e.g., quantitative, qualitative, and mixed methods.
2.5 Identifies assumptions that underlie methodologies and program logic.
2.6 Conducts reviews of the literature when appropriate.
2.7 Identifies relevant sources of evidence and sampling procedures.
2.8 Involves stakeholders in designing, implementing, interpreting, and reporting evaluations as appropriate.
2.9 Uses program logic and program theory as appropriate.
2.10 Collects data using credible, feasible, and culturally appropriate procedures.
2.11 Analyzes data using credible, feasible, and culturally appropriate procedures.
2.12 Identifies strengths and limitations of the evaluation design and methods.
2.13 Interprets findings/results in context.
2.14 Uses evidence and interpretations to draw conclusions, making judgments and recommendations when appropriate.

3.0

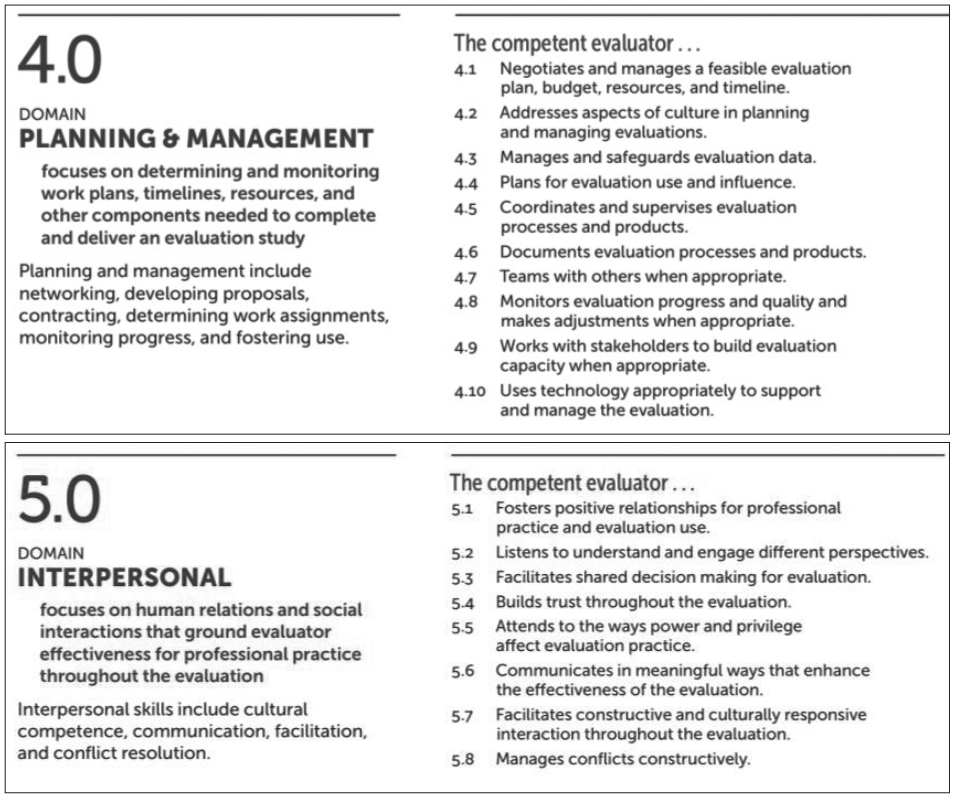
DOMAIN
CONTEXT

focuses on understanding the unique circumstances, multiple perspectives, and changing settings of evaluations and their users/stakeholders

Context involves site/location/environment, participants/stakeholders, organization/structure, culture/diversity, history/traditions, values/beliefs, politics/economics, power/privilege, and other characteristics.

The competent evaluator . . .

3.1 Responds respectfully to the uniqueness of the evaluation context.
3.2 Engages a diverse range of users/stakeholders throughout the evaluation process.
3.3 Describes the program, including its basic purpose, components, and its functioning in broader contexts.
3.4 Attends to systems issues within the context.
3.5 Communicates evaluation processes and results in timely, appropriate, and effective ways.
3.6 Facilitates shared understanding of the program and its evaluation with stakeholders.
3.7 Clarifies diverse perspectives, stakeholder interests, and cultural assumptions.
3.8 Promotes evaluation use and influence in context.



4.0

DOMAIN
PLANNING & MANAGEMENT

focuses on determining and monitoring work plans, timelines, resources, and other components needed to complete and deliver an evaluation study

Planning and management include networking, developing proposals, contracting, determining work assignments, monitoring progress, and fostering use.

The competent evaluator . . .

4.1 Negotiates and manages a feasible evaluation plan, budget, resources, and timeline.
4.2 Addresses aspects of culture in planning and managing evaluations.
4.3 Manages and safeguards evaluation data.
4.4 Plans for evaluation use and influence.
4.5 Coordinates and supervises evaluation processes and products.
4.6 Documents evaluation processes and products.
4.7 Teams with others when appropriate.
4.8 Monitors evaluation progress and quality and makes adjustments when appropriate.
4.9 Works with stakeholders to build evaluation capacity when appropriate.
4.10 Uses technology appropriately to support and manage the evaluation.

5.0

DOMAIN
INTERPERSONAL

focuses on human relations and social interactions that ground evaluator effectiveness for professional practice throughout the evaluation

Interpersonal skills include cultural competence, communication, facilitation, and conflict resolution.

The competent evaluator . . .

5.1 Fosters positive relationships for professional practice and evaluation use.
5.2 Listens to understand and engage different perspectives.
5.3 Facilitates shared decision making for evaluation.
5.4 Builds trust throughout the evaluation.
5.5 Attends to the ways power and privilege affect evaluation practice.
5.6 Communicates in meaningful ways that enhance the effectiveness of the evaluation.
5.7 Facilitates constructive and culturally responsive interaction throughout the evaluation.
5.8 Manages conflicts constructively.

Figure 1. Source: AEA (2018)

'evaluative thinking' historically. Reviewing many prior discussions in the past, he describes that critical thinking, reasoning, argumentation, and telling a coherent, evidence-based story have been regarded as essential skills for evaluators (p. 20). The other type of discussions we can see in the ones like the AEA (2018), which defines the expected competencies among evaluators. It articulates a set of competencies across five domains (see Figure 1).

As the Figure 1 indicates, competencies defined by the AEA (2018) range so wide, from, e.g., acting ethically (1.1), determining evaluation questions (2.2) to, e.g., facilitating constructive and culturally responsive interaction (5.7). Here, however, a question arises. Do all these competencies still have meaning in the era of AI?

Mason (2023) argues that some evaluation competencies are quite likely to be impacted by AI. Drawing from the AEA competencies list shown above, she argues that competencies that are asocial and non-creative, and those that are less strategy-based, are likely to be replaced by AI. This includes competencies like determining evaluation questions, using systematic evidence, and selecting evaluation theories and approaches (Mason, 2023, pp. 16–20). The other researchers also make similar discussion. Ferreti (2023) contends that conventional paperwork and 'by-the-book' approaches can be substituted by

AI (pp. 76–83). These discussions make it imperative to re-examine evaluators' roles, raising critical questions about what roles AI should (and can) assume; and what responsibilities human evaluators should maintain.

2. Discussion: The Roles of AI and Evaluators

Delineating these roles requires us to take into consideration the purposes of evaluations. Threshold evaluations entail distinct procedures from enhancement-oriented evaluations. An exploration of the answer leading to new ideas is, therefore, required to examine various approaches in different context. The following represents merely an initial idea for starting discussion, derived from the context of the JUAA and from some other studies.

2.1 Assigning Roles to AI

Some possible roles of AI include:

- Data collection and analysis
- Assistance in paperwork
- Dialogical partner
- Assistance in professional development of evaluators

2.1.1 Data Collection and Analysis, and Assistance in Paperwork

The JUAA is an EQA agency in Japan, evaluating and accrediting higher education institutions (HEIs) and some programmes. All the practices of the JUAA adopt 'fitness-for-purpose' approaches, respecting each HEI's mission, purpose, and the policies derived therefrom (JUAA, 2018). For this reason, evaluators are required to be context-responsive and engage in clear reasoning when they identify problematic areas and conveying their findings. Clear reasoning makes it central in evaluators' work to gather and interpret a wide range of the qualitative and quantitative evidence which is collected from official documents and via dialogue with HEIs. The qualitative evidence here refers to, for example, any written materials which demonstrate, for example, student intellectual and personal growth, or any narrative underlining positive or negative effects. Under the quantitative evidence, for example, numerical data related to financial states is included.

Of the possible four roles shown above, the first two are most basic but greatly beneficial ones. While the JUAA has not employed AI in evaluation yet, utilizing AI for data collection and analysis is a possible way. As is widely acknowledged, AI excels at processing vast amounts of data, and as documented in González-Pérez et al. (2025), this is also the case in higher education domain. Moreover, AI's processing ability can be demonstrated in drafting,

summarising, and simplifying evaluators' reports. This will increase operational efficiency and increased efficiency could enable better allocation of evaluator time.

2.1.2 Dialogical Partner

Given the potential of AI, it can help evaluators to deepen their thinking. Shibu (2024) reports how a US-based business school employed AI to prepare the documents for accreditation. She reports that a school has a Chatbot-type AI evaluate how well scholarly articles and journals align with the UN's sustainable development goals, like ending poverty and ensuring sustainable consumption. This alignment is necessary for business schools to obtain accreditation from the AACSB (the Association to Advance Collegiate Schools of Business). This AI program works as a dialogical partner, acting like a real peer reviewer in responses to individual queries. The program creates a custom report that includes possible answers to the question, like "what is the societal impact of the article?" Considering such answers, the business school reexamine and improve the article, when it hasn't been published yet, and as a result, the school can prepare for successful accreditation.

This AI use case may indicate a potential in quality assurance activities. The AI is capable not only of responding to evaluators' questions but also of generating new ones by reviewing diverse kinds of written materials and datasets. If evaluators do not uncritically accept such answers and questions as they are but use a kind of "insights", then they can leverage to obtain new viewpoints or can identify any overlooked risk factors. Context-responsive evaluation, like that conducted by the JUAA, is not a standardised and formulaic process. It requires situation-specific inquiry and understanding. AI can help evaluators in such work by becoming a dialogical partner.

2.1.3 Assistance in Professional Development of Evaluators

AI may have utility in improving evaluators' professional development. Some researchers have acknowledged the benefits of integrating AI into professional training, because it enables the design of tailored training to suit individual needs and proficiency levels (Fakhar et al., 2024). In terms of the JUAA, evaluators are trained using case studies, yet the cases do not cover all the likely risk areas and are not sufficient for diverse evaluators with different levels of expertise. A personalised tutor system utilising AI may enable the delivery of training that is specifically customised to meet the learning needs of evaluators. If evaluation is to be done in context-responsive manners, this tailored training must have crucial meaning. Evaluators can be trained through case studies prepared according to their level, enhancing their skills in context-responsive evaluation.

3. Rethinking the Roles of Evaluators

As has been argued so far, AI possesses significant potential to benefit evaluative works. Is it, however, sufficient to consider only the advantageous aspects? Is not there anything to be considered more? Is there nothing else that should be taken into account?

In this regard, it is important to note two pivotal points before proceeding with the discussion. Firstly, the limitations of AI. Despite its potential value in facilitating increased efficiency and accuracy, AI raises concerns about the possibility of malfunction or incorrect behaviour. For example, it can produce biased or inaccurate outcomes. AI hallucinations are increasingly recognized as a significant issue even among higher education area (e.g. Elsayed, 2024). Secondly, the changed landscape. In Japan, a situation is emerging in which HEIs are leveraging AI to process extensive data and provide services like tailored learning support (Matsuzaka & Kato, 2023, p. 34). Although this is not yet ubiquitous, a recent surge in institutional research (IR) by HEIs suggests that AI's data processing may soon be utilised for QA in many HEIs. Student-related data—such as classroom performance, survey responses, and broader indicators of learning and students' lives—are widely gathered and utilized by Japanese higher education institutions as a foundation for quality assurance (Torii et al., 2023). The implications of this are by no means insignificant, because such recent development will accelerate the transformation of the QA landscape— specifically, it will shift toward a more data-driven approach, enabling a broader and more diverse range of evidence to be utilized in external evaluations."

Considering such circumstances, discerning the relevance and validity of a wide array of evidence will be more crucial. Moreover, providing a holistic view in stead of fragmented findings will become more important. "Holistic" refers here to an approach that emphasize the whole or entity, rather than focusing on isolated parts, seeking to understand how each element or fragmented fact interacts with each other. Of course, the holism–reductionism debate has persisted throughout intellectual history, and holistic views are not acknowledged as universally effective (Harris & Alderman, 2025, pp. 16–17). However, their role in evaluation is nonetheless meaningful, especially when considering the need of the context-responsiveness.

These insights are supported by prior research, including the work of Stensaker and Leiber (2015). In their pursuit of a framework capable of assessing the organizational impact of EQA, they draw upon a wide range of existing studies. One of the key points identified in their work implies the necessity of a holistic perspective to ensure the impact of evaluation. They take note of that in large-size HEIs of today, many different interests coexist, making agreements on priorities and decisions difficult. This means in the context of QA that defining quality and implementing activities to assure quality may be difficult and

there is high likelihood of organizational fragmentation, which may impede the implementation of effective QA. In other words, under such conditions, EQA without holistic-view may reinforce organisational fragmentation and measures and actions to the problems identified by evaluators may be done with no or less awareness on how quality is taken care of at the whole organisational level (Stensaker and Leiber, 2015, 334–335). Other insights can be obtained from the work by P. Ewell. Using the term "quality game", he brought it to the light that EQA in U.S. higher education had evolved into a strategic and symbolic "game" played between HEIs and EQA bodies (Ewell, 2007, pp.136–138). In other words, EQA may easily drift from its original purpose and devolve into a reactive and fragmented exercise. All these prior studies underline the necessity of the holistic view.

Here lies a domain where evaluators can — or must — play an essential role. It is the human evaluator who can grasp the essence through various interactions and synthesize a final judgment from a holistic perspective. Of course, AI can provide any information or data that is not fragmented but integrated. Yet, it cannot fully interpret anything unsaid or nuanced — especially within narratives and documents. And, although evaluation needs to be based on the clear evidence, the validity of it is highly context-dependent, and there exists the necessity of "interpretation" of context. The notion of "context" in this setting encompasses not only textual information but also the information derived from human communication which sometime indicates the elements beyond words. This is the reason why that the AEA places a set of competencies related to human relations and social interactions on its list (AEA, 2018). And therefore, many EQA bodies engaged in accreditation or the other type of evaluation incorporate on-site-visit procedure, emphasizing oral and visual evidence along with written one. Consequently, the enduring responsibilities of human evaluators center on their ability to interpret complex contexts, synthesize diverse forms of evidence, and engage meaningfully with stakeholders. These highly-context-dependent or interpersonal competencies are essential for constructing a comprehensive and valid evaluative judgment.

Conclusion

This paper seeks to initiate an ongoing discussion of the roles of AI and human evaluators. Different EQA in different contexts generate diverse suggestions and require different skillsets. However, as argued above, it is evident that thinking about AI necessitates reconsidering the role of human evaluators. More exactly, it can be said that thinking about the roles of AI makes us aware again what is inherent to evaluation and, thus, what kind of responsibilities evaluators must continue to bear. In other words, highly-context-dependent or interpersonal competencies must be highlighted today. Of course, in order to advance the

discussion further, it will be necessary to conduct a more multifaceted examination based on qualitative research and empirical data. This is a task that could not be accomplished within the scope of this paper and is, therefore, left for future work.

References

The American Evaluation Association (AEA). 2018. *The 2018 AEA Evaluator Competencies.*

Elsayed, Hassan. 2024. "The Impact of Hallucinated Information in Large Language Models on Student Learning Outcomes: A Critical Examination of Misinformation Risks in AI-Assisted Education." *Northern Reviews on Algorithmic Research, Theoretical Computation, and Complexity* 9 (8): 11-23. https://northernreviews.com/index.php/NRATCC/article/view/2024-08-07.

Ewell, Peter. 2007. "The 'Quality Game': External Review and Institutional Reaction over Three Decades in the United States." In *Quality Assurance In Higher Education: Trends in Regulation, Translation and Transformation*, edited by Don F. Westerheijden, Bjørn Stensaker and Maria João Rosa, 119-153. Dordrecht: Springer Netherlands.

Fakhar, Hamza, Mohammed Lamrabet, Noureddine Echantoufi, Khalid El Khattabi, and Lotfi Ajana. 2024. "Towards a New Artificial Intelligence-based Framework for Teachers' Online Continuous Professional Development Programs: Systematic Review." *International Journal of Advanced Computer Science and Applications* 15: 480-493. https://doi.org/10.14569/IJACSA.2024.0150450.

Ferretti, Silva. 2023. "Hacking by the prompt: Innovative ways to utilize ChatGPT for evaluators." *New Directions for Evaluation* 2023 (178-179): 73-84. https://doi.org/https://doi.org/10.1002/ev.20557. https://onlinelibrary.wiley.com/doi/abs/10.1002/ev.20557.

González-Pérez, L. I., F. J. García-Peñalvo, and A. J. Argüelles-Cruz. 2025. "Data-Driven Learning Analytics and Artificial Intelligence in Higher Education: A Systematic Review." *IEEE Revista Iberoamericana de Tecnologias del Aprendizaje*: 1-1. https://doi.org/10.1109/RITA.2025.3615512.

Harris, Benjamin, and Lyn Alderman. 2025. "Reasoning in Evaluation: Why Does It Matter?" *New Directions for Evaluation* 2025 (185-186): 15-23. https://doi.org/https://doi.org/10.1002/ev.20631. https://onlinelibrary.wiley.com/doi/abs/10.1002/ev.20631.

The Japan University Accreditation Association (JUAA). 2018. *University Accreditation Handbook.*

Mason, Sarah. 2023. "Finding a safe zone in the highlands: Exploring evaluator competencies in the world of AI." *New Directions for Evaluation* 2023 (178-179): 11-22. https://doi.org/https://doi.org/10.1002/ev.20561. https://onlinelibrary.wiley.com/doi/abs/10.1002/ev.20561.

Matsuzaka, Akinori, and Miharu Kato. 2023. "Digital Technologies and Ethical Approaches in Quality Assurance: A Case of the JUAA." In *Anthology of APQN Academic Conference* 2023, edited by the Asia-Pacific Quality Network (APQN), 34–37. the APQN.

Patton, Michael Quinn. 2018. "A Historical Perspective on the Evolution of Evaluative Thinking." *New Directions for Evaluation* 2018 (158): 11-28. https://doi.org/https://doi.org/10.1002/ev.20325. https://onlinelibrary.wiley.com/doi/abs/10.1002/ev.20325.

Shibu, Sherin. 2024. "A New AI Chatbot Is Revolutionizing Business School Curriculum and Accreditation — Here's What It Could Change." *Entrepreneur April 23,* 2024.

Stensaker, Bjørn, and Theodor Leiber. 2015. "Assessing the organisational impact of external quality assurance: hypothesising key dimensions and mechanisms." *Quality in Higher Education* 21 (3): 328-342. https://doi.org/10.1080/13538322.2015.1111009. https://doi.org/10.1080/13538322.2015.1111009.

Torii, Tomoko, Nobuhiko Kondo, and Koichi Yamamoto. 2023. "Holistic Approach to Successful Institutional Research and Institutional Effectiveness Based on Local Intelligence in Japanese Universities: Required Conditions for Bridging IR and IE." *Asia-Japan Research Academic Bulletin* 4. https://doi.org/10.34389/asiajapanbulletin.4.0_11.

Integrating Artificial Intelligence into Institutional Quality-Assurance Audits: A Parallel-Panel Study in Ontario Colleges

Karen Belfer[1)1], Stephen Murgatroyd[2], Sylvie Mainville[1] and David A. E. Vares[1,3]

[1]Ontario College Quality Assurance Service, [2]University of Alberta, [3]Laurentian University

Abstract

Recent advances in artificial intelligence (AI) offer quality-assurance (QA) agencies new opportunities to streamline labour-intensive institutional audits. This study reports on the first systematic comparison between a traditional human audit panel and an AI Audit-Panel Assistant (APA) that reviewed the same evidence package for an Ontario college under the College Quality Assurance Audit Process (CQAAP). Operating in strict isolation, each "panel" completed the full seven-stage audit cycle prescribed by the Ontario College Quality Assurance Service (OCQAS). Convergence was observed between panels with strong alignment in evaluations across 30 requirements. We discuss the efficiencies, objectivity, and ethical challenges of AI-supported audits and outline a research agenda for responsible integration of AI in higher-education QA.

Keywords: artificial intelligence, quality assurance, higher education, audit, accreditation, Ontario Colleges

Introduction

External Quality Assurance (QA) audits safeguard public confidence in higher education by verifying that colleges meet defined standards of academic quality, governance, and continuous improvement (Elviwani, Zarlis, Dilham, and Buaton 2020). In the Ontario college system, these standards are codified in the College Quality Assurance Audit Process (CQAAP) framework. Peer-reviewed audits, however, are data-heavy, time-consuming, expensive and susceptible to cognitive and subjective biases. Artificial intelligence has shown promise in accelerating complex document reviews and pattern recognition (Almasri

1) belfer@ocqas.org

2024; Tobias, Minglana, Hernandez, Mital, and Roxas 2023), yet its practical contribution to QA remains under-studied (Popenici and Kerr 2017). This article addresses that gap by evaluating an innovative OCQAS pilot in which an AI assistant performed a complete, parallel audit.

Quality assurance (QA) in post-secondary education is both a legal requirement and a matter of public trust. In Ontario, Canada, colleges operate under a complex regulatory framework that demands evidence-based oversight of academic quality. The Ontario Colleges of Applied Arts and Technology Act (Ontario 2002) designates each college as a Crown agency with a mandate to deliver "a comprehensive program of career-oriented, post-secondary education and training".

The Ontario College Quality Assurance Service (OCQAS) was founded by the colleges, working at arm's length from government, to operationalize these statutory duties through two province-wide mechanisms: the Credential Validation Service (CVS) and the College Quality Assurance Audit Process (CQAAP) (OCQAS 2025). The Governance and Accountability Framework, a Minister's Binding Policy Directive, further charges every college board with establishing robust QA processes, collecting data on outcomes, and demonstrating continuous improvement (Ministry of Training, Colleges and Universities 2010). Together, these instruments create an environment in which audit findings shape a college's path of continuous improvement and ultimately, student success.

Parallel to these policy developments, artificial intelligence (AI) has undergone remarkable growth. The release of large language models (LLMs) such as GPT-4, Gemini 1.0, Deep Seek-LLM in 2023 and the multimodal GPT-4o, Gemini 2, Grok 4, Claude Sonnet in 2025 has expanded AI's capacity for nuanced language understanding, data synthesis, and context-aware reasoning (Saleh, Talib, and Nasir 2025; Shahzad et al. 2025)).

AI applications in higher education range from adaptive tutoring to automated feedback (Murgatroyd 2024). International agencies, including QAA (2024), now recommend "data-augmented" audit models, yet empirical evidence comparing AI and human auditors is scarce. Concerns persist about data quality, algorithmic transparency, and the displacement of expert judgment (Popenici and Kerr 2017).

In AI-generated text, a "hallucination" is a confident-sounding statement that is nevertheless false, fabricated, or improperly sourced. These lapses highlight why AI should function as a data-triage partner, not a solo decision-maker. Human reviewers must interrogate each claim, cross-reference original evidence, and exercise contextual judgment, especially in high-stakes quality-assurance audits where erroneous information could misguide institutional decisions (Ji et al. 2023).

There is also another concern: A systematic review (Conti 2025) underscores that "automation bias". The human tendency to over-trust AI outputs remains an under-

addressed risk, even in the presence of explainable AI features.

Despite burgeoning interest, empirical evidence of AI's effectiveness inside formal QA audits remains scant. International agencies such as the UK Quality Assurance Agency have begun piloting "data-augmented" site visits, but published studies rarely compare AI judgments to those of expert auditors on the same evidence base. Against this backdrop, the present study analyzes an OCQAS pilot in which an AI Audit-Panel Assistant (APA) performed a full, parallel audit of a college while the conventional human panel followed standard practice. By positioning the pilot within Ontario's distinctive legislative and policy context, we aim to illuminate both the technological potential and the governance safeguards required for responsible AI adoption in QA.

Project context and objectives

The Ontario College Quality Assurance Service (OCQAS) and the College Quality Assurance Audit Process (CQAAP) is recognized by the International Network of Quality Assurance Agencies in Higher Education (INQAAHE) as being an agency that meets the Guidelines of Good Practice (GGP) and was developed to ensure quality and continuous improvement in Ontario's colleges.

The CQAAP is an institutional level process that involves the regular and cyclical review of each college's quality assurance mechanisms. The College Quality Assurance Audit Process (CQAAP) Standards (OCQAS, 2025a) and requirements provide the framework for Ontario's public colleges in assessing the extent to which their quality assurance mechanisms and practices meet the established standards. Its purpose is developmental, and its intent is to ensure continual improvement.

During the 2024-2025 audit cycle, the Ontario College Quality Assurance Service (OCQAS), an independent body established by the colleges to safeguard quality and consistency across the sector, piloted an AI Audit-Panel Assistant (APA) alongside a conventional human audit panel.

Table 1 provides an at-a-glance synthesis of the CQAAP Standards (OCQAS 2025a), underscoring their broad applicability across institutional, provincial, and international contexts. Collectively, the six standards encompass 30 discrete requirements, offering a balanced yet comprehensive framework that can be adopted by quality-assurance bodies worldwide.

Rationale for an AI-enabled audit

Recent advances in large-scale natural-language processing and multimodal analytics have expanded AI's capacity to process complex documentary evidence, generate formative

Table 1: Summary of the CQAAP Standards with a brief description.

CQAAP Standard	Brief description
1 — Program Quality Management System	Establishes and maintains a college-wide, board-endorsed quality-assurance framework that is consistently implemented, continuously evaluated and improved to sustain academic excellence
2 — Vocational Learning Outcomes at the Centre of Program Development	Places Program Vocational Learning Outcomes (PVLOs) at the heart of every stage of the program life cycle： development, delivery and review to guarantee curriculum coherence and labour-market relevance.
3 — Conformity with Government Requirements	Ensures all programs meet titling protocols, provincial credentialing qualifications and standards. Also, that they have Program Advisory Committees that ensure that academic programs remain relevant, high-quality, and aligned with industry needs
4 — Program Delivery and Student Assessment	Verifies that teaching, learning and assessment practices consistently align with course outcomes across all delivery modes, and that faculty are providing fair evaluation and prompt, constructive feedback to students.
5 — Existence, Monitoring & Communication of Academic Policies	Requires colleges to publish, communicate, review and apply academic policies consistently to safeguard academic integrity and transparency
6 — Availability & Allocation of College-wide Resources	Confirms that human, physical, financial and technological resources are sufficient, appropriately allocated and regularly reviewed to support students in their educational journey.

feedback and predict risk areas in educational quality systems. Leveraging these capabilities within CQAAP aligns with Ontario's policy emphasis on evidence-based, board-led accountability.

Pilot objectives

- Validity and reliability — Compare APA findings with those of the human panel across all six CQAAP standards to quantify concordance and identify divergences.
- Process optimization — Determine which audit stages (e.g., document review, evidence triangulation, standards rating, report drafting) realize the greatest efficiency and insight gains from AI augmentation.
- Policy & capacity-building implications — Draw actionable recommendations for OCQAS, professional development for auditors, and ethical guard-rails consistent with provincial statutes and regulations.

By embedding the pilot in an authentic college's audit, the study provides a testing ground for assessing AI's contribution to rigor, objectivity and timeliness in post-secondary quality assurance. The impact is underscored by OCQAS' mandate for transparency and accountability of its public colleges.

Methodology

Parallel-panel design

Two independent parties examined identical evidence:

- A human panel comprised three experienced, higher education quality assurance reviewers following standard OCQAS training and audit practice.
- A large-language-model–based AI agent, customized through expectation documents and prompt engineering to support audit-related tasks, deployed in a secure, offline environment.

Table 2 presents the parallel-panel methodology into a step-by-step, side-by-side comparison, outlining how the human auditors and the AI Audit-Panel Assistant (APA) engaged with identical evidence at each stage of the six-part CQAAP cycle. By juxtaposing the workflows, document review, preliminary assessment, information-request generation, audit-visit analysis, synthesis, and final reporting, the table clarifies where the processes converge (e.g., standards alignment and evidence mapping) and where they deliberately diverge (e.g., conversational nuance versus algorithmic pattern-matching). This schematic overview complements the narrative procedure by making the operational symmetry of the

Table 2: Comparison and details of the parallel-panel design.

	Human Panel	**AI Audit-Panel Assistant (APA)**
Review of the Audit Package	The panel members, comprising experienced QA professionals, meticulously reviewed the institution's comprehensive Audit Package. Their review involved critical reading, cross-referencing information, and applying their expert knowledge of QA principles and best practices.	The APA AI Audit-Panel Assistant was provided the CQAAP standards and the College's Audit Package in a digital format. APA utilized Natural Language Processing (NLP) techniques to analyze the text, identify key themes, extract relevant information related to our standards and requirements, and flag potential areas of strength or concern.
Preliminary Assessment Submission	Based on their initial review, the panel members individually formulated and collectively synthesized a preliminary assessment of the institution's alignment with the agency's standards and requirements.	The AI Audit-Panel Assistant generated its preliminary assessment based on its analysis of the Audit Package.
Request for further information	Following their preliminary assessment, the panel collaboratively developed a list of specific questions and requests for additional information or evidence. These requests aimed to clarify ambiguities, delve deeper into specific areas of concern, and gather further proof of compliance.	The AI Audit-Panel Assistant was not directed to compile a list of additional information requests. In the preliminary assessment, the APA highlighted areas where the submitted documentation was either incomplete or required further clarification to accurately evaluate compliance.

	Human Panel	AI Audit-Panel Assistant (APA)
Audit Visit	The audit panel conducted a virtual audit visit. During this visit, they engaged in interviews and discussions with various invested parties, including staff, faculty, students, and administrators. They gathered qualitative data and sought to gain a deeper understanding of the institution's operations and its adherence to the quality standards in practice.	Crucially for this research, we utilized an Automated Transcription Tool to transcribe and summarize the conversations held during these interviews. This provided a consistent and automated method for capturing key information. The AI Audit-Panel Assistant was provided with transcripts and summaries of the conversations.
Review of audit notes	The audit panel members reviewed their own notes and observations. They discussed key findings, identified emerging themes, and began to form a more comprehensive picture of the institution's strengths and areas for improvement.	The AI Audit-Panel Assistant analyzed transcript summaries and identified key themes, extracted relevant quotes, and cross-referenced the information with the institution's documentation and the agency's standards.
final report submission	Based on all the information they gathered, the panel members collaboratively developed their final assessment for each of the OCQAS's standards and requirements. This involved critical evaluation, professional judgment, and consensus-building. The audit panel collectively drafted a comprehensive final audit report. This report provided an overview of the institution's adherence to the agency's standards, highlighted key strengths, identified areas needing improvement, and offered recommendations for continuous enhancement. The report reflected the panel's expert judgment and collective understanding of the institution.	The AI Audit-Panel Assistant synthesized all the data it had processed to generate its final assessment for each standard. It also drafted a comprehensive final audit report based on its analysis. This report summarized its findings for each standard and requirement, presented supporting evidence, and identified areas of strength and recommendations based on its algorithmic interpretation of the data. This is the prompt given to the APA (ChatGPT 4.1 Deep Research) this phase of the project: "Using all of the documents in this folder, use the criteria established and documented here: https://www.ocqas.org/wp-content/uploads/2023/09/CQAAP-Guidelines-and-Framework-2024-2025.pdf to determine if the College (a) meets each standard (do each one at a time); (b) partially meets the standard (give reasons and suggest what they need to do to meet the standards; or (c) does not meet the standards explain why. Using this analysis, provide a SWOT analysis of college's quality assurance process."

pilot explicit, thereby strengthening confidence in the validity of subsequent concordance findings.

Results

Overall convergence

The AI Audit-Panel Assistant demonstrated concordance with the human panel on 28 of the 30 evaluative indicators outlined in the CQAAP framework. Inter-rater reliability was assessed using Gwet's AC1 yielding a value of 0.924 resulting in an almost perfect

agreement.

The Audit-Panel Assistant and the human panel reached consensus on 28 indicators, 27 of them receiving a “Met” assessment, and on one indicator rated as “Partially Met.”

Table 3: Results from both panels on the College Quality Assurance Audit Process (CQAAP) Standards

Standard 1		
Requirement	Human-Panel	Audit-Panel Assistant
1.1	☒Met	☒Met
1.2	☒Met	☒Met
1.3	☒Met	☒Met
1.4	☒Met	☒Met
1.5	☒Met	☒Met
1.6	☒Met	☒Met
1.7	☒Met	☒Met
Standard 2		
Requirement	Human-Panel	Audit-Panel Assistant
2.1	☒Met	☒Met
2.2	☒Met	☒Met
2.3	☒Met	☒Met
Standard 3		
Requirement	Human-Panel	Audit-Panel Assistant
3.1	☒Met	☒Met
3.2	☒Met	☒Met
3.3	☒Met	☒Met
3.4	☒Partially Met	☒Met
Standard 4		
Requirement	Human-Panel	Audit-Panel Assistant
4.1	☒Met	☒Met
4.2	☒Met	☒Met
4.3	☒Met	☒Met
4.4	☒Met	☒Met
Standard 5		
Requirement	Human-Panel	Audit-Panel Assistant
5.1	☒Met	☒Met
5.2	☒Partially Met	☒Partially Met
5.3	☒Met	☒Met
5.4	☒Met	☒Met
5.5	☒Met	☒Met
5.6	☒Met	☒Met
5.7	☒Met	☒Met
5.8	☒Partially Met	☒Met
Standard 6		
Requirement	Human-Panel	Audit-Panel Assistant
6.1	☒Met	☒Met
6.2	☒Met	☒Met
6.3	☒Met	☒Met
6.4	☒Met	☒Met

However, two indicators were evaluated differently: the human panel assigned a "Partially Met" rating, while the AI Audit-Panel Assistant assessed them as "Met." This small but important divergence highlights the complexity inherent in institutional audit processes, particularly those that rely on human interpretation of nuanced data such as interviews with the invested parties during the audit visit.

The level of detail in the Analysis by the human-panel

In comparing the supporting narratives behind each rating, both parties agreed that the college has formal mechanisms in place for the timely implementation of essential components and for communicating expectations to relevant invested parties. Nevertheless, the human-panel identified inconsistencies in communication, noting that some invested parties lacked access to critical information necessary to fulfill their roles effectively. These stakeholders include faculty members, program coordinators, and students -each of whom plays a distinct yet interconnected role in ensuring the institution's ecosystem.

The complexity of the requirements lies not only in the timely execution of tasks but also in the layered expectations surrounding accountability, transparency, and stakeholder engagement. The AI Audit-Panel Assistant, operating solely from transcriptions of interviews and not the live conversations, may have overlooked or misinterpreted subtle cues, emphasis shifts, or direct commentary from participants—particularly comments related to specific stakeholders' awareness and involvement.

The level of detail in the Analysis by the AI Audit-Panel Assistant

Notably, the AI Audit-Panel Assistant exhibited exceptional capabilities in aggregating and synthesizing evidence (approximately 400 documents, spreadsheets, PowerPoint presentations and meeting minutes), producing a report that was not only detailed but also extensively referenced. Its strength lay in systematically connecting evidence to each rating decision and surfacing patterns across documents that might elude human analysts working under time constraints.

For example, these were the narratives presented in response to requirement 3.3:

Human-panel

"The College ensures that program of instruction have appropriate Program Advisory Committees (PACs) and that mechanisms are in place to ensure clarity in roles, responsibilities, and meaningful input into program relevance and quality. PAC feedback coming from industry is captured in comprehensive program reviews and directly impacts program direction (breadth and depth).

Interviews with PAC members and faculty highlighted their understanding and

commitment to ensure students are prepared to meet industry needs. PAC meetings are held twice a year and onboarding is provided for all new PAC members.
Mechanisms include PAC policies and processes, and a scorecard that is used to monitor the performance of the PAC, which is reviewed by the BoG on an annual basis."

AI Audit-Panel Assistant

"The college ensures that every full-time program has an active Program Advisory Committee, as mandated by Ministry policy. A Board of Governors document for 2022-23 lists all PACs by program, noting that each program's PAC meets at least twice per year and that Governors are assigned to attend these meetings. This confirms that PACs are not only formally in place but also that their meetings are happening regularly (each semester where possible) and involve college leadership (deans and board representatives). The PACs provide meaningful input on program relevance and quality – for example, PAC feedback has influenced curriculum updates like introducing new content or adjusting program direction (though specifics in the minutes are limited, it's standard practice that PAC meeting discussions on industry trends lead to recommendations for the program). The Board receives brief verbal reports from Governors about PAC meetings, ensuring that PAC input is escalated to governance. Additionally, the college's practice of adding new members (such as Indigenous industry experts to PACs in response to Truth and Reconciliation goals) shows it values diverse and current input on program quality. Overall, the college meets the requirement of having appropriate PACs and has mechanisms for PAC input to be heard and acted upon."

This contrast between granular evidence synthesis and contextual interpretation suggests that hybrid approaches, leveraging both AI capabilities and human insight, may offer the most comprehensive view in future audit processes.

Discussion

Efficiency gains

Document parsing time fell from an estimated 62 staff-hours per audit panel member to <2 machine-hours. Consistent with (Almasri 2024), automation freed reviewers to focus on triangulating complex evidence (written narrative, submitted evidence, and interview testimony). This also translates into real costs, both in terms of people time and opportunity costs.

Additional work

Accessing the files submitted by the institution and making them available to the AI agent required significant additional staff hours, largely due to access constraints and workspace limitations. Even though the institution provided access to a Sharepoint folder with the files, work was required to separate documents by CQAAP requirement, suggesting a new time requirement for institutional submissions.

Maintaining judgment and ethics

Findings endorse a co-auditor (human – AI collaboration) rather than an autonomous-AI auditor model. Human oversight mitigates algorithmic misinterpretation, especially for culturally embedded quality markers (Popenici and Kerr 2017) and to ensure that the AI review is free of hallucination and relevant.

Data privacy was ensured by: (a) using a specific secure location for files and materials reviewed, ensuring that the files (many of which are already in the public domain), were not widely accessible to others; and (b) files were immediately removed from the AI system once the analysis was completed.

All information used in the study has to be triangulated to be considered admissible as evidence or consideration when assessing the institution's ability to meet a requirement.

Professional development implications

The pilot underscores that future quality assurance (QA) reviewers and institutions must add "AI-fluency" and critical review of AI outputs to their already interdisciplinary skill set. QA professionals will require data-literacy skills (e.g., prompt engineering, AI output validation, an understanding of the differences between different LLMs in terms of functionality – Mollick 2025) in addition to existing evaluative expertise.

Policy implications

Regulators should update audit protocols to (a) define acceptable AI assistive roles, (b) mandate transparency of model provenance, and (c) safeguard institutional data governance.

The trajectory of QA in education is already shifting toward hybrid models—where institutional audits are increasingly collaborative, combining granular AI-driven analysis with human interpretive judgment. Consider highlighting the adaptive, iterative nature of AI-augmented QA and advocating for flexible, revisable frameworks over static compliance checklists.

Limitations

The pilot analyzed a single institution and one AI architecture (ChatGPT). Future work should be replicated across diverse institutional types and evaluate long-term impact on audit recommendations and institutional change. It will also require the exploration of both the veracity and weaknesses of different AI tools for various components involved in the assessment of quality.

Conclusion

Artificial Intelligence assistants accelerate the mechanics of a CQAAP audit. The extraction of key evidence, cross-referencing policies, and highlighting statistical outliers were completed in a fraction of the time required by manual review (minutes rather than hours or days).

The pilot confirms that algorithmic speed does not equal evaluative wisdom. High-stakes judgments about student learning, equity, and institutional mission still depend on professional discernment and contextual knowledge but can now be supported by the efficient and effective use of AI tools, deployments and agents.

The optimal path forward is therefore a hybrid or "integrated" quality assurance model in which AI triages the data while expert panels adjudicate meaning without diminishing their own critical engagement with the materials. This is a position echoed by the Quality Assurance Agency for Higher Education (2024), which calls for "balanced co-production of judgment between human reviewers and machine analytics".

The future of quality assurance is a principled partnership where machines excel at pattern discovery and scale, and professionals excel at contextual interpretation, ethical judgment, and invested partner engagements. By investing now in the competences, data infrastructures, and governance safeguards outlined above, quality assurance agencies and institutions can convert today's pilot successes into a mature, ethically grounded ecosystem of AI-augmented academic quality assurance.

Acknowledgements

Language refinement was provided by Microsoft Copilot (GPT-4), all outputs were reviewed by the authors.

References

Almasri, F. 2024. "Exploring the Impact of Artificial Intelligence in Teaching and Learning of Science: A Systematic Review of Empirical Research." *Research in Science Education* 54: 977–997. https://doi.org/10.1007/s11165-024-10176-3..

Conti, D. 2025. "Automation Bias in Human-AI Collaboration: Cognitive and Attitudinal Mechanisms in High-

Stakes Domains." Paper presented at *AIP Sperimentale 2025, 31° Congresso Annuale*, SISSA, September. https://indico.sissa.it/event/159/contributions/4143/..

Elviwani, Z., Zarlis, M., Dilham, A., and Buaton, R. 2020. "Higher Education Quality Assurance System Based on Artificial Intelligence." *International Journal of Scientific Research in Computer Science, Engineering and Information Technology* 6 (6): 274–279. https://doi.org/10.32628/CSEIT206635..

Ji, Z., Lee, N., Frieske, R., Yu, T., Su, D., Xu, Y., Ishii, E., Bang, Y., Madotto, A., and Fung, P. 2023. "Survey of Hallucination in Natural Language Generation." *ACM Computing Surveys* 55 (12): 1–38. https://doi.org/10.1145/3571730..

Ministry of Training, Colleges and Universities. 2010. *Governance and Accountability Framework: Minister's Binding Policy Directive*. https://www.ocqas.org/wp-content/uploads/2022/12/GovernanceandAccountabilityFramework2010.pdf..

Mollick, E. 2025. "When You Watch People Use AI, You See How Absolutely Confusing Chatbots Are … " LinkedIn, June 29. https://www.linkedin.com/posts/emollick_when-you-watch-people-use-ai-you-see-how-activity-7343084685729705987-bL0D..

Murgatroyd, S. 2024. *The Future of Higher Education in an Age of Artificial Intelligence*. London: Ethics Press.

Ontario. 2002. *Ontario Colleges of Applied Arts and Technology Act, S.O. 2002, c. 8, Sched. F*. https://www.ontario.ca/laws/statute/02o08f..

Ontario College Quality Assurance Service. 2025. "OCQAS Background." https://www.ocqas.org/about/ocqas-background/..

Ontario College Quality Assurance Service. 2025a. *CQAAP Standards 2025–2026*. https://www.ocqas.org/wp-content/uploads/2023/01/CQAAP-Standards-2025-2026.pdf..

Popenici, S. A., and Kerr, S. 2017. "Exploring the Impact of Artificial Intelligence on Teaching and Learning in Higher Education." *Research and Practice in Technology Enhanced Learning* 12 (1): 22. https://doi.org/10.1186/s41039-017-0062-8..

Quality Assurance Agency for Higher Education. 2024. *Quality Compass: Navigating the Complexities of the Artificial Intelligence Era in Higher Education*. https://www.qaa.ac.uk/docs/qaa/news/quality-compass-navigating-the-complexities-of-the-artificial-intelligence-era-in-higher-education.pdf..

Saleh, Y., Talib, M. A., and Nasir, Q. 2025. "Evaluating Large Language Models: A Systematic Review of Efficiency, Applications, and Future Directions." *Frontiers in Computer Science* 7, Article 1523699. https://doi.org/10.3389/fcomp.2025.1523699..

Shahzad, T., Mazhar, T., Tariq, M. U., Ahmad, W., and Hamam, H. 2025. "A Comprehensive Review of Large Language Models: Issues and Solutions in Learning Environments." *Discover Sustainability* 6 (27). https://doi.org/10.1007/s43621-025-00815-8..

Tobias, R. R., Minglana, J., Hernandez, D. K., Mital, M. E., and Roxas, R. E. 2023. "Artificial Intelligence Applications in Quality-Management Systems of Philippine Higher-Education Institutions." In *Intelligent Sustainable Systems*, 159–166. Singapore: Springer. https://doi.org/10.1007/978-981-19-7663-6_16..

Leveraging NLP and AI to Enhance Quality Assurance in Education : A Case Study from Thailand

Punyisa Phumiphol

Office for National Education Standards and Quality Assessment (ONESQA)

Abstract

This paper presents a case study on the application of Natural Language Processing (NLP) and Artificial Intelligence (AI) to improve the benchmarking and decision-making processes in Thailand's External Quality Assurance (EQA) system. This study attempted to address this issue by creating an NLP-based data extraction pipeline adapted to EQA benchmarking requirements through the mix-methods research. Stakeholder surveys found that approximately 87.5% of respondents identified the need for automated NLP techniques for transforming unstructured data into actionable insights, implying that the response emphasizes the practical relevance of creating technology to expedite and improve the benchmarking process in education. Leveraging these findings, the NLP pipeline was built using regular expression, pattern matching, and Named Entity Recognition (NER) to capture the desired text from complicated documents. Thereafter utilizing TF-IDF to vectorize and analyze meaningful insights with high accuracy, reaching a 98.33% match with annotated datasets and an F1 score of 1.0, the system effectively extract data while also obtaining critical data to support advanced analytics and visualizations revealed hidden performance patterns for both regulatory and collaborative benchmarks.

Keywords: NLP, Data Extraction, Information Extraction, Quality Assurance

1. Introduction

The quality assurance (QA) was utilized as mechanism for optimal quality of education worldwide. The Office for National Education Standards and Quality Assessment (ONESQA) is a primary agency responsible in this part, this holds schools accountable to stakeholders and fosters transparency in educational procedures, which aids in benchmarking to established standards and best practices.

Considering the diversity of school contexts, and enormous volumes of qualitative data generates substantial hurdles (ONESQA, 2021). Furthermore, traditional analysis and visualizations frequently fail to show shortcomings and opportunities for growth.

Dependence on unstructured data presents substantial obstacles for information retrieval and analysis, manual data extraction from school annual reports poses several obstacles (ONESQA, 2024). According to these limits, there is an urgent need to improve quality evaluation systems to properly handle these challenges (Figure 1). This study aims to leverage natural language processing (NLP) techniques to extract data from school documents and evaluate performance against quality standards to inform the creation of meaningful benchmarks, thereby encouraging continuous improvement and development among schools.

1.1 Aims and Objectives

- To develop an NLP-based automated data extraction pipeline for EQA artifacts in Thai
- To demonstrate the extracted data utility through cluster analysis and visualization for EQA benchmarking

2. Literature Review: Use cases of NLP

2.1 Information Extraction

In practice, Malashin et al. (2024) used Optical Character Recognition (OCR) in combination

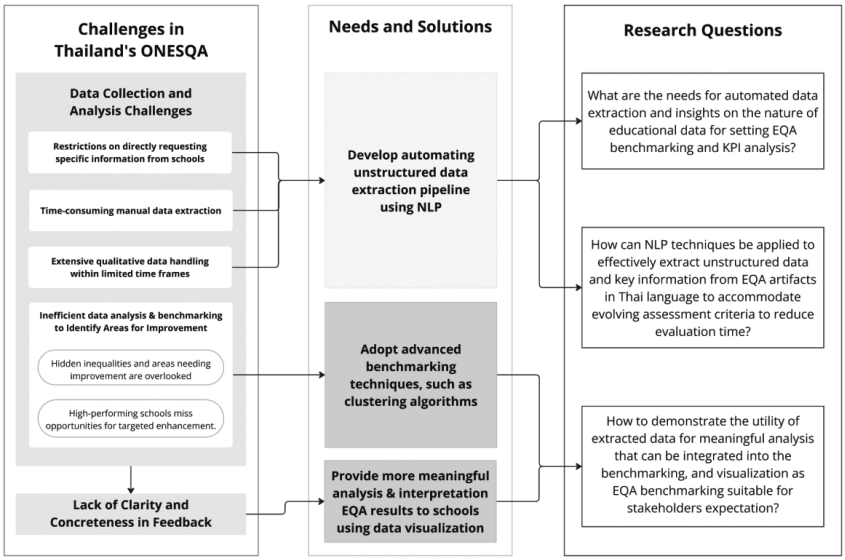


Figure 1: Research Gap

with Genetic Algorithms and Neural Networks to extract text and important information from document images which utilized PyTesseract and easyOCR for text recognition and Genetic Algorithms to improve OCR settings (Malashin et al., 2024). While another study by Hansen et al. (2019) focused on extracting and categorizing unstructured data from PDFs using OCR paired with deep learning techniques such as Faster Region-based Convolutional Neural Network (R-CNN), which aids in document segmentation and detection (Hansen, M., et al, 2019).

Overall, the case studies highlight the effectiveness of information extraction to automate the extraction of data from PDFs, OCR for transforming scanned documents into machine-readable text could be used. Regex are frequently used for finding and recognizing particular patterns in text. Referring to the approaches mentioned, a technique or method is unable to establish a solid data collection pipeline, considering select appropriate methods and creating combination of methods for specific goals is crucial to enabling the correct extraction.

2.2 Handling Specific Language Challenges

In practices, Soisoonthorn et al. (2023) demonstrated the actual implementation of these approaches by using SDR-based algorithms for Thai word segmentation and found the significant improvements in accuracy for languages, especially segmentation issues due to the lack of spaces between words (Soisoonthorn, T. et al., 2023). Correspondingly, Meesad (2021) applied Long Short-Term Memory (LSTM) networks to sequence handling in the context of fake news detection, proving the model's capacity to preserve context while improving classification accuracy (Meesad, P. 2021).

In addition to these techniques, recent research by Phatthiyaphaibun et al. (2023) created a set of tools to handle the Thai language's particular obstacles by integrating Conditional Random Fields (CRFs), LSTM, and Bidirectional Encoder Representations from Transformers (BERT) to solve tokenization and part-of-speech tagging constraints. The results of this architecture demonstrated that CRFs can be utilized for sequence labeling due to the lack of gaps between each word. While LSTM networks enable to capture long-term context and grasp the complete meaning of complicated statements, and BERT has strong capabilities for identify actual meaning relevant to the context surrounding that boost the accuracy of text classification in Thai (Phatthiyaphaibun et al., 2023).

However, developing NLP for Thai presents considerable hurdles because the structure of Thai language complexity, which includes different level tone of voice certain word can use to conveying soften a statement or command, making the language subtler and more nuanced phrases, a distinct set of Thai numerals, and lack of annotated dataset. As previously stated, Phatthiyaphaibun et al. (2023) suggest that future research should

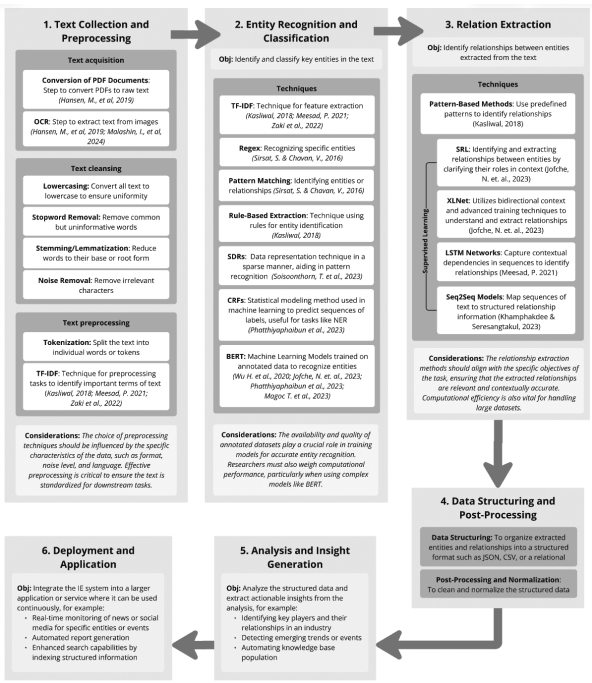


Figure 2: Summary of the Use Cases NLP Techniques for Data Extraction

concentrate on extending and diversifying datasets, as well as refining algorithms to more effectively handle Thai's distinctive linguistic qualities.

To conclude, Figure 2 illustrates the overview of structured framework for information extraction (IE), emphasizing the application of various NLP techniques and methodologies. The structured approach provided in this framework suggests a clear knowledge that each stage is planned to be executed with efficiency and in accordance with suitable principles.

3. Research Methodology

3.1 Research Methodology

This study adopts a mixed-methods approach to addressing the complexities of improving EQA benchmarking by automating data extraction using Natural Language Processing (NLP) to extract adequate information for advanced analysis. Data will be collected from two main sources including surveys of ONESQA leaders and officers and EQA artifacts.

3.2 Data Collection Methods

There are two phases of data collection methods from two primary sources including

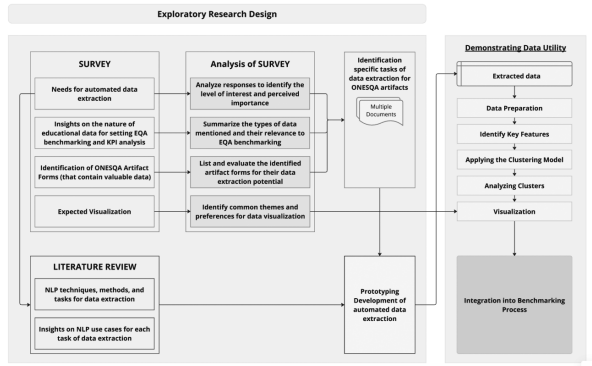


Figure 3: Research Design

surveys and EQA artifacts. Surveys administered to ONESQA internal and external stakeholders aim to identify the needs for automated data extraction, understand the nature of educational data for EQA benchmarking and KPI analysis (Figure 3). Subsequently, EQA artifacts, including reports and evaluations, will be processed using NLP techniques to extract both qualitative and quantitative data.

3.3 NLP-Based Automated Data Extraction Pipeline Framework

The developing NLP for EQA data extracting framework was designed to provide a clear

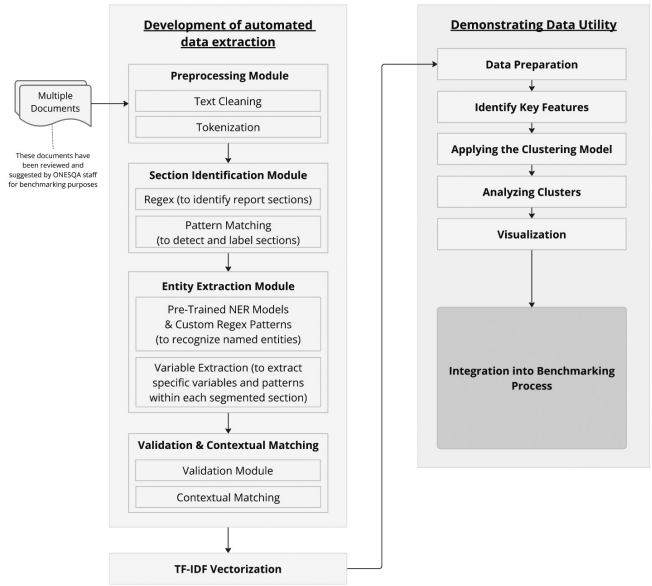


Figure 4: NLP-Based Automated Data Extraction Pipeline Framework

path, assuring systematic handling of each stage of data processing (Figure 4). The framework is segregated into particular tasks to improve modularity and simplify administration and debugging.

3.4 Data Analysis

The analysis is conducted in two phases, applying the following approaches.

1) **Survey Analysis**: Analyze using descriptive statistics and content analysis.
2) **EQA Artifact Analysis**: Develop and test an automated data extraction pipeline using NLP techniques. The extracted data will be statistically examined and compared to a manually annotated dataset using performance metrics of precision and recall measures.

4. Findings and Discussion

4.1 Needs for automated data extraction

According to the survey findings, 64.8% to 88.8% of respondents, including internal and external stakeholders, acknowledged the general necessity for an NLP data pipeline to extract adequate variables for comparison analysis (Figure 5). Specifically, 87.5% to 88.8% of respondents stated a need for developing NLP pipeline.

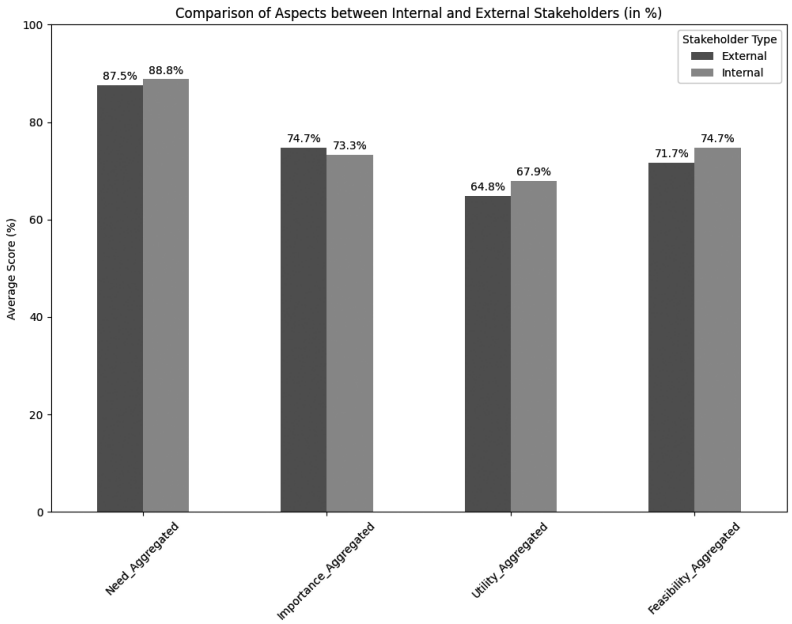


Figure 5: Comparison of needs aspects between internal and external stakeholders

4.2 Development and Performance of the NLP Extraction Pipeline

4.2.1 NLP Extraction Pipeline Development

1) Analysis of "BF-02" Document

The "BF-02" document suggested by respondents contains all essential variables (Figure 6). It has numerous organized portions that regularly address both Early Childhood Education (ECE) and Basic Education (BE). Each section presents indicators with corresponding ratings (numerical scores) and best practice descriptions (textual content).

Key challenges encountered during the analysis included repetitive headings that had identical headings, necessitating differentiation in the code to avoid confusion between sections. Due to inconsistent formatting while most portions maintained a consistent style. These issues were overcome by meticulous code design and optimization, ensuring that the

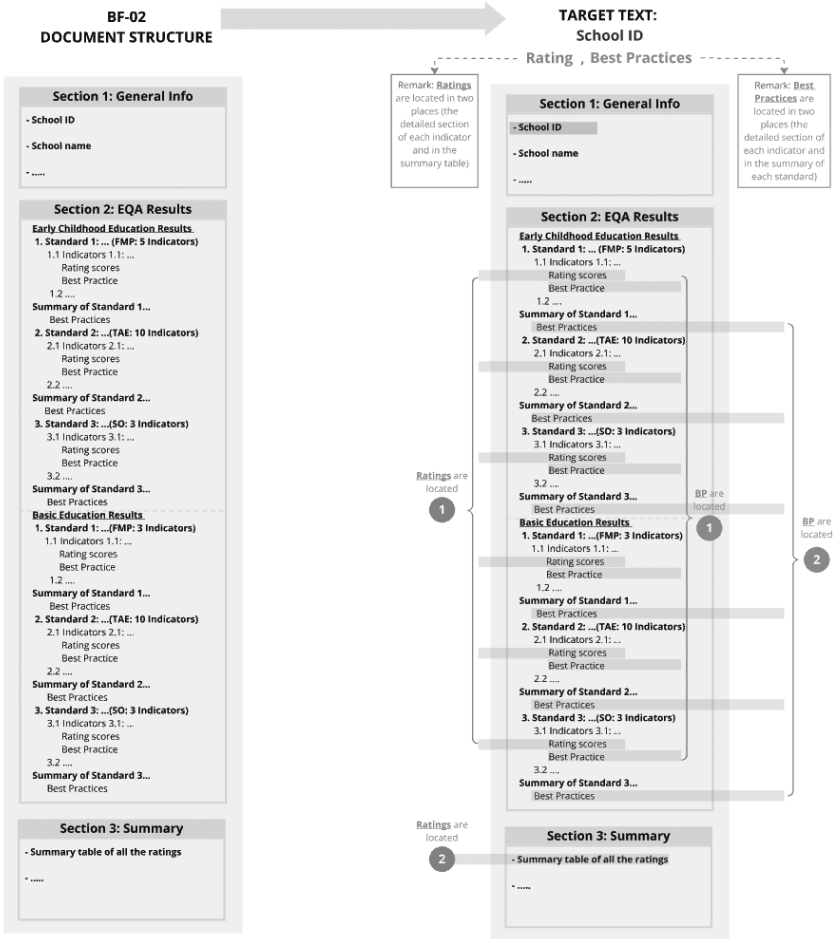


Figure 6: "BF-02" Document Structure

pipeline could successfully extract the required data.

2) Findings

2.1) Part 1: Rating Extraction

This developed code aims to extract numerical ratings for each indicator in both ECE and BE, which focuses on these precise places to effectively collect the numerical data associated with each indicator (Figure 7) focused on **School Code Extraction** contains a regex-based approach for extracting the school code. **Indicator and Rating Extraction** intended to obtain ratings for each indicator within a standard by using regex to identify each indicator by number to retrieve the related rating.

2.2) Part 2: Best Practices Text Extraction

This model is designed to extract the descriptive text under the "Best Practice" sections for each indicator. This part deals with extracting narrative text, requiring different NLP techniques to identify and isolate the relevant content ensuring that no important

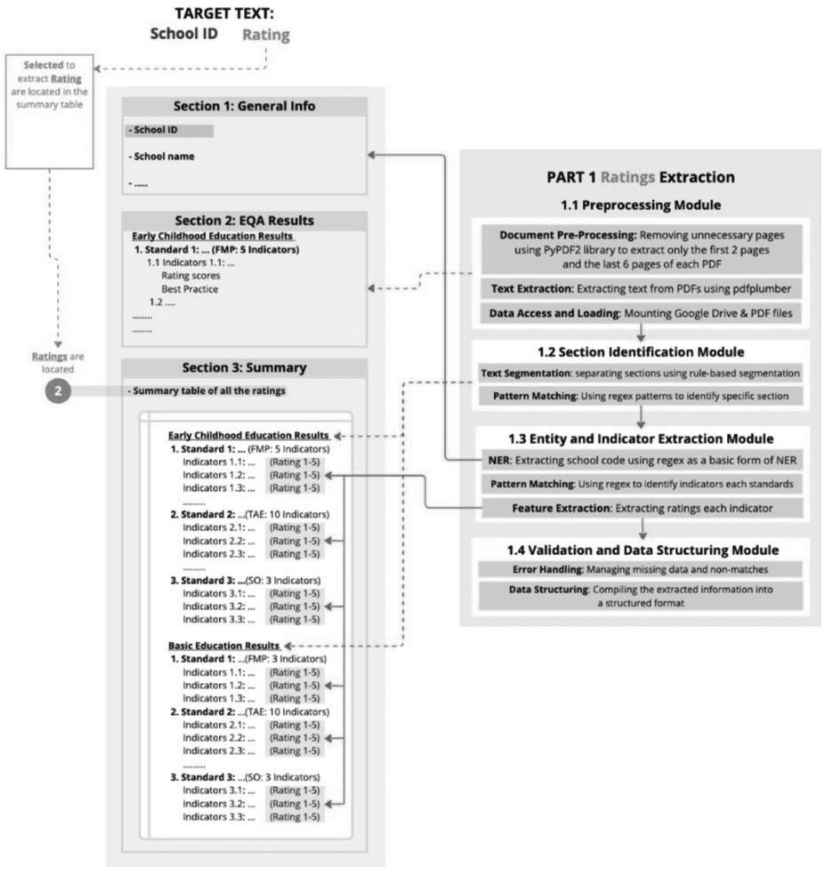


Figure 7: The Structure of Rating Extraction Development (Code 1)

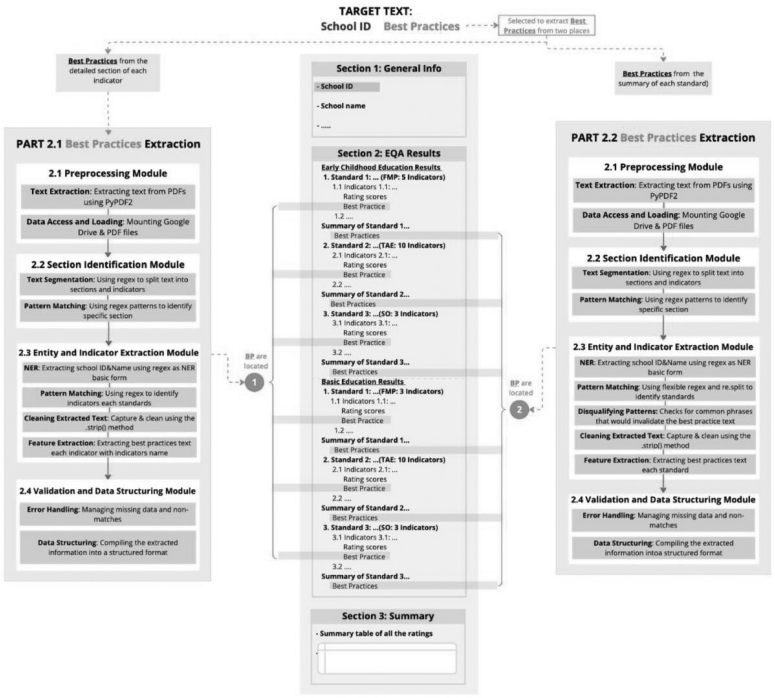


Figure 8: The Structure of Best Practices Extraction Development (Code 2.1-2.2)

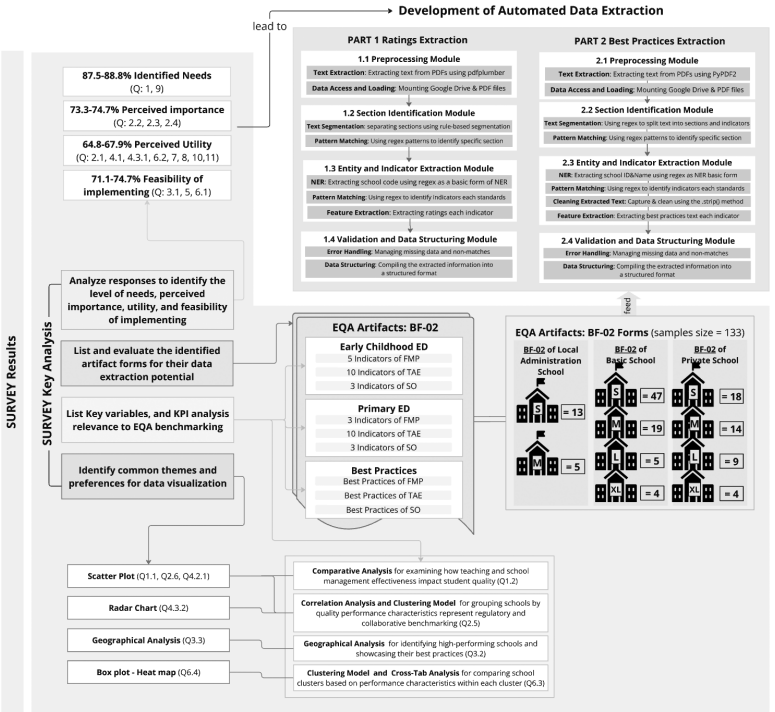


Figure 9: The results of NLP Extraction Pipeline Development

information was missed. These two codes focus on retrieving certain bits of data such as school codes, indications, and ratings using NER combined with regex and **Pattern Matching for Indicators** to capture each indicator's number and name. Then **Feature Extraction for Ratings**, the code identifies and extracts the rating or score associated with that particular indicator.

4.2.2 Evaluation Metrics for NLP Extraction Performance

1) Rating of Indicators Extraction Performance

The NLP extraction technique captures indicator ratings with high efficiency indicating by highest scores all performance metrics (Figure 10). Precision scores were perfect at 1.00, indicating that the model continuously returned correct ratings. Similarly, 1.00 recall values indicate that the pipeline successfully obtained all relevant ratings across indications, and 1.00 on the F1 Score confirms the balance between precision and recall metrics implying the overall reliability and robustness of the developed model.

2) Best Practices Text Extraction Performance

The NLP extraction model's performance in identifying relevant best practices from the BF-02 document was evaluated using standard metrics. Figure 11 shows consistently strong scores across all parameters, with accuracy approaching 1.0 (1.00 precision, 0.96 recall, and

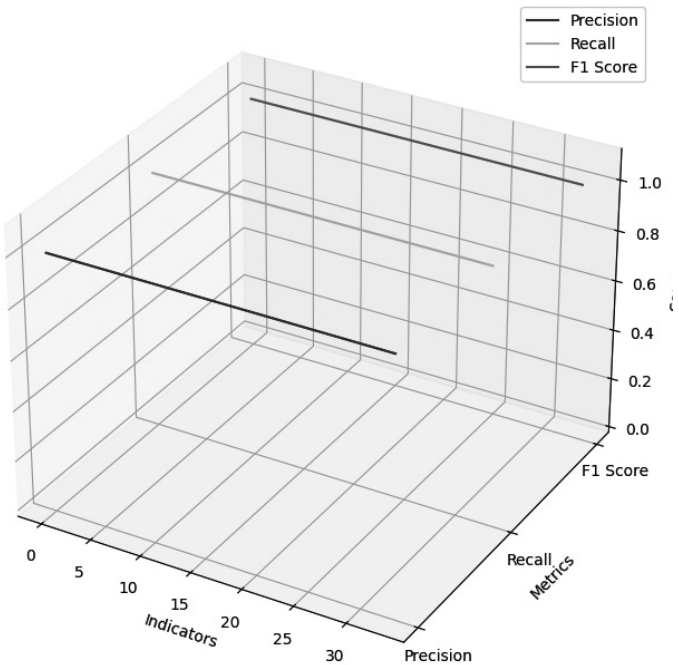


Figure 10: Rating of Indicators Extraction Performance

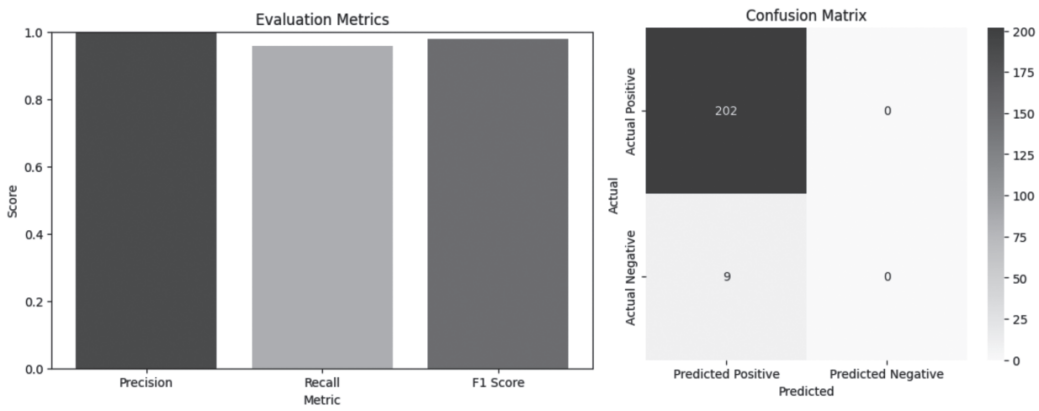


Figure 11: Best Practices Text Extraction Performance

0.98 F1 score).

To clarify the ability of this extraction, the cosine similarity was occupied to compare the two datasets. The results show that 236 out of 240 rows in the extracted dataset achieved high-quality matches, 98.33% of high-quality matches, and 1.00 average similarity score representing accuracy performance. Considering the confusion matrix, there are 202 identifiers from the annotated dataset were correctly matched with those in the extracted dataset, representing 81.21% of the total annotated identifiers.

Overall, these findings demonstrate the model's outstanding precision and recall, which resulted in practically alignment of the extracted and annotated data. Despite the small differences, the results demonstrate the model's ability to identify text-relevant best practices in the documents. This means that the built pipeline can replace the manual extraction process.

4.3 Application of Extracted Data for EQA Benchmarking

The following sections examine and show how the data was analyzed and displayed in order to achieve the goal of advanced analysis and visualization, which lead to improve both **regulatory benchmarking** and **collaborative benchmarking** processes.

1) Regulatory Benchmarking

1.1) Quadrant-Based Clustering

To create clusters, median values of Facilities & Management Performance (FMP) and Teaching Efficiency (TAE) were used to divide the schools into distinct groups instead of mean value because of the abnormal distribution. The results of this method helped manually identify groups of schools with similar performance characteristics, laying the groundwork for developing acceptable EQA regulatory standards based on their strengths

Table 1: School Performance Clustering Results Using Quadrant-Based

Cluster	Name	Teaching Efficiency (TAE)	Facilities & Management Performance (FMP)	Student Outcomes (SO)
Cluster 1	High Performers	Higher the median	Higher the median	Excellent
Cluster 2	Teaching-Focused Achievers	Higher the median	Lower the median	Very good to Excellent
Cluster 3	Teaching-Oriented Schools	Higher the median	Lower the median	Good to Adequate
Cluster 4	Well-Managed Potential	Lower the median	Higher the median	Very good to Excellent
Cluster 5	Facility-Driven Schools	Lower the median	Higher the median	Good to Adequate
Cluster 6	Low Performers	Lower the median	Lower the median	Good to Adequate
Cluster 7	Mixed Performers	Mixed	Mixed	Mixed

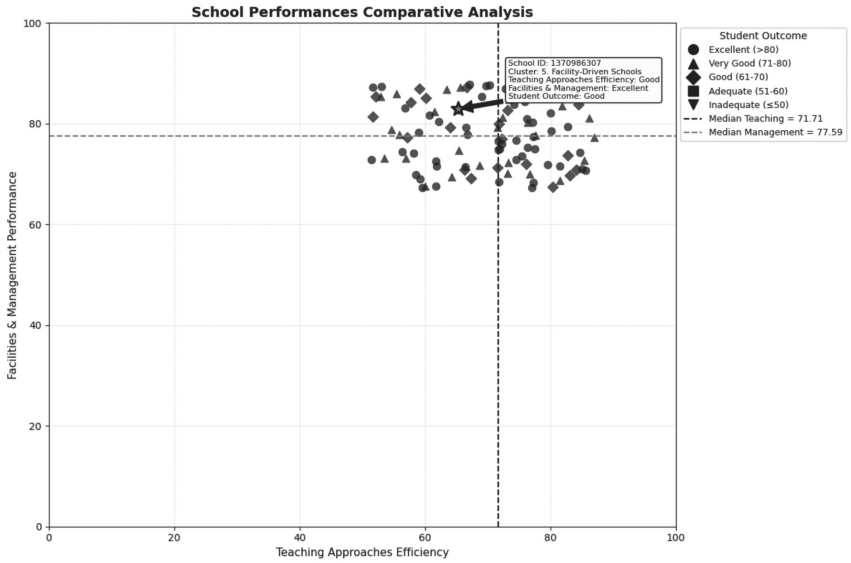


Figure 12: Scatter Plot of Comparative Analysis with Quadrant-Based Clustering

and shortcomings (Figure 12).

1.2) K-Means Clustering for Mixed Performers

These sub-clusters deliver additional specificity for analyzing school performance and recommend more targeted actions. **High performers**, for example, may provide a good example for others, nevertheless **mixed performers** would benefit from tailored tactics that addressed particular areas of weakness (see Figure 13 and Table 2). By categorizing schools, figures 14 and 15 show how these clustering algorithms benefit EQA by recognizing strengths and weaknesses across schools.

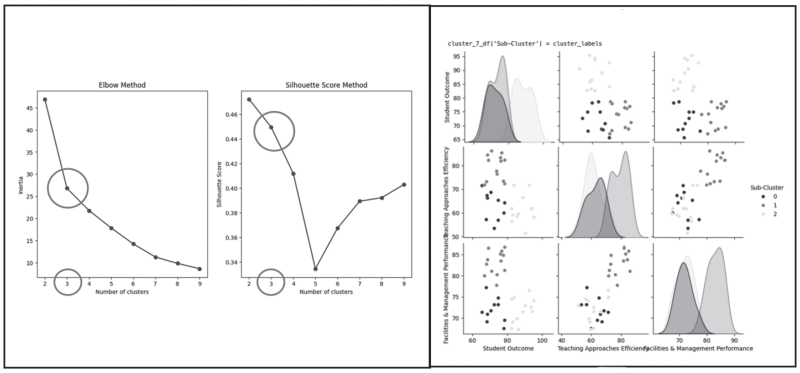


Figure 13: K-Means Clustering of Sub-Group

Table 2: The Summary of School Performance Clustering Results Using Quadrant-Based and K-Means Algorithms

Cluster	TAE	FMP	SO	Clustering Reason
Cluster 7: Outcome-Focused Achievers	Close to the median both above and lower, near the line of median	Close to the median both above and lower, near the line of median	Very good to Excellent (green and dark green dots)	Schools have high SO while performing averagely in other areas, FMP and TAE.
Cluster 8: Balanced Performers	Higher the median	Higher the median	Close to the median (light green and green dots)	Schools excel in FMP and TAE but have average SO, indicating a balanced focus on resources and teaching, with room for improvement in outcomes
Cluster 9: Consistent Moderates	Close to the median both above and lower, nearly the median line	Close to the median both above and lower, nearly the median line	Close to the median (light green and green dots)	Schools have moderate performance across all variables, without any particular area standing out as either strong or weak.

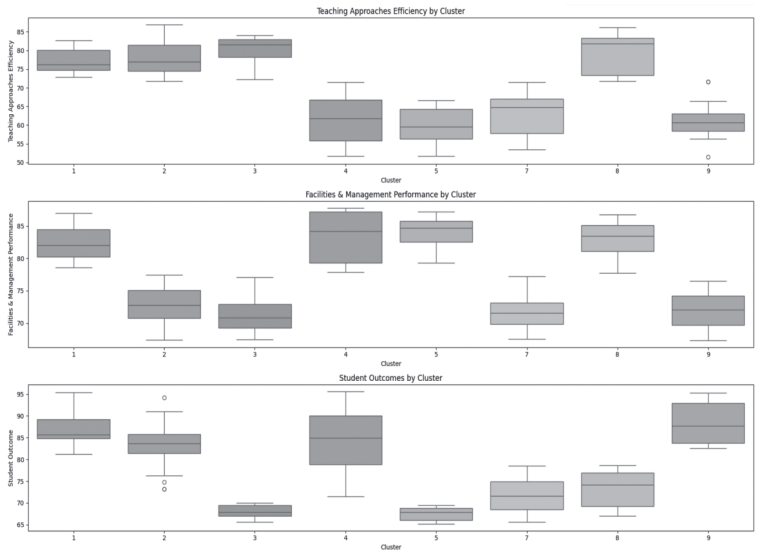


Figure 14: Box Plot of School Performance Characteristics by Cluster

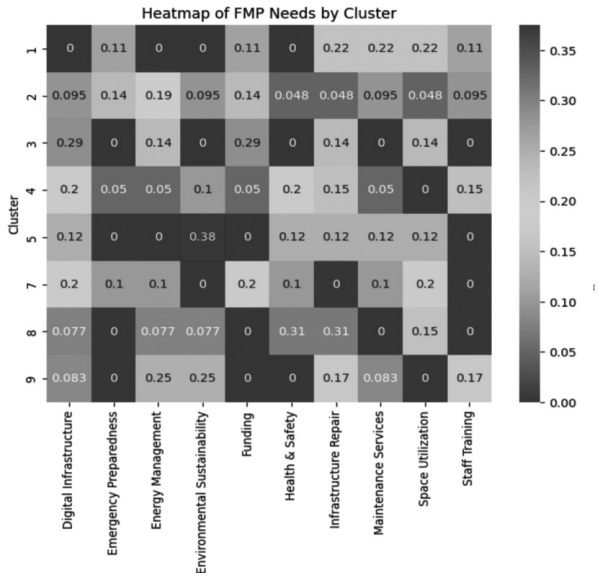


Figure 15: Heat map of Performance Needs Across School Clusters

2) Collaborative Benchmarking

2.1) Best Practices and Geographic Analysis

This visualization considers that when a school needs to adopt a best practice, they should first consider the similar demographic before selecting a project that could work for their situation so that demographic data will be taken part in identifying high-performing schools and their best practice alongside the goal of facilitating adoption by other schools (Figure 16 and 17).

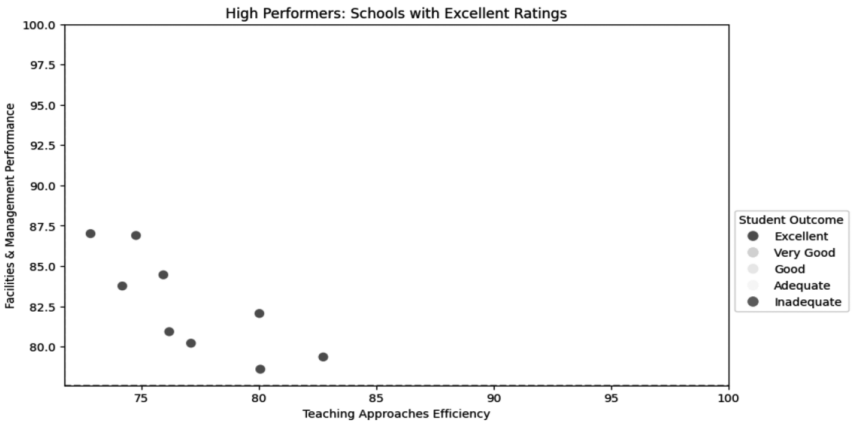


Figure 16: Scatter Plot of High-Performing Schools with Excellent Ratings

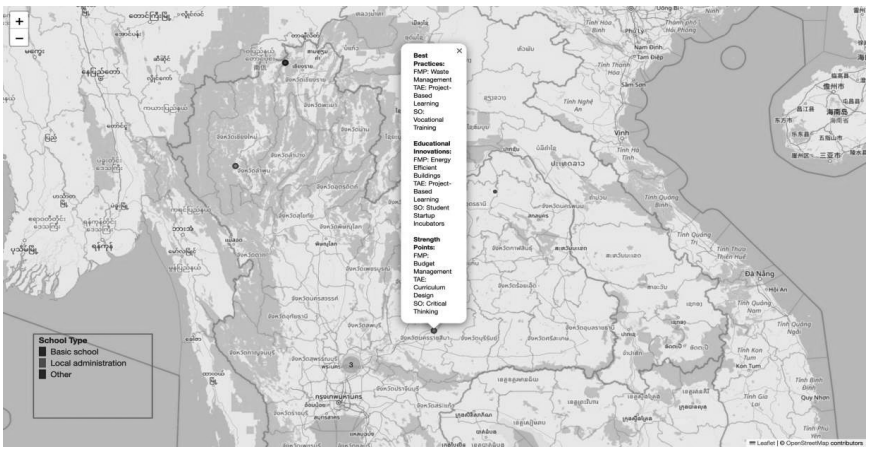


Figure 17: Geographic Map of High-Performing Schools with Best Practices for Adoption

2.2) Individual School Performance and Benchmarks

Using data visualizations as individual school performance scoreboards (Figure 18), to compare schools with established benchmarks, both overall and within their clusters. Moreover, the visualization empowers schools to set their own goals, whether they aim to meet average performance levels or continue excelling beyond their current benchmarks compared with cluster benchmarks, high-performer benchmarks, and overall benchmarks (Figure 19).

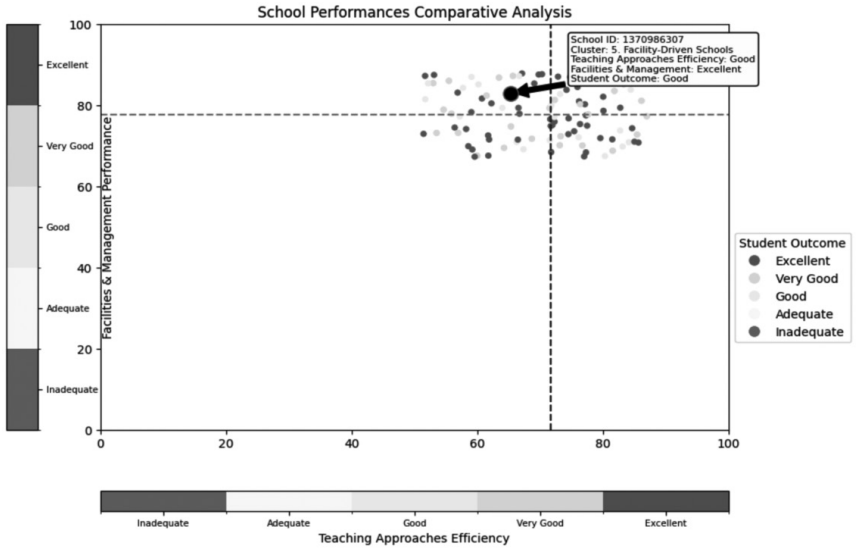


Figure 18: Scatter Plot of Individual School Performance with Ranking Comparison

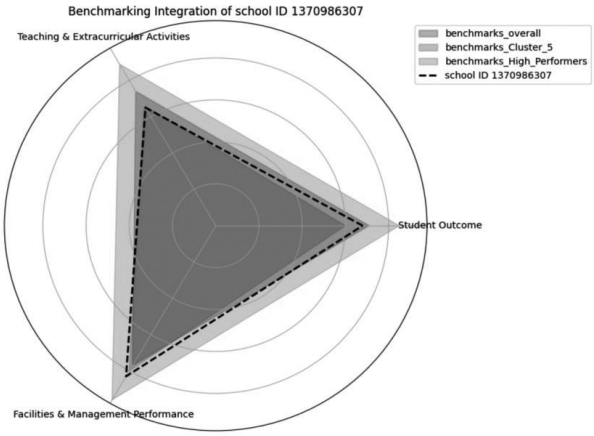


Figure 19: Radar Chart of Individual School Performance

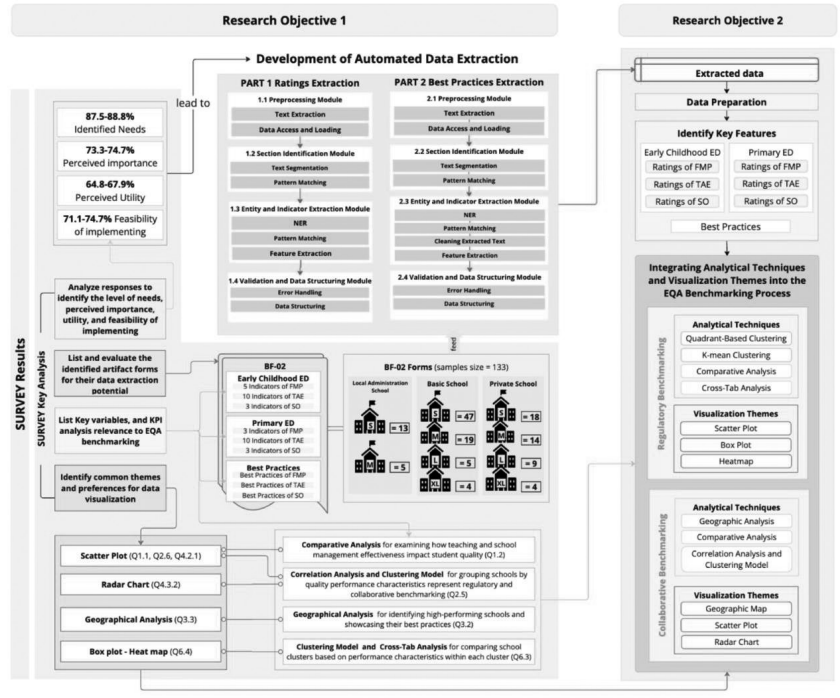


Figure 20: Research Results

4.4 Discussion

4.4.1 Key Insights of NLP Data Extraction Development

According to Zaki et al. (2022), preprocessing and vectorization improve data dependability, as does the NLP-based extraction pipeline, which extracts both numerical ratings and descriptive best practices accurately (98.33%). In addition, Chen et al. (2023), who highlight

the role of regex and text segmentation in improving extraction accuracy. However, despite its success with a small dataset of 133 samples, the model must be adapted to handle the larger datasets typical of the EQA process, often exceeding 1,000 files. To ensure accurate extraction on this scale, the algorithm requires enhancements in table recognition to capture ratings embedded in tables effectively.

A significant challenge emerged in the segmentation of Thai text, where the absence of explicit word boundaries reduced the pipeline's recall rate, which was obvious in the 15.27% of identifiers (38 out of 249) that were neither successfully matched nor marked as missing. This is parallel to the findings of Soisoonthorn et al. (2023) and Phatthiyaphaibun et al. (2023), who investigated Thai language-specific restrictions in NLP. To overcome this obstacle, future research should focus on employing language-specific models to effectively solve segmentation problems and improve overall accuracy.

4.4.2 Application of Extracted Data for EQA Benchmarking

The key findings demonstrate the utility of extracted data for advanced analysis and visualizations, which is a sufficient input for EQA benchmarking that evidently reveals hidden patterns of school performance characteristics that cover regulatory and collaborative benchmarking performance across critical areas. These tools are more effective than traditional descriptive statistics or correlation analysis, which often fail to reveal hidden patterns and non-linear relationships in the data (Jo, 2023).

The incorporation of extracted data into the benchmarking process is effective and adaptive, which leads to dynamic, context-sensitive benchmarks. This confirms the views of Lucander & Christenson (2020), and Marciniak (2018), who argue that when executed correctly, benchmarking allows institutions to monitor performance against standards and pursue continual improvement. The point is that this proposes analysis and visualizations facilitating benchmarking by giving a macro (systemic) and micro (individual school) awareness of strengths and deficiencies. This dual perspective aligns with Tangpornpaiboon's (2022) critique, as it allows ONESQA to deliver more personalized and actionable recommendations, bridging the gap between data collection and meaningful feedback.

CONCLUSION

The NLP pipeline's efficiency was proved by its excellent accuracy rates, which included a 98.33% match with annotated datasets and an F1 score of 1.0 for relevant text of best practices and numerical ratings extraction. Understanding and implementing stakeholder demands enabled the pipeline to effectively acquire vital data with minimum differences,

hence supporting the objective of enhancing automated EQA methodologies.

The utility of extracted data by analytics and visualization proposed in this study enhances stakeholder engagement, transparency, and accountability by making the EQA process more data-driven and objective. Besides, for guiding benchmark setting and supporting schools on their improvement paths driving sustainable progress in education.

This study enhances the area of educational quality assurance by demonstrating how an NLP-based data extraction pipeline can accelerate ahead of the previously time-consuming benchmarking procedure. Future study ought to aim at developing these approaches and examining their broader applicability to establish systems that allow for continuous improvement and support the continued growth of educational quality assurance standards.

References

Chen, Qing, Angello Banerjee, Çagatay Demiralp, Greg Durrett, and Isil Dillig. "Data Extraction via Semantic Regular Expression Synthesis." *Proceedings of the ACM on Programming Languages* 7 (2023): 1848–77. https://acm.org.

Hansen, Malte, Andreas Pomp, Katharina Erki, and Tobias Meisen. "Data-Driven Recognition and Extraction of PDF Document Elements." *Technologies* 7, no. 3 (2019): 65. https://doi.org/10.3390/technologies7030065.

Jo, Ara. "Visualization And Analysis Of Student Data Using Machine Learning And Statistical Methods." Master's thesis, Tampere University, 2023. https://tuni.fi.

Jofche, Nikolche, Kire Mishev, Riste Stojanov, Milos Jovanovik, Eftim Zdravevski, and Dimitar Trajanov. "PharmKE: Knowledge Extraction Platform for Pharmaceutical Texts Using Transfer Learning." *Computers* 12, no. 1 (2023). https://doi.org/10.3390/computers12010017.

Kasliwal, Nikhil. Natural Language Processing with Python Quick Start Guide: Going from a Python Developer to an Effective Natural Language Processing Engineer. Birmingham: Packt Publishing, Limited, 2018. ProQuest Ebook Central.

Kayyali, Mohammad. "The Relationship between Rankings and Academic Quality." *International Journal of Management, Sciences, Innovation, and Technology* 4, no. 3 (2023): 1–11. https://www.researchgate.net/publication/371982309_The_Relationship_between_Rankings_and_Academic_Quality.

Khamphakdee, Nattasate, and Paskorn Seresangtakul. "An Efficient Deep Learning for Thai Sentiment Analysis." *Data* 8, no. 5 (2023): 90. https://doi.org/10.3390/data8050090.

Lucander, Helene, and Cecilia Christersson. "Engagement for Quality Development in Higher Education: A Process for Quality Assurance of Assessment." *Quality in Higher Education* 26, no. 2 (2020): 135–55. https://doi.org/10.1080/13538322.2020.1761008.

Magoc, Tanja, Reid Everson, and Christopher A. Harle. "Enhancing an Enterprise Data Warehouse for Research with Data Extracted Using Natural Language Processing." *Journal of Clinical and Translational Science* 7, no. 1 (2023). https://doi.org/10.1017/cts.2023.575.

Malashin, Ivan, Ivan Masich, Vladimir Tynchenko, Alexander Gantimurov, Vladimir Nelyub, and Anton Borodulin. "Image Text Extraction and Natural Language Processing of Unstructured Data from Medical Reports." *Machine Learning and Knowledge Extraction* 6, no. 2 (2024): 1361–77. https://doi.org/10.3390/make6020064.

Marciniak, Rafał. "Quality Assurance for Online Higher Education Programmes: Design and Validation of an Integrative Assessment Model Applicable to Spanish Universities." *International Review of Research in Open and Distributed Learning* 19, no. 2 (2018): 126–54. https://doi.org/10.19173/irrodl.v19i2.3443.

Meesad, Phayung. "Thai Fake News Detection Based on Information Retrieval, Natural Language Processing and

Machine Learning." *SN Computer Science* 2, no. 6 (2021): 425. https://doi.org/10.1007/s42979-021-00775-6.

Office for National Education Standards and Quality Assessment (ONESQA). "การศึกษารูปแบบการประเมินคุณภาพภายนอกแบบเสมือนจริง [Study on Virtual Models for External Quality Assessment]." จุลสาร สมศ. *[ONESQA Journal]* 22, no. 1 (2021): 6–12. https://www.onesqa.or.th/upload/download/202204051424371.pdf.

Office for National Education Standards and Quality Assessment (ONESQA). *ONESQA Self-Evaluation Report*. Internal report, ONESQA, 2024. https://www.onesqa.or.th/upload/download/202405091620022.pdf.

Phatthiyaphaibun, Wannaphong, Korakot Chaovavanich, Charin Polpanumas, Arthit Suriyawongkul, Lalita Lowphansirikul, Peerat Chormai, Pattarawat Limkonchotiwat, Thanakorn Suntorntip, and Can Udomcharoenchaikit. *PyThaiNLP: Thai Natural Language Processing in Python*. Ithaca, NY: Cornell University, 2023. https://arxiv.org/pdf/2312.04649.pdf.

Sirsat, S. R., and V. Chavan. "Pattern Matching for Extraction of Core Contents from News Web Pages." *In 2016 Second International Conference on Web Research (ICWR)* , 2016. https://www.researchgate.net/publication/304456801_Pattern_matching_for_extraction_of_core_contents_from_news_web_pages.

Soisoonthorn, Teerayut, Helfried Unger, and Montri Maliyaem. "Thai Word Segmentation with a Brain-Inspired Sparse Distributed Representations Learning Memory." *Computational Intelligence and Neuroscience* 2023 (2023): 1–10. https://doi.org/10.1155/2023/8592214.

Tangpornpaiboon, Saruta. "Understanding Discrepancies in Trends Results of PISA, TIMSS, and O-NET and Implications for Education Policies in Thailand." PhD diss., University College London, 2021.

Wu, Hulin, Joseph M. Yamal, A. Yaseen, and Vahid Maroufy. Statistics and Machine Learning Methods for EHR Data: From Data Extraction to Data Analytics. Milton: CRC Press LLC, 2020. ProQuest Ebook Central.

Zaki, Nazar, Sherzod Turaev, Kadhim Shuaib, Anusha Baby, and Eman Mohamed. "Automating the Mapping of Course Learning Outcomes to Program Learning Outcomes using Natural Language Processing for Accurate Educational Program Evaluation." Preprint, posted October 2022. https://doi.org/10.21203/rs.3.rs-2196467/v1.

Joint accreditation: a new frontier for quality assurance

Oksana Tanikova[1] and Galina Motova[2]

[1]The National Centre for Public Accreditation, [2]The National Centre for Public Accreditation, APQN

Abstract

The paper explores Joint Accreditation (JA) as a quality assurance (QA) instrument that involves collaboration between two or more organisations in different countries, joining their resources and expertise to evaluate study programmes and higher education institutions (HEIs) against international standards. This paper particularly focuses on the cases of joint accreditation carried out jointly by domestic and foreign QA agencies and addresses the growing complexity of modern higher education, which increasingly features cultural, transnational, and multi-institutional initiatives.

A significant part of the study is dedicated to a mixed-methods analysis of JA's practical value. We present the findings of an original survey distributed to QA agencies and HEIs' representatives globally, investigating their perceptions, perceived benefits, and operational hurdles related to JA. These survey results are critically examined alongside the documented experience of the National Centre for Public Accreditation (NCPA), offering a grounded and practical perspective on JA implementation.

Keywords: joint accreditation, quality assurance, higher education, global collaboration, survey, international benchmarking.

1. Introduction

Global challenges of the modern day confront everyone involved in higher education, including changing structure of qualifications and the labour market, global warming, climate change, and rapid advancement in artificial intelligence technology. Most of these serious global problems cannot be attributed to a certain geographical location. The efforts of one country are not enough and it is only through collaboration that these problems can be

solved. Many challenges have been formed also in QA for the last years and they predominantly focus on the following key domains.

Firstly, a central question within academic and professional communities concerns the fundamental approaches to QA governance (state regulation, market competition of accreditation agencies, self-regulation), contrasting state-controlled models with those promoting accreditation agency competition or institutional autonomy. It further analyzes the spectrum of centralized versus decentralized system architectures and the resulting balance of power between state and non-state actors.

Secondly, scholars and policymakers are critically examining the dynamics of quality assurance in an international context and international recognition (Zhang and Patil 2017, 60–62). This involves analysing two interconnected phenomena: first, the limitations and mechanisms of cross-border recognition of national accreditation outcomes, and second, the influence of international standars on the development of the national accreditation systems.

Thirdly, the impact of accreditation on the labour market that investigates the correlation between accreditation status and the development of competitive, employable graduates, including potential effects on graduate remuneration. The academic and professional communities are considering such questions as: how effectively does accreditation contribute to the training of competitive specialists in demand on the labor market? Is there a correlation between accreditation and the level of graduates' salaries?

Fourthly, modernizing evaluation criteria to address emergent educational forms and technological shifts, such as micro-credentials, online and blended education, digital transformation, artificial intelligence vs. academic integrity, etc.

Given the significant role that QA plays in higher education, the academic and expert communities move to new QA models and strategies, such as:

- Innovation and digitalization in QA. Involvement of IT-proficient academic experts, development and implementation of innovative assessment methods, supported by digital platforms, open data bases and stakeholders' feedback,
- A variety of approaches. Respect for autonomy of HEIs and individual approach in education, focus on mission and learning outcomes, a tailor-made «soft» QA methodology as a"smart" external review can be suggested as an alternative to traditional accreditation,
- Trust and honesty. Commitment to academic integrity in the era of AI to prioritise human decision-making, develop ethical norms and values for AI application and protection of personal information, on the one hand, and transparency, publicity, and reliability of external reviews, on the other hand.

2. Joint accreditation: global insights and NCPA experience

This section presents a comparative analysis of JA implementations across different global contexts, highlighting varying objectives, operational frameworks, and persistent challenges. Joint accreditation has emerged as a progressive QA model that was designed to evaluate HEIs and study programmes, joining the efforts of several accrediting bodies. The landscape of quality assurance is characterized by distinct accreditation models which include:

- National accreditation, which typically involves domestic experts applying nationally defined standards;
- International Accreditation, which involves international experts and benchmarks study programmes against global or cross-border standards;
- Joint Accreditation, a collaborative model where domestic and foreign agencies conduct a unified review but render independent, parallel decisions on study programmes.

The Asia-Pacific Region: multinational case

A collaborative initiative began in 2018 between the Japan University Accreditation Association (JUAA) and the Taiwan Assessment and Evaluation Association (TWAEA), later expanding to include agencies from Thailand (ONESQA) and Mongolia (MNCEA). This consortium developed a shared handbook (International Joint Accreditation Project 2021) and designed TWAEA International Pilot Platform (TWAEA n.d.), integrating their respective frameworks to create synergies and exchange evaluation expertise.

Separately, HEEACT and Australia's International Centre of Excellence (THE-ICE) developed a JA model for cross-border education between Taiwan and Australia. This project is viewed as a pilot for investigating the feasibility of a broader cross-border review model by examining the alignment of accreditation mechanisms and standards (HEEACT n.d.).

QA bodies from geographically and culturally diverse countries collectively developed the technology to evaluate and recognize study programmes and educational quality across borders. This collaborative endeavor represents a paradigm shift from isolated, nationally focused quality assurance towards a more integrated global framework. This JA model covers standardized frameworks, joint review panels, mutual recognition agreements and shared digital platforms, promoting the continuous exchange of best practices and evaluation techniques. For higher education institutions, it provides a clear and efficient pathway to demonstrate their international standing. For students and employers, it offers a trusted, multi-source validation of qualifications, enhancing their portability and relevance in the global labour market. Thus, this collaboratively designed JA model does not just assess quality, but actively constructs and reinforces an interconnected ecosystem of global higher education.

The European JA Approach

Within the European Higher Education Area (EHEA), JA was formalized through the "European Approach for Quality Assurance of Joint Programmes," endorsed by the ministers in 2015 during the Erevan conference. This framework established nine specific standards (Eligibility; Learning Outcomes; Study Programme; Admission and Recognition; Learning, Teaching and Assessment; Student Support; Resources; Transparency and Documentation; and Quality Assurance) and procedures derived from the agreed-upon tools of the European Higher Education Area to facilitate the accreditation of integrated joint degrees (Frederiks et al. 2012).

The United States: A Unified JA Model for Continuing Professional Development

In the United States, the Joint Accreditation for Interprofessional Continuing Education (IPCE) represents a pioneering JA model within the health professions. This initiative consolidates ten accrediting bodies under a single set of standards, a unified application process, and common fee structures. The primary objective is to enable educational institutions to offer continuing education credits simultaneously to a diverse range of healthcare professionals, including physicians, pharmacists, nurses, and psychologists, without requiring separate, profession-specific accreditations (Joint Accreditation for Interprofessional Continuing Education n.d.). The framework is built upon twelve core criteria addressing mission, program improvement, and activity integrity. Successful providers receive a distinctive JA Provider Mark and are listed in a central database, enhancing their visibility and credibility.

The NCPA Experience: A Decade of Bilateral Collaboration

The National Centre for Public Accreditation (NCPA) provides a robust case study of sustained bilateral joint accreditation. Since 2015, NCPA has collaborated with eight QA agencies from six countries. A cornerstone of this effort is the long-term partnership with EQEA (China), through which 89 programmes across 8 Russian and 5 Chinese universities have been jointly accredited (Motova and Tanikova 2024).

The established procedure involves a formal bilateral agreement between agencies, coordination and harmonization of standards, methodological support for the participating HEIs, a unified self-evaluation report followed by a three-day site visit by a joint review panel, an unified external review report, and parallel decisions on study programmes.

The key differences from the national accreditation are: 1) the review panel usually consists of national experts and international experts nominated by partner agency, employers and students. The quantity of experts is agreed and depends on the project, but in case of JA of the medical programmes the review panel can include even up to 10

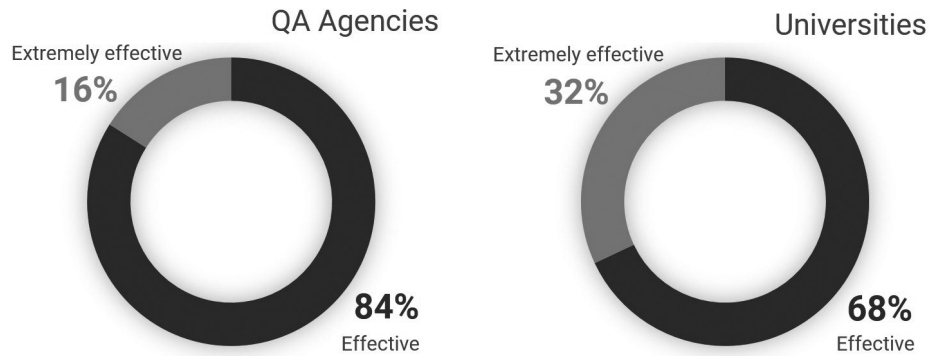
experts; 2) it takes longer time to prepare for JA and it involves extensive preliminary work, bilateral agreements and detailed account of all procedural issues; 3) one single self-evaluation report and final report is prepared, but 2 or more independent decisions.

3. Survey Results: Perceived Effectiveness, Benefits, and Challenges of Joint Accreditation

Methodology and respondent profile: a survey was conducted to evaluate the perceptions of key stakeholders regarding joint accreditation. The respondent pool consisted of two distinct cohorts: six QA agencies and twenty-five representatives from higher education institutions. The survey was designed to investigate five key thematic areas concerning the effectiveness, benefits, and challenges of JA.

When asked to compare the effectiveness of JA involving two agencies to single-agency accreditation, respondents expressed overwhelmingly positive views. Among QA agencies, 84% found JA "effective" and 16% deemed it "extremely effective." Similarly, among HEI representatives, 68% considered it "effective" and 32% "extremely effective" (Pic.1). Notably, no respondent from either group provided a negative assessment, indicating a strong consensus on the utility of the JA model.

The next survey question was devoted to the key benefits of joint accreditation. Like any other evaluations, joint accreditation is significant for HEIs and QA agencies in different ways. The analysis of 241 qualitative responses covered five areas for QA agencies and six areas for HEIs as a result. For QA agencies, the benefits of JA are predominantly meta-evaluative, enhancing the agencies' own operational frameworks and strategic positioning. QA agencies highlighted a number of benefits that can be grouped. Firstly, while preparing for JA, QA agencies from both sides learn a lot and understand advantages and disadvantages of international higher education environment. JA gives opportunities to share experience,



Pic.1: Distribution of answers to question «How effective do you consider the process of JA involving 2 agencies to be compared to accreditation by a single agency?»

develop educational and scientific links, learn best practices and enhance. Secondly, the benefits are about recognition of the universities globally and strengthening of the international cooperation, that contributes to the integration into the global educational environment. Thirdly, QA agencies emphasized the synergy of expertise. Each agency brings its own unique experience and this is especially valuable for self-learning and enhancement. Fourthly, JA is about the comprehensiveness of analysis. Combining different methodological approaches allows for a more detailed assessment, covering all aspects of activities, including cultural and national peculiarities. Fifthly, reducing the administrative burden on HEIs. Combining efforts of two agencies in one accreditation procedure allows universities to reduce the time and costs of preparing for accreditation, especially if we deal with several expert group at once (for example, when 10 expert groups work simultaneously).

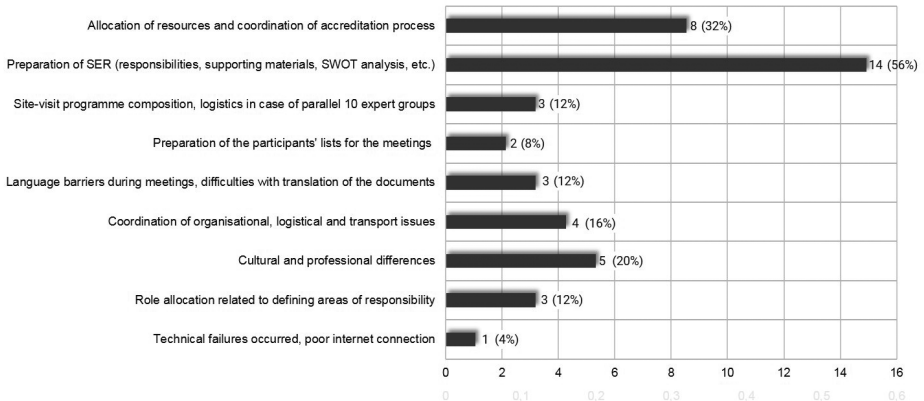
For HEIs, the benefits of JA are more directly aligned with institutional strategy, reputation, and quality improvement. They identified six primary benefit areas: reputation, exchange component, new opportunities, increasing the level of expertise and trust, competition and improvement or enhancement component. Notable specific comments from HEIs included the practical advantage of producing bilingual accreditation documents for marketing purposes, the elimination of the need for sequential national and international accreditations, and the expanded organizational flexibility when accreditation certificates have differing validity periods.

The implementation of joint accreditation, while beneficial, is fraught with significant operational and methodological challenges. QA agency representatives were asked to be more precised in Question 3 and put in order of importance 10 challenges they faced during JA. The ranked difficulties reported by QA agencies reveal that the primary hurdles are not merely logistical but are fundamentally rooted in the complex task of harmonizing disparate quality assurance systems into a coherent and legitimate joint process. The top-ranked challenges – Harmonisation of common standards and criteria (1), Balancing national and international requirements (2), Development of a unified methodological framework (3), and Harmonisation of assessment methods (4) - collectively represent the foundational work of JA. This indicates that the most significant effort lies in the pre accreditation phase, where agencies must negotiate a shared understanding of "quality". The subsequent cluster of challenges - Conflict management and decision making (5), Allocation and coordination of resources (6), and Harmonisation of reporting formats (7) - shifts focus from what to evaluate to how to manage the evaluation. These points highlight the governance vacuum that can emerge in a collaborative model. The lower-ranked, though still critical, challenges—Selection of experts (8), Language difficulties (9), and Harmonisation of requirements for Accreditation Council materials (10) - pertain to the practical execution of the agreed-upon framework. The fact that these are ranked lower suggests they are

perceived as surmountable with careful planning. However, the selection of experts (8) remains a key concern, as it requires identifying specialists who are not merely subject-matter experts but also possess the intercultural competence and flexibility to operate within a hybrid methodology. Language barriers (9) extend beyond simple translation to encompass the nuanced interpretation of academic standards and evidence.

The survey results from HEIs reveal that the primary challenges of joint accreditation are not strategic, but operational and procedural. The data indicates a significant burden placed on institutional capacity, with the difficulties centering on the internal management of the JA process rather than a skepticism of its value (Pic.2).

The majority of respondents (56%) highlighted preparation of the self-evaluation reports (allocation of responsibilities, preparation of supporting materials, annexes to the report, etc.). This goes beyond the standard effort required for a national accreditation. For JA, the SER must simultaneously address the distinct standards and criteria of two accreditation agencies. The difficulty lies in the "allocation of responsibilities, preparation of supporting materials, and annexes," which suggests a complex internal coordination effort to combine evidence into a single, coherent document that satisfies two different evaluative frameworks. The second major challenge (32%) was the allocation of human, time, and financial resources, and the coordination of the overall process. This underscores that JA is perceived as more resource-intensive than conventional accreditation. It requires dedicated project management to align internal schedules with the timelines of two external agencies, often involving additional costs for translation, travel, and dedicated administrative staff. A notable proportion of respondents (20%) emphasized challenges related to cultural and professional differences. A cluster of lower-ranked but consistent challenges involved the practical implementation of the JA process. This includes coordinating complex site-visit

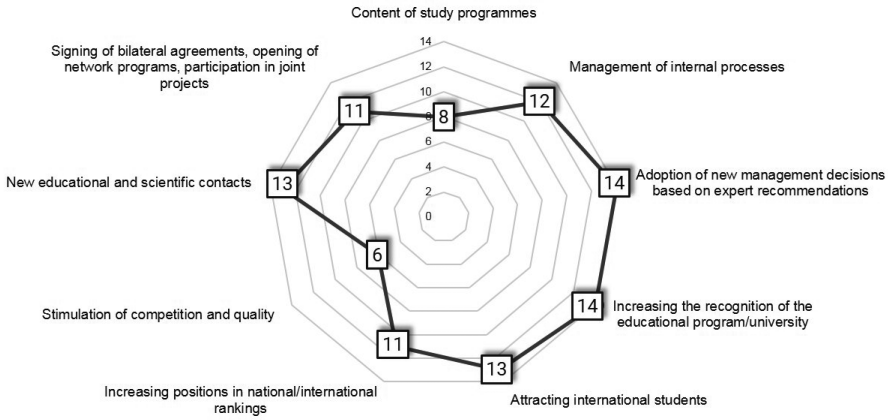


Pic.2: Distribution of QA agencies' answers to question «What challenges have you encountered during joint accreditation?»

programme (16%), managing the logistics of parallel external review panels (12%), and overcoming language barriers during meetings and in document translation (12%). While these challenges are often considered surmountable, their combined mention indicates the increased operational complexity of conducting JA compared to a national one. Minor mentions of technical issues, such as poor internet, further illustrate how JA amplifies the potential for logistical failures.

The next question of the survey was «Has JA affected the quality of your Internal Quality Assurance processes? In what way?». The survey data reveals a unanimous consensus both among QA agencies and HEIs that JA has a transformative impact on Internal Quality Assurance processes. The 100% affirmative response rate underscores that JA acts as a powerful catalyst for quality enhancement, moving beyond a mere compliance to become a driver of systematic internal improvement.

A significant outcome of JA is the direct optimization of the technical infrastructure and methodologies of quality assurance. QA agencies reported specific improvements in their operational work, including optimization of the methodological framework, development of analytical approaches, reduced risk of duplication of functions and increased efficiency of processes. Beyond procedural changes, JA induces a deeper, cultural shift within organizations, fostering a more reflective and proactive quality culture. For QA agencies, JA serves as an advanced professional development exercise for their staff and expert pool. The collaborative and comparative nature of JA also instills a powerful motivation for ongoing self-improvement. The process acts as a benchmark, revealing best practices and innovative approaches that the agency can then improve. The requirement to operate transparently with an external partner agency reinforces the importance of clarity and openness in all processes.



Pic.3: Distribution of HEIs' answers to question «What challenges have you encountered during joint accreditation?»

The analysis of 119 qualitative responses from HEIs demonstrates that JA provides a tangible impetus for both internal improvement, directly affecting academic and administrative core functions, and external standing and competitive positioning of the universities. We have grouped the answers into nine main areas. Fourteen respondents highlighted adoption of new management decisions that are based on experts recommendations and increasing the recognition of study programmes or university. Thirteen respondents indicated attracting international students and new educational and scientific contacts. Twelve respondents highlighted influence on IQA. Then eleven respondents noted the impact on the increasing positions in the national and international rankings, and cooperation, participation in joint projects, signing of bilateral agreements etc. Eight respondents answered that JA affected the content of study programmes and six respondents emphasized stimulation of competition and quality.

4. Conclusions

The findings of this study, encompassing global case analysis and stakeholder surveys, affirm that JA has matured into a robust and demonstrably effective model for quality assurance in an increasingly interconnected higher education landscape. While the implementation of JA is undeniably resource-intensive, demanding significant investments of time, expertise, and diplomatic effort to harmonize standards and methodologies, its strategic value far outweighs these initial costs.

JA is not a static QA model, it is a dynamically evolving practice. As evidenced by its spread across the continents from the unified frameworks in the United States and Europe to the burgeoning multilateral partnerships in the Asia-Pacific region, JA is continuously adapting to new educational formats and global challenges.

Ultimately, joint accreditation goes beyond its primary function of quality assurance. It serves as a powerful practical tool for fostering international trust, enhancing institutional reputation, and facilitating academic mobility. For universities, it provides a credible pathway to global recognition and a catalyst for internal quality enhancement. For QA agencies, it represents a vital mechanism for professional development and systemic learning. Therefore, despite its complexities, JA stands as an indispensable and practical strategy for HEIs seeking to confirm their quality and solidify their standing within the global academic community.

The paper may be of interest to universities that deliver joint programmes, national QA agencies, government bodies, and experts responsible for QA.

References

Frederiks, Mark, Outi Kallioinen, Bruno Curvale, and Maureen Williams. 2012. "Quality Assurance of Joint Programmes." ENQA Workshop Report 19. European Association for Quality Assurance in Higher Education. https://www.enqa.eu/wp-content/uploads/ENQA_wr_19.pdf.

HEEACT (Higher Education Evaluation and Accreditation Council of Taiwan). n.d. "The Joint Accreditation Model for Cross-Border Higher Education between Taiwan and Australia." Accessed July 2025. https://www.heeact.edu.tw/media/20215/sy-111a1-02_-the-joint-accreditation-model-for-cross-border-higher-education-between-taiwan-and-australia.pdf.

International Joint Accreditation Project (Taiwan-Japan-Thailand). 2021. *Handbook for Higher Education Institutions*. Accessed June, 2025. https://www.juaa.or.jp/en/common/docs/international/international_joint_accreditation_project_handbook.pdf.

Joint Accreditation for Interprofessional Continuing Education. n.d. "Interprofessional Continuing Education." Accessed July 2025. https://jointaccreditation.org/joint-accreditation.

Motova, Galina, and Oksana Tanikova. 2024. "Joint Accreditation as an Instrument of Enhancement of Quality Assurance Policies." In *Anthology of 2024 APQN Academic Conference in St. Petersburg, 26 to 29 September* 2024, 37–40. St. Petersburg: [FlyPrint Ltd].

TWAEA (Taiwan Assessment and Evaluation Association). n.d. "TWAEA International Pilot Platform." Accessed July 2025. https://www.twaea.org.tw.

Zhang, Jing, and Jyoti Patil. 2017. "Who Guarantees the Quality of the Quality Assurance Agencies? The Exploration of the Establishment and Growth of the Asia-Pacific Quality Register (APQR)." Higher Education Evaluation and Development 11 (2): 58–67.

Quality Assurance Systems in a Global Context to be Accepted by Society and Academia −Insights from an International Collaborative Study among US, UK, and Japan−

Satoshi Ozeki[1], Toru Hayashi[2] and Patrick Shorb[3]

[1]University of Miyazaki, [2]Kanazawa University, [3]Kansai University of International Studies

Abstract

This study examines the development of quality assurance (QA) systems in higher education through a comparative analysis of practices in the United States, the United Kingdom, and Japan. Utilizing document reviews and site visits, the research highlights the dynamic interplay between external quality assurance (EQA) and internal quality assurance (IQA), underscoring the significance of institutional autonomy and program-level review. The findings suggest that robust IQA frameworks, supported by EQA, are essential for fostering continuous improvement and aligning educational programs with societal needs. Key challenges in the Japanese context include administrative burdens and limited faculty engagement, while insights from US and UK institutions demonstrate the value of faculty autonomy and discipline-specific accreditation. These comparative observations inform recommendations for enhancing QA systems to support both academic rigor and professional relevance in higher education.

Keywords: Higher Education, External Quality Assurance, Internal Quality Assurance, Accreditation, Program Review, Institutional Autonomy

1. Introduction

In higher education (HE), many countries have adopted external quality assurance (EQA) systems to assure quality of education. Yet, the foundation of quality assurance (QA) lies in internal quality assurance (IQA), conducted by institutions themselves, which plays a critical role in improving educational quality (ESG 2015, 6). Despite its increasing adoption, Martin (2018a, 1), in a UNESCO policy paper, argues that the impact of IQA remains under-researched and emphasizes the need for further empirical investigation. In response to this

gap, we launched an international collaborative research project involving scholars from the United States (US), the United Kingdom (UK), and Japan. The project aims to explore global trends in QA in HE and identify key components of effective QA systems. This paper presents preliminary findings from our ongoing research. It begins with a brief overview of the research background, followed by an explanation of our research project and the conceptual framework guiding our study. It then examines current issues and challenges facing Japanese QA. Subsequently, we present key observations and analyses derived from site visits conducted in the US and the UK. Drawing on these investigations, we offer comparative insights into essential elements of QA and discuss potential future directions for its development.

2. Background

2.1 Balancing EQA and IQA for Program-Level Impact

Many countries have adopted EQA through institutional and specialized program accreditation, often guided by international standards in fields such as engineering, business, and medicine. A country's EQA frameworks had a significant impact on the development of IQA systems in universities (Martin 2018b, 1). Thus, IQA must be developed within diverse QA systems shaped by both international standards and national contexts. While EQA provides external oversight, the foundation of QA lies in IQA, which is implemented by institutions and significantly impacts teaching quality and graduate employability (Martin 2018a, 2). EQA plays a vital role in shaping IQA frameworks and setting strategic priorities. For QA mechanisms to foster continuous improvement, institutions require sufficient autonomy and governance capacity to interpret and adapt external requirements to their specific contexts. Without these conditions, EQA risks becoming a compliance-driven exercise (Martin 2018c, 271). Furthermore, increasing attention has also been given to QA at the program level, as individual educational programs are central to human resource development. Program-level QA enables alignment with societal needs.

Currently, more than 235 million people are enrolled in HE institutions worldwide—approximately double the number from 20 years ago (UNESCO 2022b, 2). This dramatic expansion underscores the growing importance of HE and highlights the critical role of academic programs in shaping human development and societal progress. However, implementing EQA and IQA at both institutional and disciplinary levels presents considerable challenges. As Woelert (2023) notes, reforms aimed at improving efficiency have often led to increased administrative burdens, undermining core academic functions. Likewise, the heightened emphasis on oversight and regulation in European HE has raised concerns about the long-term sustainability and manageability of QA processes (Hazelkorn, 2023).

2.2 Overview of Our Research Project

The goal of our research project is to develop an international model for program review and monitoring within IQA practices that align effectively with diverse EQA processes, leading to program-level human resource development across different national contexts.

It is funded by JSPS KAKENHI Grant Number 22KK0027, with the second author serving as principal investigator. It involves researchers from the US, UK, and Japan. For our research, we have developed a conceptual diagram illustrating the interaction between EQA and IQA, with a focus on academic program review (Figure 1).

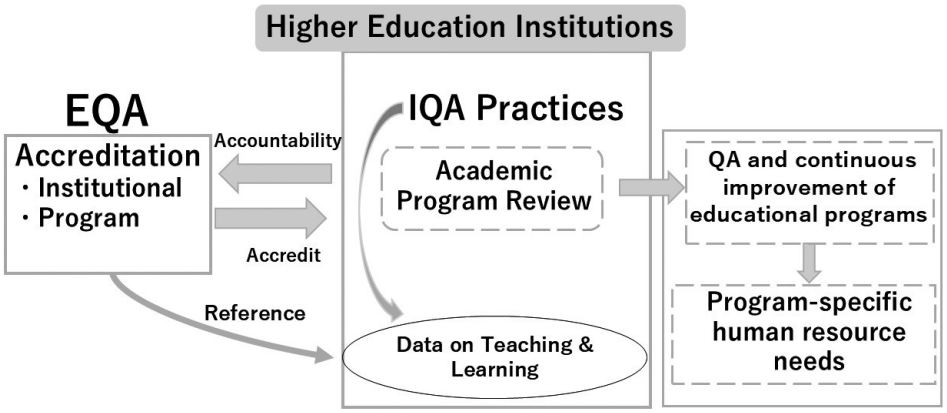


Figure 1: QA Framework Developed for Our Research (Extracted from Research Proposal)

Figure 1 illustrates the basic structure of QA, in which EQA is divided into institutional and program-level accreditation, while IQA emphasizes program-level initiatives as the core unit of educational development. In recent years, many countries have introduced national student surveys and standardized data sets to support evidence-based QA and continuous improvement. The key issues focused on our research are summarized in Figure 2. Our research project focuses on those key issues surrounding program review and monitoring within IQA practices, and the influence of EQA—represented by institutional and specialized program accreditation. Specifically, we examine: (1) the role distribution between institutional and specialized program accreditation in EQA, (2) the impact of EQA on IQA practices, and (3) disciplinary variations in program-level review and monitoring within IQA.

A mixed-methods approach is employed, combining document analysis, site visits, and a forthcoming quantitative survey. To date, document reviews and site visits have been completed. During the site visits, semi-structured interviews were conducted with university personnel involved in QA, including senior administrators (e.g., Vice-Provosts and Directors of QA) and operational staff (e.g., QA Officers, Data Officers, and Assessment

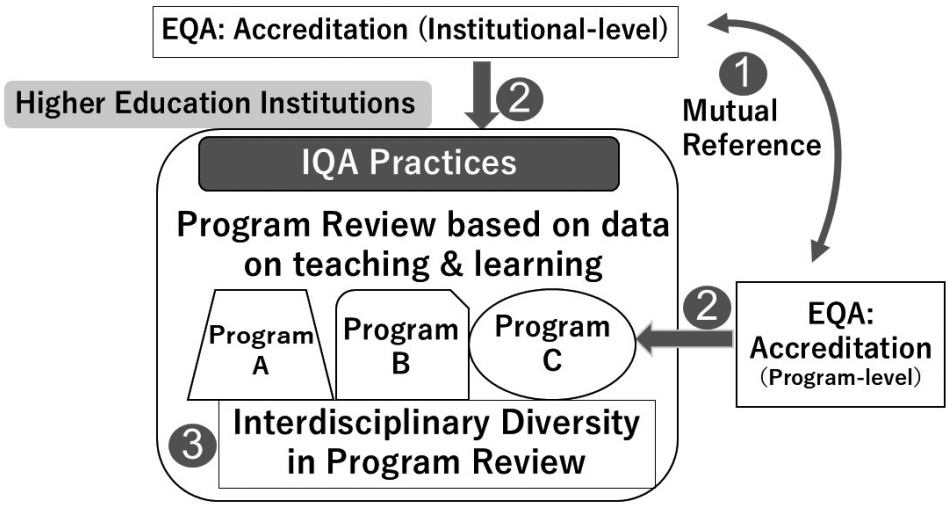


Figure 2: Issues Focused on Our Research (Extracted from Research Proposal)

Officers). Interviews focused on participants' roles, responsibilities, and challenges in QA-related work, and typically lasted around 60 minutes. Site visits were conducted at four universities in the US and five in the UK. Observations from these visits inform the analysis presented in this study.

2.3 Purpose and Research Question in This Study

The purpose of this study is to generate insights into improving QA systems through comparative analysis. Using Japan as a case study, it examines how international comparisons can inform discussions on enhancing QA practices. Japan faces urgent challenges that call for meaningful reform on its accreditation system. This study therefore explores key implications derived from our analysis of the US and UK cases by examining Japan's current context alongside insights gained from our site visits. We then turn to a discussion of the essential components of QA systems that serve both societal and academic needs. The overarching aim is to contribute to the realization of "co-creating more open, inclusive, equitable, and collaborative HE systems," as advocated in *Beyond Limits: New Ways to Reinvent HE* (UNESCO 2022a, 3). To advance this goal, the study analyzes HE systems with a focus on strengthening QA in educational programs.

3. Methods

This study adopts a broadly descriptive approach, beginning with an overview of current issues in Japanese HE. It then presents insights from site visits to universities in the US and the UK, conducted as part of our research project. The following section provides an

overview of each country's QA approach and offers a comparative analysis of QA systems in Japan, the US, and the UK.

4. Results of our Analysis

4.1 Current Issues of QA in Japanese HE

Japan's accreditation and evaluation system for HE institutions was established in 2004 under the School Education Act. All universities are required to undergo periodic third-party evaluations conducted by certified accreditation agencies. Institutional accreditation, conducted every seven years, assesses overall quality in areas such as education, governance, and facilities. Beginning in 2025, the fourth cycle of institutional accreditation will enhance its focus on IQA. Program accreditation is applied to professional graduate schools and selected undergraduate programs, in fields such as medicine, nursing, and engineering. In early 2025, the Central Council for Education of Japan (2025) proposed major reforms to Japan's HE QA system, including the introduction of assessments at the faculty and departmental levels. This initiative aims to strengthen IQA by enhancing curriculum design and learning outcomes assessment, with a focus on educational practices within individual academic units. A defining characteristic of Japan's HE QA system is its government-led structure, in which institutions tend to align closely with policy directions set forth in official recommendations. Establishing a robust quality assurance system is a pressing issue in Japan, as highlighted in recent 2025 policy initiatives led by MEXT and the Central Council for Education of Japan.

The need for an improved QA system in Japan is driven by several challenges within the current accreditation framework. Multiple issues have been identified in the certified evaluation system, including its limited impact on enhancing educational quality, lack of transparency and validity in evaluations, inconsistency in evaluator expertise, excessive administrative burden on universities, dysfunction in IQA processes, low public awareness, and insufficient utilization of evaluation outcomes (Central Council for Education of Japan 2025). Although recent trends in Japan's QA emphasize the importance of strengthening IQA (Noda 2020), IQA has become increasingly formalistic and administratively driven, resulting in a weakened cycle of educational improvement. A survey conducted by JUAA (2023) further reveals that faculty engagement in teaching and learning management remains limited. Approximately half of the respondents were unfamiliar with the relevant guidelines, and over 80% reported that QA-related tasks felt burdensome (Morozumi 2023, 135). Furthermore, in light of the direction outlined in the new policy paper released in 2025 by the Central Council for Education of Japan, it remains questionable whether assessments at the academic unit or program level will be conducted effectively. The Science Council of

Japan (SCJ) developed reference standards for 33 academic disciplines, outlining key learning outcomes, teaching methods, and assessment approaches. However, these standards are non-binding and were intentionally designed without implementation guidelines to preserve institutional autonomy. As a result, their integration with broader QA frameworks has been limited, 39.6% of institutions reportedly refer to them when organizing curricula as of the 2022 Japanese academic year (MEXT 2024, 3). Additionally, program accreditation in Japanese HE is largely limited to fields such as medicine, nursing, and engineering, which results in leading to uncertainty regarding the implementation of QA at the academic unit or program level.

4.2 QA System in the US and Observations from Our Case Study

In the US, accreditation in HE is conducted by independent accrediting agencies, not the government. The federal government does not directly accredit institutions, but it recognizes accrediting agencies as reliable authorities on educational quality. Only institutions accredited by a federally recognized agency are eligible to receive federal student aid and other federal funding. There are two main types: regional accreditation (for entire institutions) and specialized accreditation (for specific programs). The country is divided into six regions, each with its own accrediting agencies. Traditionally, institutions were required to undergo accreditation by the agency corresponding to their geographic region. However, following regulatory changes implemented by the U.S. Department of Education in 2020, institutions are now permitted to seek accreditation from agencies outside their designated region. One of the largest is the Higher Learning Commission (HLC), which oversees institutions mainly in the Midwest. The HLC conducts institutional reviews on a 10-year cycle to ensure educational quality and promote continuous improvement. Institutions seeking to maintain accreditation follow one of two main pathways: the Standard Pathway or the Open Pathway. The Standard Pathway focuses primarily on assurance and compliance with accreditation criteria. In contrast, the Open Pathway combines assurance with a strong emphasis on institutional improvement, giving institutions the flexibility to design and implement their own QA initiatives.

We conducted a site visit to the Office of Institutional Effectiveness at Western Michigan University (WMU), which uses HLC as its accrediting body. The office is responsible for both accreditation processes and IQA (WMU, n.d.). One of the key ingredients we confirmed through our site visit is that faculty autonomy is valued in making IQA effective, and the university has established systems to ensure such autonomy. First, HLC does not prescribe the specific content or methods for program review. Instead, institutions are expected to demonstrate compliance with HLC's criteria in ways that reflect their own mission and context, allowing universities to design and implement program review

processes autonomously. Specifically, we confirmed that program review was introduced and established based on a shared understanding that it serves as a mechanism for assuring the quality of education. It was implemented in a way that preserves the autonomy of faculties and departments, while clearly separating it from other concerns such as financial matters. Second, WMU has developed mechanisms that allow faculty to actively participate in and shape the IQA process. The Office of Institutional Effectiveness supports faculty in assessment and educational improvement, including funding for innovative student assessment projects, recognition of assessment achievements, and support for curriculum development to improve student learning.

Additionally, our site visits confirm that a wide range of academic programs at WMU have obtained accreditation from various organizations, reflecting the institution's commitment to discipline-specific QA. The Office of Institutional Effectiveness supports academic departments undergoing specialized accreditation, enabling faculties to engage in these QA processes with autonomy. This office provides a range of support services, including consultations, data analysis, and documentation. Compared to Japan, the United States has a significantly larger number of specialized accreditation bodies. Consequently, while programs without specialized accreditation must ensure their quality through internal QA mechanisms, many programs at WMU achieve QA through their respective specialized accreditations (WMU, n.d.).

4.3 QA System in the UK and Observations from Our Case Study

A distinctive feature of universities in England is the clear interrelationship between EQA and IQA. This relationship is rooted in the country's history of trial and error in designing QA systems since the 1990s. From 1993 to 2001, England implemented subject-based evaluations such as Quality Assessment and Subject Review. However, due to various drawbacks and increasing administrative burdens, the system transitioned in 2001 to institutional-level evaluations under a more streamlined and autonomy-respecting approach to QA. Across the UK, the Quality Assurance Agency for Higher Education (QAA) historically played a central role in EQA. It conducted institutional reviews and developed reference points such as the UK Quality Code for HE. However, in England, QAA stepped down as the Designated Quality Body in 2023, since then, the Office for Students (OfS) has temporarily taken over quality and standards assessments. In England, QA is conducted through the regulatory framework established by the OfS, which sets and enforces conditions of registration for HE providers. In response to this framework, universities have developed detailed internal regulations for QA. One notable feature is the relatively strong commitment of the accrediting body, which is partly driven by its adoption of the QAA Quality Code as a framework for ensuring educational quality and providing specific

guidance for QA and improvement (QAA 2024).

We conducted a site visit to Northumbria University, which has established an IQA system that includes continuous programme performance review through annual monitoring, periodic review conducted every six years, accreditation by professional statutory regulatory bodies (PSRBs), and student evaluation questionnaires (Northumbria University, n.d.). These components reflect common practices in IQA that are closely aligned with the EQA framework in UK universities. Moreover, the involvement of PSRBs, external examiners, and student representatives in the monitoring and review of educational programmes is another shared feature of IQA across institutions. A notable characteristic, therefore, is the integration of program-level QA within IQA processes (Ozeki et al. 2023, 11). At Northumbria University, evidence gathered through continuous programme performance review is actively used to support faculty professional development and is integrated into broader institutional strategies aimed at enhancing educational quality and strengthening research capabilities. A case from the University of Warwick offers a comparable yet distinct example. After receiving a Silver rating in its initial Teaching Excellence Framework (TEF) assessment in 2018, the university incorporated a dedicated TEF strategy into its broader educational reform efforts. It introduced IQA measures that not only emphasized performance data but also prioritized the pursuit of educational excellence and the development of a co-creative mindset with students. These efforts culminated in the university achieving a Gold rating in its second TEF assessment in 2023 (Hughes 2025). These examples indicate that universities exercise autonomy in shaping their IQA strategies within their EQA framework. Throughout our site visit, we identified that a culture of quality is embedded within the institution's IQA system. This culture leads to autonomous quality assurance practices at the academic degree level, supported by the QA office through various forms of assistance, such as data preparation and user-friendly templates integrated into the system. Our observations suggest that UK universities are not merely responding to externally imposed QA requirements, but are also proactively engaging in academic management strategies aligned with their institutional missions. This stands in contrast to the situation in Japanese universities, where the implementation of academic management remains relatively underdeveloped. The insights gained from this analysis highlight two key points: first, that the EQA framework in England fosters institutional autonomy in academic management; and second, that IQA processes are supported by skilled staff who ensure disciplinary expertise and professionalism.

5. Discussion

5.1 Insights into Improvement of QA Systems

Based on our analysis of the Japanese QA system and observations from our site visits to the US and UK universities, faculty autonomy and program-level QA are essential for improving QA in Japan. Effective QA is achieved through a collaborative relationship in which EQA provides foundational support, enabling institutions to develop IQA frameworks suited to their contexts. Educational programs must foster both disciplinary expertise, meaning deep knowledge and skills in a specific academic field, and professionalism, referring to consistent ethical conduct and effective practices in professional settings where applicable. Our analysis identified that both elements are essential for the academic community and society. Disciplinary expertise is fundamental to all academic programs, while professionalism is particularly expected in professional schools such as medicine and nursing.

In summary of our analysis, we propose that program-level QA should evaluate the extent to which both disciplinary expertise and professionalism are embedded within academic programs. Integrating these elements into IQA contributes to ensuring academic rigor and professional relevance, thereby supporting the development of human resources at the program level. Program accreditation can play a key role in ensuring the professionalism component of academic programs. Given the limited development of subject-based accreditation in Japan, program-level reviews conducted within the framework of IQA are essential for assuring and enhancing the quality of education (Hayashi 2025, 162). Figure 3 illustrates this relationship: IQA, represented by the academic program review process, is conducted autonomously by faculty and staff, with disciplinary expertise and professionalism forming its foundation. EQA functions as a complementary mechanism that reinforces institutional autonomy while enabling expert-led program reviews. This dynamic demonstrates how EQA can support and enhance the effectiveness and independence of IQA. With EQA providing a supportive framework, HE institutions are expected to ensure quality through their own IQA systems. Establishing mechanisms to review and evaluate both disciplinary expertise and professionalism is essential. Depending on national contexts, these elements may be incorporated within IQA, EQA, or a combination of both.

Collaboration with academic associations and industry plays a critical role in positioning HE within society and promoting integrated human resource development. Achieving both academic rigor and professional relevance at the degree program level is essential. Our observations suggest that stronger relationships among institutions, accreditation bodies, and stakeholders are necessary to better align EQA and IQA processes. Therefore, it is important to establish a QA system within a meaningful ecosystem that actively engages broader society, positioning HE as a foundational pillar of the global community. While approaches to QA vary across countries, a shared challenge lies in effectively ensuring the quality of educational programs by harmonizing external requirements with internal efforts for continuous improvement.

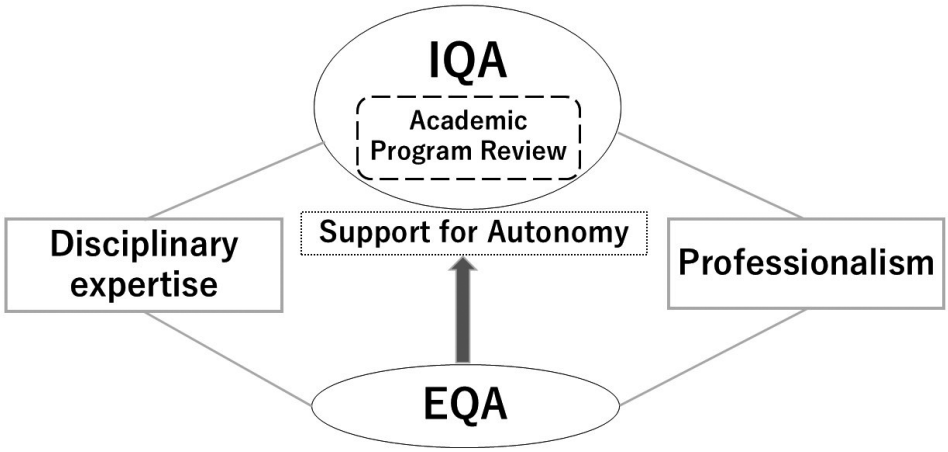


Figure 3: Interplay of EQA and IQA to enhance program-level QA

5.2 Limitations

This study is primarily descriptive in nature, drawing on document analysis and site visits to selected universities in the US and the UK. It does not yet incorporate quantitative survey data or broader empirical evidence from a larger sample of institutions. The findings may not fully capture the diversity of QA practices or the nuanced challenges faced by different types of HE institutions across the three countries. Furthermore, the scope of the comparative analysis is limited by the selection of case study sites, which may not be representative of the broader HE sector. To address these limitations, future research should incorporate a wider range of empirical data and expand the comparative scope.

Acknowledgement

This work was supported by JSPS KAKENHI Grant Number 22KK0027.

References

Central Council for Education, Japan. 2025. *The Future Vision for Enhancing the Totality of Knowledge in Japan: Reconstruction of the Higher Education System* (*Report*). Tokyo: Ministry of Education, Culture, Sports, Science and Technology. https://www.mext.go.jp/content/20250221-mxt_koutou02-000040400_1.pdf.

European Association for Quality Assurance in Higher Education (ENQA). 2015. *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (*ESG*). Brussels: ENQA. https://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf.

Hayashi, Toru. 2025. "A Study of Disciplinary Quality Assurance Mechanism in Higher Education: Focusing on External Examiner System in the U.K. and Inspector System in Japan." *J. F. Oberlin University Journal of Advanced Research. Applied Human Sciences Sciences* 5: 152–165.

Hazelkorn, Ellen. 2023. *Trends and Issues: Quality and Quality Assurance in Higher Education*. BH Associates,

Education Consultants. Presented at "Quality and Quality Assurance in Higher Education – Trends and Developments in the EU and Western Balkans," Skopje, Republic of North Macedonia, 26 September 2023.
Hughes, Chris. 2025. "Challenges for Achieving TEF 2023 'Triple Gold': Strategic Leadership and Management of Internal Quality Assurance at the University of Warwick." Online presentation at the 1st Open Seminar of the Study Group on Educational Program Evaluation, February 27, 2025.
Japan University Accreditation Association (JUAA) 2023. *Survey Report on Teaching Management: Analysis of the Actual Conditions at 458 Universities and Proposals for Substantial Improvements Reaching Faculty and Students*. https://www.juaa.or.jp/research/document/.
Martin, Michaela. 2018a. *The Effects of Internal QA: How to Make IQA More Effective for Quality Enhancement*. Paris: UNESCO International Institute for Educational Planning. https://unesdoc.unesco.org/ark:/48223/pf0000263245.
Martin, Michaela. 2018b. Linking External and Internal Quality Assurance. Paris: UNESCO International Institute for Educational Planning. https://unesdoc.unesco.org/ark:/48223/pf0000263247.
Martin, Michaela, ed. 2018c. *Internal Quality Assurance: Enhancing Higher Education Quality and Graduate Employability*. Paris: UNESCO International Institute for Educational Planning.
Ministry of Education, Culture, Sports, Science and Technology (MEXT). 2024. "Survey on the Status of Educational Reform in Universities, FY2022." https://www.mext.go.jp/content/20241011-mxt_daigakuc01-000038093_1.pdf.
Morozumi, Akiko. 2023. "Teaching Management from the Perspective of the Educational Field: Based on a Faculty Survey." *University Evaluation Studies* 22: 135–138.
Noda, Ayaka. 2020. "Challenges and Possibilities of Certified Evaluation and Accreditation." *Higher Education Studies* 23: 33–52.
Northumbria University. n.d. "Monitoring and Review." Accessed October 19, 2025. https://www.northumbria.ac.uk/about-us/university-services/student-library-and-academic-services/quality-and-teaching-excellence/monitoring-and-review/.
Ozeki, Satoshi, Toru Hayashi, Patrick Shorb, Maureen A. McLaughlin, and Christopher W. Hughes. 2023. "Towards the Establishment of Program Evaluation System in Japanese Higher Education: Learning from the Quality Code Adopted in the United Kingdom." *International Journal of Institutional Research and Management* 7 (1): 1–15.
Quality Assurance Agency for Higher Education (QAA). 2024. *UK Quality Code for Higher Education*. https://www.qaa.ac.uk/docs/qaa/quality-code/uk-quality-code-for-higher-education-2024.pdf.
UNESCO. 2022a. "Beyond Limits: New Ways to Reinvent Higher Education." Working document for the World Higher Education Conference, 18–20 May 2022. https://unesdoc.unesco.org/ark:/48223/pf0000389912.
UNESCO. 2022b. *Higher Education Global Data Report* (*Summary*). A contribution to the World Higher Education Conference 18–20 May 2022. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000389859.
Western Michigan University. n.d. "Institutional Effectiveness." Accessed October 19, 2025. https://wmich.edu/effectiveness.
Woelert, Peter. 2023. "Administrative Burden in Higher Education Institutions: A Conceptualisation and a Research Agenda." *Journal of Higher Education Policy and Management* 45 (4): 409–422.

Proposal for a Quality Assurance Metrics-Tool: Shifting Convention in QA assessment reports (Self-Study Reports and External Program Review Reports)

Mohamed Elmokhtar Absallahi

The Mauritanian Authority for Higher Education Quality Assurance (AMAQ-ES)

Abstract

Any evaluation/review ought to include, a formula to measure degree of conformity, of the program under review, with the respective standards framework (which of course always presents a set of quality criteria which have a set of elements of proof i.e. quality indicators). We have conducted a corpus analysis on the available program review reports, both internal and external (20 x 2 = 40 reports). These were program review reports undertaken for the purpose of verifying that quality assurance criteria are observed (Self-Study Reports), and that quality standards are assured (External Review Reports) so that an accreditation can be attributed. This was our expectation as a Quality Assurance Agency (QAA). Among the 40 reports, 38 reports adopted a linear qualitative approach to compliance verification, only 2 of them attempted to use a quantitative approach to check compliance levels hence delivering a value judgment in the report stating the degree of quality level attained by the academic program under evaluation/review.

This paper is a report about an action research task undertaken by a practitioner in a QAA while conducting regular work assignment preparing Quality Assurance (QA) assessment reports for the scientific council to issue accreditation decisions about programs undergoing due review process. The scope of the study is limited to addressing a problem faced by a QA practitioner and proposing a model for addressing lack of homogeneity among reports. The expected outcome is that once this reporting and QA model is adopted and implemented, reports thereafter will achieve admissibility, practicality, and actionable homogeneity both from Internal Quality Assurance (IQA) and External Quality Assurance (EQA) perspectives.

Keywords: Quality Assurance, QA System, Self-Study Report, External Review Report, Accreditation Process, Reporting Conventions, QA Metrics-Tool, QA Model, Compliance.

I. Introduction

1. Research Problem

Some program Self-Study Reports (SSR) and their respective External Review Reports (ERR) tend to be too wordy, subjective, and extremely well done but not serviceable for the QAA in terms of granting an accreditation. In the Mauritanian context, the QA effort started only recently in 2021. The first program pilot reviews were undertaken in the years 2022, 2023, and 2024. When we received all the reports of the 20 programs from various national public and private Higher Education Institutions (HEIs), we found that most of them do not address the question of compliance efficiently. Our scientific board found that these reports do not provide enough data to support attribution of an academic accreditation. The reports tended to be qualitative and subjective in nature depending on the reviewers' understanding of quality assurance and relevant standards. 90% of the reports sounded more literary than technical.

This led to lack of sufficient data regarding level of compliance to the set of quality standards and criteria enclosed in the National Standards Booklet for Academic Program Assessment. Likewise, these highly qualitative reports show lack of feedback to help trace compliance or lack thereof to specific quality standards/criteria. Furthermore, both SSR and ERR do exactly the same thing which is verifying quality. None of them tries to ensure quality by addressing levels of compliance, instead; both merely verify existence of quality indicators i.e. elements of prove that certain standards have been met. Extent of overall or partial field-specific compliance is not assessed in a quantitative manner in these 38 reports, only 2 reports tried to use an evaluation scheme leading to a quantitative assessment of attainment levels.

Consequently, all programs using current reporting conventions receive an accreditation that is satisfactory. Academic Accreditations are awarded without any specification regarding level of attainment, or degree of compliance. By doing so, it is clear that at the reaccreditation outcome will be the same as that of the initial accreditation.

2. Statement of the Problem

Most Self-Study Reports and External Review Reports, that we received, were not actionable from the QAA perspective.

3. Research Questions

How can these reports be more effective and user friendly in terms of delivering a precise value judgment on the level of quality attained by the program under review as per given standards? Should the external report use a review approach that ensures quality rather

verifying it? How can our national QAA adopt a new QA metrics tool to shift the convention in QA assessment reports and accreditation process? Should we adopt additional procedures to ensure continuous improvement of the reviewed program by increasing interaction between the HEIs and the QAA afterwards?

4. Methodology

Using a corpus analysis via a set of admissibility parameters to accept or reject the SSR before deploying the external reviewers/evaluators, see Table #4: Admissibility Parameters. As a result, we took a close-up look into the contents of the 40 assessment reports. Thus, we were able to conduct a textual analysis of the reports using key words to find out a statement defining the level of quality attained by the program under review. We were looking for graphs featuring numerical expressions showcasing overall and field-specific level of quality attained by the academic program being reviewed for accreditation. It is after conducting this exercise that I was able to devise the QAMt, which stands for Quality Assurance Metrics Tool. QAMt also brings about a new Model of Quality Assurance by merging two model off the models' map outlined by Harvey and Green as cited by Duarte and Vardasca (2023, p.3).

EERs that showcase percentage of overall and specific quality level attainment, without featuring appreciating the quality level of the indicators were listed but not taken into account as they only verify existence of quality indicators (they do not assure the attained quality level). In this respect ERR showcases the same verification featured by SSR. After defining our metrics tool, we tried to identify similar models in other QAAs, the closest we found was the Indian (National Assessment and Accreditation Council) NAAC accreditation grading model which was featured in a poster during the INQAAHE Conference 2023 Astana (Tripathi and Prasad, 2022).

II. Background and context

1. Context

In recent years, Mauritania started a policy of development and promotion of Quality in HE, in accordance with the guidelines of the National Program for the Development of the Education Sector and the 2030 Strategic Vision for Higher Education. Quality assurance of education and research became paramount priorities in the Mauritanian context.

This policy is clearly reflected in the establishment of the Mauritanian Authority for Quality Assurance in Higher Education (AMAQ-ES), pursuant to Law No. 028-2016 of July 29, 2016, amending certain provisions of the 2010 law relating to higher education and scientific research. Article 8 stipulates that:

> "the system of higher education and scientific research is subject to a regular evaluation concerning its internal and external efficiency and affecting all administrative, pedagogical, scientific research, and institutional governance. This evaluation is carried out by an autonomous structure, under the auspices of the National Council for Higher Education and Scientific Research (NCHESR)" (Ministry of Higher Education, 2016, p.1).

The autonomous structure referred to hitherto i.e. AMAQ-ES is our national Quality Assurance Agency (QAA). AMAQ-ES came into existence as an important added value for higher education and scientific research at a time when Mauritania was entering an era of cutting-edge reforms in the education sector. Our national QAA is now well positioned as one of the essential levers contributing positively to the dynamic for the advancement of HE in Mauritania. AMAQ-ES is expected to do so by consolidating the national evaluation and quality assurance system, and above all by its contribution as a strategic regulatory body (Ministry of Higher Education, 2021).

AMAQ-ES was enacted by decree in 2017, but its actual operation started only in 2021. However, the pilot academic program reviews/evaluations started a year later in October 2022. There were many issues having to do with the heavy process of accreditation consisting of internal and external assessment procedures sanctioned by formal reviews or assessment reports. Such was the complaint that came from the HEIs. However, the main grievance, from the perspective of the QAA was that most assessment reports were not actionable, having no straightforward statement on compliance, and lacking homogeneity.

2. Background

As QA practitioners in QAAs we need reports, whether internal or external, to be actionable from our perspective i.e. helping our scientific council to uphold a sound decision with respect to efficiently attributing an academic accreditation smoothly and unquestionably. Moreover, in the Mauritanian context, the regulation allows HEIs to engage appeal procedure should they find that an accreditation has been unfairly denied. Therefore, it is of utmost importance to the QAA to ensure, with a trustable exactitude, that the decision is unquestionable and that a wrongful attribution also can be avoided. This concern brings about a desire to analyze the problem and propose a solution that caters for this urge to ascertain the decisions taken by QAA scientific board with respect to positive or negative attributions. Hence, the need for a metrics tool that helps shift the convention in QA assessment reports to make them more actionable and the process more robust.

Using a metrics tool to address compliance makes accreditation reliable and continuous improvement more efficient and progressive. "If you cannot measure it, you cannot manage it" as the Famous Edward Deming's adage goes. This statement can be paraphrased for

'fitness of purpose' as follows: If you cannot quantify it, you can NOT ensure/certify/accredit or assure the quality of an academic program and decide on its degree of compliance to relevant set of standards/criteria/quality indicators.

III. Description of the initiative or practice

1. The current academic accreditation process

Our current QA system administers the following process structured in three stages.

Stage 1: Self-assessment procedure (autoévaluation also called évaluation interne) sanctioned by a Self-Study Report (SSR) submitted to the QAA with annexed folders of items of prove (éléments de preuve) such as course description, instructors' CVs etc … corresponding to each assessment field as per the national standards. Once the agency receives this SSR, its dedicated team checks admissibility and sends it over to selected external evaluators team usually composed of three members.

Stage 2: External assessment procedure carried out by the external evaluators or experts deployed by the QAA shall produce an External Review Report (ERR) after conducting a three-day site visit. After two weeks, external reviewers shall submit their report to the QAA.

Stage 3: The QAA submits both reports to an initial screening phase, where QA Officers inside the agency check the admissibility of the report and then calls the scientific committee or council to review the ERR and to issue a outcome attributing or denying an accreditation to the academic program under review. The QA officers found that most reports were not admissible, however since they all stem from a pilot process, admin decided to tick them all off.

Stage 4 (none): After Stage 3, communication stops between the QAA and the HEI until the expiration of the granted accreditation, after 4 years for BA programs and 5 years for Master programs. This was a major finding for this action research, that there is no stage four. The study found that this was a major anomaly, a big whole in our national QAA. Is it the same in the systems of other countries? The scope of the study does cover this dimension.

2. The proposed QA Metrics Tool (QAMt)

The study gave birth to a metrics tool encompassing several substantial components. QAMt (silent t) a QA metrics tool intends to shift conventions in QA reporting and procedures. It consists of the following components:

a) Adopting a new QA model dubbed *QA as Compliance or Criterion-Attainment Model.*

b) Proposes different sets of evaluation descriptors (grading system) 3 for SSR and 6 for

ERR,

c) Proposes a shortened template for both reports drastically reducing time and effort,
d) Using the new descriptors, QAMt proposes a digital compliance checker for both assessments,
e) Adopts quality tiers/levels of accreditation (a special ranking system standards-bound ranking) as per percentage of compliance. With this model it is unlikely for any program to not get accredited because the minimum is set to basic requirements that all are expected to have observed,
f) Introducing a new stage 4 in the accreditation process culminating in a Continuous Improvement Plan (CIP) and a Continuous Improvement Register (CIR) forms to enhance interaction between HEIs and the QAA.

After the adoption of the proposed QA Metrics Tool (QAMt), all components considered, the accreditation process will be structured in four stages. Before the adoption of the new metrics tool and its underlying procedures/components, we need to carry out a revision of the current standards framework, especially its guidelines booklet to officially accommodate the proposed grading system, the reduced SSR and ERR templates, the digitization of the conformity checker both for internal and external evaluations/reviews, and the subsequent (CIP) and (CIR) procedures and forms.

The adoption of any modification in the accreditation process or the national standards framework requires, the approval of the higher council at the ministry level, a long process that is still underway. In other words, the QAMt has not yet been used, but everything is ready and the agency is awaiting ministerial approval to effectively test the whole proposed metrics tool which in itself is the main finding of this study. Therefore, in this study the assumption has not been tested. This lapse can be considered a major limitation in this study, which will be addressed in Phase Two of this action research after official implementation of the proposed metrics tool and its underlying procedures.

3. The newly proposed process

Stage 1: Self-assessment procedure sanctioned by an SSR submitted to the QAA with annexed folders of items of prove such as course description, CVs etc. corresponding to each assessment field as per the national standards framework. This procedure will now be referred to as the Internal Quality Verification IQV procedure as it does not involve efforts to improve quality.

Stage 2: External assessment procedure carried out by the external evaluators or experts deployed by the QAA sanctioned by an ERR. Once the agency receives this report, the QAA's internal team does not need to check admissibility as both reports would have

been generated using the dedicated software (QAMt). This procedure will be referred to as the External Quality Verification (EQV) procedure aiming to focus on the level of compliance per individual criteria within each assessment filed by closely appreciating the quality of each indicator.

Stage 3: The SSR will be directly available to selected external evaluators team who would have been given credentials to access the same platform to access electronic version of the SSR and its annexes. Eventually pursuant to the site visit, the external evaluators/ reviewers will produce their report and state their conclusive statement regarding accreditation or reaccreditation. Afterwards, the QAA calls its scientific committee or council to read and assess ERR's conclusive statement and to issue a verdict attributing or denying an accreditation. Once again, admissibility verification will be phased out as the teams will be guided through the platform. Hence, the problems of lack of homogeneity, wordiness, and literariness of the report shall be efficiently avoided, and the reports become automatically actionable.

Stage 4 (new): Evaluation Follow-up: After the academic program is given an accreditation, HEI's Internal Quality Unit (IQU) produces a Continuous Improvement Plan (CIP) to follow up on the remarks and recommendations resulting from the SSR but especially those resulting from the external review process and the ERR. IQU shall submit the CIP to the QAA which should approve and return to the HEI's IQU which should use it to produce a Continuous Improvement Report (CIR) to be carried on yearly basis till the next round of accreditation. This will be the actual Internal Quality Assurance (IQA) process. The Stage 4 procedure will be termed Internal Quality Assurance process. Stage 4 comes as a practical strategy to solve the problem of discontinued communication between HEIs and the QAA after completion of a given accreditation process.

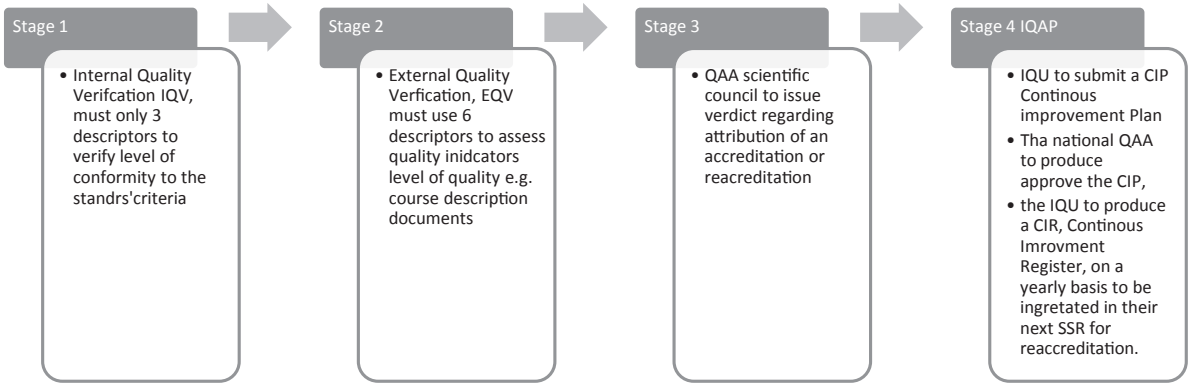


Figure 1: Diagram describing the newly proposed accreditation process

IV. Outcomes or observations

a) The QA reports and follow up procedures need to change in various ways in content and method for checking compliance to national HE QA standards.
b) SSR shall use 3 descriptors to internally assess compliance to the standards through verifying existence lack thereof, or non-applicability of the item of prove/indicator of quality criteria.
c) ERR shall use 6 descriptors to evaluate the quality of the items of prove of the existing criterion/standard which are attached to the SSR report as annexed portfolio. This is of crucial importance because we found out that external reviewers rely only on the site visit to write their report. They do not take time to study some of the annexed portfolio of items of prove attached to the SSR. One of the limitations of our study is that we did not delve into the factors behind external evaluators'/reviewers" lack of interest in completing their task by actually stating an opinion about the quality of the items of prove said to confirm compliance to the standards.
d) A Quality Tiers Scale (levels of accreditation) with suitable quality labels have been identified. This outcome constitutes a major finding that we expect will please both the regulators and the regulated as these Quality Tiers will constitute a stepping stone for increasing competition among HEIs and accelerate the dissemination of quality assurance and continues improvement culture within the HE community.

V. Reflections and implications

1. Self-Study Reports shall use a qualitative approach that only verifies the existent or lack thereof of the quality indicators. Hence the new concept: Verified Quality as per self-study report. Having said the above, the self-study report describes Internal Quality Verification Process rather than the Internal Quality Assurance.

Table 1: Grading system for SSR or IQV

3 Descriptors for a for Self-Study Report for IQV			
The element of prove is either	Available (2 points)	Not available (-1 point)	Not applicable (0 point)

Thus the percentage of compliance or attainment can be calculated as follows:

$$\frac{\text{N available items}}{\text{Total points for all the items}} = \% \text{ of attainment}$$

The Internal Quality Assurance is a different procedure that should take place after the

acquisition of an accreditation. It consists of exploitation both the SSR and the ERR to elaborate a CIP. A major implication of the study that will enforce the proposed shift in paradigm, was the distinction described earlier between SSR as IQV the ERR as EQV.

2. The ERR report shall use a different set of graded 6 descriptors to measure the level of quality assured/attained as per the assured Quality Tiers Scale or levels of accreditation.

Table 2: The grading system for the ERR or EQV

6 Descriptors for a for External Review/Evaluation Report for EQA								
Assessment Field/ Standard/Criterion (F S C)		Weight (to be appreciated by the external reviewer by studying individual items of prove not necessary all)						Acquired points
Item of prove Identification (IP)	Name of Item of IP e.g. Course Description	Does not comply −1	Complies 1 point	Compliant good 2 points	Complaint very good 3 points	Perfect 4 points	Excellent 5 points	Total /15
F1 S1 C1 IP1	Insert text name of the IP							
F1 S1 C1 IP2	Insert text name of the IP							
F1 S1 C2 IP1	Insert text name of the IP							

Likewise using these descriptors can ascertain individual criteria attainment and provide a conclusive statement regarding accreditation attribution. The grading scheme allows us to devise a scale or quality tiers so that an accreditation label can be attributed with a specific level, creating ground for positive competition among departments within the HEI and also among the HEIs.

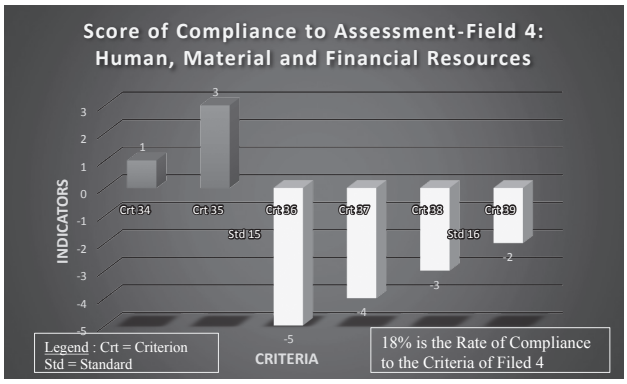


Figure 2: Sample IQV using QAMt for SSR (percentage of compliance)

Legend: This graph is generated by the Compliance Conformity Checker for an SSR. It shows percentage of compliance to assessment-field number 4 titled Human, Material, and Financial Resources in our National Standards Booklet for Program Reviews.

Therefore, the QAMt showcases the overall and field-specific quality compliance levels creating an opportunity for recalibrating and fine tuning the program under review to achieve the next level of compliance or attain the next quality tier/accreditation label at the next round of accreditation.

Table 3: Quality Tier/ Accreditation Label to be obtained from the ERR outcome

% Obtained	Quality Tier/ Accreditation Label
85 – 100	Distinguished Quality
69 – 84	Elaborate Quality
53 – 68	Enhanced Quality
37 – 52	Confirmed Quality
22 – 36	Defined Quality
20 – 21	Basic Quality (in compliance with mandatory requirements such as credit hours' system, pedagogical norms)
Less than 20	Denied accreditation

Source: the scale was inspired from the CAMES Manual on Internal Quality Assurance by Mamdou Sarr' Guideline booklet for IQA. Sarr is a professor from UCAD, Senegal. The pdf was downloaded from www.lecames.org We adapted and added two levels and changed names of labels on the tiers.

3. The distinction between IQV and EQV that this metrics tool calls for consists of drastically reducing the content of SSR report as its function will be merely to verify existence of quality indicators (items or elements of prove that a given criterion is achieved). Therefore, under the new of QA model the SSR will be extremely shortened to 10-15 maximum 20-pages' report, especially when we use the 3-descriptors assessment grid to elaborate a digital tool that automatically yields a report with graphs showing compliance levels (Digital Compliance Checker).

In this manner the whole process of producing a SSR will be reduced to one week. When this report is sent to the national QAA, the next week external reviewers will be deployed for the 3-days' site visit, and will be required to spend two weeks to produce an ERR using the Digital QA Tool (which use the 6-descriptors see Table 2) to assess degree of compliance level showcasing a value-judgment by stating the exact attainment level overall and per assessment-field as per given standards 'framework.

Once the ERR is received by the QAA and an accreditation is attributed showing the attained level of compliance, the HEI's IQA unit is given a week to produce and submit a CIP to the QAA. The CIP will be stored at the QAA till the time of reaccreditation, when the HEI'IQA to submit a CIR (Continuous Improvement Report) as part of its new SSR. From then on, SSR will have to integrate a CIR alongside its 2 or 3 pages' computer

Figure 3: Sample view of digitized standards compliance checker for SSR

Legend: This figure is a snap from the digital Compliance Checker showing how the self-study team at the HEI can directly input the result per criteria by simply ticking one of the three option (yes, no, or not applicable) when they hit submit at the end of each assessment field, the graph will pop-up similar to the one in Figure 2 above.

generated compliance verification report. Afterwards, the second ERR shall have a different set of descriptors to assess compliance by accommodation points for CIP and CIR. This is the paradigm we call for in all models of quality assurance regardless of regional contexts and regardless of adopted QA model or method. As long as there is a standards framework that breaks down standards into criteria and items of prove for each criterion. This metrics tool for QA proposed, herein, uses aspect of both of the following models of QA: a) QA as Excellence, achieving the highest standards and b) QA as Transformation, continuous improvement (Duarte, N.; Vardasca, 2023). Basically our proposed QA model, a true paradigm shift in QA assessment reports blends these two models into one which can be dubbed *QA as Compliance or Criterion-Attainment Model.*

Table 4 Admissibility Parameters

N°	Parameters	Yes (1point)	No (-1)
1	The SS Report includes an outline that follows the rules of the self-assessment guidelines and the national standards framework issued by the national QAAA.	1	
2	The report contains a comprehensive explanation of the methodology adopted by the Self-Study Report to collect and analyze the data necessary for the program's assessment as per the guidelines.		-1
3	The self-assessment process was carried out with a clear work plan and a timeline.	1	
4	The report presents a table with lists of stakeholders interviewed.	1	
5	The assessment includes graphic questionnaires that reflect some of the results of these questionnaires	1	
6	The report includes graphs showing the results of the self-assessment for each field of assessment and overall.	1	
7	The report highlights weaknesses and strengths.		-1
8	The report includes recommendations for continuous improvement, both horizontally and vertically.		-1
9	The self-assessment process complies with the guidelines.	1	
10	The self-assessment process disassembled the evidence from the criteria to count them and track their availability (nonexistent, existent, not applicable) , and assigned quantitative values.		-1
11	The evaluation process included meetings with stakeholders, students, teachers and, support staff.	1	
12	The evaluation process included meetings with stakeholders outside the academic process, particularly employers.	1	
13	Through the self-assessment process, the report achieved a clear result expressing the level of compliance of the program with the quality standards as contained in the national framework, with a quantitative value for each area.	1	
Sub-Total		9/13	-4
Total gained points		9/13	
Percentage		If 51% or above	49% or below
	Self-Study Report	Admissible yes Assessors will be deployed	Inadmissible No external review Self-Study assessment to be redone

VI. Conclusion

This metrics tool calls for a change in the current paradigm of QA worldwide, the Mauritania QAA believes that such an innovative model need to receive some level external recognition before it can be applied in the Mauritanian context. CIP and CIR should officially be adopted by the national council at the ministry level to be added to the quality assurance process as a way to systematically recalibrate adjust and modify academic programs to

ensure compliance and ascendance to the next accreditation level/quality tier on the proposed scale. There are many limitations to this study one is that the study was focused on the Mauritanian context, so it is not clear if the other contexts have realized these nuances. No extensive literature was conducted as this was action research. The only QAA that uses a grading system that seem to be similar to the one proposed here is an Indian Agency called NAAC. We tried to use it, but we found that it does not fully solve the research problem and is not sufficient to cater for our research objectives.

References

Duarte, N.; Vardasca, R. Literature Review of Accreditation Systems in Higher Education. *Educ. Sci.* 2023, 13, 582. https://doi.org/10.3390/educsci13060582

Tripathi, R. and Prasad, A.V. Analysis of Accreditation of Higher Education of Institutions of Uttarakhand, *The Indian Journal of Commerce*. 2022, 15, 1. print: ISSN: 0019-512X.

Ministry of Higher Education, 2016, *The Higher Education Law Number 43-2010*. https://amaqes.mr/sites/default/files/files/Loi%202016_028%20modif%202010_043%20(1).pdf

Ministry of Higher Education, 2021, *Decree Number 31-2021 Creating the Mauritanian Quality Assurance Authority*. https://amaqes.mr/sites/default/files/files/DECRETE%202021-031%20AMAQ%20ES%20version%20%20fr.pdf

University Evaluation Review
Vol. 24 – Special Issue: Papers Submitted by Presenters
of the INQAAHE 18th Biennial Conference 2025
February 2026

Published by Japan University Accreditation Association (JUAA)
Research Institute for Quality Assurance of Higher Education (RIQAHE)
2-7-13 Ichigaya-Sadohara-cho, Shinjuku-ku, Tokyo 162-0842 Japan
Tel +81-3-6228-1315 Fax +81-3-3260-3667

Production support, printing and binding: Nippon Insatsu Co., Ltd.

ISSN 1346-020X

University Evaluation Review

February 2026 Vol. 24 – Special Issue

since 1947 Japan University Accreditation Association