QUALITY ASSURANCE

Concepts and Practices

Prepared for the World Bank

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Introduction

Higher education systems worldwide are faced with unprecedented challenges that constantly threaten the quality of the education they deliver. Among these are increased participation and student diversity resulting from national policies regarding access, equity, and inclusion; the emergence of new knowledge domains and technologies on the one hand and the quick obsolescence of others; pressure from employers and the public to equip university graduates with new and different skill sets; and a desire for internationalization which in turn requires adherence to standards for cross border recognition and harmonization of systems.

These challenges are sometimes exacerbated with concurrent decline in public funding and available resources, the deluge of cross border and distance private providers, and academic fraud and corrupt practices. As a result, governments and their constituents around the world have been demanding greater accountability and transparency in managing the delivery of higher education. It is in this light that the quality assurance movement has gained momentum and the process has become a potentially effective means for regulating quality as well as raising overall performance levels across systems.

This paper provides an overview of quality assurance and accreditation, key terms and best practices, factors that need to be considered in implementing a robust quality assurance system, and current trends that characterize effective systems.

Quality

A conversation about quality assurance can be better understood if there is a common understanding about the concept of quality and the core elements associated with it.

Quality is a multidimensional construct and as such, any definition used for it should reflect this complex nature. Consensus among experts about a standard definition for quality exists only at the broadest level. Generally, it is agreed that quality in higher education is a dynamic attribute that evolves with time and with contextual demands; that it pertains to every aspect including inputs (e.g., physical and human resources such as infrastructure and quality of students at the time of admission), processes (e.g., teaching approaches and learning experiences), outputs (e.g., graduate competencies, research productivity and dissemination), and outcomes (e.g., graduate employment, improvement of the system due to efficient use of resources).

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1 Examples are The Bologna declaration, the Prague Communiqué, and initiatives within the GATS (Global Agreement on Trade and Services) framework on the further liberalization of trade in education services. Additional examples are the growing bi- and multi-lateral student mobility and exchange programs such as Erasmus, Socrates, and Nafta- North American Mobility in Higher Education.

Following a meeting of the Ministers of Education at a UNESCO Round Table in 2003, the following working definition of quality was advanced:

Quality has become a dynamic concept that has constantly to adapt to a world whose societies are undergoing profound societal and economic transformation…Old notions of quality are no longer enough.

This statement conveys the important message that an agreed upon definition of quality in a given time or in one context will most likely be different at another time or a different context. Hence any definition will need to be revisited systematically and revised accordingly. Gola’s (2003) definition of quality is also interesting because it underscores the relevance of societal expectations in defining quality education. This definition refers to: “Specifying worthwhile learning goals and enabling students to achieve them”. What is meant by the term “worthwhile” includes: a) expectations of society, b) students’ aspirations, c) demands of governments, business, and industry, and d) requirements of professional establishments.

Sanyal and Martin’s (2006) explore quality from different perspectives and use descriptors such as: “… providing excellence, being exceptional, providing value for money, conforming to specifications, getting things right the first time, meeting customer’s needs, having zero defects, providing added value, exhibiting fitness of purpose, and exhibiting fitness for purpose” (p. 5). The latter two attributes, fitness of and fitness for purpose, are particularly important in the context of higher education because they enable institutions to have different missions and be evaluated with different sets of performance standards and criteria.

The take away message from the discussion above is that current definitions of quality include attributes and dimensions associated with inputs, processes, outputs, and outcomes corresponding with graduate competencies; that definitions evolve with time and context; and that a robust definition will take into account expectations of all stakeholders including students and parents, business and industry, professional organizations and governments.

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Quality Assurance

The ambiguities associated with the definition of the concept of quality transgress to discussions concerning quality assurance. Notwithstanding these ambiguities, quality assurance systems attempt to address three fundamental questions:

- What characteristics of institutional work are of greatest value and why?
- What constitutes academic performance at the highest level?
- How can such performance be recognized and measured?

Key terms, typology, and models related to quality assurance

Quality assurance (QA) is an overarching term that embraces all policies, procedures, and actions through which the quality of higher education is developed, maintained, and rendered accountable. Through a cyclical evaluative process, quality assurance is meant to improve all dimensions that together comprise a higher education system, institution, or program.

There are a number of general approaches to QA including but not limited to accreditation, assessment, academic audit, and benchmarking. Accreditation is the process by which a body (governmental, non-governmental, or private) evaluates the quality of an educational unit (institution as a whole or a specific educational program in an institution or across institutions) to formally determine whether it has met certain pre-established criteria and standards of quality. The process typically leads to a decision concerning status (e.g., license to operate, grant title to graduates of program, be certified by a professional body, etc.).

Quality assessment is the actual process of evaluating the quality of higher education institutions and programs. A typical outcome is a multi-point, grade/numeric or descriptive assessment. An academic audit is a process based on which an institution monitors its own academic standards and takes steps to assure and enhance the quality of its offerings. Benchmarking is the process of using a reference point against which the performance of the unit is compared to. The term “benchmark” implies a measure of best practice performance and “benchmarking” involves a comparison with that specific point of reference.

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6 An extensive glossary of key terms related to Quality Assurance and Accreditation is available from the [http://www.chea.org/international/inter_glossary01.html](http://www.chea.org/international/inter_glossary01.html)

7 ISO-9000 is another approach. Borrowed from industry, it places greater focus on inputs and process. Newer generations of ISOs, however, have begun to include outcomes in their indicators. The approach places heavy emphasis on documentation with a view toward standardization. Because it does not take diversity and the human factor too much into account and is too costly and labour intensive to prepare documentation, it is less popular in academic contexts.

8 Canadian institutions operate under this model.
All these approaches require a pre-determined and explicitly communicated set of standards and criteria or performance indicators which then become the basis for determining the level at which a given unit is performing. Using criteria and standards to assess performance presumes a capacity to systematically compile accurate data from every level of the unit under review (e.g., administration, technical and support staff, faculty, students, infrastructure and resources, teaching and learning contexts and experiences, etc.). Normally, the evaluative process is cyclical and is repeated after a certain period of time, most typically every 5-7 years. The outcome of the review or evaluation is used for improving and enhancing the status quo, future planning, prioritizing and allocating resources, professional licensing, etc. While the evaluative (summative) dimension of QA is important for a range of decisions (e.g., permission to operate, allocation of resources, ranking, etc.), the developmental or formative dimension of the QA activity is of equal if not greater value in contexts where the higher education system is nascent. A robust QA process will also engender a critical self-examination of the unit under review (e.g., system, institution, department, program) with a view to build on strengths and redress areas of weakness and inefficiency.

Core elements that differentiate QA systems

Practices of QA can be differentiated by comparing answers to the following questions (expressed in italics):

Who is the responsible agency/unit that has oversight on quality assurance and/or accreditation? What is its mandate and what is the relationship of this entity with the government?

The unit that is given the responsibility of monitoring quality and providing guidelines and perhaps policies for developmental activities (e.g., building capacity, revision of programs and courses, program design, etc.) can be an agency (e.g., Quality Assurance and/or Accreditation Agency or Council) or a designated unit in an institution.

In the case where there is a Quality Assurance and/or accreditation Agency or Council, this agency will typically have one of the following four types of relationship with the government:

a) The agency is established by the Government and operates as an arm of a Ministry representing the government (e.g., Higher Education, Education, Scientific Research, etc.) and reports to the Minister in which the unit is located. Examples of this model include Colombia’s Consejo Nacional de Acreditación,

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9 In an ideal situation, criteria will apply to inputs, process, outputs, and outcomes.
11 Details about various national quality assurance organizations and regional networks are available from the website of the International Network of Quality Assurance Agencies in Higher Education (INQAAHE) <http://www.inqaahe.org/index.php>
Malaysian Qualifications Agency, or Thailand’s Office of National Education Standards and Quality Assessment, situated in the Ministry of University Affairs.
b) The agency is established by the government but is operated autonomously and as an independent unit. Examples of this model include Chile’s National Commission of Accreditation (Comision Nacional de acreditacion de pregrado), which gets funding from the national budget or Egypt’s National Authority for Quality Assurance and Accreditation in Education, which reports directly to the President through Parliament.
c) An agency that is established by higher education institutions collectively and is accountable to the Council representing higher education institutions. Examples include the Philippines’ Accrediting Agency of Chartered Colleges and Universities of the Philippines (AACCUP), India’s National Assessment and Accreditation Council, and UK’s Quality Assurance Agency for Higher Education.
d) An agency that is established jointly by the Government and higher education institutions with a range of reporting lines. Examples include Romania’s Consiliul National de Evaluare Academica si Acreditare /National Council for Academic Assessment & Accreditation (N.C.A.A.A.), which reports directly to the Senate and the Chamber of Education and Science Committees.

Irrespective of the model, the most important attributes of functional, effective, and credible quality assurance and/or accreditation agencies are their ability to act autonomously and be deemed as independent by the academic community.

• *Is the participation in QA reviews and other activities mandatory, voluntary, or something in between?*
  Participation in systematic QA and/or accreditation can be mandated or left to the discretion of the institutions. Often, built-in incentives motivate institutions to participate even if the system does not mandate a quality assurance or accreditation process. In India, this motivation is tied in with the prestige associated with accredited institutions. In Australia, institutions partake because any institution wishing to access federal funding has to be audited by the Australian Universities Quality Agency.

• *What are the steps and methodologies used for the review and assessment process?*
  This process typically involves a self-study that the unit under review will carry out. The self-study is to provide an accurate report, supported by evidence and data, of the quality of education that the unit provides. It will include statistics about the current context (e.g., enrollment data, ratios, time to completion, etc.) and may also involve analysis of performance indicators (e.g., surveys of students, alumni, employers, professional bodies and testing knowledge & competencies of students). This report is examined and commented upon through a peer review process conducted by internal and external subject matter experts who are at arms length with the unit under review. The process typically involves a site visit and interviews with various stakeholders. The result of the review is a report that highlights the strengths, weaknesses, and inefficiencies of the unit, resulting in a series of recommendations to the unit and often to the institution with a view to improve quality.
A point that needs to be underscored is that all of the steps involved in the review process require specific technical knowledge as well as experience. In the first instance, it is necessary to systematically compile dependable data and to use the data to assess performance. Moreover, it is necessary for the unit under review to engage in a collective reflection and to use insights gained from this process to prepare and present an evidence-based self-study report. In the second instance, it is necessary to ensure that individuals who contribute to the review process (e.g., peer reviewers), know how to provide an unbiased analytic perspective and constructive criticism and generate appropriate recommendations based on presented data.

- **What is the level at which the review is focused?**
  The review process can target a program in an institution (Quebec universities), an entire institution (typically private institutions, e.g., Georgia), a specific discipline offered in all institutions in a country (the Netherlands), or a comprehensive national evaluation of higher education system (also the Netherlands).

- **What is the purpose of QA?**
  While accountability is a purpose readily associated with QA, another important purpose, in particular in the context of developing countries, is the incremental improvement and renewal of the unit under review. Conducting a review exercise for several purposes, especially in systems that require considerable development, will add complexity to the process and will pose the danger of either diluting the impact of the outcome or making the process too cumbersome.

- **What does the reporting process involve and what is level of disclosure of findings?**
  The internal and external review processes typically lead to reports and recommendations. The scope of disclosure of these reports is entirely dependent on the purpose and level of transparency acceptable in the system. The most transparent systems will post reviews on public websites (the Australian system). The most restricted ones will not share the report with anyone other than the organization for which the review was carried out (the Malaysian system).

- **What is the consequence of a QA exercise?**
  Quality assurance is a process; a means to the end of improved quality. Engaging in the exercise of QA will necessarily reveal both strengths and weaknesses in the system under review and unless there is a consequence associated with the review, the process will be of little value. What are some possible consequences? An understanding of strengths, weaknesses, and inefficiencies in the unit under review, a formal mechanism to redress systemic shortcomings and resources; an institutional plan to do things differently; different patterns of resource allocation; differential patterns of funding to reward better performing units or to reduce funding of units which despite having the resources, do not perform; and in the most severe case, the closure of programs and/or institutions that do not meet thresholds set as minimum standards.
• Does the QA agency subject its own performance to periodic evaluation and if so, what are the processes involved?

Periodic reflection and the examination of evidence of impact are requisites of any learning organization. A QA agency is established to meet specific objectives. It is given the authority and resources to deliver a mandate. As part of its overall operational plan, it must articulate, at the outset, what criteria and standards it will use to measure its own internal performance and how it will use the results to further enhance its performance.

Points to Consider

A legitimate question for any country or system deeply interested in matters related to quality assurance pertains to “the best model”: Is there one and if so, which one is it?

The simple answer to this complex question is that the best model is the one that will enable a country to reach its national aspirations and realize the strategic outlook of its higher education institutions. Similarly, an ideal model will enable higher education institutions to exploit their potential to the fullest as principal drivers in a knowledge economy. A careful consideration of the following dimensions and questions may shed a clearer light on existing needs and help determine which is the best model for a given country and context.

**Purpose:** What is the perceived purpose or purposes of the QA system? Improvement, funding allocation, ranking, gate-keeping, etc.? If the aim is improvement, is there the will and capacity to provide required additional investments or to consider alternative ways of using existing resources. Is there readiness for this among stakeholders? Does the academic community appreciate and accept that there is a problem to be addressed? If not, what measures can be taken to arrive at an objective view?

**Criteria and standards:** Which and whose criteria and standards should be used to elaborate performance indicators? Should they be developed locally or adapted from those available internationally? Should the criteria used by international accrediting bodies or professional orders (e.g., IEEE for engineering, APA for psychology, etc.) guide the formulation of the criteria? Would international benchmarking work? Should professional bodies and industry have a primary role in developing criteria and standards and the evaluative process in their respective disciplines and allow or disallow academic programs to function as a result of the review process? Should criteria and standards be elaborated quantitatively, qualitatively, or in both forms? Will it be possible to collect and compile reliable data to document standards of performance?

**Scope:** What should the scope of the regulatory functions of QA be? What does/should it involve? Public, private, distance? Is there a unified qualifications framework across the delivery systems that would accommodate crossover from one system (e.g., technical college) to the next (e.g., university)? What is the role of professional bodies and their licensing capacity in the QA process?
**Level of readiness:** What is the level of readiness and receptiveness of the academic community, syndicates and unions, and the public at large to embrace QA and practices associated with it? Does the legal framework support the aspirations of institutions (e.g., Is it possible for an institution to state its mission and function autonomously within an accountability framework to pursue its mission – hire qualified faculty, offer competitive salaries outside the normal scale, set its own admissions standards, etc.)? Is there technical capacity to implement the process well or are there resources and expertise to develop capacity? Is there availability of baseline data and dependable statistics that can be used to compare and evaluate performance? Are there resources and expertise to conduct rigorous self-studies and to engage national and international peers in the review process?

**Technical capacity:** What expertise is available to help develop capacities required for implementing QA (e.g., development of standards; peer review and reporting; faculty and program development, etc.) and capacities that the QA process identifies as areas of weakness? How are resources going to be mobilized and deployed?

**Attitudes:** What are attitudes toward QA being mandatory or voluntary? Are there incentives and rewards for performance and how will the academic community and institutions react to linking the distribution of resources to performance? What will motivate institutions/academics to fully engage in the process and embrace the culture of quality? Will the legal framework support quality initiatives (e.g., allocation of more resources to performing institutions/units)? Are the existing by-laws about performance and consequences enforced (e.g., Is the job of an academic permanent without going through a period to test potential and performance? Can an academic or an academic administrator be terminated if performance is not acceptable)? Is the general public in support of QA and its consequences? What steps are going to be taken to inform the public, to ensure that investments in human resource development prior to engaging in QA activities are seen as acceptable and worthwhile investments?

**Cost:** What is the cost of creating/maintaining a robust QA system? How will it be financed initially and over time? What activities and who should be remunerated? What accountability measures are in place and which need to be further developed? Are there mechanisms to ensure transparency?

**Ethical considerations:** Are relationships of institutions and individuals at arms length to ensure unbiased actions, for instance in the peer review and reporting process? Is there an oversight body? Are there explicit guidelines for professional conduct? Are there explicitly stated consequences for unethical conduct and if so, are these enforced?

**Sustainability:** Does the vision of QA place emphasis on capacity building and do existing mechanisms contribute to capacity building to ensure sustainability? Is the current funding model going to be sustainable over time? Is there a funding formula that takes performance into account? Will the QA system address the needs even if the higher education system expands? Is the system reflexive? Does it subject itself to periodic
external review? Is it flexible enough to implement change if the review points to areas of weakness? Will there be resources to address areas of weakness identified by the QA process? Who is the QA system accountable to? Is the assessment of its performance publicly disclosed?

**Potential Challenges and Threats**

As in any new initiative that necessitates change in the status quo, adhering to and implementing a robust model of QA will introduce new challenges and possible threats. A likely threat is placing the focus on accreditation without allocating time and resources to put in place structures, resources, technical capacity to educate the academic community as well as the community at large about QA and related processes. The developmental aspect of QA is something that cannot be controlled and implemented in a centralized fashion. Rather, it will necessitate support for developing capacity in institutions so that they can, in turn, promote and foster quality practices locally. This, in turn, will require a solid grasp and realistic estimation of the scope and level of expertise needed to develop quality practices.

Other challenges include:
- Establishing the need for (or lack thereof) to change
- Having a supportive legal framework (or contradictions in the legal framework that may hinder quality practices)
- Developing and/or arriving at a consensus on standards and criteria for assessing quality and setting quality thresholds at a realistic and attainable level
- Making a distinction between the developmental and the evaluative functions of QA
- Promoting public awareness & gaining support
- Having access to technical know-how
- Abiding by ethical standards (e.g., bias, subjectivity) particularly in contexts where the academic community is small
- Having the necessary resources for capacity building- Expecting a level quality commensurate with available resources
- Being open to the self and external evaluation
- Managing related costs and ongoing financing

**Potential Advantages**

The important consideration in establishing a functional and effective QA system is that there are a number of alternatives at every level to accommodate the realities of the context and to ensure enhanced performance. Potential advantages include:

- Skilled and competent graduates
- Improved, efficient and accountable system
- Useful mechanism for program, faculty, and institutional development
• Effective way to measure strengths and weaknesses against professional and international standards
• Closer links with employers
• Increased stakeholder confidence
• Stronger governance
• Diversified and transparent funding
• Diversified structure for a diverse student body
• Positive impact on labour markets
• Harmonization of equivalencies and cross boarder recognition
• Rationalization of resources

Conclusion
Implementing and sustaining a robust and functional QA system requires careful consideration of a number of factors both at the outset and in an on-going manner as the definition of quality is likely to change over time. Through cyclical reviews, systematic data collection, and continuous benchmarking, quality can be gauged against best practices and varying targets can be set to achieve aspired standards of performance.

One of the important emerging trends in robust QA systems is the emphasis placed on the output and outcome of education in addition to inputs and processes. This necessitates systematic follow-up of graduates and employers through surveys to determine to what extent the education received has contributed to realizing aspirations: graduates finding suitable employment, pursuing their ideals, and becoming a contributing member of a knowledge economy.

A second trend, the result of the influence of international organizations such as the World Trade Organization and OECD, is conversations surrounding the development of an international space for higher education. This would enable greater access and mobility of students and professionals, make it possible to monitor the quality of cross-boarder providers internationally, and engender greater confidence in the quality and competency of students who graduate from different systems. The development and increasing prominence of regional QA structures is in support of this trend.

For a nascent system, these trends may be way in the future but in reality, they underpin any system whether the level is institutional, national, regional, international, or guided by the market.