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GENERIC QUALITY STANDARDS VS. SPECIFIC QUALITY STANDARDS: THE CASE OF HIGHER EDUCATION

Abstract: *Quality as a new requirement for the field of higher education leads institutions to seek to satisfy generic or specific quality standards imposed directly or indirectly by its customers. The aim of this study is to compare between ISO9001, as a generic quality standard, and the Code of Practice of the Quality Assurance Agency for Higher Education (QAA), as a specific quality standard. A correlation matrix is drawn and correlation rates are calculated to show similarities and differences between them. This paper shows, first, that ISO9001 and QAA Code of Practice are compatible. Second, implementing a quality management system in accordance with ISO9001 requirements can constitute an adequate framework for the application of the QAA Code of Practice requirements. Third, to make the ISO9001 requirements closer to a specific quality standard in the field of higher education, it is recommended to complete these standards by specific requirements to the field of higher education.*

Keywords: *higher education, ISO 9001, QAA Code of Practice, quality management, quality standards.*

1. INTRODUCTION

In the last 30 years, the field of higher education has been characterized by the diversity and the internationalization of education's offer and by the introduction of new requirements such as quality assurance. Therefore, higher education systems are seen henceforth as a process that needs quality management. Likewise, national or regional quality assurance agencies in higher education have been created and quality standards specific to the field of higher education have been published.

In view of this evolution of the field of higher education, universities and educational institutions seek to meet the quality standards required directly or

indirectly by its customers. These existing quality standards are specific to the field of higher education or are generic, i.e. applicable to all organizations types, including higher education institutions. So what are the similarities and differences between these two types of quality standard in higher education?

To answer this question, we will compare ISO 9001, a generic quality standard, and the Code of Practice of the Quality Assurance Agency for higher education in the United Kingdom (QAA) as a specific quality standard.

This paper defines quality in higher education as well as the quality standards to be compared; ISO 9001 and the QAA Code of Practice. Afterwards, it compares the requirements of those standards by

drawing a correlation matrix and calculating the correlation rates.

2. THE CONCEPT OF QUALITY IN HIGHER EDUCATION

Quality is a multidimensional (Campbell and Rozsnyai 2002; Vlăsceanu et al. 2004) and relative concept (Harvey and Green 1993; Campbell and Rozsnyai 2002) in higher education. Indeed, this concept is relative to the user of the term and the circumstances in which it is invoked (Harvey and Green 1993; Campbell and Rozsnyai 2002). It can be defined as:

- Excellence (Harvey and Green 1993; Doherty-Delorme and Shaker 2001; Campbell and Rozsnyai 2002; Vlăsceanu et al. 2004),
- Perfection (Harvey and Green 1993), or "zero errors" (Campbell and Rozsnyai 2002),
- Fitness for purpose (Harvey and Green 1993; CHEA 2001; Campbell and Rozsnyai 2002; Vlăsceanu et al. 2004),
- Value for money (Harvey and Green 1993; Campbell and Rozsnyai 2002),
- Enhancement (Harvey and Green 1993) or improvement (Campbell and Rozsnyai 2002; Vlăsceanu et al. 2004),
- Empowerment of students (Harvey and Green 1993),
- Development of new knowledge (Harvey and Green 1993),
- And the threshold (Campbell and Rozsnyai 2002).

3. QUALITY STANDARDS IN HIGHER EDUCATION

The introduction of the quality in the 1980s as a new requirement in higher education has generated the publication of specific quality standards by governments and national or regional quality assurance agencies in higher education. These

specific quality standards are the academic standards, the guidelines, or the codes of good practice.

Otherwise, generic quality standards, which can be applied in all types of organizations regardless their activity and their size, are beginning to be used increasingly in higher education. Among these, ISO 9001, well known in the industrial field, has begun to be applied in the field of education since the 1990s (Van Den Berghe 1997).

3.1 Generic Quality Standards: the case of ISO 9001

Until today, the International Organization for Standardization (ISO) does not have specific quality standard for higher education services. Thus, institutions wishing to use the ISO quality standards apply ISO 9001 "quality management system-requirements". This standard was developed in 1987 and was revised in 1994, 2000 and 2008.

ISO 9001: 2008 is made up of 8 clauses; the first three clauses are introductory and the last five contain requirements (ISO 2008):

- Clause 1: Scope
- Clause 2: Normative references
- Clause 3: Terms and definitions
- Clause 4: Quality management system
- Clause 5: Management responsibility
- Clause 6: Resource management
- Clause 7: Product realization
- Clause 8: Measurement, analysis and improvement

The first higher education institutions to use ISO 9001 standard have had difficulties at the level of defining key terms, such as customer, product/service, organization, and supplier, and at the level of interpreting the requirements of this standard in the field of education (Van Den Berghe 1997; Bevans-Gonzales & Nair 2004). For this reason, ISO published "Guidelines for the Application of ISO 9001: 2000 in Education" in 2003 at an International Workshop Agreement

(IWA), and revised it in 2007. These guidelines contain a definition of the key terms and an interpretation of the ISO 9001 requirements in education systems, including higher education systems.

3.2 Specific Quality Standards: the case of the QAA Code of Practice

The introduction of the principle of quality assurance in the field of higher education in the 1990s has generated the emergence of national and/or regional quality assurance agencies. These agencies

publish guidelines, standards as well as codes of good practice and conduct quality audit and evaluation in order to help institutions to safeguard and to improve the quality of higher educational services.

In the UK, a Quality Assurance Agency for Higher Education was established in 1997 to safeguard the quality and standards in UK higher education institutions. This agency publishes on its website four inter-related reference points known as the academic infrastructure (see diagram below):

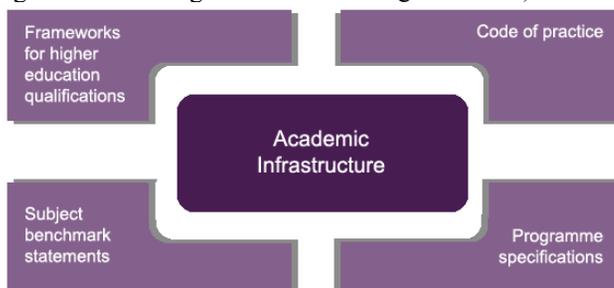


Fig. 1 QAA academic infrastructure

(<http://www.qaa.ac.uk/academicinfrastructure/default.asp>)

The Code of Practice is an academic infrastructure element which is concerned with academic quality management. The other three elements give advice about setting academic standards (QAA 2009). This Code of Practice is made up of 10 sections. Each one has a set of precepts and a glossary of the key terms used in this section.

The 10 sections of the QAA Code of Practice are (QAA 2009):

- Section 1: Postgraduate research programs
- Section 2: Collaborative provision and flexible and distributed learning (including e-learning)
- Section 3: Students with disabilities
- Section 4: External examining
- Section 5: Academic appeals and student complaints on academic matters
- Section 6: Assessment of students
- Section 7: Program design, approval, monitoring and review

- Section 8: Career education, information and guidance
- Section 9: Work-based and placement learning
- Section 10: Admissions to higher education

4. A COMPARISON BETWEEN GENERIC QUALITY STANDARDS AND SPECIFIC QUALITY STANDARDS IN HIGHER EDUCATION: THE CASE OF ISO 9001 AND QAA CODE OF PRACTICE

4.1 Correspondence matrix

A closer examination of the requirements of each clause of the ISO 9001: 2008 standard as well as the precepts of each section of the QAA Code of Practice enabled us to establish a correspondence matrix between them. The result is shown in the following matrix (see table 1).

A gray box indicates the existence of common requirements between a clause of ISO 9001 and a section of the QAA Code

of Practice, and a white box indicates the non-existence of common requirements between them.

		QAA Code of Pratique													
		1. Postgraduate research programs	2. Collaborative provision and flexible and distributed learning (including e-learning)	3. Students with disabilities	4. External examining	5. Academic appeals and student complaints on academic matters	6. Assessment of students	7. Program design, approval, monitoring and review	8. Career education, information and guidance	9. Work-based and placement learning	10. Admissions to higher education				
ISO 9001:2008	4. Quality management system	4.1 General requirements													
		4.2 Documentation requirements													
	5. Management responsibility	5.1 Management commitment													
		5.2 Customer focus													
		5.3 Quality policy													
		5.4 Planning													
		5.5 Responsibility, authority and communication													
		5.6 Management review													
	6. Resource management	6.1 Provision of resources													
		6.2 Human resources													
		6.3 Infrastructure													
		6.4 Work environment													
	7. Product realization	7.1 Planning of product realization													
		7.2 Customer-related processes													
		7.3 Design and development													
		7.4 Purchasing													
		7.5 Production and service provision													
		7.6 Control of monitoring and measuring equipment													
	8. Measurement, analysis and improvement	8.1 General													
		8.2 Monitoring and measurement													
		8.3 Control of nonconforming product													
		8.4 Analysis of data													
		8.5 Improvement													

Table 1 Correlation matrix between the 9001 clauses and sections of the QAA Code of Practice

According to the above matrix, all sections of QAA Code of Practice have a corresponding clause in ISO 9001, while some sub-clauses of the latter don't have a corresponding section in the QAA Code of Practice, such as "5.3 Quality Policy", "5.4 Planning", "7.4 Purchasing", "8.1 Measurement, analysis and improvement/general" and "8.3 Control of nonconforming product".

4.2 Correspondence rates

The above correspondence matrix does not quantify the correspondence between an ISO 9001 clause and a QAA Code of Practice section. For this reason, we will calculate the correspondence rate for each section of the QAA Code of Practice. .

The sections of the QAA Code of Practice	Corr. rates	Discussion
Section 1: Postgraduate research programs (PRP)	93%	The QAA Code of Practice requires the definition and communication of entitlements and responsibilities of research students, while ISO 9001 requires the definition and communication of personnel responsibilities. On the other hand, the personnel involved in research must retain records. This is a common requirement of ISO 9001 and the QAA Code of Practice. The latter also requires that research students have opportunities to maintain a record of their personal progress.
Section 2: Collaborative provision and flexible and distributed learning (including e-learning)	85,6%	The responsibilities of the awarding institution and those of the partner institution are not defined in ISO 9001. In fact, ISO 9001 defines the responsibilities of top management and the personnel. Besides, they both require communication between students and the institution (top management, personnel...). Moreover, students must be able to communicate with each other. This is not required by ISO 9001.
Section 3: Students with disabilities	100%	The QAA Code of Practice gives detailed needs of students with disabilities, while ISO 9001 allows the institution to determine its students' needs, including students with disabilities and the means whereby it will meet them.
Section 4: External examining	89%	ISO 9001 requires the use of audit to evaluate the efficiency of the quality management system, as well as the educational services. Besides, the QAA Code of Practice requires the use of external examining to evaluate the respect of academic quality and standards. ISO 9001 does not have any explicit requirements related to the cancellation of the contract between the institution and the external examiner as well as the definition of the external examiner role.
Section 5: Academic appeals and student complaints on academic matters	70%	The QAA Code of Practice requires support for students at all stages of the complaints and appeal procedures as well as any person involved in these procedures. This is not required by ISO 9001.
Section 6: Assessment of students	87%	The QAA Code of Practice requires that the assessment is conducted with rigour and students adopt good academic conduct in respect of assessment. These are not required by ISO 9001.
Section 7: Program design, approval, monitoring and review	80%	The responsibilities of the institution are not defined in ISO 9001. In fact, ISO 9001 defines only the responsibility of the top management and personnel.
Section 8: Career education, information and guidance	100%	All requirements of this section are implicitly required by ISO 9001.
Section 9: Work-based and placement learning	81%	ISO 9001 does not have any explicit requirement related to the competence of the partner institution personnel as well as the communication with partner institutions.
Section 10: Admissions to higher education	100%	All requirements of this section are implicitly required by ISO 9001.
Note: The requirements of the QAA Code of Practice that do not have corresponding requirements in the ISO 9001 standard can be implicit in the latter		

Table 2 Correspondence rates of the sections of the QAA Code of Practice

The results are shown in table 1. Then, we will calculate the correspondence rate for each clause of ISO 9001: 2008. These correspondence rates are illustrated in table 2

The correspondence rate determines the percentage of common requirements between the QAA Code of Practice and ISO 9001.

Clauses of ISO 9001	Corre. rates	Discussion
Clause 4 : Quality management system	25%	Among all documents required by ISO 9001, some records are also required by the QAA Code of Practice. Other documents such as quality manual, quality policy and quality objectives are not required by the QAA Code of Practice. The latter requires other documents such as: <ul style="list-style-type: none"> • Guidance for quantitative data • Program specification • Self assessment document
Clause 5 : Management responsibility	32%	The QAA Code of Practice does not have any explicit requirements for establishing and developing the quality policy, planning quality management system (QMS), appointment of a management representative, management commitment and review of the QMS by top management.
Clause 6 : Resource management	65%	ISO 9001 requires the availability of all types of infrastructure related to the teaching activity (building, equipment ...) while the QAA Code of Practice requires that the infrastructure meets the needs of students with disabilities. Besides, the QAA Code of Practice is interested only to the research environment.
Clause 7 : Product realization	45%	The QAA Code of Practice does not have any implicit requirement related to the output, review, verification or modification of design and/or development of educational services. Requirements related to the products to be purchased (hardware, consumables...) is not made explicit by the QAA Code of Practice. ISO 9001 requires monitoring the product throughout its realization and control of records, while the QAA Code of Practice gives to research students the opportunity to keep a record of their progress. ISO 9001 requires the preservation of property of all customers, while the QAA Code of Practice requires confidentiality of information related to the disability of student.
Clause 8: Measurement, analysis and improvement	40 %	The QAA Code of Practice does not have any explicit requirement related to the measurement of customer perception. Some requirements related to the control of nonconforming product, and corrective and preventive actions are indirectly required by QAA Code of Practice. ISO 9001 requires the conduct of internal audit while the QAA Code of Practice requires "self-evaluation" and "external examining". ISO 9001 requires monitoring and measuring all QMS processes, while the QAA Code of Practice requires the evaluation of the effectiveness of program design, approval, monitoring and review processes. ISO 9001 requires the analysis of data related to the processes of teaching and to the QMS, while the QAA Code of Practice requires the collection of data from different departments within the institution. ISO 9001 requires continuous improvement of the QMS as well as the educational service offered while the QAA Code of Practice requires: <ul style="list-style-type: none"> • Improvement of PRP • Continuous improvement of the standards and quality of the educational service • Identifying opportunities to improve service offered to students with disabilities
Note: The ISO 9001 requirements that do not have any corresponding requirements in the QAA Code of Practice can be implicit in the latter or may be included in other QAA document.		

Table 3 Correspondence rates of ISO 9001 clauses

This comparison indicates the existence of several similarities and some differences between the requirements of ISO 9001 and those of the QAA Code of Practice. Indeed, the requirements of both agencies are concerned with the management of quality. Besides, the ISO 9001 requirements are not free, are general with some explanations, and cover all institution activities in approximately 77 pages (39 pages for ISO 9001 and 38 pages for IWA 2) while the precepts of the QAA Code of Practice are available for free on the QAA website, are well detailed with a lot of recommendations and practical advice, and focus on the preparation and measurement of educational and research activities in approximately 330 pages.

In addition, the QAA Code of Practice requires a definition and a communication of the entitlements and responsibilities of students, the personnel as well as the institution's responsibilities, while ISO 9001 only requires the definition and communication of the responsibilities of the personnel that affects the conformity to educational service being offered.

On the other hand, ISO 9001 allows the institution to determine customer requirements and the means whereby it will satisfy them, while the QAA Code of Practice specifies the students' requirements to meet.

QAA has also other documents which complete the role of the QAA Code of Practice in ensuring the quality of the educational service being offered. These are (QAA 2009):

Program Specification: It is a concise description of the intended learning outcomes from a higher education program and how these outcomes can be achieved and demonstrated.

Subject Benchmark Statements: They describe what gives a discipline its coherence and identity, and define what can be expected of a graduate in terms of

the abilities and skills needed to develop understanding or competence in the subject

The Frameworks for Higher Education Qualifications: They describe the achievement represented by higher education qualifications.

5. CONCLUSION

In order to ensure the quality of educational services being offered, higher education institutions seek to meet quality requirements specific to the field of higher education or generic quality requirements that the institution must adapt to the higher education field.

A comparison between the ISO 9001 as a generic quality standard and the QAA Code of Practice as a specific quality standard was made based on an examination of each requirement of these standards, drawing on a correspondence matrix and calculating correspondence rates between them.

The correlation matrix shows the existence of several similarities and some differences between them. On the other hand, the correspondence rates indicate that the ISO requirements cover 88.56% of the requirements of the QAA Code of Practice, while the latter covers only 41% of the ISO 9001 requirements. Thus both standards are compatible. Therefore, the transition between them as well as their combination in the same institution are possible. Also implementing a quality management system in accordance with ISO 9001: 2008 requirements can constitute an adequate framework for the application of the QAA requirements.

Furthermore, this comparison shows that to make the ISO 9001 requirements closer to a specific quality standard such as the QAA Code of Practice, it is recommended to complement these requirements by requirements specific to the higher education field.

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