Assuring and promoting quality in e-learning policy and practice

An invited paper presented
at the 3rd International Conference on E-Learning and Distance Learning
organized by National centre for e-Learning and Distance Learning,
Riyadh, Saudi Arabia,
4 – 7 February 2013

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Abstract: With the expansion of e-learning during the past years, there has been growing public demand for quality and accountability of e-learning, especially in higher education context. Several scholars and practitioners agree that e-learning quality should be judged by the standards of face-to-face education while factoring in some distinctive features of e-learning such as extended virtual spaces for teaching and learning, flexible operations and interactive course delivery. This paper will analyze various approaches to assuring and promoting quality in e-learning with good practices. It will then propose and discuss a general quality assurance policy framework that can be benchmarked or modified by a nation or an institution as a basis for adapting quality assurance in e-learning to its own unique context and seeking quality e-learning provision and social recognition. It will conclude with an argument to promote quality culture in e-learning institutions.

Keywords: e-learning, e-learning policy, quality, quality assurance, quality culture

Introduction

Recent forms of e-learning exploit various combinations of computer and network technologies, used both synchronously and asynchronously and provide the learners with text, sound, still and moving images and opportunities to interact with teachers/facilitators/tutors and fellow students, search the Internet and work collaboratively and study internationally. The applications vary from streaming video to the use of social media. JISC (2009, p.8) suggests that e-learning should really stand for ‘enhanced learning’ and that it can take the following forms:

- Connectivity to information and to others
- 24/7 access to learning resources
- Greater choice over the time, place and pace of study
- Alternative modes of study: distance, blended work-based, partially or wholly campus based
- Knowledge-sharing and co-authoring across multiple locations
• Opportunities for reflection and planning in personal learning spaces
• Rapid feedback on formative assessments
• More active learning by means of interactive technologies and multimedia resources
• Participation in communities of knowledge, inquiry and learning
• Learning by discovery in virtual worlds
• Development of skills for living and working in a digital age.

With the rapid growth of e-learning in higher education, policy makers and educators recognize that Quality Assurance (QA) is a key issue that needs to be addressed not only within individual institutions, programs or courses but also jointly in national, regional and global contexts.

This paper discusses five different approaches to QA in e-learning, and outlines three selected QA guidelines for e-learning to provide useful QA benchmarks. Based on these analyses, a QA policy framework for e-learning is proposed.

**Approaches to quality assurance in e-learning**

Different nations and institutions have developed and applied their own concept of quality and QA for e-learning based on their distinctive social environment and cultural values. There are therefore variations in the QA policies, systems and methods they adopt. It is possible to categorize various QA approaches in five ways (Jung & Latchem, 2007): 1) Quality as conforming to the standards set for conventional education; 2) Quality as fitness for purpose; 3) Quality as meeting customers’ needs; 4) Quality as continuous improvement; and 5) Quality as compliance with national/international standards and requirements. Let’s look at the assumptions, and the strengths and weaknesses of each of these approaches.

**Quality as conforming to standards set for conventional education**

This approach measures quality in e-learning by applying the same standards set for conventional institutions’ management, teaching and learning, resources and outcomes. Singapore, UK and Japan are among countries applying a common QA framework for both distance and conventional education. This approach helps ensure the value of e-learning and awards granted to graduates. Also it helps demonstrate that e-learning is at least as successful as conventional education. One major problem with this approach is that it takes no account of such unique and value-adding features of e-learning as self-directed and collaborative learning, innovative technological and pedagogical strategies, improved access and equity and cross-border provision. For this and other reasons, some argue that the QA standards of conventional higher education cannot, and should not, be applied to e-learning institutions (Stella & Gnanam, 2004).
**Quality as fitness for purpose**

This approach focuses on the extent to which e-learning institutions or programs accomplish their purposes or missions. India and some European QA frameworks adopt this approach. It recognizes the distinctive features of each e-learning institutions and programs, allows for more flexibility in missions, goals and methodologies, and promotes more innovative actions. One major weakness of this approach is that it makes it difficult to compare the quality of e-learning with that of conventional education, and quality across e-learning institutions and programs.

**Quality as meeting customers’ needs**

Here e-learning institutions define quality in terms of customer satisfaction, a concept derived from industry and commerce, and thus pay more attention to learner supports and flexible learning options to improve student satisfaction, completion and graduation rates. Evaluation from students, graduates, employers and other stakeholders is considered an important part of QA process. Examples of this approach can be seen in several higher education/e-learning institutions where ISO9001 is adopted to measure the quality of their educational services, and course effectiveness/experience questionnaires are used to gauge learner satisfaction. The demerit of this approach is that there might be conflicts between individual students’ needs or between different stakeholders’ needs. Another problem is that in an e-learning environment, students are not just customers who use e-learning products and services offered by providers. They are also contributors in creating quality learning experiences.

**Quality as continuous improvement**

This approach fosters continuous improvement through input, implementation, output and back to input, and focuses on evidence-based practice. The e-learning institution values research, evaluation and reflective and scholarly practice. All members of the institution collaborate in assessing and improving their practice, testing out new ideas and strategies and sharing findings on which methods work best. One problem with this approach is that research findings do not necessarily lead to better understandings of how to improve QA practices, and that the necessary changes and improvements in QA practices require resources, efforts and competencies.

**Quality as compliance with international standards and requirements**

International accreditation by highly-regarded transnational agencies ensures that e-learning institutions measure up to rigorous international standards. The advantage of this approach is that it gives students confidence in their programs/courses and awards. Also it helps e-learning institutions to develop strong review processes while working for compliance with international standards. A major problem with this
approach is that it often requires extensive documentations, focuses largely on the reporting of quantitative input data, and ignores the qualitative aspects or output variables. Also there might be conflicts of needs among different parties involved in international accreditation.

**Examples of QA standards and procedures for e-learning**

*The European Universities Quality in e-Learning (UNIQUe)*

The UNIQUe label (European University Quality in e-learning) is a project of the European Foundation for Quality in E-learning (EFQUEL), a membership organization which provides services for quality development in higher education institutions of Europe and aims to enhance the reforms occurring within this area of technology-enhanced learning. The focus of UNIQUe evaluation is on institutions, not programs or courses. UNIQUe evaluates 10 areas across three domains:

1) **Learning Resources**
   - Resources for Learning
   - Students
   - Faculty (Teachers)
   - Technology Equipment

2) **Learning Processes**
   - Quality of the Office (e.g. catalogues and services, learning organization)
   - Intellectual Property Rights (IPR) management
   - Personal development / Human Resource (HR) Development and Services

3) **Learning Context/Institution**
   - Commitment to Innovation (culture, R&D)
   - Institutional Standing (e.g. context and mission, background and experience, reputation in the e-learning community)
   - Openness (e.g. access, connections with the corporate world, contribution to the community, international issues)

The UNIQUe process involves six stages: Inquiry, Application, Eligibility, Self-Assessment, Peer Review and Awarding Body. UNIQUe recognizes that higher education requires both peer-review processes and set QA standards along with independent evaluation. It is expected that each institution subject to UNIQUe should conduct an extensive self-evaluation and prepare a self-assessment report. This report is intended to be self-critical rather than promotional, and analytical rather than merely descriptive. The self-assessment process is followed by student interviews and a peer-review group or audit team visit. If the quality of the institutional provisional of e-learning programs meets the UNIQUe QA standards,

the peer-review group then recommends to the Awarding Body that the institution be accredited. Eighteen months after accreditation, the institution must report on its progress in assuring and enhancing quality in its e-learning and it may seek re-accreditation after three years.

*The Quality Matters Rubric for Higher Education*²

Created by Quality Matters (QM), a nationally recognized, faculty-centered, peer review process designed to certify the quality of online courses and online components in the USA. The Rubric has 8 general standards:

1) Course Overview and Introduction
2) Learning Objectives (Competencies)
3) Assessment and Measurement
4) Instructional Materials
5) Learner Interaction and Engagement
6) Course Technology
7) Learner Support
8) Accessibility.

Across these eight areas, 41 specific standards are used to evaluate the design of online and blended courses at higher education level. It is proposed that there should be a Quality Management Peer review process occurring at the course level both officially following QM policies and protocols and unofficially using internal or informal subscribers. Team majority decisions determine the points awarded to the 41 specific standards of the rubric which have a point value of 1, 2, or 3, totaling a possible 95 points. Two out of three reviewers have to agree that the standard is met or the total points awarded are zero. All courses require 81 points or 85% and must meet all essential standards to be certified.

One strength of this Rubric is in its simplicity. With a relatively small number of quality standards, it can be easily used by individual faculty members and institutions. Faculty can use this Rubric for their course development or course review checklists while institutions can use it for designing faculty development, supporting course improvement, and preparing self-evaluation for external accreditation.

*Korea Education and Research Information Service (KERIS)’s e-learning accreditation criteria*³

KERIS is a publicly funded organization that supports the development of human resources through e-learning, promotes quality improvement in public education

² http://www.qmprogram.org/rubric

³ http://quality.keris.or.kr (Korean only)
through the use of ICTs, and enhances national education and research competitiveness through academy digitalization.

KERIS evaluates and accredits the e-learning programs of Korea’s public and private (non-for-profit and for-profit) providers, focusing on the quality of their content. The quality of e-learning implementation is not included in the accreditation process. The accreditation process follows four steps:

1) Application for accreditation. The e-learning provider submits an application form, along with other documents such as a copy of business license and a curriculum overview, to the KERIS Quality Assurance website (http://quality.keris.or.kr). The application for accreditation can be made for ‘new accreditation’, ‘re-evaluation (second or third time)’, or ‘Telecommunications Technology Association (TTA)’s integrity re-evaluation’. The applicant can apply for re-evaluation within 6 months after being notified of the first evaluation result. The evaluation process for accreditation begins only when all necessary documents have been received and full payment of the application fee has been received.

2) Preparation for evaluation. Once the application is submitted and reviewed, three evaluation panel members are assigned for the evaluation of e-learning content. The evaluation for accreditation comprises: the evaluation of the learning content by three panel members; an integrity screening test by Telecommunications Technology Association (TTA), a non-government and non-profit organization for standardization, testing and certification services related to ICT products and services. This test assesses the accuracy and consistency of the e-learning content by verifying that the data has been protected against unauthorized modification or forgery. As of 2012, the integrity screening test occurs concurrently with the content evaluation. This test may take up to 6 weeks and rates as either qualified or disqualified.

3) Evaluation: The evaluation for accreditation consists of two major components: evaluation of the learning content by three panel members, and TTA integrity screening test. As of 2012, the content evaluation and the integrity screening test occur concurrently. The evaluation of e-learning content takes four weeks or less; three evaluation panel members provide scores using the QA Criteria, and an average score is calculated to determine eligibility for accreditation.

4) Accreditation decision. Upon completion of the integrity screening test and content evaluation, the evaluation result will be notified. Accreditation will be granted only when the program meets the ethical and copyright standards, obtains an average of 80 or above out of 100 from its content evaluation, and passes the integrity screening test. Accreditation is rejected if the program is disqualified in either one of ethical standards or copyright.
domains, regardless of the results of the content evaluation score and the integrity screening test.

The QA Criteria for e-learning content evaluation include 20 criteria across 9 domains:

1) Needs analysis
    • Analysis of learning environment
2) Instructional design
    • Learning objectives
    • Differentiated instruction
    • Learning materials
    • Screen layout
    • User interface
3) Learning content
    • Selection of learning content
    • Organization of learning content
    • Difficulty level of learning content
    • Amount of learning content
4) Teaching-Learning strategy
    • Selection of teaching-learning strategy
    • Self-directed learning strategy
    • Motivational strategy
5) Interaction
    • Interaction between learners and learning content
6) Support system
    • Learning supports
7) Assessment
    • Selection of assessment content
    • Selection of assessment method
    • Application of assessment tools
8) Ethical standards
    • Ethical standards
9) Copyright
    • Copyright

KERIS’s e-learning accreditation focuses on the development of e-learning content. Thus its Interaction Domain focuses only on interaction between learner and learning content and excludes learner-learner and learner-instructor interactions.

Ethical standards and copyright issues are included as important criteria. The Ethical Standards and Copyright Domains are judged to be qualified or disqualified. The Ethical Standards apply where there are any inappropriate words or expressions in the learning content indicating religious, geographical, philosophical, cultural, or sexual discrimination, violent expressions, or personal
information disclosure. The copyright concerns are that all copyright materials are correctly cited in the approved format.

**Commonalities in QA criteria and procedures**

The QA standards/criteria and procedures depicted in the examples above and in other studies (e.g. COL, 2009; Jung et al., 2011; Saito, 2009) show that there exist common QA criteria to cover input, process, and output variables in most if not all of the following areas:

1. Vision, policy-making and planning
2. Governance, management and administration,
3. Technology provision and infrastructure,
4. Learning resources,
5. Curriculum and course development,
6. Teaching and learning,
7. Learner support,
8. Faculty and staff,
9. Evaluation and assessment,
10. Learning outputs, outcomes and impacts,
11. Finance,
12. Collaboration and partnership, and

In fact, many of these QA criteria are similar to those for conventional education but specific performance indicators or critical success factors within each criterion often reflect the unique features of e-learning.

In assessing the quality of e-learning, many QA agencies and institutions follow three common procedures:

1. **Self-assessment, self-study or self-evaluation**: The e-learning institution (or program) undergoing the QA or accreditation process conducts a self-assessment based on a set of QA standards and criteria and report on how it meets the pre-determined standards and criteria.

2. **External review or peer review**: A team of external peer reviewers then analyzes the self-assessment report of the institution/program along with other supplementary documents, and validates the claims made, usually by visiting the institution/program.

3. **QA or accreditation decision**: Based on the results of the self-assessment and external peer review, the QA agency makes a final QA or accreditation decision.
I argue that a QA policy framework at the national level should have the features such as:

- There should be no distinction between QA in e-learning and conventional education, so the QA framework for e-learning should be within the national QA framework for higher education and under the same QA regulatory authority.
- E-learning providers and their internal and external auditors should be provided with QA/accreditation standards, processes and methods which reflect the unique features of e-learning in each country’s societal and cultural contexts. These standards for e-learning should be used in conjunction with the national QA standards for higher education.
- Learners’ needs and perceptions of quality should be taken into account in developing and applying the QA standards for e-learning.
- Any national QA policy framework should be aligned with regional and/or international QA frameworks considering the expansion of cross-border e-learning activities.

A QA policy framework at the institutional level should be developed in alignment with its national or external QA requirements in order to achieve both public accountability and self-improvement. The institutional QA policy framework should:

- be firmly linked to the national QA policy framework.
- be linked with the regional and/or international QA policy frameworks if the institution provides or plans to provide cross-border education.
- engage key stakeholders.
- promote a culture of quality among all members of the institution.
- coordinate QA activities of all units and members.
- be based on internal QA standards and criteria which reflect national (and/or regional/international) QA standards and criteria for both conventional education and e-learning.

Figure 1 presents a QA policy framework for e-learning at both national and institutional levels.
Conclusion

QA may be interpreted quite differently by different stakeholders who may also disagree on QA standards/criteria. However, some commonalities that connect the different QA efforts in various e-learning contexts are reported as (Jung et al., 2011, Regional QA Framework)
positioning QA in the pursuit of self-improvement and public accountability of e-learning institutions;

- considering distinctive features of e-learning in QA frameworks or during evaluation processes;

- linking QA results to direct or indirect funding, levels of autonomy, or other supports;

- adopting both internal and external assessments; and

- making QA results public.

Also a culture of quality is being promoted within e-learning institutions and QA agencies. Jung and Latchem (2011) argue that QA should move from external control to a culture of quality. While external QA/accreditation encourages accountability and conformity, it can be overly bureaucratic and discourage academic autonomy and innovation (Harvey, 2002). A culture of quality exists in institutions where values, ideas, and beliefs to improve the quality of e-learning are shared, links between internal self-improvement, external accountability, and stakeholder satisfaction are developed, and there is a collective effort for continuous quality improvement. So in a quality culture, QA is no longer an additional element but an essential to institutional policy development and implementation.

References


