Online Management Education: Quality Assurance – Guaranteeing Quality Learning Outcomes

Helen Lange¹, John Spinks², Sarah Teo³

¹,³U21Global, ²Hong Kong University and U21Global

hlange@u21global.edu.sg, spinks@hkucc.hku.hk, steo@u21global.edu.sg

Abstract

U21Global was founded as a postgraduate business school in 2001 by the global university network, Universitas 21, a network of illustrious, campus based, research intensive Universities. In establishing U21Global, Universitas 21 had a number of objectives, and two of these were first, to broaden the access to high quality education in markets that are generally under served; and second, to pool capital to develop high quality online educational programs, not possible in their individual campus settings.

With its heritage in the halls of many of the world’s best university, it is easily understood why quality is at the very heart of all that U21Global does. Its focus on high quality learning outcomes produced a challenge at the time of its establishment as e-learning at that time was not well regarded in that particular context.

However, U21Global has not been daunted by this particular challenge, and quality remains as the key driver of its approach to education. With over 130 MBA graduates, it has been encouraged by the excellent learning outcomes achieved as demonstrated by the successes of its graduates and students.

This paper discusses the challenges to online higher education programs in establishing and maintaining quality. It draws on the example of U21Global and examines how U21Global has both established and continues to maintain quality programs and learning outcomes. It explores the internal and external influences on both quality and quality assurance.

Specifically, the paper discusses the quality issues associated with the key components of online education. The issue of pedagogy is also paramount and in this context the learning design element of U21Global’s programs is highlighted as an example of a pedagogically rich online education environment which incorporates many of the quality assurance processes, and also sets new benchmarks for online education.

The question of whether quality assurance systems should be customized for online education, or whether there are universals which govern the quality assurance of ALL education, regardless of the mode of delivery, is also examined. This is an issue on which there is some disagreement at present.

Further, the paper discusses the need for the development of internal quality assurance processes to ensure sustainability of quality and quality assurance. Such processes will also ensure that online learning is not just effective but improves over time.

Keywords

Online learning, learning design, learning environment, quality assurance

1 Introduction

This paper explores quality assurance and related issues with respect to online education.

Over the last decade, online education has rapidly developed gaining a foothold into many educational jurisdictions. For example, according to sources in the USA¹, worldwide there are more than 200,000 online courses, and it is estimated that online participation in these courses is rising by 20 percent year on year. In 2004, the growth was 33 percent, and in that year, 2.3 million students in the USA took at least one online course.

This growth has not simply been an experiment of a new learning technology, but an economic imperative. Educational demand is growing rapidly reacting to the economic development of a globalised world. Traditional educational providers are straining under the demand, and new ways of delivering education are emerging in response.

However, the development of online education has not had a smooth path in terms of quality and quality assurance, and some of the early forms of online education were justifiably criticized. The notion that

¹ www.distance-learning-college-guide.com
e-learning could offer scalable educational opportunities more economically than campus based education is largely discredited at this time, excepting if pedagogy suffered.

To commence the discussion, the next section covers a framework for understanding quality assurance issues within the context of online education, and this is followed by a discussion of each of the main elements of this framework. U21Global’s internal quality assurance processes are examined in then examined, and concludes with a discussion of the challenges faced by a global educational provider in quality assurance.

## 2 A framework for understanding quality issues in e-learning

Spinks (2006) outlines a three dimensional framework in which to understand the issues associated with quality assurance in education. The three axes describe maturity of the organization/education, the geographic reach of the education, and the delivery mechanism. This is best seen in Figure 1: Framework for Understanding QA Issues.

Spinks poses the question as to whether quality assurance (QA) systems should be specific to the maturity of the organization (dimension 1), location and/or culture (dimension 2) and delivery method (dimension 3), or moreover whether QA systems should be specific to the organization, location or delivery mechanism, or whether there are universals in QA which transcend all of these dimensions.

Below, we outline these issues a little further.

### 2.1 Organisational Maturity

Whether QA systems for education should differ depending on the maturity of the organization has already been catered for in current systems. As we review the evolution of QA systems, we see that at one extreme, new and untested education providers tend to have more reliance on external regulation and compliance models to attest their quality. For these organizations, the emphasis is on quality assurance by others.

Mature organizations have moved beyond this, and have developed internal quality assurance processes which align with their strategic intent. These organizations have well developed reputational effects based on their internal QA systems which have been tested over time, more through market and public accountability rather than through regulatory bodies. While regulatory bodies oversee and audit from time to time, it is the public acceptance and accountability of these highly reputed educational providers, based on experience and outcomes which matters in mature.

Most educational institutions probably lie somewhere in the middle of the two extremes outlined above, and benchmark themselves against the current best practice, while adapting external QA standards to their internal processes. The concept of QA and maturity is expressed neatly in Australian Department of Education, Employment and Workplace Relations (2008, p. 4) which sets out higher education quality assurance principles for the Asia Pacific Region. This is summarized in Figure 2 below:

![Figure 2: Framework for Higher Education Quality Assurance Principles in the Asia-Pacific Region](image)

Source: Australian Department of Education, Employment and Workplace Relations (2008, p. 4)

### 2.2 Global versus Local

The second issue relates to whether QA systems should be universal, or whether they should be locally or culturally specific. The current system of QA tends to be local, as there are many country and regional accreditation agencies (for example, regional agencies within the USA and country specific systems).

We generally find that in practice, local or regional QA systems tend to entrench local content, locally trusted delivery systems and local cultural norms.
Further, we find that quality benchmarking in such systems tends also to be local – further entrenching the “localness” of the QA system and the resulting educational system. For example, local systems tend to encourage local issues, problems and case studies to be used as the appropriate examples within educational content, and tend to encourage a continuation of the styles of educational delivery and language of instruction and pedagogy that has persisted in the past. In other words, local QA systems tend to be inward looking.

Adaptation to change is not encouraged as the benchmarking is local, and hence a move to a globalised curriculum for example, will require a dramatic change both in the QA systems as well as the education itself, rather than a system which encourages changes which incorporate continuous improvement and innovation. For example, after years of debate in Malaysia, and resistance to system change, Malaysia’s educational QA system has in 2007 undergone a dramatic change which encompasses changes to QA agencies, systems and educational accreditation.

It is likely that an educational system with a global reach/outlook will take a very different form, and is more likely to encourage diversity in content (which is more likely to be cross cultural) with different country and cultural examples supporting it and the types of delivery mechanisms which may depend on what best fits the particular market. Such institutions may find it more difficult to satisfy individual country or regional accreditation which is more likely to be locally focused as discussed above.

2.3 Delivery Mechanism

The final dimension covers the issue of whether or not there should be different QA systems education which is delivered through a face to face classroom media, and also specific QA for online education. This raises the question of whether there are internationally acceptable QA systems for e-learning, and whether these should be the same or different to those used to assess physical campus based education.

Some systems make it clear that the principles of QA, such as providing evidence for the effectiveness of learning and ensuring that this data feeds back to enhance the development of the education, apply to all modes of delivery, whether face-to-face (F2F), distance, or online. There are, however, good arguments to the contrary. Online education has particular needs that should be addressed more rigorously than in F2F education. These include the more obvious characteristics such as attention to IT availability and security, but also those that need to be accorded a higher priority in online delivery than in F2F delivery, such as student support, including the availability of academic as well as non-academic assistance.

There is less evidence from practice about the most acceptable QA systems for online education, and it is this particular dimension of the Spink’s QA framework, namely educational delivery, that we explore further in the following section of this paper, and in this context, review the experience of U21Global.

3 Accreditation and Quality Assurance Systems

The typical accreditation processes and quality assurance systems involve the assessment of an educational institution’s mission; organizational structure; resource development and capacity; curriculum, pedagogy and assessment; faculty and faculty support; student support and learning outcomes.

In this context, possibly the most important of these, based on modern QA norms, is whether the learning outcomes displayed by the students are satisfactory. Learning outcomes are usually assessed against learning objectives. Further, factors such as student retention rates, pass rates, student satisfaction with courses and faculty, faculty satisfaction, as well as student competence are also usually included in such assessment. Finally, we find that many accreditation / quality assurance agencies also make an assessment of employer satisfaction with the graduates of the educational institution.

Given that learning outcomes and the effectiveness of these towards economic production and capacity building are the ultimate determination of the quality of the educational programs, we argue that the system of quality assurance and related standards should be the same, regardless of the educational delivery mechanisms.

3.1 Quality Assurance of e-learning – the Similarities

When the network of prestigious, research intensive university network, Universitas 21, established U21Global, the fully online graduate management school, it established both quality standards which U21Global had to achieve, and also established an external quality assurance agency to undertake the QA to assess whether the standards had been achieved. The standards set were in simplicity – that U21Global provide education which is at least as good as that provided by the universities in the Universitas 21 network. In this case, Universitas 21 made a judgement that the type of QA was similar to that required by any of its universities, that embedded in the processes and systems of its universities.

We see other examples in the US and UK. For
example, AACSB the private accreditation agency has a well developed set of QA criteria and processes used to assess the quality of business schools. It uses the same processes for fully online institutions, such as U21Global, as it does for those institutions which provide only campus based education. In the UK, the Quality Assurance Agency, has decided not to prepare separate guidance on the quality assurance of e-learning. Similarly, the eight US regional accreditation agencies have jointly stated that the well-established essentials of institutional quality are applicable to the emergent forms of learning.

3.2 Quality Assurance of e-learning – the Differences

However, when we look at the learning design itself, we find that there are some differences in the way that e-learning programs should be quality assured relative to campus based education. For example, we find that it is in the pedagogy and design and support structures that key differences occur.

There are some important key areas where we believe differences are evident in high quality e-learning programs. Four of these are learning design and delivery; student support services; technology support, availability and reliability; and identification.

3.2.1 Learning Design and Delivery:

Distance programs by their very nature are more learner centric, and while in the past distance programs have tended to also be lonely educational experiences, technological advances have ensured that there is now the possibility of far more interaction between the professors and students in online education than in the past. As students of distance education programs have flexible study hours, they usually require more discipline around their study program than required of campus based students. This in combination with the student centric nature of the learning design means that students take more responsibility for their learning. Students in such environments therefore need greater orientation to their study program and its focus on the teaching of large groups of students studying online, the access needs to be at times that suit their flexible study requirements. Second, the support must be effective. The provision of support is one thing, but if it does not meet the needs of a mobile student body study at flexible hours, then it adds little value. It is noted that campus based universities don’t usually have to deal with this. Further, if students are residing within many different time zones then support must meet the various time demands of the students. In conjunction with this, academic presence (in a virtual sense) assists in providing added security in terms of the student support mechanism. Hence, the closer the student feels to the professor who is facilitating the virtual class, then the more assured the student will be about the support structures in place. In fact, the integration of the administrative support and academic support is one way to close the gaps in the student support structures and to ensure a more holistic supportive environment for students.

The positive value of the presence of professors in physical classrooms is never challenged and despite very little research evidence there seems to be universal agreement that it is valuable. However, there has also been very little investigation of the value of the presence of faculty in the virtual classroom. Bedi and Lange (2007) is an exception, and examines the role of faculty interaction in e-learning programs, and empirically test its value in terms of both the students’ learning outcomes and the students’ perceptions of educational value. Bedi and Lange find that learning outcomes and student perceptions of quality are found to be positively related to the presence of faculty in the online classroom.

3.2.2 Student Administrative and Library Support:

Two factors are important with respect to administrative support and library of any quality educational program. However, they become critically important in the case of e-learning. The first is the ease of access to the support structures, and for external students studying online, the access needs to be at times that suit their flexible study requirements. Second, the support must be effective. The provision of support is one thing, but if it does not meet the needs of a mobile student body at flexible hours, then it adds little value. It is noted that campus based universities don’t usually have to deal with this. Further, if students are residing within many different time zones then support must meet the various time demands of the students. In conjunction with this, academic presence (in a virtual sense) assists in providing added security in terms of the student support mechanism. Hence, the closer the student feels to the professor who is facilitating the virtual class, then the more assured the student will be about the support structures in place. In fact, the integration of the administrative support and academic support is one way to close the gaps in the student support structures and to ensure a more holistic supportive environment for students.

The positive value of the presence of professors in physical classrooms is never challenged and despite very little research evidence there seems to be universal agreement that it is valuable. However, there has also been very little investigation of the value of the presence of faculty in the virtual classroom. Bedi and Lange (2007) is an exception, and examines the role of faculty interaction in e-learning programs, and empirically test its value in terms of both the students’ learning outcomes and the students’ perceptions of educational value. Bedi and Lange find that learning outcomes and student perceptions of quality are found to be positively related to the presence of faculty in the online classroom.

3.2.3 Technology - Support, Availability and Reliability:

In an online program, the availability and reliability of the underlying learning management system is obviously of particular importance in the delivery of

---

2 However, it is recognized that this is changing and that the so called Y generation has different needs including more flexible campus based offering of services.
quality education. Of equal importance is the availability and reliability of technical support for students in a timeframe that fits their study patterns. As such, higher standards of system access and reliability are usually required by online education providers. On the access side, systems need to cater for differences in bandwidth, for example, to ensure that students from less developed countries are not disadvantaged. Moreover, systems need to be protected from infection and hacking, although this is true of all university systems. A distinct difference between an online educational provider and its counterpart on campus, is the close relationship between technology and pedagogy. In e-learning, the technology enhancements are often driven by the pedagogical features that are sought within the learning design, or more generally, it is the pedagogy that drives the technology changes, and not the other way around. The interrelationship between technology helpdesk and student services support is also required to ensure no gaps in the service availability and quality. The best system would ensure an integrated student support for all academic, administrative and technical issues, one which responds in a manner which provides assurance to the student who is studying remotely, and available to answer all questions and resolve all issues whenever they are posed.

3.2.4 Identification:

Probably one of the most controversial issues is that of student identification and assurance that the work submitted by the student has integrity. With this in mind, learning design of the online education should support a process of learner revelation – so that the fellow students and the professor in the virtual classroom get to know each of the students, their writing styles, presentation styles, cultural aspects of their work, etc. This is something often difficult to pick up in the physical classroom, as so many students “hide” or keep a low profile during class. In a campus based education, the first time that a piece of work is received is often weeks after the start of the class, and there is no guarantee that this piece of work is that of the student who submitted it. In an online learning environment, this may be an even greater challenge. Hence, the pedagogy or learning design should encourage and reward continuous assessment and engagement providing opportunities for students to reveal their styles, characters, etc – all of which can be used to identify their work. Hence, there should also be sufficient opportunities for interaction between the professor and the learner, and also collaborative opportunities between the various students in the class, and syndicate groups. The need to change the content and topics of assessments is important in any educational environment, and is also good practice in online education. Plagiarism is easily checked in the online environment as usually all assessment is in digital form, making the application of plagiarism software and checks relatively simple.

4 U21Global – a Case Study

We now look at these issues in the context of U21Global and its quality assurances processes. First, we examine briefly the evolution of online education and U21Global’s place in that, and following this we discuss U21Global’s educational environment and its quality assurance.

4.1 The Evolution of Online Education

U21Global was established to meet some of the challenges to education envisaged in the late 1990s by the Universitas 21 network of universities. Such challenges included the rapidly growth in demand for education, and the necessity of the provision of education to fuel associated economic growth. The growing relative prosperity of the developing nations combined with economic globalization contributes to the demand for quality education. The recognition that traditional forms of education could not cater for this demand associated in part with the limitations on growth of campus based education, development of faculty and other necessary resources, had produced a growing interest in alternative educational forms including online education. The link between education availability and demand (enrolment) and economic prosperity is demonstrated in Figure 3 below, which plots higher education gross enrolment ratios against GDP for a number of selected countries (2004 data).

From Figure 3, we see that there is a positive link between tertiary education enrolment and economic growth. Universitas 21’s objective of broadening access to quality education in the developing world was also an objective for the establishment of U21Global. Access to many learners at any age was possible, including working adults with families, and whose means did not allow them to travel offshore to gain the education that they needed. Through U21Global, Universitas 21 could offer borderless education in a truly global way.
Notes: 1. Gross Enrollment Ratio: Tertiary enrollment as % of population in relevant age group (typically 18-23)

**Figure 3: Cross Country Comparison of GER and GDP/Capita, 2004**

In the establishment of U21Global, Universitas 21 also wanted to develop an alternative type of university which provided innovative, student centred and constructivist pedagogy. While over the ten years which followed Universitas 21’s decision, there has been a rapid development of online education, this has not been without some considerable difficulties. The establishment of institutions offering purely online education often had been found to be economically questionable, with several failing to live up to their business plans in the aftermath of the dot com bubble. The alignment between technological innovation and pedagogical innovation, or more correctly, the lack of alignment was one critical issue for the failures in most cases. For example, early online development was made without much regard in some cases for pedagogy, following instead the distance education model that left learners alone to fend for themselves. As more student-centred and constructivist approaches to learning have come to the fore, the earlier distance type education models, which provide content without any student engagement in active learning, is now seen as ineffective, despite perhaps its prevalence in many campus-based universities. Thus, of particular importance is the alignment of pedagogy with online development; online development should not be without reference to pedagogical development. Refer in particular to Williams (2005) for a discussion of the development of online education.

Unfortunately, the development and educational reputation of online delivery has been marred to a large extent by the early examples of poorly designed online programs with questionable pedagogical quality. A possible conclusion from the early experience is that the quality assurance of content is only a small part of the quality considerations of online delivery of education. As argued above, this suggests an equivalence of QA processes for both campus based education and online education – as also concluded by QA agencies in the UK and US. As such, QA processes for online education should involve serious consideration of the pedagogical approach, course content, and assessment, together with those components that together make up a quality education, such as resources, learner support, staffing and technology.

### 4.2 U21Global’s Educational Environment and Quality Assurance.

In its development of U21Global, Universitas 21 had very different quality designs for its online educational school, and in this sense QA was at the very heart of the many decisions that were made in the establishment of U21Global. Universitas 21 established a QA organization for the express purpose of ensuring that U21Global delivered educational outcomes at a quality that was at least as that of each of its member universities.

The quality standards demanded by its university owners were embedded into the day to day quality systems and processes at U21Global. In addition, U21Global developed its own quality assurance manual which documents in one place all of the quality systems and processes that are now apart of the way it operates. This begins with the development of its educational environment.

U21Global offers a pedagogically rich, learner centric environment for its students. This is best seen in Figure 4, which shows the integrated nature of the various components of the education provided. The pedagogy itself is importantly embedded throughout all aspects of the model.

---

The advantage for the professor apart from the facilitation of learning, while also providing for the academic support necessary for individual learning. In many ways, the faculty responsible for a class is more accessible in the U21Global programs than in any campus based program where faculty time for consultation with students is limited. It involves collaboration among the learners in a number of different ways such as team projects and discussion board activities (both of which are assessed formally), but also through chat rooms, section cafes and other informal media set up specifically for the class.

To cater for the global student body with students from over 70 countries represented, discussion board activities which cover the full 12 weeks of a subject must be asynchronous. This has distinct advantages for student learning often lost in the “time starved” discussions within physical classrooms. It also has advantages for the professor facilitating the virtual class. Advantages to learners arise as they have time to consider the particular issues and to collect thought and responses to the debate. It is particularly advantageous for learners for which English is a second language. All students engage in the discussions, as they are assessable, and this improves learning effectiveness for at least two reasons. First, it helps develop the learner themselves, and second, all students learn from each other. Hence, there is a strong element of peer to peer learning. Another advantage is the cross cultural learning which implicitly occurs, and the cultural understanding that can develop from these exchanges – social as well as economic cultural difference and similarities are explored.

The advantage for the professor apart from the professional enjoyment of facilitating a rich learning journey by students is the fact that professors get to know their students well as the subject progresses. The small class size of at most 40 students ensures this. More importantly, they get a strong sense of each student’s culture, style, language, tone of writing, for example. This makes identification of students – a key issue in quality assurance - much easier at the time of individual project assessment and grading, as by that stage, the professor is familiar with the students’ work.

The influence of the professional environment outlined in Figure 4 within U21Global comes from a number of specific design features in the pedagogy. First, the content itself is rich with many real life examples and application of the theoretical concepts to business and management related issues in practice and across the globe. Second, case studies are used extensively throughout the subjects for both class discussion activities as well as for project work. Third, teamwork is a strong feature of the program through formal team projects as well as through the informal peer to peer learning and collaboration in discussion boards. Fourth, all of the assessment conducted at U21Global attempts to be “authentic” for learners. For example, the open book open web examinations are all purpose written case studies and require the student to act in the role of consultant, adviser, senior manager, etc in framing their answers. A final comment on the professional environment is that the development of managerial skills and capabilities is also a feature of U21Global’s program design, as well as the specific objectives. The extent to which this is achieved by U21Global is examined in Spinks, Lange and Chan (2006) which finds that as students progress through their studies with U21Global, there is evidence of soft skills development as represented first by student teamwork grades and also peer review scores, and secondly by students themselves. The development of soft skills are stated learning objectives of U21Global’s Masters level programs and it is noted that many authorities in the area regard such development as critical outcomes of good MBA programs. Such examination is also important as one of the criticisms often levelled at online education is the lack of development of such competencies. The argument is usually that as there is no face-to-face discuss-

---

4 In the second part of the study, a self-evaluation survey was used to identify those competencies that are not just thought to have been improved by their studies at U21Global by the students themselves, but for which there is evidence from correlation and multiple regression analyses that supports the hypothesis that studying in U21Global will develop these skills.
sion in e-learning programs, there can be no development of higher level competencies like teamwork, leadership, negotiations skills and networking. However, such comments have usually lacked any empirical support, and fail to take into account the development of different levels of e-competencies.

The foregoing discussion correctly suggests that U21Global places significant emphasis on internal quality assurance. The elements of this system have been considered alongside the criteria that both international and national quality assurance bodies have identified as important for online education.

At a broader strategic level, U21Global also considers issues such as branding, reputation and marketing through their careful development of internal QA systems and culture, and through the careful choice of external QA systems.

The selection of external QA systems is an interesting one for a global educational provider like U21Global, and challenges associated with this are discussed in the following section.

It is the experience at U21Global that taken together, both internal and external QA systems can help to build an institutional culture in which the excitement of building a quality online educational environment is shared by all staff, in contrast to the typically more negative views of QA overviews. Furthermore, online educational providers that can effectively implement both systems in their institution will be able to not only derive value in the form of effective student learning and high levels of student satisfaction, but will also gain a significant lead in the increasingly competitive online education market. The challenge is to identify which external quality assurance agencies are most appropriate for educational providers like U21Global.

5 External Quality Assurance – the challenges for truly Global Educational Institutions

It is somewhat intuitive to suggest that institutions with a global reach will tend to seek out global accreditation and to benchmark against international best practice. However, while this is a simplistic view, the broader issue is worthy of further examination. For example, in the case of U21Global, headquartered in Singapore, if there are learners in Malaysia or Vietnam, does Malaysia or Vietnam have the authority— or perhaps the responsibility— to quality assure the provider? If so, then should we expect an online institution offering education to a diverse international student body, to be quality assured by every nation in which it has learners? For a large organization like U21Global, this would mean being quality assured by 40 or so different countries, unless there was an explicit agreement amongst national QA systems that they would respect the decisions of any other national or international system.

This is a real challenge for quality assurance agencies as well as for the educational provider itself. Similarly, the OECD/UNESCO guidelines of 2005 on the provision of Cross Border Education do call for more interaction and communication between QA authorities. There has been some evidence of initiatives to move beyond regional and country quality assurance towards international or at least multinational benchmarks. See for example, the move by Asia Pacific quality assurers to agree on a common set of standards within a common framework.5 As discussed above, new organisations require external regulatory authorities to ensure quality standards. Given this argument, then it is reasonable to conclude that without any agreement on the regulation/quality assurance of online education, then it would hardly be surprising to find a large variation in the quality of online providers. Such variation could have those whose education is pedagogically rigorous and effective at one end of the spectrum to those who offer awards to those applying without much rigour or effort in between!

In part to overcome this type of challenge, U21Global has sought international accreditation through both EFMD and AACSB, the two most prominent international quality assurance agencies for management education.

6 Conclusion

Online education is a fact, it is not a trend, and as such, quality assurance agencies and regulators of education need to ensure that their systems fully support the development of high quality online education. Without such QA, which also focus on the specific features or requirements of quality online education, the variation in online education quality may continue. This could be to the detriment of those seeking quality education, but who cannot afford to attend campus based education due to financial, time and responsibility constraints.

Internal QA systems and processes within online education are essential to the development of sustainable quality and QA, and this should be reinforced by external and global audit which ensure that the education provides the learning outcomes required, and which also assess the specific technological and support structures which are of more particular concern in online education.

References


