HIGHER EDUCATION QUALITY ASSURANCE IN A CHANGING WORLD: ENVISIONING THE FUTURE OF ASIA PACIFIC

The Proceedings of 2013-2014 APQN Conferences

Editors

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Jagannath Patil,

May 20, 2016

PREFACE

With the rapid expansion of higher education institutions throughout the world and education's increasingly market-based orientation, students, parents, higher educators, employers and governments have a much greater interest in the actual academic quality of universities and colleges in various dimensions in the era of globalization. Universities and colleges are definitely beginning to take on accountability toward related members of the school and societies in the same way that private enterprise does. In this way, universities are supposed to act as an effective organizer and a good learner on how to improve their quality, particularly in research and teaching quality, through several assessment tools. Hence, a major concern for Asian governments is how to assure quality in higher education and how to enhance global competitiveness through a variety of national policies and institutional engagement. As a result, quality assurance mechanisms, which emphasize output monitoring and measurements and systems of accountability and auditing, have become more popular in Asian and other regions.

Up to the present time, nearly 90% of the governments in the Asian Pacific region have successfully developed a national quality assurance system, by setting up a national accreditor whose principal role is to accredit local tertiary education institutions and academic programs. Prior to the establishment of their current national accreditor, local accreditors had emerged in some Asian countries. The local accreditors are self-funded agencies, "without any intervention of central governmental in its establishment or functioning." The local accreditor's role has been to undertake review of certain groups of universities or types of programs, using a voluntary approach. To date, half of the Asian nations have more than two accrediting bodies, including Japan, Hong Kong, the China, Philippines and Taiwan. Along with establishment of national and local accreditor, the global competition also entails growth in the international accreditation. Emergence of international accreditors, particularly U.S. accreditors, started to provide another alternative for accreditation for Asia-based institutions.

APQN (Asia-Pacific Quality Network), founded in Hong Kong in January 2003, is a network which serves the needs of Quality Assurance

Agencies in higher education and higher education institutions in the Asia-Pacific region. It has 166 members from 38 countries or territories by 2016, among which includes 8 observers outside region. APQN aims to enhance the quality of higher education in Asia and the Pacific region through building the capacity of quality assurance agencies and extending the cooperation between them. APQN achieves this objective by promoting good practice, facilitating research, providing advice and expertise, building QA experts database, conducting Peer Review of the External Quality Assurance Agency, developing links between QA agencies and enhancing staff movement among agency members, etc. APQN also collects and disseminates quality assurance information, particularly through our well-maintained APQN website, quarterly-released issues of APQN News, jointly-published journal of Higher Education Evaluation and Development and books on quality assurance. Furthermore, APQN provides quality assurance training via workshops, online forums, conferences and consultancies, etc.

APQN is now incorporated as the non-profit organization in Shanghai of China, of which the Secretariat is hosted by Shanghai Education Evaluation Institute. APQN Conference and AGM is the main annual event for all members to discuss and advance quality assurance in higher education throughout the Asia-Pacific area. The target audience for the APQN Conference is primarily APQN members and all those non-members who are interested in QA of higher education as well as other distinguished guests inside or outside the region invited by APQN Board. APQN Annual Conference and AGM have been held in many countries or territories since its establishment, covering New Zealand (March 2005), China (March 2006), Malaysia (February 2007), Japan (February 2008), Vietnam (March 2009), Thailand (March 2010), India (March, 2011), Cambodia (February 2012), Taiwan (April 2013), Vietnam (March 2014), Mainland China (2015), Fiji (2016). APQN' mission is to be committed to quality higher education as well as support quality assurance agencies in the region through various methods including dissemination of information in forms of journals, newsletters, books. With support of APQN members, APQN board decided to publish the selected papers presented in the 2103 and 2014 APQN conferences into a monograph in order to strengthen its role of quality information dissemination.

In order to tap into the practices and impacts of quality assurance systems

of higher education in Asian Pacific nations, it is significant to examine the aforementioned challenges from quality assurance agencies' and institutions' perspectives, learn from the best practices where quality assurance has been more broadly practiced, and contextualize appropriate policies and QA framework in Asian nations. Currently, there are relatively few publications on this topic in Asian perspectives of both QA agencies as well as institutions, and relatively little of what is written can guide and inform educators, policy makers and researchers in Asia in how to research, design and redesign, integrate and assess liberal arts education. The 2013/2014 APQN proceedings can not only provide higher education institutions and governments with practical experiences but also inspire them to build up their quality capacities.

This book, discussing higher education quality assurance development in the Asian countries in perspectives of quality assurance agencies and institutions, consists of three sections, 11 chapters: The first section focuses on global new trends in quality assurance. Three papers from Europe, New Guinean, and China describe the changes and challenges that external quality assurance brings into higher education systems. The second section includes five country cases of Japan, New Zealand, Thailand, Vietnam, Sri Lanka, and one region, Taiwan, which present several major quality assurance issues at the national contexts, such as self-accreditation, internationalization, IT use, outcome-based assessment, etc. The concluding chapter in the section three summarizes the best practices of QA approaches in Asian higher education.

The chapter authors are all experienced quality assurance experts in Europe and Asia. Most of them have experiences in working at quality assurance agencies as well as higher education institutions. We are confident that all chapters can provide with insights and practical implications for policy development in quality. Finally, we thank Ms. Cindy Chen at Higher Education Evaluation & Accreditation Council, who helped us to coordinate with APQN, HEEACT and authors.

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Jagannath Patil,
Tony Tung-Liang Chiang,
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Colin N. Peiris, Prof. Peiris was hired by the World Bank as a Quality Assurance Specialist in Sri Lanka.. The QAA Council of the UGC was formed in 2009 and he became the first Director. In 2007 he was invited to the Director Board of APQN and still serving for the 4th consecutive term and also served in the Director Board of INQAAHE for the period 2010 to 2012. Prof. Colin who has made contributions and for championing APQN's cause of quality, was awarded Quality Champion award for the year 2014 by APQN and received the best "Training and Support of Reviewers Award 2015."

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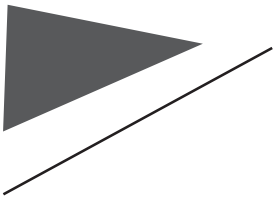

Part I: Global Setting

Higher Education Quality Assurance in a Changing World: Envisioning the Future of Asia Pacific
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Policy Developments in Quality Assurance in Europe

Colin Tück
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ABSTRACT

The Bologna Process has put in place a comprehensive infrastructure for quality assurance in the European Higher Education Area (EHEA): the Standards and Guidelines for Quality Assurance (ESG) set the common framework for quality assurance of learning and teaching. The European Quality Assurance Register (EQAR) is the official register of quality assurance agencies that have demonstrated compliance with the agreed standards, providing a basis for recognising those agencies' results and decisions across the EHEA.

With the adoption of the ESG 2015, the common denominator for quality assurance in Europe became larger: with ambiguity removed, the close link to the EHEA's qualifications framework and the stronger emphasis of the student experience, the ESG make clear what the "EHEA model" for quality assurance stands for.

There is now a sound and reliable basis for and systematic trust and automatic recognition. The consolidated framework also paves the ground for structured dialogue and exchange between Europe and the Asia-Pacific, as well as for enhanced cooperation.

Keywords: European Higher Education Area (EHEA), Quality, Standards, Framework, Europe, ESG

1. The EHEA Quality Assurance Framework

Quality assurance has been a key area of cooperation in the Bologna Process since its beginning: already in 1999, European ministers responsible for higher education committed themselves to promote "European co-operation in quality assurance with a view to developing comparable criteria and methodologies" (Bologna Declaration, 1999).

Even though initial commitments date back to 1999, only between 2003 and 2008 has the Bologna Process -- step-by-step -- established an actual framework for quality assurance in the European Higher Education Area (EHEA). The common framework includes an agreed European set of standards and guidelines for quality assurance, known as the ESG, and a register of quality assurance agencies that comply with those agreed standards, EQAR.

While the establishment of EQAR, in 2008, completed the framework for the time being -- i.e., no further documents or institutions were proposed, discussed or under development at the time -- the adoption of the European Approach for Quality Assurance of Joint Programme, in 2015, added a further piece to the puzzle.

The EHEA's QA framework has always been part of the broader "Bologna toolbox," including, amongst others, the Qualifications Framework for the European Higher Education Area (QF-EHEA; ENIC-NARIC Networks, 2016). The QF-EHEA was adopted in 2005, at the same time as the ESG. Participating countries have since been developing national qualifications frameworks, aligned with the overarching QF-EHEA.

1.1 European Standards and Guidelines (ESG)

The first version of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (European Standards and Guidelines, ESG[1]) was adopted by EHEA ministers in 2005 (European Quality Assurance Register for Higher Education [EQAR], 2009).

[1] Adopted by European ministers responsible for higher education at their Bergen summit in 2005 (ENQA, 2009).

While adopted by ministers, the ESG were developed by the main stakeholders in quality assurance of higher education: higher education institutions (represented by the European University Association, EUA, and the European Association of Institutions in Higher Education, EURASHE), students (European Students' Union, ESU) and quality assurance agencies (European Association for Quality Assurance in Higher Education, ENQA). Together, the four stakeholder organisations have become known as the "E4 Group."

The development by the stakeholder organisations reflects one underlying principle of the ESG: quality is "in the eye of the beholder" and quality assurance should thus be a collaborative process, and take into account the needs and expectations of students, all other stakeholders and society.

The ESG address (1) internal quality assurance (at the level of higher education institutions), (2) external quality assurance (such as external evaluation, accreditation or audit) and (3) external quality assurance agencies.

They are not prescriptive, detailed norms, but leave room for different approaches when implemented in different institutions, regions or countries. Some of the key principles enshrined in the ESG are:

(1) Higher education institutions themselves have primary responsibility for assuring and developing quality of their provision;

(2) Quality assurance needs to combine enhancement-oriented and accountability-geared functions, and support the development of a quality culture;

(3) Quality assurance needs to respond to the diversity of higher education systems, institutions and students;

(4) External quality assurance should be undertaken by independent quality assurance agencies;

(5) External assessments should be based on a peer-review process involving academics and students;

(6) Quality assurance processes need to be transparent, resulting in published reports and decisions.

In 2012, the E4 Group's project "Mapping the Implementation and Application of the ESG" (MAP-ESG) concluded that the ESG were a major achievement of the Bologna Process, contributed to a common understanding of quality assurance and had substantial support of EHEA governments and stakeholders. At the same time, the project concluded that the ESG would benefit from a revision with a view to increasing clarity, reducing ambiguities and eliminating redundancies, as well as better linking them to other Bologna tools.

EHEA Ministers consequently mandated the E4 Group, in cooperation with BUSINESSEUROPE, Education International and EQAR, to revise the ESG. In May 2015, European ministers of higher education adopted the revised version of the Standards and Guidelines, the "ESG 2015."

The ESG 2015 take account of how the EHEA changed and developed over the past 10 years. They address more closely the student experience and reflect that the common denominator in Europe has become larger. A full account of the revision and key changes was provided by Crozier, Loukkola, and Michalk (2016).

1.2 European Quality Assurance Register for Higher Education (EQAR)

EQAR was founded by the E4 Group in 2008, based on a mandate by ministers (see London Communique, 2007). The organisation is governed jointly by the stakeholder organisations[2] and governments[3] taking part in the Bologna Process.

EQAR's mission is to further the development of a coherent and flexible quality assurance system for the EHEA. It provides authoritative and reliable information on trustworthy and credible quality assurance agencies operating in Europe: EQAR manages a register of those agencies that comply substantially with the European Standards and Guidelines (ESG). Agencies have to evidence compliance in an independent external review of their activities.

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[2] ENQA, ESU, EUA, EURASHE (i.e., the 4 founders), Business Europe and Education International/ETUCE.

[3] Membership is voluntary, and currently 37 of the 48 EHEA countries are governmental members.

The decision-making on inclusion of agencies on the Register is in the hands of an independent Register Committee, comprising 11 experts in quality assurance of higher education. They are nominated by the stakeholder organisations that are members of EQAR, but act in an individual capacity and may not hold functions in their nominating organisations.

- Objectives

Through the Register, EQAR aims to achieve a number of objectives. These can be grouped in two areas, with the first forming a basis for the second:

(1) Enhance transparency and information, i.e.:

a. Provide information on credible and legitimate quality assurance agencies operating in the EHEA;

b. Prevent "accreditation mills"[4] from gaining credibility;

(2) By doing so, promote trust and facilitate recognition, i.e.:

a. Promote trust in registered quality assurance agencies;

b. Serve as a basis for cross-border recognition of their results, i.e., reports and decisions;

c. In turn, support the recognition of qualifications and periods of study from institutions and programmes that were quality-assured by a registered agency;

d. Encourage governments to allow higher education institutions to use any registered agency for their regular accreditation, evaluation or audit.

The Register currently (as of April 2016) includes 42 quality assurance agencies from 22 countries. 37 of the 48 countries participating in the Bologna Process are Governmental Members of EQAR and thereby support and engage in the development of a common framework for quality assurance in the EHEA (Figure 1).

[4] Accreditation mills are bogus agencies that are usually linked to degree/diploma mills, i.e., bogus higher education institutions, and whose main purpose is to lend "credibility" to such bogus institutions or programmes.

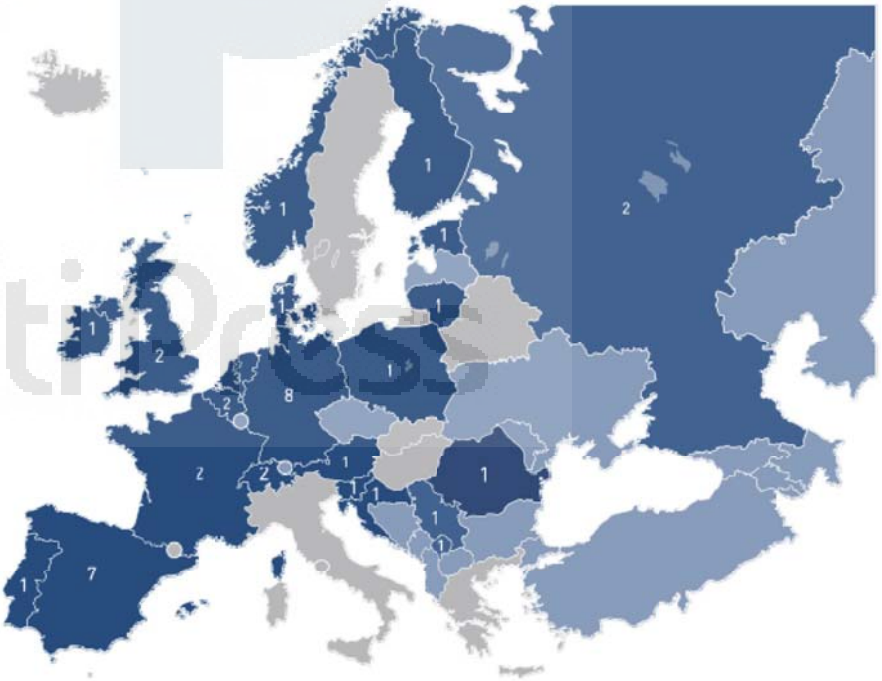


Figure 1. EQAR-Registered QA Agencies and Governmental Members

Source: EQAR (2016c).

1.3 The Link between Quality Assurance and Qualifications Frameworks

The ESG are standards for internal and external quality assurance processes, but are not in themselves standards for quality or qualifications (see ESG, 2015, p. 6). They, however, especially in Part 1 on internal quality assurance, make reference to various dimensions of quality and the student experience (e.g., student-centred learning, recognition, assessment, teaching staff, support service and resources).

Furthermore, one remarkable addition in the ESG 2015 is the clear reference to the QF-EHEA: Standard 1.2 sets out that qualifications should be aligned to the corresponding national qualifications frameworks (NQF), whereas NQFs in the

EHEA are self-certified to the QF-EHEA. Every qualification is thus clearly linked to a cycle of the QF-EHEA.[5]

Quality assurance systems thus play an important role in ensuring that the assignment of qualifications to a level in the NQF and the QF-EHEA is valid and trustworthy. Higher education institutions' own approval and review systems (see Standards 1.2 and 1.9; ESG, 2015) need to relate its study programme's objectives and learning outcomes to those specified in the relevant NQF for the level of the qualification.

External quality assurance systems review and validate that qualifications are correctly assigned to a level in the NQF. This may take the form of reviewing the institutions' internal systems (in the case of institutional accreditation, evaluation or audit) or happen specifically for each study programme (in the case of programme accreditation or evaluation).

The QF-EHEA is thus complementary to the ESG: the cycle descriptors can be regarded as standards for qualifications, which are referenced by the standards for quality assurance, the ESG.

This complementarity was not as clearly articulated in the previous (2005) version of the ESG and it was one of the main objectives of the revision to make the links between the ESG and other Bologna tools clearer.

Together, quality assurance and qualifications frameworks create a chain of trust and transparency (Figure 2), which facilitates the recognition of qualifications and, thus, mobility of learners. They ensure that every qualification has a clear and validated place in the European qualifications structure and can thus easily be "mapped" to other systems in the EHEA.

[5] The three cycles described in the QF-EHEA are also compatible with levels 6, 7 and 8 of the European Qualifications Framework for Lifelong Learning (EQF-LLL), which was developed for the European Union (EU).

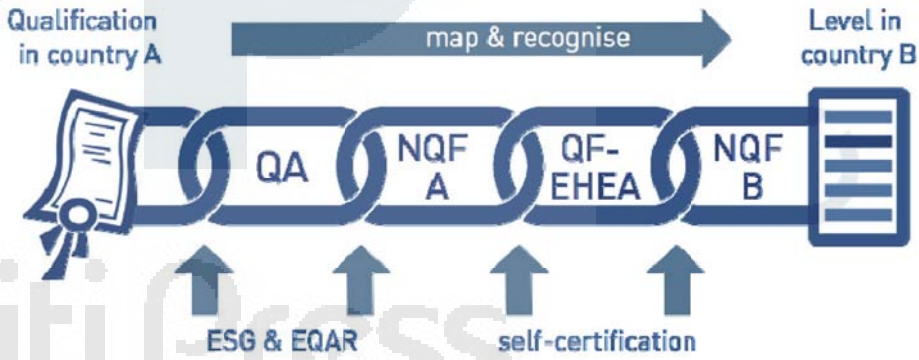


Figure 2. Chain of Trust

Source: This study.

2. Recent Policy Developments

The Bologna Process' policy agenda is set by triennial conferences of European ministers of higher education. In between these conferences, it is taken further by the Bologna Follow-Up Group (BFUG), a biannual meeting of participating countries at civil-servant level, and by activities of the countries and organisations involved in the Bologna Process.

The two most recent ministerial conferences, in Bucharest Communiqué (2012) and Yerevan (2015), initiated or accelerated a number of important policy developments in and for quality assurance.

2.1 External Quality Assurance Crossing Borders

Traditionally, (obligatory) external quality assurance of higher education institutions in Europe has been the domain of national (or regional) quality assurance agencies, operating (independently) under a mandate of national authorities, usually responsible for a single higher education system, or a part of it.

In recent years, international, cross-border accreditation and evaluation have become increasingly popular, a manifestation of higher education institutions' international aspirations and also their wish to be evaluated in different ways (Sursock, 2015). They, however, largely took the form of voluntary reviews that came in addition to, and as such remained separated from, the national systems of (obligatory) quality assurance.

At the same time, the ESG have served as a common framework not only for the development of national quality assurance systems in the EHEA, but were also regarded by agencies as a suitable basis for work across borders (EQAR, 2014).

2.1.1 Legal Frameworks

At European policy level, ministers agreed to "allow EQAR-registered agencies to perform their activities across the EHEA, while complying with national requirements" (Bucharest Communiqué, 2012). Recognising accreditation, evaluation or audit by a foreign agency, working based on the same common platform codified in the ESG, would avoid the often unproductive duplication of efforts, or even fatigue, where both a national and a foreign agency review the same programme or institution, asking sometimes the same questions, even if for a different purpose (EQAR, 2014).

This step might seem logical in the light of the common ESG. In fact, it has always been one of the expectations linked to the creation of EQAR that reviews by registered agencies would be universally recognised across the EHEA (EQAR, 2011). Consequently, EQAR has analysed and closely followed developments in cross-border external quality assurance, including with a specific project "Recognising International Quality Assurance Activity in the European Higher Education Area (RIQAA)" addressing the topic.

While higher education institutions value the possibility to work with a quality assurance agency that best suits their mission, profile and needs, progress has been slow at the level of national policy in allowing higher education institutions to work with agencies across borders for their obligatory external quality assurance (EQAR, 2014). Reluctance to devolve responsibility, even partially, to quality assurance agencies abroad, even though working based on the same ESG, is still widespread among European countries. Or, as the European University Association (EUA) put it: "the actors (institutions and agencies) are ahead of the policy makers as indicated by the lack of progress in legal frameworks [...]" (Sursock, 2015).

2.1.2 Challenges and Opportunities in Practice

The RIQAA project analysed challenges and opportunities observed by QA

agencies and higher education institutions that worked together across borders. The following observations are based on the findings, available in full in the final project report (EQAR, 2014).

Higher education institutions perceive a review by a foreign/international agency as a genuinely international experience, supporting the institution's international strategy and image. Even if the national QA agency includes international peers on its panels -- an increasingly common practice in Europe, even though not obligatory by the ESG, institutions often expect that a foreign has a broad(er) pool of international peers and would be regarded as international by their stakeholders.

Institutions saw another benefit in the ability to choose an agency from which they believe to receive the most valuable feedback. This also increases the commitment of their internal and external stakeholders, and thus helps them develop their own quality culture.

At the same time, institutions found that a review by a foreign agency almost always involves additional efforts, in terms of explaining the national system or linked to the fact that the expectations and the agency's ways of working are unfamiliar.

Agencies experience similar challenges: when working across borders, it is their responsibility to deliver high quality reviews in sometimes unfamiliar contexts. This becomes a challenge especially when operating in a foreign country for the first time and the agency has to familiarise itself with a new national context and higher education system. Agencies also face the risk of being chosen because they are perceived to have less stringent requirements (than the national agency), or for other questionable motives, and thus have a responsibility of refusing to carry out a review in certain cases.

On the other hand, agencies recognise that cross-border activities bring them added value in terms of prestige, income or learning opportunities, allowing them to reflect on their experience back "home" and to transfer their international expertise to the national framework.

2.1.3 Current Activities at European Level Current Activities at European Level

The RIQAA project found that cross-border quality assurance was often taking place on an "ad hoc" basis and that agencies frequently adjusted or modified their usual practices when working across borders (EQAR, 2014). EQAR has carried out an annual monitoring of the registered agencies' activities since 2014, given special attention to the extent of their cross-border activities and whether they follow the ESG's requirement of publishing reports stringently (EQAR, 2015a, 2016a).

At their Yerevan Conference, ministers reiterated their commitment to "enable our higher education institutions to use a suitable EQAR registered agency for their external quality assurance process, respecting the national arrangements for the decision making on QA outcomes" (Yerevan Communiqué, 2015). EQAR made proposals for follow-up activities as part of the BFUG's 2015-2018 work programme, so as to create opportunities for EHEA governments to exchange good practice in creating legal frameworks for cross-border QA and to draft a set of recommendations on the topic (EQAR, 2016a).

The E4 Group and EQAR are also working together in order to elaborate a document offering practical guidance on the key issues to consider when planning and carrying out cross-border quality assurance activities. This activity is mainly geared at supporting institutions and QA agencies engaged in cross-border QA reviews (EQAR, 2016a).

2.2 European Approach for Quality Assurance of Joint Programmes

The most recent addition to the common EHEA framework is the European Approach for Quality Assurance of Joint Programmes, adopted by ministers at the same time as the ESG 2015 (Yerevan Communiqué, 2015).

Despite the fact that joint programmes[6] have always been celebrated as

[6] Integrated curricula developed and delivered by two or more higher education institutions from different countries, leading to the award of a joint degree or double/multiple degrees.

a hallmark of the EHEA, quality assurance of these programmes used to be a complex and troublesome issue, especially in countries with obligatory programme accreditation (Ad-Hoc Expert Group, 2014).

Whereas "self-accrediting" institutions (i.e., those subject to external quality assurance at the institutional level only, e.g., in a regular audit) tend to have fewer difficulties, institutions from countries with obligatory study programme accreditation or evaluation often find themselves confronted with different (and sometimes even conflicting) formal requirements in the countries involved (idem).

Over the years, quality assurance agencies and higher education institutions have developed and tested approaches for single, integrated external quality assurance procedures. These projects could, however, not do away with one key obstacle: specific national regulations from all different countries had to be incorporated, otherwise the accreditation decision or evaluation report would not be recognised in all countries.

As a result, joint programmes often underwent multiple accreditations, by the different national quality assurance agency of the countries involved, each looking at the bits and pieces taking place in their country. Such multiple, fragmented reviews were sometimes the more pragmatic solution than to try squaring the circle, and bringing the different national regulations together in one external quality review. The burden on institutions was often heavy, and obviously such fragmented reviews did not capture the "jointness" of these programmes.

Ministers agreed already in 2012 to "recognise quality assurance decisions of EQAR-registered agencies on joint and double degree programmes" (Bucharest Communiqué, 2012). While there was never doubt that the ESG apply to joint programmes, as much as to all higher education provision in the EHEA, it appears there was a need to be more specific, i.e., to "operationalise" the ESG for the specific case of joint programmes.

Following the Bucharest Conference, the BFUG mandated a small ad-hoc expert group to draft the European Approach for Quality Assurance of Joint Programmes, which was later adopted by ministers (European Approach, 2015).

The European Approach includes a set of agreed standards. They can be used by higher education institutions, in their internal quality assurance of joint programmes, as well as by external quality assurance agencies.

For programmes that need external evaluation or accreditation at programme level, the European Approach provides an agreed external quality assurance procedure, to be carried out by a suitable EQAR-registered agency, identified by the cooperating institutions.

The European Approach is "based on the agreed tools of the EHEA" (European Approach, 2015) and should be used "without applying additional national criteria" (dito).

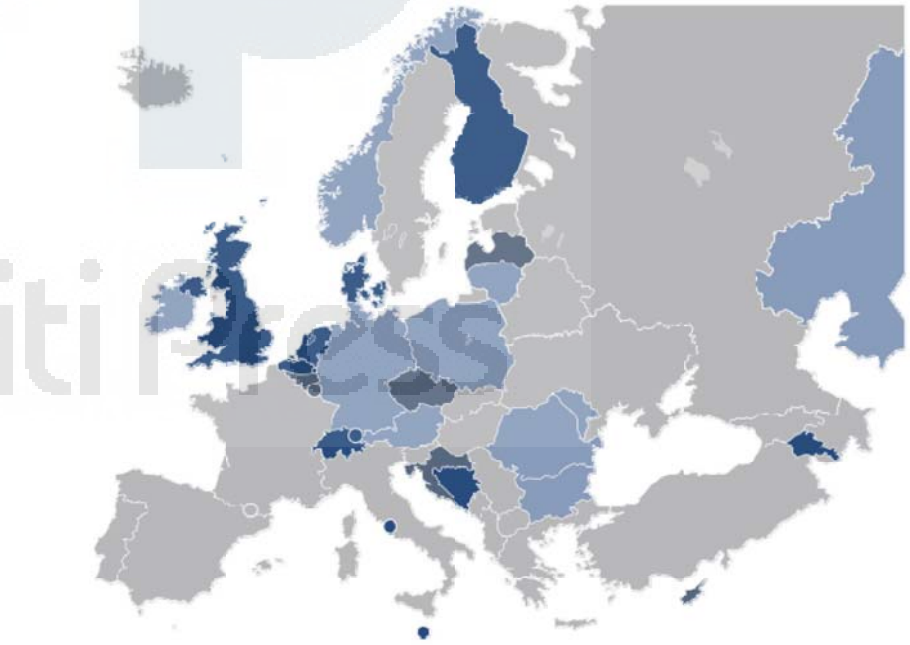
In doing so, it does justice to the nature of joint programmes: integrated, truly European curricula should be reviewed in an integrated, truly European quality assurance process.

As every commitment in the EHEA, also the European Approach needs to be implemented by the national legislator. In many countries, the legal framework will need to be adjusted to recognise external evaluation or accreditation according to the European Approach.

There are currently 19 EHEA countries where the European Approach is available to all or some higher education institutions, sometimes under specific conditions or with restrictions (Figure 3). The availability is either due to the fact that institutions are self-accrediting, changes in the legal framework already implemented after the Yerevan Conference, or general provisions to recognise quality assurance results from EQAR-registered agencies, pre-dating the European Approach.

2.3 Automatic Recognition of Qualifications

In their Bucharest Communiqué, ministers for the first time officially declared the "automatic recognition of comparable academic degrees, building on the tools of the Bologna framework" as a "long-term goal of the EHEA" (Bucharest Communiqué, 2012). While some have considered this goal self-evident ever since the Bologna Process was initiated, others raised concerns that the Bologna Process could promise more than it can deliver.



European Approach for Quality Assurance of Joint Programmes available to all higher education institutions (10)
European Approach available to some higher education institutions or under specific conditions (9)
Legislative proposals to implement the European Approach have been prepared (2)
European Approach not available to higher education institutions in the country (28)

Figure 3. Availability of the European Approach

Source: EQAR (2016b).

Either way, it was commonly agreed that 13 years after the launch of the Bologna Process there were still too many obstacles to the recognition of qualifications and periods of study between different EHEA countries. The ministerial communiqué reflects the expectation that the different tools developed in the Bologna Process should function together more smoothly and lead to more seamless recognition between EHEA countries.

In response to the goal agreed by ministers, a "pathfinder group" tackled the issue of automatic recognition, explored the necessary steps to achieve that goal and reported back to ministers in 2015. The group clarified that automatic recognition means "the automatic right of an applicant holding a qualification of a certain level to be considered for entry to a programme of further study in the next level in any other EHEA-country (access)" (Pathfinder Group, 2015). Automatic recognition thus does not mean automatic *admission*, which is logical

given that also national qualifications usually do not imply automatic admission to any chosen further study programme in the same country.

The pathfinder group concluded that non-implementation of the principles of the Lisbon Recognition Convention (LRC) and unnecessarily strict formal regulations were among the main obstacles to recognition in the EHEA. The group recommended to strengthen quality assurance in line with the common ESG, and that quality assurance mechanisms should include consideration of higher education institutions' recognition practices (Pathfinder Group, 2015).

The ESG 2015 indeed mention recognition procedures as an important aspect to be considered in internal quality assurance (ESG, 2015, Standard 1.4). Due to the link between internal and external quality assurance established by Standard 2.1, recognition will become an issue covered in external reviews as well, though indirectly. Moreover, through the further changes, including a clear link to QF-EHEA, the ESG 2015 create a stronger link between quality assurance, the student experience and the quality of qualifications (see above).

One example for automatic recognition is a law adopted by the Flemish Community of Belgium in 2014. On the basis of qualifications frameworks aligned to the QF-EHEA (or the EQF-LLL) and quality assurance in line with the ESG degrees from other EHEA countries can be automatically recognised in Flanders. In particular, qualifications from a study programme accredited by an EQAR-registered agency are automatically recognised at the same level (Flemish Parliament, 2013, p. 126).

In Yerevan, ministers were determined to achieve "by 2020 [...] an EHEA [...] where automatic recognition of qualifications has become a reality so that students and graduates can move easily throughout it" (Yerevan Communiqué, 2015). The common frameworks for quality assurance and qualifications now well-established, making it hard to explain if a qualification from country A -- aligned, through the NQF, to the QF-EHEA and quality assured in line with the ESG -- were not recognised in country B.

For automatic recognition to become a reality, it will be important that information on whether a higher education institution or programme was quality-assured in line with the ESG is easily accessible. EQAR has therefore

been discussing the possibility of a database or portal providing access to quality assurance reports and results of all EQAR-registered agencies (EQAR, 2016d).

Further, additional action by the actors involved might be necessary to make quality assurance and qualifications frameworks function together seamlessly in practice, for the benefit of recognition. Over the last years, dialogue and exchange between the worlds of quality assurance and recognition have intensified, as can be seen by projects involving partners from both domains, as well as the agendas of events and policy forums in the two domains.

3. Challenges and the Road Ahead

With the adoption of the ESG 2015, the common denominator for quality assurance in Europe became larger: the close link to the QF-EHEA, describing qualifications in terms of learning outcomes, and the stronger emphasis of the student experience makes clear what quality assurance in line with the ESG stands for. Some ambiguity has been removed, and with the ESG 2015 the "EHEA model" for quality assurance became consolidated, clearer and more visible.

Even though not all EHEA countries are yet ready to put trust on a systematic basis and recognise all those that have proven to work in line with the ESG, it is now hard to deny that there is a sound, reliable and systematic basis for trust and recognition. A number of challenges nevertheless remain on the way to realising some of the ambitious commitments made by ministers.

3.1 Application of the ESG in Practice

The changes and new elements in the ESG should not struck anyone by surprise -- after all, the ESG 2015 were drafted based on what emerged as broadly accepted practice in Europe. Nevertheless, major challenges still lie ahead in the use and implementation of the ESG 2015 in practice across the EHEA. Especially Part 1, addressing internal quality assurance by higher education institutions, has changed significantly, but also quality assurance agencies and other stakeholders will have to undertake -- in some cases small, in other cases major -- changes to adjust their practices to the ESG 2015.

A consortium including the authors of the ESG 2015 launched a project aimed at Enhancing Quality through Innovative Policy & Practice (EQUIP) in European higher education. The EQUIP project will support and promote a consistent, efficient and innovative embedding of the ESG 2015 at grass-root level. The consortium will identify the challenges and work collaboratively with all stakeholders and policy-makers to propose, share and discuss the applicability of new solutions (Enhancing Quality through Innovative Policy & Practice, 2015).

3.2 New Role for the Existing Tools and Institutions

The goals set by ministers, especially in relation to automatic recognition and cross-border recognition of quality assurance results, confer a role on the Bologna tools that goes beyond their traditional role of serving as "non-binding" frameworks or information tools, which *might* lead to trust and help improve recognition, whereas it remains a case-by-case decision which system or qualification to trust, or not.

With the new, more ambitious goals comes the expectation that trust will become systemic and "hard" consequences -- e.g., the recognition of qualifications or of a quality assurance agency -- are directly linked to the European tools and institutions established by the Bologna Process.

On the one hand, this might indicate that ministers consider the existing frameworks (i.e., the ESG, ECTS, QF-EHEA and EQAR) a reliable enough basis for mutual trust and recognition within the EHEA.

On the other hand, it is a challenges for the tools and organisations concerned: while the various "Bologna tools" were initially conceived as information tools, which might be used by institutions, recognition bodies or other authorities, but without immediate consequences in themselves, they might now have a direct impact on recognition of qualifications, the right of an agency to operate in a certain country, etc.

The various tools and organisations, including for EQAR, might thus to refine their role as a building block of a EHEA made up of highly diverse higher education systems, yet closely linked through a common core structure catering for recognition and mobility across borders.

3.3 Addressing Non-Implementation of EHEA Commitments

The new, ambitious goals of the EHEA have not changed the fact that the Bologna Process is a voluntary process, and no country is forced to participate. Ministers, however, realised that the implementation of the common goals is necessary "to ensure trust in each other's higher education systems," and that "non-implementation in some countries undermines the functioning and credibility of the whole EHEA" (Yerevan Communiqué, 2015).

In other words: while it remains voluntary to join the Bologna Process and the EHEA, once a country is part of it it can no longer be voluntary to implement the agreed goals and reforms -- after all, ministers agreed on them unanimously. Especially in an EHEA that seeks to enable systematic trust and recognition, this becomes an important issue.

As part of its work programme for the period until 2018, the BFUG aims to identify key commitments that are vital for the functioning of the EHEA and to develop an approach of dealing with non-implementation of those key commitments (Bologna Follow-Up Group, 2016).

3.4 Opportunities for Asia-Europe Cooperation

The common framework makes the EHEA more accessible for partners from other regions of the world. Despite the different systems and traditions of the 48 EHEA countries, there is a common ground on which external partners can rely.

This can be illustrated with the European Approach for Quality Assurance of Joint Programmes: it is beyond its remit to solve difficulties in the accreditation of joint programmes involving EHEA and outside partners. However, if there is already a common denominator amongst the EHEA countries, the challenge is reduced from reconciling, say, three EHEA and three non-EHEA systems, to reconciling one European Approach and three non-EHEA systems.

The common structures and frameworks established in both the EHEA and the Asia-Pacific region can serve as a basis for structured dialogue and exchange of experiences.

It should also be noted that many of the principles agreed at regional level, for instance in the ESG and the Chiba Principles, are not exclusive to the respective region, but there is significant common ground (Wells, 2014).

Following the adoption of the 2015 version, the ESG no longer contain any standard that would systematically prevent an agency based outside the EHEA from complying with the ESG. Consequently, EQAR is explicitly open to applications by agencies from outside the EHEA, provided they are able to demonstrate compliance with the ESG (EQAR, 2015b).

In view of the development of the Asia-Pacific Quality Assurance Register, this might open the possibility of a combined external review of a quality assurance agency against both the Chiba Principles and the ESG. This possibility could certainly be valued by those quality assurance agencies that seek to be on both registers.

This and other possible forms of future cooperation might be beneficial not only for the quality assurance communities in Europe and the Asia-Pacific region, but also support cooperation among higher education institutions and the mobility of students and staff between the regions.

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Improving Quality within Higher Education Institutions: The Roles of External Quality Agencies in Lower Income Countries

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ABSTRACT

Lower income countries around the world have established external quality assurance agencies as part of their higher education reform agendas. However, external quality assurance reviews of themselves may provide little more than a mildly disruptive change within institutions without leading to either good internal quality assurance within institutions or to sustainable quality improvements to higher education. Focusing on publicly-funded institutions of higher education, we argue that external quality agencies in less developed countries need to adopt a broader remit than just the conduct of reviews. Specifically, three further and overlapping areas of change need to be embraced by such external quality agencies:

- Ongoing scaffolding and support of quality assurance mechanisms within institutions.
- Design of internal quality assurance mechanisms that are responsive to particular cultural norms and values, and
- Support for reform of the relationship between government and higher education institutions, including collaborative governance, national data collections and funding models.

Keywords: Higher Education, Quality, Development, Quality Assurance

1. Higher Education Quality Improvement in Lower Income Countries

Most developing or lower income countries now seek to use their higher education systems to drive economic productivity by augmenting human capital, in order to increase their citizens' opportunities to participate in the global knowledge society and rapidly to advance national development (Bloom, Canning, & Chan, 2006; UNESCO and the World Bank, 2000). In so doing, the governments of these countries confront the simultaneous challenges of improving quality and enhancing access while ensuring an affordable level of public investment in higher education (Ali, 2010; World Bank, 2002). Although the growing availability of online programs and open access educational resources offers hope and promise, its impact remains uncertain.

To meet the existing challenges, systemic reforms of higher education systems are proceeding in numerous lower income countries (e.g., Materu, 2007). It is less evident that these reforms are leading to an improved quality of public institutions or their graduates. In fact, reforms may jeopardise quality within public institutions: as governments prioritise an expansion of access, the amount of resourcing per student in these institutions is likely to decrease (Gomana, 2012; Millot, 2012; Odhiambo, 2011).

Nonetheless, the amount of input resources per students is not the only determinant of quality in higher education, despite the willingness of some authors to focus solely on inputs (e.g., Bunoti, 2011; Lim, 1999). As Millot (2012) concludes: "... the efficiency of spending is more important than the amount of expenditures ... institutional settings and governance structure play a considerable role in the way a given quantum of resources is spent and how it translates into efficient service delivery"(p. 23).

Our aim in this paper, which focuses on publicly-funded institutions of higher education, is to make the case that external quality agencies in less developed countries need to adopt a broader remit than just the conduct of reviews. Arguably, the presence of systemic, well-entrenched quality assurance and enhancement mechanisms is one element in efficient -- as well as effective -- service delivery in public higher education institutions. Internal quality assurance

mechanisms, which correlate with organisational effectiveness, are designed to prevent failures of process and outcomes that require costly "rework" or, for students, lead to a failure to graduate. Such mechanisms also increase institutional capacity to identify and address specific problem areas, e.g., the need for better formative feedback or for additional learning support.

One striking element of higher education reform in developing countries has been the establishment of national or sub-national agencies to assure the quality of higher education institutions and programs (Kristoffersen & Woodhouse, 2005). However, external quality assurance reviews of themselves may provide little more than a mildly disruptive change for institutions without leading to sustained internal quality assurance regimes (Minellia, Reboraa, & Turri, 2008; Stensaker, 2003). Moreover, there is an extensive body of literature, mostly from developed countries, on the inability of external quality assurance reviews focused on institutional accountability to engender meaningful quality improvements in learning, teaching and research (Harvey, 2007; Houston & Paewai, 2013).

We suggest that external quality assurance can be a catalyst for longer-lasting assurance of quality and efficiency within public higher education institutions in developing countries but that, for success, three further and overlapping areas of change need to be embraced by external quality agencies:

(1) Ongoing scaffolding and support of quality assurance mechanisms within institutions

(2) Design of internal quality assurance mechanisms that are responsive to particular cultural norms and values, and

(3) Wider reform of the relationship between government and higher education institutions.

Inclusion of these roles provides a broader remit than that of many external quality agencies in developed and high income countries but a remit that we believe is necessary to meet national expectations. The rationale for this proposition is explained in subsequent sections, using examples from Papua New Guinean experience to illustrate key points.

2. External Quality Reviews as a Catalyst for Change

In lower income countries, the establishment of a system of external quality reviews of institutions can serve both to establish a benchmark and to generate pressure for internal improvement. It can engender or strengthen a chain of accountability from institutions to government and signal to various groups, including donor agencies, that change is being taken seriously.

In Papua New Guinea, the recent introduction of external quality reviews of universities was stimulated by a 2010 Australia-PNG review of the PNG university system (Garnaut & Namaliu, 2010), which raised the prospect of additional donor agency and PNG Government support for reform. Quality reviews were selected as an intervention point for a range of reasons, including a recognition that the universities themselves needed to take ownership of the issues and an absence at the time of triggers for wider reform of the higher education system (Mel & Baird, 2013). Experience to date has confirmed a significant appetite for internal improvement among some universities and the ability of the universities to provide self-reflective assessments of their own strengths and weaknesses.

For public institutions in developing countries, initial quality reviews may be most useful if they are developmental and focused on identifying specific improvements to internal systems, especially those that can be made without an immediate massive increase in resourcing or the quality of inputs. There may be merit in an external quality assurance agency tailoring some aspects of its reviews towards the identification of such improvements, as alignment between external reviews and desired internal improvements is significant for change (Kristensen, 2010).

In the case of Papua New Guinea, many of the recommendations made to date are for process changes within individual institutions that, in theory, could be implemented internally with minimal additional resources. Nonetheless, we recognise that the conduct of these reviews, although a significant event, is only the first step in a much longer and more profound change process (Baird & Kavanamur, 2013; Kavanamur, Baird, Mabia, Hualupmomi, Baki, & Paka, 2013).

3. Ongoing Scaffolding and Support after an External Institutional Quality Review

Quality improvement requires change, as does the embedding of systemic quality assurance in institutions that lack the internal quality assurance mechanisms found in established universities worldwide, through which "academic institutions themselves monitor and improve the quality of their education provision" (Dill, 2007).

The advent of an external quality review is usually likely to produce some improvements to quality assurance within a higher education institution. In PNG, university quality reviews have led quickly to various improvements including: the establishment of quality enhancement units; curriculum review; the conduct of feedback surveys; consolidation of data; and the codification of policies. These examples of small scale change are encouraging although their continuation is far from assured.

While is clear that external quality reviews can be enablers of change (Carr, Hamilton, & Meade, 2005; Kubuabola, 2010), their impact remains open to debate even in developed countries (European Association for Quality Assurance in Higher Education, 2013). We know that sometimes developments like these are sustained but more often they may be temporary or minor changes that have little lasting impact on institutional behaviour or the embedding of a "quality culture" (Banji, 2011; Harvey, 2007; Loukkola, 2013). Sometimes they appear more "for show" externally than genuinely intended for internal improvement.

A lack of sustained impact is particularly likely to be the case if the dominant culture is short-termism, for example, if the institution is forced to operate "hand to mouth" so longer-term planning seems simply not relevant, or if there are other reasons why desired change is particularly difficult to entrench, as may be the case in lower income countries.

One specific reason why recommendations from quality reviews may not be implemented is a lack of familiarity with the type of changes that are recommended and capacity constraints (Materu, 2007). In developed countries with long-established systems of higher education, it can be assumed that those within an institution will know what to do in order to implement the

recommendations of an external quality assessment. In other countries, this assumption often does not hold.

For this reason, we know that higher education institutions in PNG will need considerable ongoing support to "scaffold" and build up the internal capabilities required for improvements in particular areas of operation, including e-learning. Recognising this, some other countries have adopted the approach of building internal capabilities prior to conducting external reviews (Carroll, Razvia, Goodliffe, & Al-Habsia, 2009) while others have established internal quality cells within institutions to drive change from within (Hegde, 2010; Usmani, 2010).

This scaffolding can be provided through a range of means, including: the use of experts from cognate sectors, e.g., the country's finance sectors for improvements to financial management and controls; technical and academic assistance through volunteers, NGOs or donor agencies; support that is available from organisations such as the Commonwealth of Learning to drive online educational offerings; guidance from the external quality agency; and experience-sharing among institutions. Quality-focused conferences and workshops are an obvious area for small-scale investments that can help sustain momentum for change within institutions.

In Papua New Guinea, a key finding to date is the need to develop managerial capabilities of staff at all levels in the universities, a common issue for developing countries (Kanungo & Jaeger, 1990). Means through which internal capabilities are being developed in PNG include: supporting a cohort of university personnel to undertake formal qualifications in higher education quality assurance; other forms of executive education for senior managers; supporting regional professional associations, e.g., the Association for Tertiary Education Management, which now has established a PNG chapter; and twinning arrangements among PNG and Australian universities.

Other mechanisms that could be used to support quality improvements in learning and teaching include: subsidising academics to undertake in-country formal qualifications in higher education teaching and online learning; support for deans' councils or similar to develop discipline-specific learning outcomes, using external reference points; and subsidising external professional accreditation of programs, where a reputable national or international professional body is present.

However, given the long-standing history and partial success of such support in many countries, including PNG (GoPNG, 2007; Turner & Kavanamur, 2009; World Bank, 2008), it should not be taken for granted that these mechanisms will succeed. Stensaker (2008) has pointed out that many external quality agencies seem to employ naïve and one-dimensional ideas about the ease with which organisational change and transformation can occur within institutions of higher education, even within developed countries. Where the context for change is even more complex, differences in culture need to be addressed strategically if change is to become embedded (Kavanamur & Esonu, 2011), as discussed in the next section.

4. The Significance of Cultural Factors

The most widespread models of quality assurance around the world were developed in the context of Anglo-American higher education systems. These models appear to travel quite easily in regard to external quality assurance regimes, due to strong isomorphic and mimetic forces affecting higher education. However, the extent to which the recommendations of external quality reviews are implemented within institutions will be affected by the complex interplay between local cultural values and international norms (Quantrell & Khidir, 2011; Vann, 2012).

Studies by Hofstede (1980, 1997) on national dimensions on culture indicate power distances are often higher in developing than in developed countries, with implications for the role of hierarchy in initiation of change and in evaluative studies. A preference for avoiding uncertainty and a short-term outlook are also characteristic of many developing countries, overlaid frequently by complex networks of obligation and respect, such as the "bigman" culture in PNG (Kavanamur & Okole, 2004). These values need to be respected and aligned for successful implementation of change (Harman, 1996).

For example, a typical recommendation in an external quality review for a higher education institution to develop an effective system of staff performance review is unlikely to be able to be implemented in the same way in Papua New Guinea as it is in Australian universities, due to the high potential for culturally-inappropriate confrontation and other factors (cf., Dzimbiri, 2008; Mendonca

& Kanungo, 1997). Other, more culturally-aligned means to implement such a system need to be found, such as the use of a "points" system for academic performance or incentives for group performance.

To date, there appears to have been little work on alternative approaches to internal quality assurance and improvement that are deeply responsive to local or national social and cultural norms. However, there is a well-developed body of literature on culturally-responsive teaching students from various cultural backgrounds, including Pasifika students in New Zealand (Chu, Abella, & Paurini, 2013), and many studies on social practices (e.g., Duncan, 2011; McCormack & Barclay, 2013) that could be drawn on to develop approaches to higher education quality improvement in Papua New Guinea. Greater attention, also is being given in the literature to the political and symbolic dimensions of quality assurance practice (Ramírez, 2013), providing at least the basis for further work in this space.

Institutional change inevitably produces resistance (Kotter, 2012) and particular skill will need to be used in developing change management strategies that are culturally-responsive while contributing to institutional quality improvements. External quality agencies in developing countries are well-placed to foster national dialogue on these matters, should they choose to engage with institutions on such questions.

5. Reform of the Relationships between Government and Higher Education Institutions

Quality is a product of factors both within and around higher education institutions. There is a growing recognition, in developed as well as in developing countries, that government policy settings exert significant contextual influences on change within institutions (Mitterauer, 2013). The corollary is that external quality agencies need to engage strategically with other government departments and agencies with responsibilities for broader aspects of higher education, including policy and funding.

The nature of the relationship between government and public institutions can have a profound impact in reinforcing or, conversely, negating efforts to embed quality assurance within institutions. A lack of accountability by

institutions to government, for example, is likely to reduce internal demands for quality assurance and enhancement. Similarly, input-based government funding models that do not reward institutions for output or quality are not likely to promote improvements to either. In certain countries, cultural factors mentioned above are likely to influence government agency attitudes and capabilities as well as internal institutional cultures.

In the case of Papua New Guinea, external pressures for change in public institutions have been weak over the past decade (Kavanamur et al., 2013). Although the lack of a legislative or policy basis for external quality assurance of public institutions has been addressed, annual funding for public institutions is input-based and not clearly related to targets in national medium-term and long-term development plans. Annual budgeting and unpredictable year-on-year variations in Government allocations for agencies and institutions -- downwards as well as upwards -- limit the ability to plan for future developments, as noted above. Accountability for outputs and institutional governance has not been sought by the national Government, while the practices of monitoring and evaluation have not yet taken strong root in the PNG public sector. At the same time, centralised controls over staff positions and salaries limit the flexibility of institutions to innovate or develop new approaches to remuneration. The Government has mostly dealt with universities on an individual basis, limiting the extent to which common problems have been able to be addressed efficiently.

5.1 Need for Systemic National Approaches to Underpin Quality

From experience in PNG and other countries, the systemic activities that seem likely to promote quality assurance and improvements within public higher education institutions include:

(1) Output-based funding, e.g., funding agreements based on institutions producing an expected number of graduates at an acceptable level of quality over some years, which in turn requires institutions to plan their enrolments and governments to commit to future support.

(2) Use of government funding power to strengthen accountability and governance and introduce quality assurance requirements.

(3) The use of incentivised funding, with a performance-related component.

(4) Removal of bureaucratic controls that do not add value or contribute to effective monitoring.

(5) The development of national data sets, collected through common platforms, and transparent sharing of information on characteristics of the national higher education sector.

(6) Government coordination of national surveys, e.g., of graduates, to inform institutional decision-making.

(7) Encouraging collective action by universities, e.g., joint purchasing, shared infrastructure.

(8) Educating the public about quality in higher education.

None of these processes is novel. The point is, that without these drivers of systemic change, internal improvements within public institutions are harder to implement. Private institutions are likely to have greater flexibility to implement improvements, as is the case with the two non-public universities in PNG but they may not have the resources to undertake systematic surveys of graduates or employers, to obtain feedback for improvement.

Many of the eight actions listed above are already being pursued by ministries of higher education in developing and emerging countries, in which case the external quality agency can focus more exclusively on its primary roles. In some cases, the external quality function is located within a government department or agency responsible for higher education. While this arrangement has some challenges, notably ensuring that quality assurance regulatory decisions are made objectively without the influence of other political factors, it may facilitate alignment between external quality assurance activities and overall policy or funding directions. As an example, external quality assurance processes need to dovetail with planned or unplanned growth in the availability of online higher education.

In other countries, however, the external quality agency may be a completely separate entity to those government departments or ministries that control policy

development and financing of public higher education. In such situations, the external quality agency needs to become at least an advocate for system-level reform.

5.2 Data, Learning Analytics and the Assessment of Outcomes

Among these eight actions, arguably the most important in facilitating both internal and external quality improvement are those to do with expanding and refining data collection, analysis and reporting. In developed countries, universities make extensive use of institutional datasets for internal monitoring and, ideally, for improvement of learning and teaching through learning analytics (Mattingly et al., 2012). National surveys of students and graduates continue to expand in the UK, Australia and other developed economies. Data analysis is very under-developed in Papua New Guinean public higher education institutions, possibly due to cultural factors that require continued attention, as information sharing by institutions is often disallowed. It seems clear that internal analysis could be advanced significantly through expansion of mandatory national data collections or surveys where information is generated through a government agency and made available for use by individual institutions.

One further role of an external quality agency in a less developed country must be able to calibrate actual achieved standards in the home country against the international standards expected of graduates, to be able to chart the progress of their public institutions in producing appropriately-skilled graduates.

In lower income countries, the quality of a national higher education system should not be assessed solely by reference to world rankings that focus on research outputs. More relevant measures of quality relate to graduates' abilities to obtain international employment and to contribute to national economic growth. Even on these measures, many have suggested that graduates from less developed countries are - on average - not as well-equipped as those of graduates from higher income countries to compete internationally, notwithstanding their implicit cultural understanding of their home countries. This is a complex but crucial issue for lower income countries.

5.3 Need to Consider and Shape Higher Education Governance Conventions

More generally, external quality agencies need to consider the forms of governance that are most appropriate for the national higher education sector, given the political economy factors in play, including institutional histories and power dynamics. It is a truism in the higher education literature that national systems are shaped by complex combinations of hierarchical, market and network governance (Huisman, 2009; Magalhães et al., 2013). The extent to which an external quality agency can use market-based approaches to regulate new entrants or can use hierarchical authority to sanction long-established public universities depends not only on the powers given to the agency but also on acceptance by stakeholders of these powers and their use.

Many external quality assurance agencies were established much more recently than many public universities in a country, so a new quality agency needs to accommodate longstanding conventions of university governance, to insert itself into sector operations in ways that do not provoke a backlash. In developed countries, where inter-university cooperation and collaborative improvement are normal, network governance accompanied by strong engagement must be a feature of the governance mix in external quality assurance. Recent experience in Australia provides a good example of the difficulties encountered when the conventions of network governance are overlooked by an external quality agency (Lee Dow & Braithwaite, 2013).

Quality agencies in developing countries, where inter-institutional trust may be low, will need to consider the trade-off between a likely benefit from encouraging greater collaboration among public institutions in "quality work" against the potential confusion if other elements of higher education system governance rely largely on hierarchical directives from a government bureaucracy.

Globalisation necessarily increases the effect of market and network governance systems, providing another reason why external quality agencies in developing countries, just like their counterparts in developed countries, need to be outwardly focused. They need take account of the possibly different forms that quality assurance may take for public and private and for national and international institutions operating in-country and overseas.

That is, an external quality agency, whether separate from or embedded within a government agency, needs to carefully consider the metagovernance of the higher education sector in which it operates and, again, seek to influence the governance conventions that may hinder or help quality improvement within institutions.

6. Conclusions

External quality assurance is now extremely popular and widespread in less developed countries but external reviews alone are not enough to embed beneficial internal quality assurance arrangements where capacity or capability is limited and there are widespread barriers to reform.

Improved quality assurance is not the same thing as improved quality, of course. But better quality assurance within institutions is probably an enabler of reforms that will improve quality (Salmi, 2013) and may allow institutions to make more efficient use of their resources. We have suggested above some of the actions which external quality agencies in lower income countries must take if their reviews are to gain traction and assist in the implementation of lasting change.

If public institutions cannot show progress in improving the quality of their graduates, national governments are likely to decide to invest their funds in other providers. There are notable examples in the Middle East and Asia of countries that have chosen to invite reputable institutions into their countries to augment public provision that is seen to be failing or unwilling to change. Public institutions and external quality agencies in lower income countries thus have a common incentive to pursue internal quality improvements, provided both parties recognise this need.

Challenges for external quality agencies in less developed countries are therefore not merely to conduct reviews but to: support the embedding of institutional quality assurance; develop a realistic understanding of how to design internal quality improvement methods that resonate with national or local cultural values; engage with other government agencies to remove barriers to reform and align incentives; encourage better use of data; keep an eye on the gaps

between current and expected international standards of graduates; and construct external quality regimes consistent with sector metagovernance. Of course, external quality agencies can be asked to fulfil many purposes (Woodhouse, 2001). However, for lower income countries, we suggest these specific functions are crucial to improving the quality of publicly-funded higher education.

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Research on the Assessment of Student Learning Outcomes: Practical Exploration of the Review of CHEA/CIQG Quality Platform Provider

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ABSTRACT

Improving education quality and quality assurance (QA) have become the most distinctive theme of higher education (HE) reform in the 21st Century. Although the student learning outcomes (SLOs) is the most direct evidences to HE quality and should be an indispensable element and the starting point of education evaluation. However in most countries evaluations have not regarded students as the most important target in their evaluation systems. The present paper is a case study of the CHEA International Quality Group (CIQG) Quality Platform Provider (Platform) pilot review (Review) of DeTao Advanced Class, exploring the new paradigm of quality assurance: the Platform Review of the SLOs to non-traditional education providers. The Characteristics of CHEA/CIQG Platform of the SLOs are as follows: (1) emphasizing the result review of Actual and Expected Outcomes; (2) to emphasize the product review of student learning outcomes; (3) to emphasize the process review of student learning experiences; and (4) to emphasize the development review of student value-added learning.

Keywords: Pilot Review (Review), Quality Platform Provider (Platform), Student Learning Outcomes (SLOs), Council for Higher Education Accreditation (CHEA), the CHEA International Quality Group (CIQG)

1. Preface

Today in the 21st Century, higher education (HE) in most countries in the world has entered the elite stage, quality assurance(QA) and student quality improvement have become the priority among priorities for the development of international HE. Improving education quality and assuring quality have become the most distinctive themes of the HE reform in today's world. Theoretically speaking, the assessment of students learning outcomes (SLOs) is the most direct evidences of HE quality and should be an indispensable element and the starting point of education evaluation. However, most HE evaluation targets in most countries are still the institutions, programs, curriculums or teachers, and still fail to regard the students as the most important target in their evaluation systems. For example, in China higher education institutions (HEIs) have been exploring the new modes of producing high quality graduates for ages, but they have been focused on "teaching" from the educators' side, instead of "learning" from the students' side. Educational quality is equal to "score," "enrollment rate," "administrative performance" and so on, ignoring students' real educational needs. The traditional concept of "quality" resulted in "score first" and "standardarizatio." The present paper is a case study of the CHEA International Quality Group (CIQG) Quality Platform Provider (Platform) pilot review (Review) of DeTao Advanced Class. By doing so, this paper explores the new paradigm of quality assurance: the Platform Review of the SLOs to non-traditional education providers.

2. Define the Assessment of the SLOs

The university is not a magic box where a group of qualified graduates can spontaneously come out after a 4-year study. "How can we recognize a person qualified with higher education?" "What are the expectations of the SLOs?" "Are these expectations eventually able to be reached." Since the birth of higher education, philosophers, educators, thinkers and the public have been seeking for the answers and have been confused with these difficult problems. In the expressions of each country's education policies, such HE purposes as "training whole persons," "cultivating innovative talents," "developing the people with comprehensive development" and others are indicated here and there, however, these statements are too abstract to express the specific meaning of the SLOs.

No doubt, the distinctive theme of HE quality assurance in the 21st Century is "quality innovation;" QA agencies in the whole world are actively reforming the traditional evaluation methods, and exploring more direct and more effective QA methods. In 1979, E. W. Eisner proposed "the SLOs" for the first time (Eisner, 1979). The Joint Committee on Standards for Educational Evaluation (JCSEE) gave the definition - the SLOs are the students' expectations, i.e., the SLOs are statements of what students should learn, know, understand and apply and/or be able to demonstrate after completion of a process of learning (Gullickson, 2003). The Assessment of Higher Education Learning Outcomes (AHELO) launched by the Organization for Economic Cooperation and Development (OECD) in 2008 is particularly outstanding, whose purpose is to examine the SLOs of the bachelor degree recipients and its content is to assess the students' "general skills" and "discipline-specific skills." As one of the most powerful and prominent countries in the world, the U.S.A began to pay more attention to the SLOs' assessment and provided evidences to the public in order to show its "education quality," since the middle of the 20th Century, with the promotion of accountability and the public consciousness of accreditation and recognition in higher education.

Throughout the whole development history of HE quality assurance, the evaluation circle has been engaged in the developing evaluation standards to be recognized by the public, and finding out the effective and reliable methods to review the SLOs. According to the statistics of Victor M. H. Borden, there are approximately 250 evaluation instruments (mostly examinations and surveys) (National Institute for Learning Outcomes Assessment [NILOA], 2015). Although today in the U.S.A. the researches of the SLOs assessment have greatly augmented, the SLOs assessment is far away from the stage of professionalization and scientification. Still many theoretical and practical topics need to be explored. For example, the National Survey of Student Engagement (NSSE) and the University of California Undergraduate Experience Survey (UCUES) are widely applied to review the SLOs and student's personal development in the HEIs, which have caused great academic influences and social influences. However, one of the criticisms risen -- since the survey statistics of learning outcomes are only derived from the students' self-assessment , then can students accurately define their SLOs and critical thinking skills? Are they able to objectively report their gains of the SLOs?

As the multiformity of different HEIs, programs, majors, students, learning experiences, learning abilities and attitudes are quite different. Therefore, it is very difficult to supply a SLOs' definition that it can contain everything and strictly distinguish among all. Peter T. Ewell pointed out that understanding the definition of the SLOs needs the method of concept analysis method: (1) discuss the different levels (such as HEIs, program, student, etc.); (2) various outcomes of learning experiences (such as cognitive learning, career success, life satisfaction, etc.); (3) different perspectives and different observation points (such as the level after graduation and added value after entering university, etc.) (Ewell, 2001). Thus, it is very difficult for us to give a strict distinction that can contain everything and have mutual definition. But the concept of analysis methodology gives us the enlightenment by focusing on the core concept of the SLOs, from a variety of perspectives and the relationship, we can get a comprehensive interpretation of the SLOs' meaning.

The broad definition of the SLOs generally refers the outcomes of "product" and achievements caused by HE investments and activities, such as the number of graduates, social services, scientific researches, learning outcomes, student employment, which is of universal applicability and importance and can "support" or "prove" the HE output of different levels. Focusing on the narrow definition, in the present paper the SLOs refers to students' comprehensive abilities achieved after completing the courses, the program and other learning activities or obtaining the degree, such as expected cognition level (knowledge and understanding), emotion (attitude and value), practical skills and acquisition ability. By measuring the students' abilities, the degree of both the students' growth and value-added outcomes can be seen. Thus we have to answer at least 4 questions: (1) What knowledge will the students learn? (2) What learning experiences / professional skills have the students acquired? (3) What are the students able to do? (4) What distinguishes your students from other ones in other programs? and (5) What lifelong-learning ability have the students achieved? (Huang, 2011). After having solved these 5 problems, then the extension meaning of the SLOs can be clarified.

From the perspective of the organization structure, the SLOs assessment can be divided into two aspects: internal assessment inside HEIs and external evaluation outside HEIs. This research focuses on the latter, i.e., focusing on

the practical exploration of CHEA/CIQG Platform Review to DeTao Advanced Class. CHEA is a national advocate and institutional voice for self-regulation of academic quality through accreditation, CHEA is an association of 3,000 degree-granting colleges and universities and recognizes 60 institutional and programmatic accrediting organizations (Council for Higher Education Accreditation [CHEA], 2015a). One of CHEA's main tasks is recognition - to recognize the qualifications and conditions of the QAAs. The Platform Review of DeTao Advanced Classes is a form of accreditation - to review the SLOs' basic quality of the non-traditional, innovative education providers.

3. CHEA/CIQG Platform Review of DeTao Advanced Class

CHEA has been concerned and committed to address student achievement since 1998. Just in 2012-2013 more than 23,994,000 students were enrolled in accredited institutions (CHEA, 2015b). Judith Eaton, CHEA President stated. "CHEA has engaged the issue of accreditation and student achievement in two ways. First, CHEA recognition of accrediting organizations addresses student achievement. Second, CHEA has, through a variety of publications, advisories and other efforts, encouraged and emphasized the importance of attention to student achievement in the work of accreditation" (CHEA, 2015c). In January, 2015, at CHEA/CIQG Annual Meeting, the CHEA chairman and Professor Stamenka Uvalić-Trumbić (CIQG director) put forward "the Program of Quality Platform Provider" and one paper titled "Higher education outside colleges and universities: how do we assure quality?" published in CIQG Policy Brief in January 2014. In August 2014, CHEA/CIQG held a Webinar titled "Exploring External Quality Review for Non-institutional Providers." All these activities focused on non-traditional, innovative education providers except the HEIs.

The Platform is designed as a response to an emerging new sector of higher education, offerings from private companies and other organizations, available alongside traditional colleges and universities. The primary intent is to assure and improve quality as this sector serves more and more students. The Platform is an outcomes-based review using standards established by the Platform, a self-review by the provider and peer expert review (Council for Higher Education

Accreditation/CHEA International Quality Group [CHEA/CIQG], 2015a). DeTao agreed to undertake a piloting of the Platform offerings and sent in an application to CHEA/CIQG in April 2015 to become a Quality Platform Provider.

3.1 Introduce DeTao Advanced Class

DeTao is a private company set up in 2012 with the aim of developing innovative educational programs which goes beyond conventional education approaches and doesn't belong to the traditional higher education system in China. The programs are designed and implemented with the guidance of world-class Masters with distinguished academic or industry backgrounds in a variety of disciplines. The educational branch of DeTao, DMH (DeTao Masters Heritage) has developed three major educational programs: Advanced Classes, Industrial Training, and O+O (Online and Onsite) Learning. The Review is focused on the Advanced Classes that may be used toward a degree conferred by the Shanghai Institute of Visual Arts (SIVA) to selected students.

Advanced Classes is aimed at providing high quality bachelor-level educational content to Chinese universities. It provides the students a chance to receive the education as they were abroad. All the teaching teams will be selected in a strict way. Advanced Classes officially kicked off the recruitment from 2013. The first two majors are Strategic Design and Innovation (SDI), and Creative Animation (IACC). As of September 2015, the total number of enrolled students in 10 majors with 13 Masters is 457 (see Table 1).

The overall cultivation target of Advanced Classes is to help Chinese universities create highly ranked international subjects and to cultivate innovative, comprehensive and applied graduates for all industries. The courses are designed and lead by the international top industrial masters and professors. The program is project-based and focuses on training the students' hands-on skills and project management skills. After the four-year learning, the students will receive bachelor degrees granted by the partner universities and the certificates with the signature of the Masters issued by DeTao, and students can gain knowledge and skill and they will have great potential to be the industrial elites.

Table 1. List of Basic Information of DeTao Advanced Class

No.	Master	Major	Year of Entry	Students No.	Faculty No.
1	Hartmut Esslinger	Product Design (Strategic Design and Innovation)	2013 & 2014 & 2015	48 (20 + 19 + 9)	35
2	Dirk Wynants	Product Design (Sustainable Furniture Design)	2014 & 2015	42 (19 + 23)	21
3	Haim Dotan	Environment Design (Ecological Architecture Design)	2014 & 2015	48 (22 + 26)	21
4	Tina Hart & Kim Jarrett	Environment Design (Themed Environmental Design)	2014 & 2015	51 (24 + 27)	20
5	Wang Min & Michel de Boer	Visual Communication Design (Branding, Identity and Public Space)	2014 & 2015	48 (22 + 26)	23
6	Josep Henriquez	Performance (Spanish Classical Guitar)	2014 & 2015	9 (6 + 3)	8
7	Robin King	Animation (Creative Animation)	2013 & 2014 & 2015	74 (29 + 27 + 18)	13
8	Roy Ascott	Art & Technology (Tech-noetic Arts)	2014 & 2015	40 (18 + 22)	10
9	Florin Baeriswyl	Cultural Industry Management (Brand Strategy and Management)	2014 & 2015	44 (20 + 24)	14
10	Patrick Gottelier & Jane Gottelier	Fashion & Apparel Design (Fashion, Knitwear and Sportswear Design)	2014 & 2015	53 (24 + 29)	20
Total	13	10	3	457	177*

Source: This study.

Note: * (1) Number of faculty is calculated by summing up masters, DeTao teachers, SIVA teachers and visiting experts; (2) The total number of Advanced Class faculty is calculated by summing up 10 classes, eliminating the repetition.

3.2 The Platform Review Preparation

With the coordination of DeTao Masters -- Stamenka Uvalić-Trumbić (CIQG director) and Sir John Daniel (CIQG advisor), on 2-3 June, 2015, Judith Eaton, CHEA chairman with other experts held "Training Workshop of DeTao Self-evaluation Using the CIQG Quality Platform Standards" in DeTao in China. Its main contents include the following 4 presentations: "Context of the workshop within DeTao's development: expected outcomes and follow-up" by Sir John Daniel and Stamenka Uvalić-Trumbić, "Global trends in quality assurance and accreditation and context of the Quality Platform" by Judith Eaton, "Purposes of the self-review and presentation of the four standards" by Dorte Kristoferson, "Purposes of the self-review and presentation of the four standards linking them to the Chinese context" by Jianxin Zhang, as well as making SER frameworks by the 4 participant groups, etc. CHEA/CIQG review focuses on solving 4 problems: (1) Why to review? (aim); (2) What to review? (content); (3) Who to review? (bodies); and (4) How to review? (methods) (see Figure 1).

The workshop has 4 purposes: (1) to remind DeTao staff and Masters briefly about the basics of quality assurance; (2) to provide training on how to use the Quality Platform standards for a self-review of DeTao's educational and executive development programs; (3) to allow a CHEA team to look at DeTao's existing documentation about learning objectives for the advanced courses; and

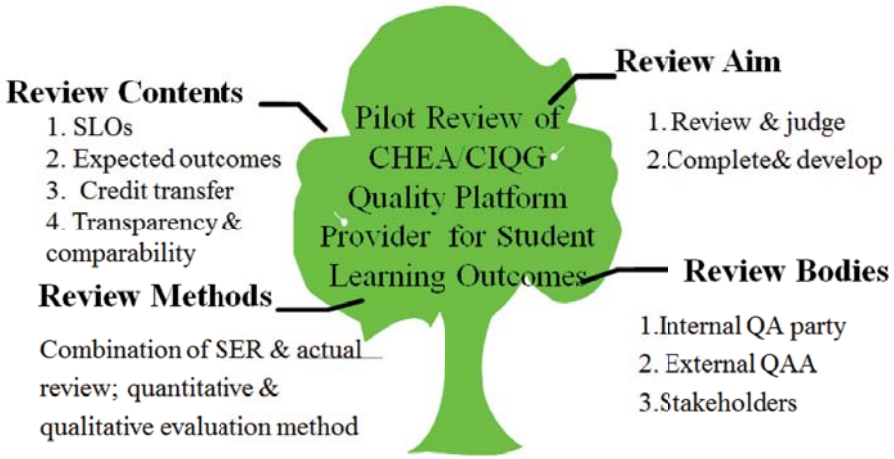

Figure 1. Basic Elements of CHEA/CIQG Platform Review of the SLOs

Source: This study.

(4) Prepare for the next step, an external review, leading to acceptance of DeTao as a CHEA Quality Platform Provider (Uvalić-Trumbić & Daniel, 2015). The 2-day workshop has achieved its e satisfactory effect for both the experts and the trainees from DeTao, which can be said that it is a good case of the cooperation between internal QA and external QA.

3.3 The Platform Review Standards

Advancing the understanding of international quality issues is essential to promote high-quality HE in today's competitive and internationalized world. CIQG meets this need "serving as a valuable forum for colleges, universities, accrediting and quality assurance bodies and others worldwide to address issues, challenges and opportunities, all focused on academic quality."(CHEA International Quality Group [CIQG], 2012) Based on the above mission, CHEA/CIQG has developed four standards of the Platform Review of the SLOs' (see Table 2).

The Platform is an assessment of sustainable development based on the "evidences," emphasizing on "providing the evidences of the SLOs," i.e., through the providers' long-term accumulation of education process and scientific collection of statistics and obvious evidences, by adopting the method of "the

Table 2. The Four Standards of the Platform Review of the SLOs'

Four Standards	Description	Evidence
1. Learning Outcomes are Articulated and Achieved.	The provider organizes its work, determines the content of offerings and sets expectations of rigor based on anticipated and actual Outcomes for students: information about gain in skills, competencies or other attributes resulting from a learning experience.	• Expectations of SLOs have been developed and are available for all students and across all offerings. • Documentation of student learning gains, competencies and other attributes as identified is provided (omitted). • Description of the basis on which the organization judges the performance of faculty, the content of curriculum and the progress of students is provided.

Table 2. The Four Standards of the Platform Review of the SLOs' (continued)

Four Standards	Description	Evidence
2. SLOs Meet Postsecondary-level Learning Expectations.	The provider demonstrates that the articulated and achieved SLOs are consistent with expectations of student learning at degree-granting colleges and universities.	• Description of the basis used to determine whether outcomes are to be considered as postsecondary is available. This description may include, for example, comparison with offerings of other providers of postsecondary learning.
3. Curricula Provide an Opportunity for Successful Transfer of Credit.	For the provider's offerings intended to be used for credit or credentialing at a college or university, the provider: (1) Builds opportunity for student progression beyond its offerings as part of its curriculum development; (2) Organizes offerings into a coherent learning experience that can be sustained across multiple providers of higher education.	• Description and documentation is provided of opportunities for students to successfully use the offerings as part of meeting broader education goals. • Material is provided about a context for the offerings in relation to generally accepted curricular content throughout higher education.
4. Transparency is Maintained and Comparability is Established.	The provider develops and provides reliable, easily accessible and readily understandable information to the public, at least annually, about its performance: (1) An aggregate description of the SLOs that are achieved; (2) The Outcomes of comparisons of performance among similar types of non-institutional providers; (3) An aggregate description of the uses of the offerings to students, for example, advancing toward an educational goal, employment.	• Documentation of student achievement from the provider and other similar providers is available. • Information is routinely provided to students and the public about institutional performance in terms of attainment of SLOs, either individual or in the aggregate.

Source: This study.

combination of SER and actual review as well as quantitative and qualitative evaluation," the review experts comprehensively and systematically "review & judge" the overall situation of the provider's SLOs and put forward constructive suggestions for its "future completion and development."

3.4 The Platform Review Process

CHEA/CIQG Platform Review of the SLOs consists of the following 6 stages: (1) Review application; (2) Self-review (SR) workshop; (3) SR report; (4) Desk review; (5) Site visit; and (6) Review result (see Figure 2).

3.4.1 Stage 1: Review Application

Up to the beginning of 2015, the exploration and practice of DeTao Advanced Classes have obtained the periodic outcomes in the field of non-traditional, innovative education providers. DeTao is seeking a professional accreditation agency to get reviewed. In late April 2015, DeTao submitted its application to CHEA/CIQG.

3.4.2 Stage 2: Self-Review (SR) Workshop

On 2-3 June, 2015, an expert group made up of Judith Eaton (CHEA chairman) and other 4 experts held "Training workshop of DeTao Self-evaluation using the CIQG Quality Platform Standards" in DeTao in China in order to assist DeTao to prepare its self-review and be ready for site visit. The experts had in-

Figure 2. The Flow Chart the Process of CHEA/CIQG Platform Review of the SLOs

Source: This study.

depth interviews to DeTao staff and visited DeTao infrastructure such as fashion design studio, animation studio, architectural design studio, green building studio and others. Both the experts and DeTao staff had a clearer understanding on the Review of the SLOs.

3.4.3 Stage 3: SR Report

From late June to mid-September, DeTao formed the self-review (SE) team and began its SR according to CHEA/CIQG review standards. The self-review report (SER) is made up of 3 sections: (1) provider information; (2) evidence that quality platform standards are met and (3) two annexes - examples of evidence as needed. After 3-month work, DeTao submitted the SER with 26 annexes as supporting evidences.

3.4.4 Stage 4: Desk Review

From September to the end of October, the review panel of international experts did thorough desk review to DeTao SER. Each of them made the individual preliminary review judgment and made a list of unknown questions according to the analysis to the SER.

Two general types of assessment methods have been adopted. One is direct methods (quantitative method, primary data): (1) demonstration of an expected the SLOs; (2) providing evidence of the SLOs; (3) actual samples of students work, etc. The other is indirect methods (qualitative method, supplemental data): (1) students, staff or others report their perception of how well a given learning outcome has been achieved; (2) opinions or thoughts about student learning (not based directly on student performance); (3) gathering information through means other than actual samples of students work, such as employers surveys, QAAs' reviews, case studies of cohort groups, etc.

3.4.5 Stage 5: Site Visit

On 3-5 November, 2015, the site visit was carried out by a panel of international experts selected by CHEA/CIQG with the aim of making a judgment whether DeTao Advanced Classes meet the Quality Platform standards.

The coordinators are CHEA president and CIQG director, the panel leader is Dorte Kristoffersen, executive director of Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ), the experts are Axel Aerden, senior internationalization policy advisor of Accreditation Organization of the Netherlands and Flanders (NVAO) and Jianxin Zhang, chief expert of Yunnan Higher Education Evaluation Centre (YHEEC) in China. Three main methods are adopted in site visit: (1) visits to the SLOs' exhibition introduced by the Masters and to observe the student practices in Masters studios; (2) focus group: the review panel held 5 focus groups made up of 5 categories of staff: DeTao SR group members, Masters, coordinators and teachers, student representatives, educational administrators; and (3) one to one depth interview with cooperative party, and held an Internet remote interview with the third party from the enterprises (see Table 3).

On the basis of desk review to DeTao SER, the site visit has three purposes: (1) to affirm the information in the self-review report that the provider meets the Quality Platform standards; (2) to obtain any needed additional information or responses to questions that have emerged from examination of the SER; and (3) to judge about whether the provider meets the standards (CIQG, 2015). The main contents of the site review is carried on based on the interview outline, the questions from desk review and DeTao SER, the focus is to investigate and verify all the information involved in the SER.

Table 3. The Site Visit Program (shorten)

Time	Interviewee	Place
9:00 ~ 9:30	Visit student works (Masters will give introduction) Visit Master Studio on the Basement	1F & Basement
9:30 ~ 10:20	Interview the team leader and 3 members of DeTao Self-review team	7F-P1 7F-P2
10:30 ~ 12:00	Interview 4 Masters	
13:35 ~ 14:35	Interview 7 coordinators and teachers	
14:40 ~ 15:30	Interview 1 leader from SIVA (cooperative institution) Interview 1 stakeholder (enterprise representatives)	
15:40 ~ 16:30	Interview 8 students from 4 majors	
16:40 ~ 17:30	Interview 2 teaching administrators	

Source: This study.

3.4.6 Stage 6: Review Result

From early November to mid-December, 2015, the review panel and coordinators from CHEA/CIQG discussed the review results. On December 15, CHEA/CIQG submitted the review results to DeTao. "The Quality Platform Provider Pilot Review Report on DeTao Advanced Classes" is made up of 4 parts: (1) background; (2) DeTao and the Quality Platform standards; (3) other comments; and (4) two appendixes: review panel and site visit program. In the "DeTao Transmittal Letter Signed," CHEA President says, "based on the self-review documentation submitted in September 2015 and the site visit conducted in November 2015, I am pleased to inform you that the panel is recommending that DeTao Advanced Classes have met all requirements and standards to become a Quality Platform Provider 2016-2019 and CHENCIQG has accepted this recommendation. The review panel of Chinese and international experts is most complimentary about the Advanced Classes and the fine work that you are doing. The documentation you provided was excellent and the site visit was most informative. The panel has also offered several suggestions for ongoing improvement" (CHEA President, 2015).

The program of CHEA/CIQG Platform Review is designed with high level of professionalism, the entire Review was carried out in an orderly manner. What is more, from the very beginning of the SR workshop, the experts have repeatedly stressed, review is not only the review result of judgment and recognition, but also is a process of stressing DeTao provider's summing-up, introspection, improvement and development.

4. The Characteristics of the CHEA/CIQG Platform Review of the SLOs

As early as 1967 the famous American evaluation expert D. L. Stufflebeam proposed the famous "CIPP" (Input, Context, Process and Product) evaluation model. It is famous for its remarkable characteristics: product, process and feedback, etc., which have been widely used in many kinds of education evaluations. We consider CHEA/CIQG Platform Review of the SLOs has adopted some characteristics of the CIPP evaluation model, and made further steps,

the standards of the Platform (see Table 2 above) is made up of "OPPTTC," i.e., outcome, product, process, transformation, transparency and comparability (see Table 4).

CHEA/CIQG Platform Review not only proves a good quality platform to a qualified provider, but also promotes the provider's sustainable development, highlighting the quality of "OPPTTC" model. The most prominent feature is the following 4 aspects: (1) the actual and expected outcomes; (2) the product of learning effect; (3) the process of learning experience; and (4) the development of value-added learning (including transformation and comparability).

4.1 Emphasize the Result Review of Actual and Expected Outcomes

From the perspective of the process of training talents, the SLOs can be divided into two types: one is actual learning outcomes, i.e., what students have achieved in the learning process; the other is expected learning outcomes, i.e.,

Table 4. The "OPPTTC" of CHEA/CIQG Platform Review of the SLOs

Key Element	Description of OPPTTC
Outcome	To review the matching between actual and expected outcomes, verifying the degree of consistency of the SLOs' expected goals and actual goals, i.e., the educational goal-referenced outcomes
Product	To review the product of students' ability improvement and their personal development, verifying the education provider's "product" quality
Process	To review the whole process of students' learning, curriculum implementation, the SLOs, verifying the changes before, during and after students' learning behaviors
Transformation	To review the transformation of student credits and sustainable development of the students' learning behaviors, verifying whether the SLOs can be successfully applied in other similar providers
Transparency	To review whether the provider develops and provides reliable, easily accessible and readily understandable information to the public, verifying the process openness of the providers
Comparability	To review the comparison of the quality and importance of the SLOs with other similar providers, verifying the international standards and procedures

Source: This study.

the provider expects the students have achieved the education and curriculum goals after the learning process happens. Thus, the SLOs review contains two aspects: (1) actual outcomes of the SLOs, i.e., effect outcomes, which measure and review students' practical learning outcomes to prove the quality and importance that curriculum and program have produced to the students; (2) expected outcomes, i.e., goal-referenced outcomes, which measure and judge the degree of consistency of the SLOs' expected goals and actual goals after a period of learning. Comparatively, expected SLOs is worth special attention because it has the following 3 features: (1) to meet the enterprises' needs to graduates' knowledge and ability; (2) to meet the needs of course teaching content to students' training goals; and (3) to meet students' needs to their knowledge, skills and abilities.

The Platform has two SLOs definitions of the above two meanings: (1) the provider must supply what students know (cognition), think (attitude) and do (behavior) through actual performances or specific behavior of each student himself/herself, team or class in the process of students' training or course teaching; (2) the provider must supply the evidences to accurately express the SLOs in the guidance of the education teaching and curriculum goals. In CHEA/CIQG review, the focus interview is on the combination of actual and expected outcomes, based on nine elements of a complete curriculum syllables: (1) survey report; (2) executive summary; (3) objective; (4) four-year training plan; (5) course description & assessment ; (6) course outline; (7) student selection; (8) grading system; (9) career prospects (Shanghai DeTao, 2015). The experts asked the relationship between the thirteen courses' objectives and the general objectives of DeTao education. Does the objective of each course must match DeTao mandate of "congregating world-class masters, collecting industrial wisdom, nurturing professional elites, and fueling corporate development" (Shanghai DeTao, 2015)? We can say that actual SLOs is the reflection and carrier of HE quality, expected SLOs is the concrete embodiment of the educational objectives, and the SLOs is the link between education objectives and education quality.

4.2 Emphasize the Product Review of Student Learning Outcomes

As the preface said, most indicators and standards are mainly on HEIs' basic infrastructure, programs, curriculums, teachers, libraries and other input items

while paying little attention to the students, let alone the SLOs. This is just like in kitchen the chef's qualifications (like teachers), cooking materials and utensils (like curriculum and infrastructure) are evaluated, but not actual dishes (like student)" (Peng, 2008). To a certain extent, "learning" effect is from "teaching," but "teaching" effect is not necessarily a reflection of "learning" effect.

As a "factory" of educational output, the provider is responsible for the quality of its "products." The Platform Review of the SLOs has changed from the educational "input" to "output." For example, "documentation of student learning gains, competencies and other attributes as identified" and "demonstrates that the articulated and achieved student learning outcomes ..." (CHEA/CIQG, 2015b) can be given: (1) analysis of students transcripts, teaching syllabi and curriculum contents; (2) students' performances, exhibitions and simulations; (3) observations of students behaviors, learning attitudes, values and experiences (including internships); (4) students self-reviews on their own skills, abilities and progress; (5) students' landmark works of experiments and practices; (6) graduation theses or research projects; (7) students' portfolios of learning experiences; (8) in-depth interviews between students and teachers; (9) tracking data after graduating, further studies, employment; (10) feedbacks of alumni, enterprises and employers, etc. These methods can be used to review students' "general knowledge and skills," and also be used to review their "discipline-specific knowledge and skills" like that of OECD mentioned above. During desk review, the experts pay special attention to students "product," especially to the exhibitions showed in DeTao's SER along with the 26 appendixes. In "the Proposal of Proposal for the Development of a Standards System for Chinese Animation Education and Training," Master Robin King from Major Animation not only stresses the national & international industry validation of competency, but also concerns for students' core competency for animation expertise in "performance grid" (King, 2015) which is commended by the panel expert.

For the concepts and methods of the QA development, the Platform review of the SLOs did extraordinary contribution: it has shifted from the "input evaluation" to "output evaluation," which is a revolution to QA. From the perspective of a steering baton, the SLOs assessment will shake the long-standing traditional teaching methods and promoting the shift from teacher-and-teaching-centered traditional paradigm to student-and-learning-centered modern paradigm.

4.3 Emphasize the Process Review of Student Learning Experiences

It can be said that the assessment is to review the specific student learning procedure of the SLOs. As an operational concept, the process of the SLOs is as follows: before student learning behaviors, the provider make the student training programs according to the expected goals to the public; during learning behaviors, the teachers, administrators and other staff transmit knowledge in teaching and experimental practices and other academic activities; after learning behaviors, students show the knowledge, skills and abilities that they apply some kinds of outcomes, namely "make - transmit - achieve - apply" process (see Figure 3).

The Platform Review of the SLOs stresses that the SLOs content is dynamic, including the "expectation - implementation - assessment" process of all the activities, before, during and after the student learning behaviors. The experts observed that the thirteen Advanced Classes have their own different curriculum types according to their curriculum syllables. For example, "Strategic Design and Innovation" uses "project-run-through pattern," i.e., based on the project-based learning, the students synchronized to complete six main courses, and in four school years, six main courses will gradually develop and become a progressive development.

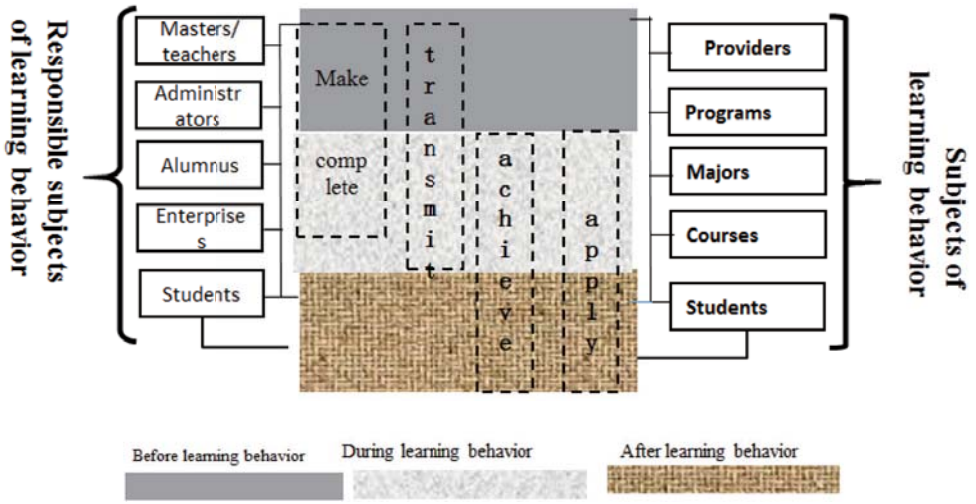

Figure 3. The Process of the SLOs before, during and after the Learning Behaviors

Source: This study.

In the review feedback, the experts recommend that "to introduce the mechanism for the students' portfolio assessment both in soft and hard copy with an emphasis on the whole student learning process" (Review Panel, 2015). "Portfolio assessment" is a new type of qualitative assessment tool which can be used to objectively and comprehensively evaluate students. Portfolio collects the whole process of student learning, including: (1) evidences of the course projects, best works and progresses in the school year; (2) learning outcomes of social practices and experiments and other activities outside the course; (3) evidences of student grow & change (skills, interests, attitudes ...); (4) comments from peers, teachers, enterprises and other stakeholders; (5) evidences of student self-reflection, self-cognition & self-appraisal.

4.4 Emphasize the Development Review of Student Value-added Learning

In 1979, E. W. Eisner proposed the concept of "learning outcome" to emphasize the "added value" of student learning. Since the middle of the 1980s, Terry Taylor, Charles Mc-Clain and other experts put forward the value-added evaluation method. By analyzing students' learning process and outcomes during the whole university years, the added value or progress of student learning can be articulated and achieved. The added value can be regarded as the outcome of the improvement of teaching quality, the symbol of HE development (Zhang, 2007). Pay attention to the value-added increment of students' "before-during-after" learning activities, i.e., by analyzing the SLOs after a certain stage of learning process, then we know what additional value have the students get. This increment can be considered as the result of the improvement of teaching quality, which is also the focus of QA evaluation.

Since DeTao has only one partner, SIVA, the experts recommend "to strengthen cooperation with degree-granting institutions in China and overseas in order to ensure adequate pathways for students as well as opportunities for benchmarking with comparable institutions" (Review Panel, 2015). This is also one of the measures to ensure that the SLOs have added value, which is used to express the students' development of knowledge, skills, and ability. The Platform framework emphasizes the following 4 aspects to added value: (1) ability of learning knowledge; (2) ability of critical thinking and innovation; (3) ability of professional skills; and (4) hands-on ability.

No doubt, sufficient value-added evidences of the SLOs are the guiding ideology and logical starting point for QA. However, because there are no graduates in DeTao Advanced Class, the discussion on added value will be in the near future. However, the QA mode of the Platform review of the SLOs confronting the students' value-added learning and emphasizes the outcome evidences, will become the QA trend of higher education.

5. Concluding Thoughts

By the end of 2015, CHEA/CIQG Platform Review of the SLOs to innovative and non-traditional providers has completed. The assessment of the SLOs can be considered both as an end and as a means. It is not a one-time event, but a dynamic on-going process, a process of systematic collection and analysis of the SLOs to improve student learning. It is a conclusion, but also a beginning. There are still many problems need to be further explored: how to strengthen the alignment between the heading and the explanatory statement of the quality standards and to consider their clarity for non-native speakers? How to promote the establishment of the assessment system of the formation evaluation of the provider in order to pass the re-review after 3 years? How to form a suitable definition of the "SLOs" fitting both the provider and the review panel. ...

Modern education has surpassed the traditional "autonomy" and entered a new era of "quality governance." The real meaning of the label of the Platform is the need for the sustainable concern for external and internal QAAs as well as related stakeholders, so as to establish a more effective system for non-traditional, innovative education providers, to provide student learning experience with good quality, to provide better quality education services for the public and the cooperative HEIs. At the same time, it can help CHEA/CIQG improve review system of the Platform to service the providers with good quality and supply the international education with more QA experiences.

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Part II:
Best Practices and Challenges in Views of Quality Assurance Agencies and Higher Education Institutions

Higher Education Quality Assurance in a Changing World: Envisioning the Future of Asia Pacific
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Different Perspectives of Self-Evaluation and Review Comments of Program Accreditation in Taiwanese Higher Education

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ABSTRACT

Quality of higher education is ensured by internal and external quality assurance. A trend in many countries is to conduct self-evaluation as internal quality assurance (IQA) and on-site visit as external quality assurance (EQA) to ensure continuous improvement of higher education. Although IQA and EQA are complementary to each other, the issues have been discussed about the gap between them. This study aims to provide a systematically investigation of the disciplinary gap between self-evaluation and review comments of on-site visit through content analysis of 1,156 appeal reports in Taiwan. Analysis of the content of the appeal reports from institutional staff and the responses of reviewers, the disciplinary gap between IQA and EQA can be understood. It helps to understand the reasons why institutions and site visit team hold different opinions, providing a foundation to improve the evaluation process of both internal and external quality assurance.

Keywords: Program Accreditaiton, Self Accreditation, Higher Education

1. Introduction

Quality of higher education is ensured by internal quality assurance (IQA) and external quality assurance (EQA). A trend in many countries is to conduct self-evaluation as IQA and on-site visit as EQA to ensure continuously improve the quality of higher education. Although IQA and EQA are complementary and integrated to each other, the issues have been discussed about the gap between them. The gap could be caused by the disagreements among reviewers and unexpected predictive validity of review process. Peer reviewers are experts with appropriate evaluation knowledge and skills to make judgments and recommendations for institutional performance. However, it was found that reviewers' judgment can be influenced by their personal values, and the conclusions of evaluation report were not as objective as expected by the public (Harvey, 2002; Nevo, 2001). Therefore, different perspectives of peer review as EQA and self-evaluation as IQA has become a challenge for evaluation of higher education.

In addition to the gap between IQA and EQA, it was concerned that applying the same accreditation standards for programs review can be inappropriate. Different programs belong to various academic fields. It was found that different disciplines are different in epistemology, methodology, and ontology (Biglan, 1973). Hard disciplines, like engineering and science, are developed within one paradigm and using the same methodology to develop new knowledge. On the other hand, soft disciplines, like humanity and social sciences, are encouraging diversity and individualization and developed under multiple paradigm and using various methodologies to develop new knowledge. Should we apply general standards to examine different disciplines or develop different standards for different disciplines? Although most countries use the same standards for program review, whereas some systems have been developed different standards for different disciplines, as considering the distinctive characteristic of disciplines. For example, QAA in UK established Subject Benchmark Statements for examining the different learning outcomes of different subjects.

With the above considerations, this study will provide systematically investigation for the gap between self-evaluation and peer review, and also the different gaps in different disciplines through analysis of the 1,156 appeal reports of the 1st Stage appeal in Taiwan. Two research questions are raised:

(1) What are the major issues proposed by the institutional staff in the 1st stage appeals? How did those concerns differ from the reviewers' responses?

(2) How did the appealing rates of 1st stage appeals vary by different disciplines? How did the rejection rates of appeals vary by different disciplines?

2. Literature Review

2.1 Internal and External Quality Assurance of Higher Education

Quality assurance is a term originated from industrial manufacturing, describing a systematic process designed for identify the quality and outcomes of practices (Leahy, Thielsen, Millington, Austin, & Fleming, 2009). Nowadays, quality assurance is often used for considering educational quality of higher education institutions (HEIs). Accreditation and audit are two often used methods of quality assurance of higher education (Martin & Stella, 2007).

Quality assurance can be classified into two different categories: internal quality assurance (IQA) and external quality assurance (EQA). IQA system refers to evaluations carried out by the HEIs with the goal to improve quality of teaching, learning, and other activities. Self-evaluation of universities is an IQA method done by universities. Evaluated by people with more familiar with the specific nature of the university context, self-evaluation could provide systematic feedback for university improvement. On the other hand, EQA refers to the activities carried out by external QA organizations except HEIs. The aim of EQA is to evaluate university quality by the view of outsiders. In the perspective of accountability, EQA attempts to ensure universities provide good quality education and use resources efficiently (Sanyal & Martin, 2007; Vanhoof & Petegem, 2007). Although external evaluation is driven by a need of accountability, it could be combined with an improvement perspective. IQA and EQA fulfill a complementary and integrated role of quality assurance of higher education.

According to the comparison of QA agencies across countries, it showed that

the features of QA converged (Billing, 2004). Quality assurance frameworks for higher education share important elements in purpose of functions, organization, and the methodology used. Most countries have a national agency to coordinate QA works and have a body responsible for QA within institutions. Common methodology includes conducting internal self-evaluation, visiting by an external expert review panel, and making public reporting (Amaral & Rosa, 2010; Frazer, 1997; Harman, 1998; Thune, 2002; van Vught & Westerheijden, 1993). Site visits is an important part of peer review, which involve a team of peer reviewers to examine the institution's self-study and effectiveness of the academic programs. Peer reviewers identify the gaps between the desired and the present situations through self-evaluation and site visit (Stensaker, Langfeldt, Harvey, Huisman, & Westerheijden, 2011).

Although most quality assurance systems share the common process, including self-evaluation by institutions and on-site visit by reviewers, it was found that there are some problems in the process. Due to different purposes and function, a gap exists between self-evaluation and peer review. Self-evaluation is an IQA method done by universities, while peer review is EQA completed by reviewers. Both of them are carried out by different organizations with different purpose of functions. Self-evaluation refers to the goal to improve the quality of teaching and learning, and is evaluated by people with more familiar with the specific nature of the university context. Self-evaluation could provide systematic feedback for university improvement (Van Kemenade & Hardjono, 2010; Vanhoof & Petegem, 2007). Peer review refers to the activities carried out by external QA organizations except HEIs, with the aim of evaluating university quality by the view of outsiders and the perspective of accountability. Peer review attempts to ensure universities provide good quality education and use resources efficiently (Kristoffersen, 2012). Although peer review is driven by a need of accountability, it could be combined with self-evaluation with an improvement perspective.

The relationship between IQA and EQA is suggested to be complementary and integrated. Table 1 lists the purpose, framework, and method of EQA and EQA. First, purposes are different for IQA and EQA. EQA relies on the methods of peer review, with people who are able to make judgments and recommendations for improvement. However, it was found that reviewers' judgment might be influenced by their personal values (Harvey, 2002; Martin & Stella, 2007). Second,

Table 1. Comparison of Internal and External Quality Assurance

Item	Internal Quality Assurance (IQA)	External Quality Assurance (EQA)
Purpose	Improvement	Accountability and improvement
Framework	Fitness for purpose	Fitness for/and purpose
Method	Institutional self-evaluation	Peer review

Source: This study.

frameworks are different for IQA and EQA. EQA are sometimes criticized for their aiming at comparability and generalizability. It might happen that the results only revealed the most obvious aspects and the local needs and priorities could be ignored (Martin & Stella, 2007; Nevo, 2001). Third, methods are different for IQA and EQA. IQA applied institutional self-evaluation, whereas EQA adopted peer review.

2.2 Appeals Mechanism to Reconcile the Gap between IQA and EQA

Considering different perspectives of institutions and peer reviewers, many countries design appeal in their QA systems to protect institutions' right. Institutions can file an appeal if they disagree the evaluation results. The QA agencies will invite reviewers to form a review panel to review the appeals and make decisions. In order to guide the evaluation process, global and regional quality assurance networks of higher education have developed guidelines for appeals. For example, the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) has developed "*the Guidelines of Good Practice in Quality Assurance*" from the database of good practices of 65 countries (Hénard & Mitterle, 2010; International Network for Quality Assurance Agencies in Higher Education, 2007). It was mentioned that appeals should be included in the review process and conducted by reviewers with no conflict of interest with the institutions. The regional networks, Asia Pacific Quality Network (APQN), also developed guidelines "*Higher Education Quality Assurance Principles for the Asia Pacific Region*" *(Chiba Principles)* for good practices (Asia-Pacific Quality Network, 2015a, 2015b). It suggested that an appeal mechanism should be included in the review processes.

Based on the aforementioned guidelines, various appeal systems have been designed by different countries. For example, the Western Association of Schools and Colleges (WASC) in the United States, has a special design for appeals that the institutions can file appeals before and after public reporting (Western Association of Schools and Colleges, 2012). The commission will sent a commission action letter to institutions before the accreditation results were announced. The letter usually consists of the notification of actions that the institutions must take. After receiving the action letter, the institution can be provided an opportunity to review and comment on this statement prepared by the Commission. If the institutions disagree with the statements, they can file an appeal. With the dual appeal systems, the institutions can protect their own rights.

2.3 Taiwanese Quality Assurance System and Appeal Mechanism

Taiwan higher education conduct accreditation model for quality assurance. The national accreditor, Higher Education Evaluation and Accreditation of Council in Taiwan (HEEACT), conducts both institutional and program accreditation for the 4-year universities in Taiwan. The first cycle of program evaluation was conducted from 2006 to 2010. A total of 81 institutions were accredited by HEEACT. The accreditation procedure includes institutional self-evaluation and on-site visit to identify the educational quality of programs. Through examining the self-evaluation reports and observed the educational performance by on-site visit, peer reviewers identify the gaps between the desired and the present situations, and make judgments for evaluations. Each program will be granted one of the accreditation statuses: accredited, accredited conditionally, or denial.

The aforementioned evaluation process applies both IQA and EQA methods. Educational quality was first examined by IQA. An institution set up its educational goals according to its institutional context, history, culture, and resources. Then the institution examined the curriculum design, teaching systems, student supporting systems, and student learning outcomes by themselves in the institutional self-evaluation report. Then, EQA method is applied during the on-site visit process. Reviewers conduct multiple methods to collect the information, including interview with students and faculty, focused group with faculty,

document inspection, classroom observation etc. After the on-site visit, the draft will be sent to the discipline evaluation committee and then inter-discipline evaluation committee to make final decision of the accreditation status. The final results are open to the public and can be found on the HEEACT website.

Taiwanese QA system designed a dual appeal mechanism, 1st stage or 2nd stage appeals, to protect the institutions' rights (Figure 1). The 1st stage appeal can be filed by an institution after on-site visit, if the institution regards the comments of evaluation reports are inconsistent with fact, or consider the reviewers violated certain procedures during the on-site visits. The national QA agency, HEEACT, will invite the on-site visit team to review the opinions and make sensible decisions.

The 2nd stage appeals can be filed by institutions after the accreditation status were announced to the public, if they disagree with the decision and considered the evaluation results are inconsistent with fact, or the evaluation process are flawed. An appeal review meeting will be held by HEEACT within one month after receiving the appeals. If the appeal is reasonable, it will be sent to the Preliminary Accreditation Review Subcommittee for reconsideration by re-examining the data provided by the institutions. The committee will make a decision of one of the following results: keep the original accreditation status, conduct on-site visit again, or revise the accreditation status directly. The decision will be sent to the Accreditation Review Committee and make a final judgment. The institution will be notified within four months and the results of the 2nd appeals will also be posted on-line (Higher Education Evaluation & Accreditation Council of Taiwan [HEEACT], 2015).

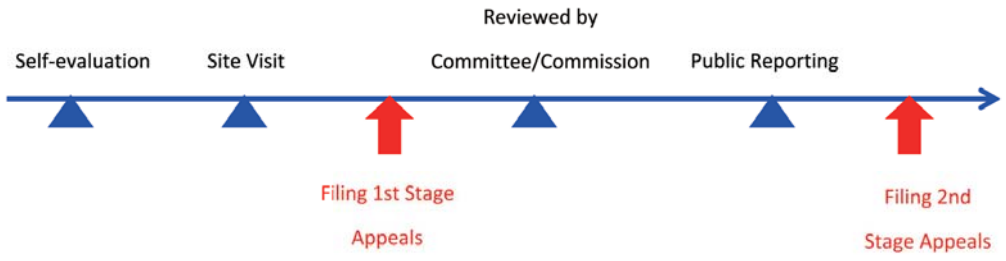

Figure 1. Institutions Can File an 1st or 2nd Stage Appeals during the Evaluation Process

Source: This study.

In order to compare the views between institutions and on-site visit reviewers, this study focuses on the appeals proposed by the institutions and the responses written by the reviewers in the 1st stage appeals.

2.4 Discipline-Specific Evaluation

Most countries evaluated their program of higher education with the same and general review standards for different subjects. For example, in Taiwan, the same five standards were applied for program accreditation for 7 disciplines (HEEACT, 2013). In Malaysia, a Code of Practice for Program Accreditation (COPPA) was developed for the purpose of program accreditation (Malaysian Qualifications Agency, 2015).

However, some countries have authorized associations or QA organizations to develop discipline-specific evaluation standards for different discipline programs (Ellis & Moore, 2006; Holloway & Francis, 2002). For example, the national QA agency of UK, Quality Assurance Agency (QAA), has developed a Handbook for Academic Review in 2015 (Quality Assurance Agency [QAA], 2015), in which the subject benchmark statements were specified as points of reference for review of standards in subject review. Reviewers are suggested to use relevant benchmark statements as a means of determining whether the intended learning outcomes of individual programs are appropriate. The subject benchmark statements are developed by groups of subject specialists working with subject associations and professional bodies and published by QAA. Although the statements generally follow a common format with five general parts (defining principles, nature and extent of the subject, knowledge and understanding and skills, teaching and learning and assessment, benchmark standards), they vary in length, style and content, reflecting the diverse nature of different disciplines (Bellingham, 2008).

Considering the natures and characteristics of different subject areas, different disciplines program may be accredited by academic association by adopting different accreditation standards. For example, the program of business schools can be accredited by Association to Advance Collegiate Schools of Business (AACSB), or audited by European Quality Improvement System (EQUIS). The Music Programs of the institutions are accredited by the National Association of Schools of Music (NASM). The Accreditation Board for

Engineering and Technology (ABET) is in charge of accrediting the engineering programs in the United States, while the American Bar Association (ABA) accredited the programs of law schools (Accreditation Board for Engineering and Technology, 2015; American Bar Association, 2015; Association to Advance Collegiate Schools of Business, 2015; European Quality Improvement System, 2015; National Association of Schools of Music, 2015). With the specialized accreditation, these associations can review the learning outcomes for a particular program in a specific academic field, not only evaluated by the general standards for all programs (see Table 2).

3. Method

3.1 Data Collection

The program accreditation was conducted by national QA agency, HEEACT, in the first cycle of program accreditation from 2006 to 2010 in Taiwan. As focusing on the analysis of the different perspectives of institutional staff and reviewers, this study collected all the appeal reports and responses of the 1st cycle of programs accreditation. A total of 3,165 programs were accredited and 1,156 programs of them filed the 1st stage appeals. The average rate of filing the 1st stage appeals is 37% and the rate of revising on-site visit drafts is 8% (with 4% revised and 4% partially revised the appeal reports).

Table 2. Comparison of Program Accreditation Standards in the Four Countries

Items	Country	QA body	Standards
Same standards for different discipline programs	Malaysia	Accredited by national QA agency (MQA)	COPIA
	Taiwan	Accredited by national QA agency (HEEACT)	Program Accreditation Standards
Different standards for different discipline programs	UK	Accredited by national QA agency (QAA)	Subject Benchmark Statements
	USA	Accredited by association (ex: AACSB, NASM, ABET, ABA)	It depends (standards were developed by different associations)

Source: This study.

Different disciplinary programs were reviewed by the same review standards. The programs were grouping into 7 categories according to their academic disciplines, namely Humanity and Arts (abbreviated as H), Engineering (E), Science (S), Medical (M), Agricultural (A), and Business and Social Sciences (B) subject areas, and Military and Defense (D). All appeal reports and responses can be downloaded from the HEEACT website (HEEACT, 2015).

3.2 Data Analysis

This study applied content analysis to investigate the concerns of the appeals proposed by institutions and their corresponding replies written by reviewers, and compared the frequencies of filing appeals and the objection rates of replies among different disciplines. A coding scheme was developed for analysis. The consistency among three inter-raters was 0.92.

4. Major Findings and Discussions

The followings show the results of content analysis to explore the gaps between the views of institutional staff and reviewers in the appeals and responses. In addition, the appeal rates and the rejection rate were also compared among various disciplines.

4.1 Different Concerns of Appeals by Institutional Staff and Replies by Reviewers

The study analyzed the contents of the 1st stage appeals by institutional staff and the replies by the reviewers. Results showed that different concerns of appeals by institutional staff and replies by reviewers. Analysis of institutional appeals emerged three major concerns of institutional staff. First, most institutions filed the 1st stage appeals by providing more educational information and evidence to reviewers. Results showed that 786 items (68%) were classified into this category.

Second, the institutions disagreed with the conclusion and suggestions of the on-site visit reports. A total of 150 items (13%) were related to the issue. The institutions considered the conclusions were unjustified for two reasons: (1) the

suggestions were difficult to achieve, and (2) the wordings of conclusions were vague and not specific. For example, the reviewers suggested a department to build up the flexible salary system to recruit world class experts as faculty. The staff of the department replied that it is very difficult for a department to make such a big change of the whole system without institutional support.

Third, the institutions accused that the review comments are proposed without consideration of program context. According to Stufflebeam (2000), evaluation should describe the program's background and setting. The context in which the program exists should be examined in enough detail, so that its likely influences on the program can be identified. However, from the results of content analysis, the institutional staff filed appeals and claimed that the special context of their programs should be considered. A total of 139 items (12%) were classified into this category. The institutional staff proposed that the reviewers should consider the special context of the program, such as the program was newly established, and the program goals were special for the inter-discipline characteristics.

Reviewers' concerns were different from institutional staff's. First, most reviewers did not accept institutional appeals by repeating the conclusion of the on-site visit report. A total of 554 items (48%) were classified into this category. For example, some of the institutions claimed that reviewers over emphasized on the interview results and ignored other evidence. According to the evaluation standards, reviewers were expected to use several methods to gather information during the on-site visit, including interviews, large group meetings, reading documents, and classroom observation. However, the reviewers insisted to draw conclusion from interview data, and repeated their original opinions in the replies.

Second, reviewers did not accept the appeals for the institutions provided invalid or unreliable data. A total of 358 items (31%) were classified into this category. For example, institutional data should be the information in the correct evaluation period in order to support the educational effectiveness of the institutions. However, some of them were data about the institutional improvement after on-site visit, which were invalid information for evaluation.

Third, reviewers replied to the appeals by providing detailed explanations of the conclusion of evaluation reports. A total of 150 items (13%) were classified into this category. They explained how the conclusions were made, and how they calculated the numbers for data analysis. They tried to communicate the institutional staff with more details about their evaluation reasoning.

From the above analysis, institutional staff and reviewers have different considerations of educational quality from different points of views. How to balancing the perspectives of IQA (institutional staff) and EQA (reviewers) is a challenge to higher education evaluation.

4.2 Different Appeal Rates and Rejection Rates among Various Disciplines

In addition to the gap existed between IQA and EQA as aforementioned, it was found that the gap between institutional staff's and reviewers' views varied among disciplines, for the appeals rates and the rejection rates of appeals were varied among different disciplines. Table 3 shows that the average appeal rate and rejection rates among 7 disciplines are 31% and 79% respectively. Regarding to the appeal rates, it revealed that the appeal rates of 3 disciplines are above average: Humanity and Arts (44%), Medicine (39%), and Business and Social Sciences (35%); whereas the appeal rates of other 4 disciplines are under average, including

Table 3. Appeal Rate and Rejection Rate of Appeals of Different Disciplines

Disciplines	Appeal Rates	Rejection Rate of Appeals
Agriculture	24%	80%
Business and Social Sciences	35%	81%
Engineering	15%	78%
Humanity and Arts	44%	77%
Medicine	39%	82%
Science	26%	73%
Military and Defense	14%	79%
Average	31%	79%

Source: This study.

Science (26%), Agriculture (24%), Engineering (15%), and Military and Defense (14%). The highest appealing rate appeared on Humanity and Arts, while the lowest one was shown on the Military and Defense. The appeal rate of the former is three times the amount of the latter. Regarding to the rejection rate of appeals, it was found that the rejection rates of all 7 disciplines are very close to each other with an average rate of 79%.

The above analysis reveals that appeal rates are varied by disciplines, whereas the rejection rate of appeals among disciplines are not. Disciplines with various characteristics can have influence on appeal rates. The higher the appeal rates, the bigger of the gaps between the institutional staff' and reviewers' views are. While the similar rejection rate among disciplines implied that the reviewers might have been trained to apply the same guidelines to response to these appeals.

Different disciplines have different interpretation of quality assurance, which has caused different appeal rates. The science discipline programs usually conduct research under the assumption of post positivism, while the social science with the point of view of constructivism (Kakela, 2000). Talking about quality assurance, the reviewers in science field are cline to apply objective criteria to examine the institutions, while those in the social science field would be cline to constructive and personal interpretations of criteria (Bauer & Kogan, 1997; Trigg, 1993). Therefore, the conception of quality assurance is perceived differently in different disciplinary fields. It can be expected that applying the same evaluation criteria to different disciplines can cause different interpretation of evaluation process and results. Should different disciplines program be accredited by "Specialized Accreditation" by different academic association just like the United States? Or should we develop discipline-specific standards for each discipline resembling those bench marks of UK? It needs to be considered seriously to developing different standards for different discipline programs.

5. Concluding Remarks

From the above analysis, gaps exist between self-evaluation and peer reviews, showing that institutional staff and reviewers have different considerations of educational quality from different points of views. The study also found that the

gap between reviewers' and institutional staff's views varied among different academic disciplines.

In the program accreditation, reviewers are the most important elements of the process. It is expected that reviewers can objectively conducted systematic exploration to depict the whole picture of the program for accreditation. However, the above analysis showed that the reasons for proposing the 1st stage appeals focused on providing more information and evidence, unjustified conclusion of on-site visit reports, and lacking context analysis of the program, while the reviewers are mainly replied with reclaiming the same conclusion as in the on-site visit reports.

Besides, it revealed that the differences varied by different disciplines. The reviewers of the soft subjects (Humanity and Business discipline programs) have higher appeal rates than the hard subjects (Science discipline program). According to the characteristics of academic disciplines, the hard subjects have a single paradigm and easy to agree on methodology and concepts. It is easier for reviewers and university staff reach consensus. The appealing rates are relatively low for hard subjects. Considering the specific characteristics of academic disciplines, it is suggested to develop discipline-specific accreditation standards to evaluate different learning outcomes of different subject programs. Through the analysis of the appealing reports by different subject areas, this study offers an understanding of the discrepancy between institutional view of evaluation and reviewer view of evaluation.

Analysis of the content of the reports from different perspectives of peer reviewers and university, the gap between EQA and IQA could be understood. IQA and EQA are complementary and integrated to each other. Through the analysis of the appealing reports by different subject areas, this study offers an understanding of the discrepancy between institutional staff and reviewers' view of evaluation and helps to improve the evaluation process of both IQA and EQA.

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Quality Assurance of Higher Education in Japan and NIAD-UE's International Collaborations

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ABSTRACT

All graduate schools, universities, junior colleges, and colleges of technology in Japan are required to undergo periodic evaluation by an agency certified by the government, in order assist the enhancement of their levels of education and research. This is known as Certified Evaluation and Accreditation (CEA). CEA includes two different types of evaluation: institutional CEA, which evaluates the condition of the whole institution, and CEA for professional graduate schools. NIAD-UE has analyzed the impact of institutional CEA and modified the standards for it.

NIAD-UE has signed memorandums of understanding with twelve agencies in the Asia-Pacific region and Europe. NIAD-UE promotes collaboration and exchange with overseas QA agencies and publishes an Information Package to facilitate mutual understanding concerning quality assurance systems. NIAD-UE undertakes joint monitoring of the CAMPUS Asia pilot programs among Japan, China, and Korea with a view to identifying good practices and common challenges.

Keywords: Establishment-Approval System, Certified Evaluation and Accreditation, Institutional Thematic Assessment, CAMPUS Asia Monitoring

International educational exchange must involve the issue of the quality of education and research in higher education institutions (HEIs). For students studying in countries whose educational systems are different from those of the students' own countries, it is essential to receive education with more or less the same quality in any country. In other words, it is desirable that the quality of educational outcomes achieved by students meets international standards wherever the students study. Such quality assurance (QA) is expected to encourage student and other forms of academic exchange.

The National Institution for Academic Degrees and University Evaluation (NIAD-UE) bears responsibility as a QA agency in Japan. NIAD-UE develops effective procedures for HEI evaluation in cooperation with personnel from the HEIs and conducts appropriate evaluations of education, research, and other activities at universities and other academic institutions. This enables NIAD-UE to play a leading role in the development of third-party evaluations of HEIs. Moreover, by collecting and disseminating information concerning HEIs and their QA in Japan and around the world, and by conducting research on HEI evaluation, NIAD-UE is helping to create the foundation for HEI evaluations in Japan and improving the level of HEIs overall.

1. Landscape of Higher Education

In Japan, HE starts upon completion of a total of twelve years of primary education (six years in elementary school) and secondary education (three years respectively in both lower and upper secondary schools). There are four types of HEIs: universities, junior colleges, colleges of technology, and professional training colleges. A diagram of the Japanese education system is given in *Overview, Quality Assurance System in Higher Education, JAPAN* (National Institution for Academic Degrees and University Evaluation [NIAD-UE], 2009).

Universities offer four-year undergraduate programs (six years for medicine, dentistry, pharmacy, and veterinary medicine) and require graduation from an upper secondary school or equivalent academic ability for admission. Many universities establish graduate schools.

Graduate schools offer master's, doctoral and/or professional degree

programs. They require a bachelor's degree or equivalent academic ability for admission. Graduate schools may be established without undergraduate programs.

Junior colleges offer two or three-year programs and require graduation from an upper secondary school or equivalent academic ability for admission. Students who graduate from junior colleges are awarded an associate degree.

Colleges of technology are institutions that offer five-year programs (five years six months for mercantile marine studies) aiming to nurture technical experts. Graduates are awarded the title of Associate.

Professional training colleges (specialized training college, postsecondary course) offer specialized courses for the purpose of developing professional or practical abilities. They require graduation from an upper secondary school for admission. Graduates who complete more than two years of study are conferred a diploma and those who complete more than four years are conferred an advanced diploma.

Since all graduate schools, universities, junior colleges, and colleges of technology are obligated to undergo third-party evaluations periodically under the School Education Law, this paper refers to these institutions regarding quality assurance of HEIs.

2. Quality Assurance Scenario for Higher Education

The legal framework for QA of higher education consists of an "establishment-approval system' and 'certified evaluation and accreditation" (Figure 1). The history of QA of higher education in Japan is summarized in *Evaluation and Quality Assurance of Higher Education in Japan* (NIAD-UE, 2008a, pp. 15-32).

The establishment-approval system began in 1947 and has functioned as pre-approval regulations through application of the Standards for the Establishment of Universities, which are minimum standards for establishing a new university or faculty/department. This system focuses on conformity with the standards

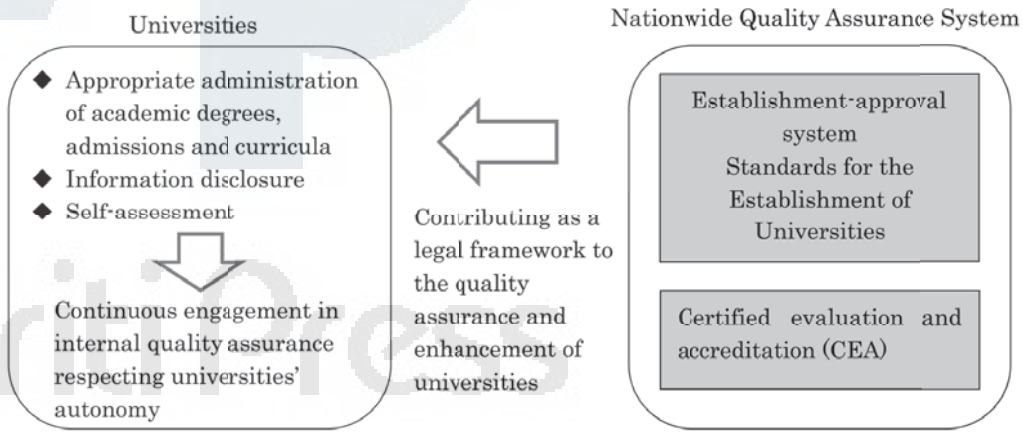

Figure 1. Legal Framework for Quality Assurance of Higher Education

Source: This study.

and feasibility of the application, including the continuity of managing academic programs.

The Standards for the Establishment of Universities was enacted for the purpose of both rebuilding deteriorated Japanese higher education after the World War II and assuring the quality of education in universities. Those who applied to establish a new university or new faculties/departments were scrutinized under these standards. The standards defined such things as class subjects, their number of credits, facilities, including the size of school buildings, and the number of library books. There is no doubt that the standards effectively functioned to rebuild higher education and assured the quality of universities' education and research, and therefore led to the development of universities. However, there emerged two major problems. The first problem was that the main investigation was limited to the time of application for the establishment of new universities or faculties/departments, since the standards functioned as pre-approval regulations. The second problem was that these detailed regulations made it difficult for universities to promote their individualization. For these reasons, there existed voices for liberalization from an early stage. However, this system continued to be implemented for almost half a century without resolving the problem of how to harmonize *liberalization* and *quality assurance*.

The amendments made to the Standards for the Establishment of Universities (the Deregulation of Universities Act) in 1991 were a major turning point in this

system. It was intended with this deregulation that university's self-assessments would play a role in assuring the quality of education and research in return for easing the above regulations. The deregulation also emphasized the necessity of evaluating contributions to the qualitative improvement of education and research, and third-party evaluation was positioned as the key measure for strengthening individualization. This concept was developed based on the aim of the deregulation of the Standards for the Establishment of Universities. More specifically, it recommended the development of self-assessment and the introduction of a third-party evaluation system for verifying the results of self-assessment. The deregulation of the standards was an epoch-making transformation of policy, and the 1998 Council Report by the National Central Council for Education further radicalized its ideas and demanded the promotion of university reform. A "multiple evaluation system" was positioned as an indispensable mechanism for carrying out university reform effectively.

It is inevitable that education and research in universities should be consistently improved through self-assessment. However, in order to make evaluation more effective in response to the expectations of society, a highly credible evaluation based on professional judgment from an objective standpoint must be conducted. For this reason, it was important to establish a third-party evaluation system and give its evaluation results to universities so that the results could be used to improve universities' educational and research activities. At the same time, independent evaluation would also help gaining the public's understanding and support for universities as public institutions, by clarifying the condition and results of universities' various activities in a multilateral way and presenting them to society explicitly.

3. Certified Evaluation and Accreditation

For the reasons given above, certified evaluation and accreditation (CEA) was introduced through amendment of the School Education Law on April 1, 2004. All graduate schools, universities, junior colleges, and colleges of technology are now obliged to be evaluated periodically by an agency certified by the Minister of MEXT (Ministry of Education, Culture, Sports, Science and Technology in Japan), concerning the overall condition of education, research, management, and

facilities, in order to contribute to the improvement of their levels of education and research.

An outline of the CEA system is as follows:

(1) A university is to inspect and assess the condition of its education, research, organization, management, and facilities itself in order to contribute to the enhancement of education and research. The results of self-assessment must be made public.

(2) A university is to be evaluated by a CEA agency at least once in seven years, about the overall condition of education and research, in addition to the self-assessment.

(3) A university with a professional graduate school must also undergo a school-level CEA at least once in five years, in light of its objectives, regarding the condition of education and research, including curriculum and academic staff.

(4) CEA is to be carried out, at the request of a university, in accordance with the standards for evaluation and accreditation set out by the implementing agency.

The emphasis of the law revision was that the government certifies evaluation agencies, and all universities, junior colleges, and colleges of technology are obliged to undergo a third-party evaluation by a certified agency. CEA includes two different kinds of evaluation: institutional CEA, which evaluates the condition of the whole institution, and CEA for professional graduate schools. Tables 1 and 2 show institutional CEA agencies and CEA agencies for graduate schools, respectively.

Each university, junior college, college of technology, and graduate school selects an evaluation agency by referring to each agency's standards. The standards, method, and framework of evaluation differ from agency to agency. There are several evaluation agencies that carry out institutional CEA of universities and junior colleges, but NIAD-UE is the only agency at present that evaluates colleges of technology. The following section is a description of the institutional CEA implemented by NIAD-UE.

Table 1. Institutional CEA Agencies (as of October 2015)

Name of Agency	Higher Education Institution
Japan Association for College Accreditation (JACA)	Junior colleges
Japan Institution for Higher Education Evaluation (JIHEE)	Universities, junior colleges
Japan University Accreditation Association (JUAA)	Universities, junior colleges
National Institution for Academic Degrees and University Evaluation (NIAD-UE)	Universities, colleges of technology

Source: This study.

Table 2. CEA Agencies for Professional Graduate Schools (as of October 2015)

Name of Agency	Course of Professional
Graduate School	
ABEST21	Management, intellectual property
Foundation of the Japanese Certification Board for Clinical Psychologists	Clinical psychology
Institution for Quality Assurance and Accreditation of Professional Higher Education	Beauty business
Japan Accreditation Board for Engineering Education (JABEE)	Information technology, innovation for design and engineering, embedded technology, nuclear technology
JIHEE	Fashion business
Japanese Institute of International Accounting Education (JIIAE)	Accounting
Japanese Institute of Landscape Architecture	Landscape architecture
Japan Institute of Midwifery Evaluation	Midwifery
Japan Law Foundation	Law school
JUAA	Law school, management, intellectual property, public health, public policy
NIAD-UE	Law school
The Institute for the Evaluation of Teacher Education	Teacher education

Source: This study.

4. Standards and Process for QA of Universities Adopted by NIAD-UE

There are three types of institutional CEA: university, junior college, and colleges of technology. However, they have many points in common. In this section, all discussion of universities should be interpreted to include junior colleges and colleges of technology, unless otherwise indicated.

In order to maintain and improve the levels of universities' education and research in Japan and to contribute to their individuality and diversification, the objectives of NIAD-UE's institutional CEA are defined as follows:

(1) To assure the quality of education and research activities of universities by regularly evaluating universities based on the standards set by NIAD-UE;

(2) To make use of the results to improve the education and research activities of each university by giving feedback on the results to each university; and

(3) To assist universities so that they can gain understanding and support from the wider public that they are operated as public organizations, by clarifying the condition of their education and research activities and demonstrating it explicitly to society.

The fundamental policies of NIAD-UE's institutional CEA are summarized as follows [details are mentioned both in *Evaluation and Quality Assurance of Higher Education in Japan* (NIAD-UE, 2008a, pp. 49-56) and in *Institutional Certified Evaluation and Accreditation: Universities, General Principles* (NIAD-UE, 2011, pp. 2-3)]:

(1) Reference to NIAD-UE's standards for CEA;

(2) Focus on educational activities;

(3) Contribution to the development of each university's individuality;

(4) Evaluation and accreditation based on self-assessment;

(5) Use of peer review;

(6) A highly transparent system; and

(7) Internationally recognized evaluation and accreditation (second cycle from 2012).

The standards of institutional CEA for universities consist of eleven criteria (FY2005-2011, Table 3). NIAD-UE's institutional CEA assesses the overall state of a university's activities with a focus on the educational activities in full-time programs. The first cycle of institutional CEA ended in 2011 and second cycle starts between 2012 and 2018. Before starting the second cycle, NIAD-UE modified the standards of institutional CEA for universities (Table 3). The major change in the standards for the second cycle was to introduce the concept of learning outcomes. It is also important to evaluate universities' internal QA systems and disclosure of information on teaching and learning. In addition to these changes, results overviews in English will be made public, and 'internationalization of higher education' was added to the institutional thematic assessments that will be mentioned in Section 5. Each of the standards is divided into several contents. Viewpoints are listed under each standard to refer to when analyzing the conditions. Since one of the objectives of institutional CEA is to assure the quality of universities' education and research activities, each standard covers the contents that NIAD-UE considers necessary for universities to fulfill. Based on the results of their self-assessment, NIAD-UE judges whether or not

Table 3. Standards of Institutional CEA for Universities (Comparison of the First and Second Cycles)

First Cycle: FY2005-2011	Second Cycle: FY2012-2018
1. Purpose of the University	1. Mission of the University
2. Education and Research Structure	2. Teaching and Research Structure
3. Academic Staff and Educational Support Staff	3. Academic Staff and Teaching Support Staff
4. Student Admission	4. Student Admission
5. Academic Programs	5. Academic Programs
6. Effectiveness of Institutional Performance	6. Learning Outcomes
7. Student Support	7. Facilities and Student Support
8. Facilities	8. Internal Quality Assurance System of Teaching and Learning
9. Internal Quality Assurance System	9. Financial Base and Management
10. Finance	10. Producing Information on Teaching and Learning
11. Management	

Source: This study.

they meet each standard and gives the reasons for its judgments. Institutional CEA is carried out on a university as a whole, but its faculties or academic units of graduate schools may be analyzed and separated out when needed. In such a case, it is necessary to analyze the condition of the whole university based on the analysis of each faculty and unit. The judgment as to whether or not they meet the standards is comprehensively carried out for each standard based on the results of the analysis of each viewpoint.

If the subject university meets all of the standards, it is recognized as having met NIAD-UE's standards for CEA at the institutional level, and this result is made public. However, if even one standard is not met, the university is deemed to have failed to meet the standards, and this fact is also made public. In such a case, there is an extra process called "follow-up evaluation and accreditation." That is to say, the university can apply for this arrangement, limited to the standard that was not been met, within two years of the original evaluation. If at this point the standard is met, the university is recognized as having met the standards at the institutional level, and this result is made public along with the prior results.

Merely judging whether or not each standard is met does not fulfill all of the objectives of CEA. In the evaluation and accreditation report, it will be noted if the university is deemed to have made good practices or if it needs to make improvement. In order to contribute to improvement, which is the second objective of CEA, it is important to identify good practices and points for improvement. NIAD-UE emphasizes these aspects, which are one of the characteristics of its CEA.

A Committee for CEA is set up to organize the CEA process. The committee is composed of officials of universities and experts such as journalists and economists. Subcommittees for CEA are also formed under the committee to implement the actual evaluation process. The fields of education and the conditions of universities vary. Therefore, experts of each field are allocated to the subcommittees as evaluators according to the types of faculties and academic units of graduate schools at a university. Evaluators are nominated widely by relevant organizations, including associations of national, municipal/prefectural, and private universities and economic organizations. NIAD-UE's Administrative

Committee selects evaluators from among those nominated. In 2005-06, about 3,500 people were nominated by various relevant organizations, and the evaluators were selected by taking into consideration fields of expertise, regional characteristics, and gender balance.

Evaluators are required to carry out a highly reliable process based on professional judgment from an objective standpoint. As such, NIAD-UE provides the evaluators with training programs on the objectives, contents, and method of CEA, to ensure their common understanding as well as fair, appropriate, and smooth implementation. NIAD-UE gained experience in the trial evaluations (NIAD-UE, 2008a, pp. 33-46) conducted since 2000 and has created a training program based on the accumulation of that experience. Furthermore, it is constantly making efforts to analyze outcomes and challenges, and to reflect the results in the CEA process. In this way, it has developed a system that enables fully trained evaluators to conduct evaluations.

CEA is conducted through a process of document analysis and site visits. Document analysis is the process of examining, based on Guidelines for Self-Assessment, the self-assessment report that each university produces, and analyzing collected information and data. Subject universities are notified of the results of the document analysis about a month before the site visit. The results may include requests for clarification of items in the self-assessment report as well as missing information or data. The responses to these queries are sent from the subject universities about a week before the visit. The members of the subcommittees conduct the site visit after analyzing these responses. The site visit is a process for verifying, based on the Guidelines for Site Visit, matters that could not be confirmed during the document analysis.

The subcommittees summarize the results of the document analysis and site visit, and the Committee for CEA produces a draft evaluation and accreditation report. This report is sent to the subject university. If the university has objections to draft report, it must submit a response within a month. The report is finalized by the committee and is provided to the subject university and its establisher. It is also released to the wider public.

5. Challenges Faced in NIAD-UE: Institutional Thematic Assessments

Institutional CEA conducted by NIAD-UE focuses on the quality of the overall condition of a university's activities, particularly the main educational activities in full-time programs (Section 4). However, along with educational activities, research activities are also important for universities; furthermore, universities also carry out activities to give knowledge to society through both education and research by partnering or interacting with local communities or industries. Accordingly, taking into account its objectives of helping universities' to improve their various activities and achieve accountability, NIAD-UE established institutional thematic assessments besides institutional CEA. These assess the state of research activities or community engagement, which are difficult aspects to assess simply through educational activities. Institutional thematic assessments are carried out at the request of a university.

Institutional thematic assessments, unlike institutional CEA, are not interested in judging whether or not criteria are met. They are more concerned with evaluating the level of achievement of the objectives established by each university. Achievement is evaluated at the four levels of excellent, good, satisfactory, and unsatisfactory. In addition to the judgment of level, the reasoning for the assessment, points of excellence, or areas needing improvement are also noted.

Internationalization of higher education was added to the list of institutional thematic assessments in 2013. Now, NIAD-UE provides the following three thematic assessments on the distinctive features of HEIs:

(1) Theme A: Research activities;

(2) Theme B: Community engagement; and

(3) Theme C: Internationalization of higher education.

The mission of Theme C is to enhance the overall quality of international education, which gives institutions a distinctive feature. The assessment criteria are whether a university's activities to promote educational internationalization are effectively implemented and have yielded positive results in light of its goals. There are three assessment items: (1) development of an international teaching

and learning environment; (2) admission of international students; and (3) dispatching of domestic students abroad. In addition to the evaluation of the level of achievement of the objectives established by each university, the levels attained in the three items above are also graded on a four-point scale using a benchmark within Japanese higher education.

6. Impact of Institutional CEA on Society and Institutions

NIAD-UE's motto is to provide open and evolutionary evaluation. Therefore, we have conducted studies each year to verify the degree to which the three objectives of CEA (see Section 4) have been achieved. NIAD-UE gave a signed, multiple-choice (five levels), written questionnaire to institutions (universities and junior colleges) subjected to institutional CEA from 2005 to 2011 and to external evaluators. The questionnaire covered a wide scope, from the content of evaluation and accreditation to methods and outcomes after the evaluation and accreditation. Some data are published in English (NIAD-UE, 2012a, pp. 32-33). Here we will focus our discussion on points such as accountability and internationalization in CEA.

Based on the submitted self-assessment reports it has been observed that universities and evaluators have different degrees of understanding regarding aspects such as the appropriateness and explicitness of content. Quite a few universities have stated that they found it difficult to collect and select materials as attachments for the self-assessment reports. On the other hand, evaluators pointed out inadequacies and insufficiencies in the self-assessment reports and requested improvements in presentation. While it is true that these issues are gradually being resolved as universities accumulate experience in evaluation, it is undeniable that the degree of understanding regarding the clarity of self-assessment reports or the appropriateness of back-up material has become more varied among universities compared to when evaluations first started. An analysis of the effort put into evaluation work suggests that the daily accumulation of material and data required for evaluation will be important in the future. This problem is not limited to evaluation work; major improvements are also necessary in terms of communicating information to society.

The analyses of data suggest that institutional CEA has produced significant results for assuring quality and facilitating improvements. In contrast, the objective of achieving accountability to society still remains a challenge. Unfortunately, it is hard to say that sufficient results have been seen in the efforts to influence or impact the understanding and support of existing students, potential students, or society. Thus, it is necessary to continue considering measures, including disclosure methods, to encourage people to understand and support the content of evaluation reports. For example, although evaluation and accreditation reports or self-assessment reports have been disclosed to the public, less than 70% of the evaluated universities felt that media coverage has been appropriate, and hence there is a need for efforts to gain more understanding.

Two points must be added to the issues stated above. The first is the necessity for universities to accurately assess their resources. Obviously, an institution should be able to assess its own resources, but CEA has revealed that in some cases their performance may not be sufficient. CEA is conducted based on NIAD-UE's standards, but it also takes into account the objectives and targets set by each university. This is a device to encourage uniqueness in each university through CEA. Universities must set objectives and targets based on self-assessments of their resources. If objectives and goals are set without sufficient assessment, they may end up being very vague or simply general content. As a result, the objectives and targets may not be able to convey the uniqueness or character of the university. Thus, besides any obvious lack of base material, this may be why evaluators find self-assessment reports difficult to understand.

The second problem is the inadequacy in achieving accountability. Universities are accountable to stakeholders, and it is necessary to recognize that there is an extremely diverse range of stakeholders in university's education and research -- students, their families, future employers, academic staff, university managers, and others. Policy planners are also stakeholders under the present climate where higher education policies are deemed important. Naturally, the quality recognized by each stakeholder is different. When discussing the quality of a university, for example, students will think of the university's facilities or how beneficial education and research will be for future job opportunities. The students' families will hope for academic achievement or job opportunities for their children. Employers will focus on the abilities and competence of the

graduates (or students who have completed the course). Academic staff will direct their attention to the classes and learning processes. University managers will focus on the outcomes as an institution. Furthermore, policy planners will look at the effectiveness of the policies. Since each stakeholder defines quality from a different standpoint, it is impossible to discuss quality through a single concept, and thus it is important to communicate information with each stakeholder in mind. This is an issue that involves both the evaluation organizations, which communicate evaluation results, and the universities, which communicate information regarding their activities of education and research.

In a knowledge-based society, it is essential to send information not only from the university itself, but also from a third-party evaluation organization associated with the university's QA. In line with this kind of a global trend, a major mission of NIAD-UE regarding its evaluation business is to gain international confidence in QA. This may not be achieved by simply producing English translations of evaluation results. Since higher education systems differ from country to country, it is essential to have a good understanding of these differences before being able to send accurate QA information; otherwise it would be meaningless.

7. The Future of Quality Assurance

Universities are basically required to assure the quality of the academic degrees or professional qualifications that they confer to students. If a student were to graduate from a university faculty, it must be possible to recognize the student's academic achievement, skills, and abilities. An international student would need information on the learning outcomes that may be anticipated by attending a certain university. Of course, the university itself must communicate this information, but the quality assurance agency must also assure the quality of content in terms of the learning outcomes gained (or that might be gained) by attending a university.

To address these social needs, it is necessary to improve the QA system for the next evaluation cycle of institutional CEA. Thus, we suggest setting a distinction between the functions of audit and accreditation in institutional CEA to a certain extent. An audit is an evaluation of the university as a whole to

confirm whether or not internal QA systems or improvement systems regarding teaching and learning are functioning properly. The following five matters may be considered as evaluation items:

(1) Mission, vision, and objectives of the university regarding the quality of education;

(2) Efforts of the university in trying to realize its mission, vision, and objectives;

(3) Method of assessing the level of achievement of the mission, vision, and objectives;

(4) Efforts being made for improvements and enhancements; and

(5) Execution and responsibility for assuring internal quality and making improvements and enhancements (including suitability of established standards).

The second function, accreditation, refers to assuring the suitability or quality regarding established standards or objectives/targets set by the university. The size and organizational structure of universities vary considerably, and to perform an accreditation it is necessary to analyze the state of education and research in the university faculties and graduate school units. This is an evaluation with a particular focus on learning outcomes, and the three matters given below may be considered as evaluation items. If the basic data regarding these items were publicly disclosed through a database, for example, this would achieve accountability to society.

(1) Execution systems, contents, methods, or other aspects of teaching (including suitability of established standards and suitability of academic staff for courses);

(2) Academic achievements (including student assessment); and

(3) Job opportunities or careers after graduation or completing courses (including evaluation by related parties).

Based on the above consideration, NIAD-UE has started the second cycle of institutional CEA with the new standards shown in Table 3.

8. NIAD-UE's International Collaborations

NIAD-UE is promoting collaboration and exchange with overseas QA agencies that have close connections with Japan in the higher education field. NIAD-UE hosted an Asia-Pacific Quality Network (APQN) conference and annual general meeting (AGM) in Makuhari, Chiba in February 2008 (NIAD-UE, 2008b). In 2010, NIAD-UE co-hosted an International Information Package Workshop (NIAD-UE, 2010) with two institutes with which it had already signed a memorandum of understanding (MoU): the Quality Assurance Agency for Higher Education (QAA) of the United Kingdom and the Higher Education Evaluation Center of the Ministry of Education (HEEC) of China. This workshop was held as a pre-conference workshop of the APQN 2010 Conference and AGM in Bangkok, Thailand.

NIAD-UE signed a MoU with the agencies shown in Table 4. Through these MoUs, each agency agrees to promote information exchange and exchange projects concerning QA-related undertakings.

When promoting international cooperation in the higher education field, building mutual understanding of the higher education systems and QA systems

Table 4. NIAD-UE's Memorandum-of-Understanding (MoU) Partners

Asia and Pacific
Higher Education Evaluation Center of the Ministry of Education (HEEC, China, 09/2007)
Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ, 03/2010)
Korean Council for University Education (KCUE, 08/2010)
Malaysian Qualifications Agency (MQA, 03/2011)
National Accreditation Agency for Higher Education (BAN-PT, Indonesia, 03/2011)
Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT, 06/2011)
Tertiary Education Quality and Standards Agency (TEQSA, Australia, 05/2014)
Europe
Quality Assurance Agency for Higher Education (QAA, UK, 02/2007)
Accreditation Organization of the Netherlands and Flanders (NVAO, 06/2010)
EP-Nuffic(The Netherlands, 06/2010)
The High Council for the Evaluation of Research and Higher Education (HCERES, France, 03/2011)
German Accreditation Council (GAC, 10/2015)

Source: This study.

in each country is essential to raising the effectiveness of cooperation. NIAD-UE is taking various approaches toward developing international collaborations that are founded on mutual understanding. Such approaches include the development of tools for communicating information on QA in Japanese higher education and the implementation of workshops and other awareness-raising activities.

NIAD-UE makes available an information package as a communication tool that promotes understanding of Japanese higher education and QA systems. The package contains a glossary (National Institution for Academic Degrees and Quality Enhancement of University Evaluation [NIAD-UE], 2011), outline and materials on NIAD-UE's institutional CEA (NIAD-UE, 2012b) -- all of which are bilingual in Japanese and English. Furthermore, NIAD-UE has published *Overview of the Quality Assurance System of Higher Education* (NIAD-UE, 2014a) in versions for the United States, Australia, the United Kingdom, the Netherlands, France, and Germany. These materials facilitate objective comparison of Japan and other countries in terms of their systems and mechanisms for higher education QA. NIAD-UE intends to apply these materials to international collaboration activities with concerned organizations both in Japan and abroad, and to create opportunities for regular review and enhancement of their content.

An agreement to promote inter-university exchange with QA was reached at a summit meeting among Japan, China, and Korea in October 2009. Based on this agreement, the Japan-China-Korea Quality Assurance Council was launched by NIAD-UE, the Higher Education Evaluation Center of the Ministry of Education of China (HEEC), and the Korean Council for University Education (KCUE) in March 2010. The council serves as a foundation for cooperation and collaboration among the three countries in the QA field.

The first Japan-China-Korea Committee for Promoting Exchange and Cooperation among Universities was held in Tokyo April 2010. At this meeting, an agreement was reached to study inter-university exchange programs and QA based on the CAMPUS Asia (Collective Action for the Mobility Program of University Students in Asia) concept, which the governments of the three countries promote. The council agreed to undertake joint monitoring of the CAMPUS Asia pilot programs with a view to identifying good practices and common issues, and disseminating them broadly to Asia's various higher

education sectors. The monitoring process will be carried out in two phases over five years (Figure 2) (NIAD-UE, 2014b).

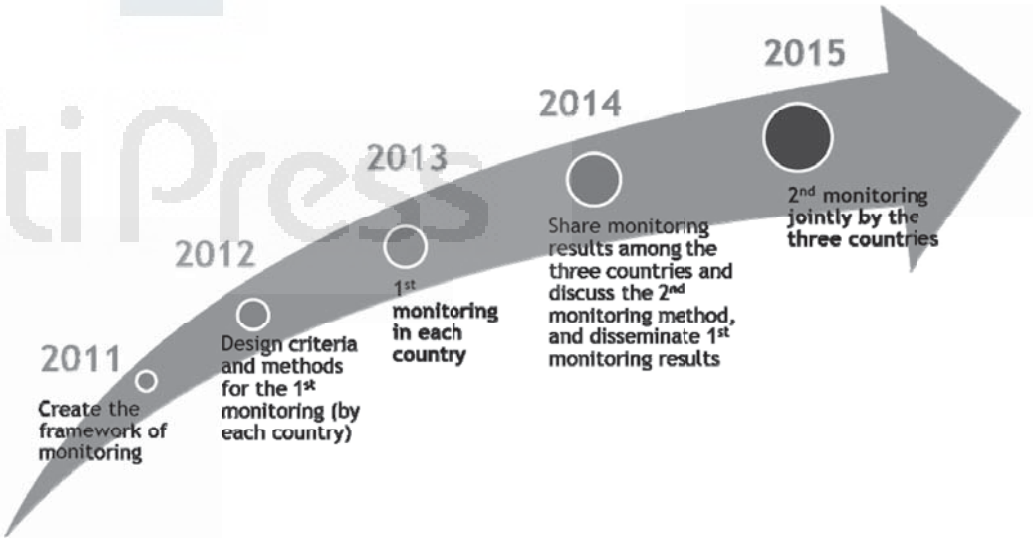

Figure. 2 Timeline of CAMPUS Asia Monitoring

Source: This study.

NIAD-UE also works to support HEIs by providing them with opportunities to discuss ways of advancing educational collaboration within the East Asian region. Inviting partner QA agencies from Asia to it, NIAD-UE organized and chaired a working group session at the International Symposium on Exchange among Universities with QA in the East Asian Region hosted by MEXT in September 2011, in which ideas were exchanged among representatives of higher education institutions in the region.

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The Use of Information Technology in New Zealand Universities' External Quality Assurance Processes: Case Studies of Challenges and Opportunities

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ABSTRACT

The case studies in this paper illustrate how the use of information technology (IT) can present both opportunities and challenges in external quality assurance (QA).

External QA agencies around the world are responding in different ways to the advantages provided by, and the challenges associated with, the use of IT. Responding to stakeholder expectations of more IT-centric processes, the Academic Quality Assurance Agency for New Zealand Universities (AQA) and the Committee on University Academic Programmes (CUAP) have been focussing on ways in which IT can be used to streamline processes that have been in place in New Zealand for nearly 20 years.

This paper will provide an overview of some of AQA and CUAP's developments to date. Issues explored include: working cooperatively with institutions and individuals that have their own systems and preferences; the shift to BYOD environments; interactions between different communication media; and the challenges of working with dynamic repositories.

Keywords: Quality Assurance, Information Technology, IT, Systems

1. Introduction

New Zealand's external quality assurance system for universities has existed in its current form for approximately 20 years. The New Zealand Vice-Chancellors' Committee (known operationally as Universities New Zealand – Te Pōkai Tara) has, under the Education Act 1989, primary responsibility for quality assurance matters across the university sector (New Zealand Government, 1989). The country's eight universities are autonomous bodies responsible for their own internal quality assurance. Universities New Zealand has delegated the operational responsibility for external quality assurance to two bodies: the Committee on University Academic Programmes (CUAP) and the Academic Quality Agency for New Zealand Universities (AQA).

CUAP is charged with setting up and applying qualification and regulation approval, accreditation and programme moderation procedures across universities. CUAP comprises a representative of each university, plus a student representative and is chaired by a Vice-Chancellor. CUAP is the body to which universities must submit any proposals to offer new qualifications or to make substantial changes to existing qualifications.

AQA supports universities in their achievement of standards of excellence in research and teaching through regular institutional audits and through the promotion of quality enhancement practices across the sector. AQA is operationally independent of Universities New Zealand and has its own governing board of directors including a student representative and a Vice-Chancellor.

Both AQA and CUAP are, themselves, subject to regular external review.

2. AQA Case Study: Information Technology in External Academic Audit

Commencing in 1995, AQA has been responsible for undertaking regular academic audits of New Zealand universities. In 2013, AQA commenced its fifth cycle of institutional audits with a focus on teaching, learning and student support. This fifth cycle of audits is being undertaken within a framework of guideline statements developed by the agency in consultation with the universities

and other stakeholders (Academic Quality Agency for New Zealand Universities, 2013). The methodology employed by AQA is centred on universities' Self-review Reports which are validated through analysis and interviews by a panel of AQA-appointed auditors. AQA auditors are generally current or recent senior academic staff of New Zealand universities or quality assurance professionals with experience of the university sector, who have been appointed to the AQA Register of Auditors and Reviewers. All AQA audit panels include at least one international panel member from either the AQA Register or the Register of another international agency. The AQA audit process can be summarised in the following key steps:

(1) University undertakes a process of self-review against the audit framework.

(2) AQA appoints a panel of 4-5 auditors to undertake the audit.

(3) University prepares and submits a Self-review Report to AQA along with supporting documentation.

(4) AQA audit panel members read and review the Self-review Report and supporting documentation.

(5) AQA audit panel corresponds by email and meets (physically and/or by video or teleconference) to discuss the material received and the assessment evolving.

(6) Any additional or explanatory material requested of the university is provided to the audit panel.

(7) A three to five day site visit of the university is undertaken during which time the audit panel seeks to triangulate assertions and evidence provided in the Self-review Report.

(8) The audit panel's final report is prepared by AQA, submitted to the AQA Board for approval, and then provided to the university. This report is also made available to the media, related organisations and to the public through the AQA website.

When the audit process described was first established, the majority of communication between AQA and universities, and AQA and its auditors,

was in hardcopy form. Between Cycle 1 (1995/96) and Cycle 4 (2008/12), the process evolved so that communications outside of audit site visits were mainly via e-mail with Self-review Portfolios (the Self-review Report plus supporting documentation) provided in hardcopy as well as in electronic form. Telephone or video conferencing has been used by the panel to communicate on occasion. This hybrid approach has, in the main, served the AQA audit process well and has provided a workable process for universities and for most auditors. From discussions with other mature agencies during 2012 and 2013, AQA formed the view that it was not alone in arriving at a hybrid approach to IT in external audit/review processes.[1]

2.1 The Opportunities Provided by Increased Use of IT in Audit

Operating the manner described above, AQA has been becoming increasingly aware that it is undertaking its audits in a manner which remains largely unchanged from two decades previously and has not been responding to developments in technology and processes which could make its processes more efficient. In the view of AQA staff, supported by some individual auditors and university staff, AQA may be missing multiple opportunities to:

(1) Reduce the financial and environmental cost of printing and postage of hardcopy documents.

(2) Recognise and employ IT software and devices used by the universities in their own internal quality assurance systems, including intranet and Dropbox (or similar) sites, tablet computers and e-portfolios.[2]

(3) Respond to the desire of individual auditors to work in the ways which they find most effective in their non-AQA roles.

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[1] Individual discussions and email exchanges between AQA and INQAAHE and APQN member agencies regarding the use of information technology in audits or reviews (2013).

[2] An e-portfolio is a collection of electronic evidence assembled and managed by a user, usually maintained on the Internet. "Dropbox" is an example of a cloud-based storage facility maintained by a third-party on servers accessible through web services or similar application.

(4) Make greater use of mobile devices for portable access to documentation, editing functionality and online data while undertaking academic audits.

(5) Employ enabling technologies and communication tools that support both synchronous and asynchronous communication during the audit process.

(6) Increase the security of confidential submissions and discussions between universities and AQA, AQA and audit panels, and between audit panel members.

With these potential opportunities in mind, for Cycle 5 audits (2013 – 2016) AQA has been exploring how to incorporate IT to a greater extent into the audit process while still meeting its operational needs. This is a continuing process and one which AQA expects to develop as Cycle 5 evolves. AQA is aware that in doing so, it is integrating new solutions with existing processes rather than reconceptualising its audit approach, and that this may not lead to the full realisation of potential opportunities. Unlike CUAP (see below), AQA does not foresee the development of a customised software solution for its work programme.

This approach is deliberate for several reasons. First, the existing hybrid model is, by-and-large, continuing to serve AQA, its auditors and the universities adequately. As a result, there is no major incentive for significant change. Secondly, AQA is a small organisation of two permanent staff without the resources to purchase or develop and support extensive products and systems for this undertaking. Finally, academic audit is a periodic event occurring only every 4-5 years for each university and AQA is of the view that it needs to retain flexibility to be able to operate in line with university and auditor preferences, and specific contextual issues associated with the nature of each audit. For example, AQA recently undertook an audit across several Pacific island locations where access to Internet and even electricity was, at times, unreliable. This kind of audit does, of necessity, require a different approach to information dissemination and communication than one that occurs in one known location where infrastructure is familiar and reliable.

While AQA's approach to the greater integration of IT into its audit processes is on a small scale and iterative rather than revolutionary in nature, it is likely that

the opportunities presented by the changes being adopted have some resonance with other international agencies.

2.2 The Challenges of Increased Use of IT in Audit

AQA is of the view that the challenges it faces when integrating IT software and hardware with existing processes and systems are likely to be common to both small and large organisations. For AQA, the main challenges can be summarised as follows:

2.2.1 Accommodating the IT Skills and Willingness of Auditors Who Undertake Audit Assignments for AQA on an Occasional Basis

Most AQA auditors are employed in a university or are consultants in related fields, and are paid an honorarium for their contribution to the audit process. Many are very senior academics with considerable knowledge and experience in their discipline and in the area of academic quality. Their IT skills are generally commensurate to their current role and own needs and interests. Some may not be willing to accept a position on an AQA audit panel if additional requirements are placed on their participation when they believe they can perform satisfactorily without the use of such new IT systems or tools.

2.2.2 Ensuring Auditors Have Access to IT Hardware, Software and Related Applications While Undertaking AQA Audit Sits Visits

Like many workplaces, AQA has seen an increase in the expectation that individuals will "Bring-Your-Own-Device" (BYOD) as the portability of devices and access to web-based repositories has improved. Some auditors have, and prefer to use, their own devices (e.g., laptops, tablets) in the AQA work environment. Other auditors don't own or would rather not provide their own equipment, and need training to use unfamiliar devices. This has purchasing, financial and training implications for AQA, as well as issues of consistency and compatibility across an audit panel. One particular issue is the need to consider the confidentiality and security of information when accessed on devices owned by individuals or their employers, not all of which can be assured to have passcodes or adequate virus protection, for example.

2.2.3 Providing Affordable Access to Cloud-Based Repositories and Internet-Based Communication Tools

Continual access to internet can be difficult when moving between sites and geographical locations including some that cannot guarantee reliability of supply or access to reasonably priced data plans. Audit panel members and AQA staff have experienced this as an issue when staying in hotels and some locations outside of New Zealand.

2.2.4 Integrating IT Solutions with Those of the Universities Submitting Self-Review Reports and Supporting Documentation

All New Zealand universities have their own IT systems, preferences and protocols. With an objective of working flexibly with the universities, AQA has provided guidelines but not imposed requirements on universities with regard to the structure and form of their Self-review Report submission. If AQA was to impose a requirement for electronic submission then it might face the need to be able itself to interface with a variety of different university systems.

2.2.5 Working with Potentially Dynamic Information during and Following an Audit

Advances in e-portfolios and similar repositories of electronic evidence would seem to lend themselves to the type of self-review submission envisaged by the AQA audit framework. Many universities already use e-portfolios and have an interest in extending their application to AQA audits. However, such repositories are, by their very nature, dynamic and subject to constant change. Already, the increased use of web links, links to intranets and to cloud-based repositories in Self-review Reports has meant that AQA audit panels are consulting material that can, and does, change during the course of an audit. Typically, from an auditor's perspective, an AQA audit runs for approximately 5-6 months from receipt of the Self-review Report to publication of the final audit report. This can create problems of ensuring panel members are reviewing the same document in their work. Additionally, AQA has a policy of retaining an archived version of Self-review Reports. When considering universities' preferences for Self-review

Report submissions, ensuring that the agency's archival requirements are met is something that AQA is acutely aware of. This need not be in a hardcopy form but does need to be in a format that can be captured to correspond with what the audit panel reviewed at the time of the audit and, to which the final audit report and any subsequent follow-up corresponds.

2.3 Response to Date, and Looking Forward

In early-2014, AQA is addressing a greater integration of IT into existing audit processes with the identified opportunities and challenges in mind. To commence this process, AQA has developed a set of IT protocols for use by AQA audit panels and will continue to test and evolve these throughout Cycle 5, amending as necessary to respond to the particularities of each audit. These protocols have been designed to provide guidance to AQA and its auditors and cover 10 key areas:

(1) Form of materials.

(2) "At-home" set-up.

(3) Secure devices (includes the requirement that all devices (PC, laptop, tablet, smartphone etc.) used to access emails and/or documents related to AQA audits should be password or otherwise security protected for the course of the audit panel's work).

(4) Email.

(5) Extranet.

(6) Use of IT during panel meetings and the site visit.

(7) Note-taking during site visits.

(8) Report writing.

(9) Internet access.

(10) Destruction of confidential material.

Auditor recruitment information now specifies that AQA auditors are, in

addition to other criteria, expected to be comfortable working with documents presented electronically. AQA's Cycle 5 Audit Handbook for Auditors advises that AQA endeavours to use electronic resources and communication wherever possible and that auditors will also be encouraged to use them. Audit panel members are now asked to bring their own laptop, notebook, tablet or other suitable electronic device to audit site visits with software appropriate for note-taking and accessing electronic documents during the panel's private sessions. If this is not possible, then auditors are asked to advise AQA at the earliest opportunity so that alternative arrangements can be made. To provide for auditors who cannot or do not wish to bring their own devices, AQA has purchased several tablets with annotation software for the use of audit panel members.

Discussions with New Zealand universities being audited in 2014 include early communication over the form of audit Self-review Report submissions, with AQA being willing to accommodate university preferences taking into account the challenges described in this paper. AQA will continue to evolve its practices to capture the opportunities offered by the use of technology in institutional audits.

3. CUAP Case Study: Developing a Web-Based Qualification Proposal Management System

In response to an audit recommendation in 2011 by the Academic Quality Agency for New Zealand Universities, Universities New Zealand developed a web-based system for managing CUAP's programme approval process (Academic Quality Agency for New Zealand Universities, 2011). The new system was used for the first time for Round Two proposals in 2012.

CUAP's key proposal processes can now be summarised in nine stages shown overleaf (Figure 1).

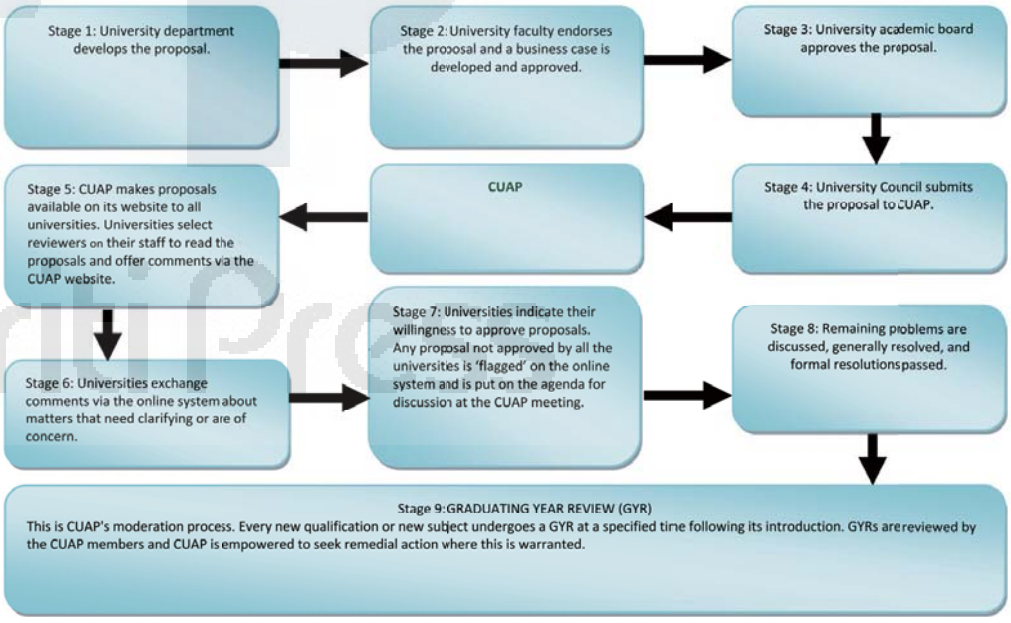

Figure 1. CUAP Proposal Processes

Source: Universities New Zealand internal presentation.

Prior to the development of the online system, CUAP's proposal processes were conducted predominately via email exchanges between the universities and the Universities NZ CUAP manager. Proposals and related documents were submitted as email attachments and comments on proposals exchanged via email between the university administrators and copied to the CUAP manager. In cases where proposals were brought to CUAP for discussion, the exchange of comments would be copied from the original emails into a Word document for the CUAP meeting. Reports generated for CUAP, the universities and other agencies (for example the government agency responsible for funding approved programmes) were created manually by the CUAP manager.

The AQA audit of CUAP in 2011 recommended that CUAP's programme approval process be managed online, preferably with a web-browser interface, enabling electronic submission, processing, monitoring and reporting of proposals. The audit panel identified CUAP's heavy reliance on the services of one long-standing staff member as a potential risk and noted that "continuity of expertise was tenuous and not systematically assured" (AQA, 2011). The audit

panel anticipated that as well as mitigating these risks the development of a web-based system would also enhance the process by creating a more transparent and efficient process as well as an accessible archive of proposals and resolutions.

3.1 The Challenges of Developing a Web-Based System

The 2011 audit panel's recommendation was to develop a web-based system that would enhance CUAP's existing, relatively mature processes. The system that was developed took the existing processes and replaced the medium of exchange from an email-based system to an online system. Despite being based on an existing system the development of a web-based system still created a number of challenges.

The goal was to design an online system that was simple and intuitive to use, that would work cooperatively with the universities' own internal systems, processes and internal delegation systems, and facilitate rather than hinder the core system. Once the existing process was mapped out, it was proposed to develop the web-based system in two phases. To retain the autonomy of the universities' own internal processes, stages 1-4 of the CUAP process (the universities' internal proposal development and approval processes) were not included as part of the online system. The online system that was developed began at stage 5, the point at which university-approved proposals were submitted to CUAP and made available to the other universities.

It was initially envisaged that the web-based system would incorporate stage 5, distribution of proposals to peer reviewers, and all aspects of stage 6, the exchange of comments between the reviewers and the proposal developers. Including these two stages in the web-based system was contingent on providing individual reviewers at the universities with direct access to the online system. It was, however, decided to maintain the existing process of a centralised system within the universities. Access to the CUAP online system would be limited within the universities to the CUAP administrators and these administrators would act as the interface between the reviewers and proposal developers. Providing reviewers direct access to the system would have complicated access to the system with multiple and changing user log-ins. Moreover, it would have been challenging to develop a system flexible enough to accommodate the different

ways in which the review process operated within each university. A centralised system also potentially encourages greater standardisation and moderation at a university-level. Limiting access to the CUAP administrators has meant that the work of disseminating proposals and exchanging comments between reviewers and proposal developers falls to the CUAP administrators.

Although this was the also the case under the existing system, initial feedback from the administrators indicated that, at least for some administrators, exchanging comments using the online system (which the reviewers and proposal developers do not have access to) was more time-consuming than the email-based system (where the administrators could simply forward emails to the reviewers and developers).

The CUAP system was designed to be as user-friendly and intuitive as possible and, while the process remained the same, the shift in medium did create some challenges. The university CUAP administrators were experienced with the existing system and there were some teething issues as both the CUAP manager at Universities NZ and the university administrators adjusted to using an online system. Feedback from the administrators and the CUAP manager has resulted in a number of amendments to improve the system for both the CUAP manager and the university administrators.

3.2 The Opportunities Provided by Developing a Web-Based System

Developing the existing CUAP system into a web-based system has provided a number of opportunities, particularly in creating a more transparent and efficient process. The 2011 AQA audit of CUAP identified "continuity of expertise" as a risk-factor due to the heavy reliance on the sole CUAP staff member. An important step in mitigating this risk was to make the process more transparent. This was achieved, in part, by the process of mapping out the existing system and building a web-based system to manage it. Various key points in the process have been automated to some extent by the online system. Under the previous system universities could access only those comments which were made about their own proposals. To increase transparency users can now access all the proposal comments in the three weeks leading up to a CUAP meeting and all proposals,

related documents and comments are now archived on the web-based system and accessible to all users. Universities can use the system to generate reports and access archived material independent of the CUAP manager. The web-system also accommodates a certain amount of flexibility in that the proposals, related documents and comments are available to the CUAP manager from any internet location.

Having completed three rounds of programme approval using the online system, there is now a group of users across the universities who are familiar with the system. The user manual (currently in the process of being revised) and the user-friendly interface make it more manageable for new users to navigate the process. In addition, some of the process terminology dated back to a time when the system was conducted by post. Certain key terms were updated to align them to a web-based system.

It was anticipated that the web-based system would be more efficient than the existing system. After the initial round some CUAP users in the universities reported that using the online system had added to their workload. Potentially this has been rectified as administrators become more adept at using the system and improvements were made in response to the feedback received. CUAP meeting papers pertaining to the proposals can be readily downloaded, while automatically generated emails alert users of upcoming deadlines, proposal updates, and provide for various other notifications that were previously undertaken by the CUAP manager. Additionally, information on the system is less likely to be subject to double-handling as the comments and reports are retrieved directly from the system.

3.3 Progress to Date, and Looking Forward

While the web-based system recommended by the audit panel was intended to replicate the existing system it nevertheless involved a number of modifications to the process in order to adapt it to a new medium. In its early-stages of development it was envisaged that the web-based system would have the flexibility to handle the process' many complexities and contingencies. While the system has been amended in response to some of these issues, it has been necessary to retain some aspects of the email-based system. Email and telephone calls add a level of

flexibility to the day-to-day communications behind the proposal system while the web-based system still captures the critical information it was designed to.

Improvements to the web-based system are ongoing. Sometimes small amendments make a real difference to the efficiency of the process. Some elements of the process have been remapped to capture the process better and new developments are currently being explored, specifically incorporating stage nine, the Graduating Year Review process, into the web-based system. The benefits of an instantly accessible archive of past approval rounds are only just starting to become apparent as the system moves into the fourth round of using the web-based system.

While improvements of the system are ongoing, it will be of interest to see the findings of the next external audit of CUAP and the extent to which the web-based system has met the concerns and opportunities identified in the 2011 audit.

4. Conclusion

As outlined in these two case studies, AQA and CUAP have taken different approaches to the greater use of IT in external QA processes. Both approaches emphasise the importance of retaining existing and effective process steps, the institutional autonomy of universities, the preferences and experiences of users, and of iterative improvement over time. It is anticipated that, in this way, both approaches will allow AQA and CUAP to see the benefits of increased use of IT while working to overcome the challenges foreseen within the New Zealand context.

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The General Quality Assurance Tendency in Higher Education Institutions in Vietnam

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ABSTRACT

Applying the international quality accreditation standards to perform the internal quality assurance; focusing on assessment at the program level rather than at the institution level; and becoming a member of one of the international quality assurance networks are the trend which is chosen by the majority of Vietnamese universities to set up the system that ensures their educational quality. This general trend becomes more and more growing, which has been expressed through recently national and international workshops such as: 2009 Asia-Pacific Quality Network Conference and Annual General Meeting "Quality Assurance in Higher Education: Balancing the National Contexts and International Aspiration"; 2013 AQAN Seminar and Roundtable Meeting "Building Quality Culture and National Qualifications Framework"; Workshop on "Independent Quality Accreditation, Quality Culture organized" by Vietnamese Ministry of Education and Training; 2014 APQN Conference and Annual General Meeting "Higher Education Quality Assurance in a Changing World: Envisioning the Future of Asia Pacific."

This paper provides the information about European Standards and Guidelines for Quality Assurance (ESG); the advantages and limitations of the quality assurance trend that the universities in Vietnam pursue in the context of the current integration as well as proposes some practical solutions to support Vietnamese universities in enhancing their internal quality system.

Keywords: Quality Assurance Tendency, Quality Accreditation Standards, Quality Assurance Networks, External Assessment, Internal Quality System

1. The Legal Basis of Accreditation in Higher Education in Vietnam

As far as Vietnam's quality assurance system is concerned, the concepts of quality assurance and accreditation were already introduced in Vietnamese higher education at the beginning of this century. The first document mentioning to the concept of quality accreditation in higher education is the Decision 47/2001/QD-TTg on April 4th, 2001 of the Government about a planning network of universities and colleges period 2001-2010. The decision has set out to "build a system of educational criteria and standards, perform training quality accreditation in the national universities and colleges system."

At present, quality assurance (QA) has been legally affirmed in The Education Law 2005 (Article 17, 58, 99) and Decree 75/2006/ND-CP on August 2nd, 2006 of Government gives details and guidelines to follow some articles of the Education Law (Chapter II, Article 38-40). The Ministry of Education and Training (MOET) has also chosen QA as the primarily measure to determine the level of implementation of goals, programs and educational content to universities and colleges. Up to the present time, MOET has issued numerous legal documents about the quality accreditation in general and quality accreditation in Higher Education, in particular, which include:

Documents about quality accreditation for higher education:

- Decision 38/2004/QD-BGDDT on December 2nd, 2004 of MOET about the Temporary Standards for university accreditation;
- Decision 65/2007/QD-BGDDT on November 1st, 2007 of MOET about standards for university accreditation;
- Decision 76/2007/QD-BGDDT on December 14th, 2007 of MOET about procedure and period of accrediting universities, colleges, and professional secondary schools;
- Decision 29/2008/QD-BGDDT on June 5th, 2008 of MOET about the cycle and period of accrediting programs of the universities, colleges and professional secondary schools;

- Decision 4138/QD-BGDDT on September 20th, 2010 of MOET about the Scheme of building and developing quality accreditation system in higher education and approving construction projects and the development of quality education for higher education and vocational schools period 2011 - 2020;
- The Document 462/KTKĐCLGD-KĐĐH on May 9th, 2013 of the Educational Testing and Quality Accreditation Department about guidelines for self-assessment at institutional level;
- The Document 527/KTKĐCLGD-KĐĐH on May 23rd, 2013 of the Educational Testing and Quality Accreditation Department about guidelines for the implementation of quality standards at institutional level;
- The Document 1480/KTKĐCLGD-KĐĐH on August29th, 2014 of the Educational Testing and Quality Accreditation Department about guidelines for external quality assessment at institutional level;
- Merged document 06/VBHN-BGDĐT on March 4th, 2014 of MOET about standards for quality accreditation at institutional level.

Documents about guidelines for quality assessment at program level:

- Circular 38/2013/TT-BGDDT on November 29th, 2013 about the cycle and process of accrediting programs of the universities, colleges and professional secondary schools;
- Circular 23/2011/TT-BGDĐT on June 6th, 2011 of MOET about standards for quality assessment of the Program in Industrial Technology Pedagogy;
- Circular 49/2012/TT-BGDĐT on December 12nd, 2012 of MOET about standards for quality assessment of the Program in High School Teacher Training;
- Circular 33/2014/TT-BGDĐT on October 2nd, 2014 of MOET about standards for quality assessment of the Program in Nursing.

Documents about establishing of Independent quality accreditation agencies:

- The Higher Education Law on June 18th, 2012 (Chapter VII, Clause 52; *The Vietnamese Higher Education Law*, 2012);

- Circular 18/2013/TT-BGDDT on May14th, 2013 of MOET about the establishment of the Program in Higher Education Assessor Training;
- Decision 3568/QD-BGDDT on September 5th, 2013 about the establishment of the Center of Educational Quality Accreditation - Vietnam National University - Hanoi;
- Decision 5570/QD-BGDDT on November 22nd, 2013 about the establishment of the Center of Educational Quality Accreditation - Vietnam National University - Ho Chi Minh City.
- Decision 1100/QD-BGDDT on April 6th, 2015 about the establishment of the Center of Educational Quality Accreditation - The University of Da Nang.

So far, the quality assurance system in higher education in Viet Nam is quite complete, with the internal quality assurance system in institutions referring to the quality assurance centers (QACs), and the external assurance system referring to the General Department of Education Testing and Accreditation (GDETA). Those documents listed above are the important legal instruments for carrying out quality accreditation in Vietnam. These documents also show that the quality accreditation in Vietnam is systematically, updated, closely regulated and guided by the Ministry of Education and Training.

2. The Internal Quality Assurance and the Experiences from Europe

Through the practical application in the higher-education institutions in the world, before going to the external quality accreditation (EQA) stage, these institutions should experience their internal quality assurance (IQA). This is the most important period in order to meet the quality accreditation standards and criteria; therefore, the guidelines of implementation the IQA is absolutely necessary, which helps these institutions to develop their own IQA system with a clearly itinerary to ensure that the quality assurance process is grown "from the root to the tip." (Table 1).

The legal documents listed above shows that the MOET has been primarily focusing on quality assessment at the institution level rather than the program

level; and concentrating on the external quality accreditation rather than the internal quality assurance.

In Europe, higher education, research and innovation play a crucial role in supporting social cohesion, economic growth and global competitiveness. Given the desire for European societies to become increasingly knowledge-based, higher education is an essential component of socio-economic and cultural development. The role of quality assurance is crucial in supporting higher education system and institutions in responding to these changes while ensuring the qualifications achieved by students and their experience of higher education remain at the forefront of institutional missions. Engagement with quality assurance allows European higher education systems to demonstrate quality and increase transparency; helping to build mutual trust and better recognition of their qualifications, programs and other vision.

The Standards and guidelines for quality assurance in the European Higher Education Area (ESG) were adopted by the Ministers responsible for higher education in 2005 following a proposal prepared by the European Association for Quality Assurance in Higher Education (ENQA) in cooperation with the European Students' Union (ESU), the European Association of Institutions in Higher Education (EURASHE) and the European University Association (EUA). A key goal of ESG is "to contribute to the common understanding of quality assurance for learning and teaching across borders and among all stakeholders."

The ESG are based on the following four principles for quality assurance in the European Higher Education Area (EHEA):

- Higher education institutions have primary responsibility for the quality of their provision and its assurance;
- Quality assurance responds to the diversity of higher education system, institutions, programs and students;
- Quality assurance supports the development of a quality culture;
- Quality assurance takes into account the needs and expectations of students, all other stakeholders and society.

The ESG are a set of standards and guidelines for internal and external quality

assurance in higher education. The standards have been divided into three parts: Internal quality assurance; External quality assurance; and Quality assurance agencies. In particular, the internal quality assurance standards concentrate on the program quality assurance. The three parts are intrinsically interlinked and together form the basis for a European quality assurance framework; thus, they work on a complementary basis in higher education institutions as well as in agencies and also work on the understanding that other stakeholders contribute to the framework.

Table 1. European Standards for Internal QA, External QA and QA Agencies

TT	European standards		
	Internal QA	External QA	QA agencies
1	Policy for QA	Consideration of internal QA	Activities, policy and processes for QA
2	Design and approval of programs	Design methodologies fit for purpose	Official status
3	Student-centered learning, teaching and assessment	Implementing processes	Independence
4	Student admission, progression, recognition and certification	Peer-review experts	Thematic analysis
5	Teaching staff	Criteria for outcomes	Resources
6	Learning resources and student support	Reporting	Internal QA and professional conduct
7	Information management	Complaints and appeals	Cyclical external review of agencies
8	Public information		
9	On-going monitoring and periodic review of programs		
10	Cyclical external QA		

Source: Boele (2007).

In fact, Internal Quality Assurance (IQA) has always been more focused on the level of the program. This is natural because learning is the heart of the mission of any Higher Education Institutions (HEIs), next to research and social

commitment. According to Dr. Heinz-Urich Schimdt, Executive Director of FIBAA (Foundation for International Business Administration Accreditation), program assessment is considered as "The best practices" for quality assurance in Germany. These experiences show that in Europe, there is the synchronous integration in quality assurance "from the inside out," "from quality assurance to quality accreditation." And, accreditation is independently performed by external accreditation agencies.

3. The Quality Assurance Tendency of the Higher-Education Institutions in Vietnam

After a decade (from 2004 to 2013) of development and implementation, quality assurance in higher education in Vietnam has forward steps; simultaneously, higher-education institutions have been gradually conceived the critical role of quality assurance in maintaining and developing their training quality. However, the legal quality assurance documents should be updated and supplemented more criteria and guidelines in internal quality assurance as well as quality assessment at the program level.

In the trend of integration and globalization today, in order to affirm their own position both nationally and internationally, higher-education institutions in Vietnam have actively implemented the quality assurance activities in accordance with national standards; accessed and performed quality assurance according to international standards as well.

Because of these positive and dynamic activities of higher-education institutions recently in ensuring the quality of training, a general tendency has been formed as the suitable solution in order to enhance quality assurance:

- Applying the international quality accreditation standards to perform the internal quality assurance;
- Focusing on assessment at the program level than the institution level;
- And becoming a member of one of the international quality assurance networks.

Through the reality was presented and the requirements on the comprehensive cooperation among the countries in the region and globalization today; it can be seen that this trend is absolutely suitable to the institutions not only in Vietnam but also in the developing countries.

4. The Advantages of the Trend for Higher Education Institutions in Vietnam

4.1 For the Internal Quality Assurance System and Focus on Quality Assessment at the Program Level

As defined in the study conducted by Martin and Stella (2007), internal quality assurance (IQA) is referred to "the policies and mechanisms implemented in an institution or program to ensure that it is fulfilling its own purposes and meeting the standards that apply to higher education in general or to the profession or discipline in particular." Likewise, IQA was briefly defined in ADDA (2010) that "in the specific context of higher education institutions, IQA is the totality of systems, resources and information devoted to setting up, maintaining and improving the quality and standards of teaching, scholarship (student learning experience), research, and service to community." Summing up, IQA in general can be defined as the overall management system which is implemented in the institution to carry out the quality policy for ensuring that the institution fulfills its purpose and meets the standards set by external elements.

The internal quality assurance system of higher education institutions regularly gathers and analyses important information such as the number of students who graduate in line with the regular program, or the employment situation of graduates and based on this, plans concrete improvement actions (Figure 1). It is to all extents and purposes a self-assessment system. Generally, there is no one IQA system that is applicable to all universities. Each university has to build its own system; therefore the university is encouraged to adopt a tailored-made approach that derives from institutional strategic goals and fits into institutional culture to meet the internal requirement as well as external requirement in the process.

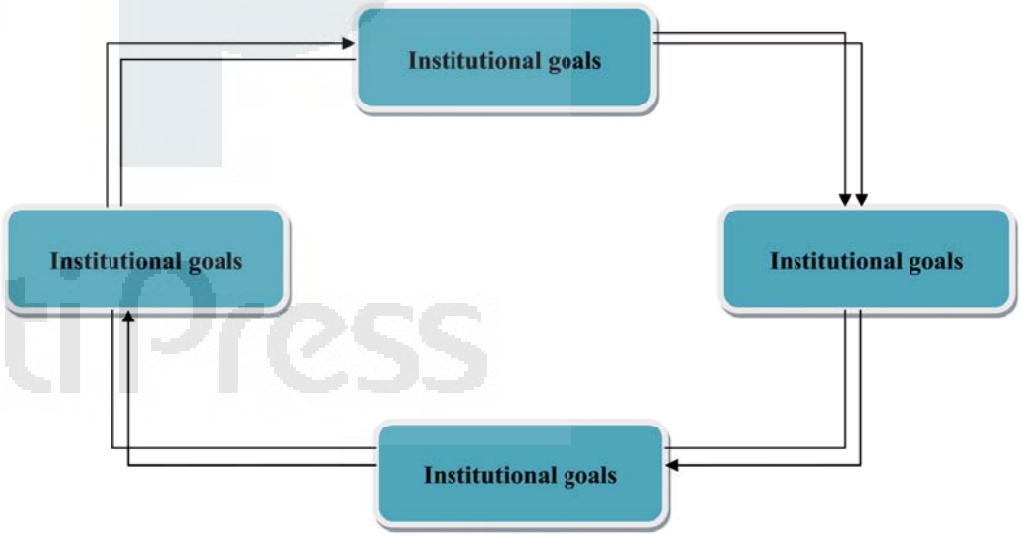

Figure 1. Internal Quality Assurance

Source: Adopted from Vroeijenstijn (1995).

The internal quality assurance system aims to guarantee that the quality of the teaching programs is well documented, verifiable and assessable; facilitate access to information, making it clearer and more understandable for students, families and stakeholders in the employment world; and promote a process of continuous improvement in study programs.

The applying international quality assurance standards, procedures and guidelines will help higher-education institutions in Vietnam to approach and implement the right direction from the beginning, which definitely increases the effectiveness of their internal quality assurance system.

The focus on quality assessment at the program level in the current period is in line with the reality of the academic staff quality and the infrastructure of the majority of universities in Vietnam, which is the steady step to achieve the overall quality of education and training as a whole.

In addition, an inevitable consequence of the trend is the international recognition for the quality of a higher-education institution, especially in a developing country. This will provide a motivation for institutions in the region to build a general qualifications framework as well as mutual recognition, which contributes to a comprehensive cooperation in education and training among countries.

4.2 For Becoming a Member of One of the International Quality Assurance Networks

The international networks of quality assurance and quality accreditation are the organizations involving many members from different countries over the world; therefore, the set of standards, procedures and guidelines for quality assurance and quality accreditation are built from practical experience of many agencies and different cultures, which ensures the diversity, standardization, international and high reliability.

Nowadays, there are many regional and international quality assurance networks such as Asia-Pacific Quality Network (APQN), ASEAN Quality Assurance Network (AQAN), ASEAN University Network (AUN), International Network for Quality Assurance Agencies in Higher Education (INQAAHE), European Association for Quality Assurance in Higher Education (ENQA), etc. ... which accept member from institutions in the region and worldwide. For instance, APQN has four levels of membership: Full Member, Intermediate Member, Associate Member and Institutional Member. APQN also accepts Observers. Every network has certain criteria that need to be met at each level of membership. For ENQA, each membership criterion is followed by guidelines which provide additional information about good practices and in some cases explain in more detail the meaning and importance of the criteria. Although the guidelines are not part of the criteria themselves, the criteria should be considered in conjunction with them.

Becoming a member of these networks will provide more favorable opportunities that help the institutions in experiential learning, collaboration, training expert and mutual supports, which will form the good capacity to improve their educational quality. In fact, quality assurance networks offer services for members that help them to develop further, including:

- Representing its members at the regional level and internationally, especially in political decision making processes and in co-operations with stakeholder organizations;
- Sharing and disseminating information and experts in quality assurance among its members and towards stakeholders mainly through publications, website and newsletter;

- Giving the possibility to its members to nominate experts;
- Providing quality assurance advisory support either on an individual basis upon request or through events;
- Involving in quality assurance projects;
- Using of the network's trademark.

As a member of these quality assurance networks, Vietnamese higher education institutions become a part of a QA community, with shared interests, a common language and an understanding of how things are done with regard to a very specific field of work. It provides a forum for the discussion of global issues, such as cross border education that go beyond national or regional boundaries. Members have the opportunity to learn from what others are doing, both from their successes and their failures, and thus have now set the ground for the development of a quality assurance profession.

5. The Limitations of the Tendency

Besides the advantages that the higher-education institutions in Vietnam have obtained from the general trend mentioned above, there are still many limitations that face the institutions in the process of pursuing the objective of ensuring the quality of education.

First, not all higher-education institutions have been accepted as a member of the international quality networks for various subjective and objective reasons. For example, one of the admission criteria for AUN membership enlargement is geographical balance (see Figure 2). As a regional network, the number of members per country should reflect a good balance of members from each member country. Thus there are no more than three universities from each ASEAN member state to ensure that the network will not be overwhelmed by too many members and network participation can remain meaningful and fruitful.

Second, the cost of participation in the international networks as well as the cost to perform the quality accreditation (both the institution and the program level) is often very high.

Last but not least, the differences in culture and legal mechanisms make some standards and the solutions difficult to implement in practical conditions of Vietnam.

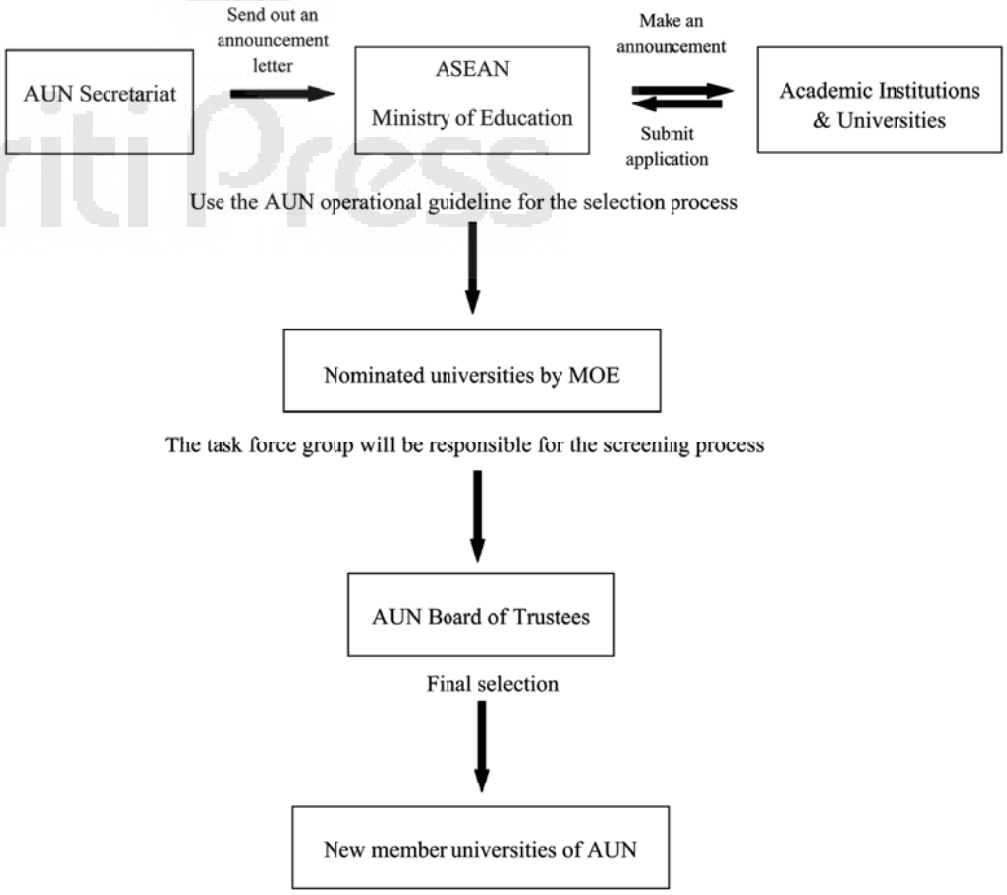

Figure 2. Chart of AUN Admission Process

Source: ASEAN University Network-Quality Assurance (2015).

6. The Tendency's Suitability and Developmental Competence

In the year 2015, Vietnam will comprehensively integrate in the ASEAN Economic Community (AEC). The importance of the factor of high productivity and competitiveness in a global market depends on the investment in human resources, research and technological development and education -- especially higher education and vocational training.

Higher education contributes significantly to the technological capacity and overall competitiveness of developing member countries (DMCs). As such, the region's fast-growing economies are exerting pressure on higher education. There is an increasing trend for DMCs to establish world class universities and "centers of excellence." Higher education is now experiencing both the "push" of large numbers of secondary education graduates, and the "pull" of labor markets demanding more workers with particular skills.

As these developments appear more frequently on the higher education landscape across the region, it will be important to ensure that access to higher education becomes more inclusive so that no sector of society is neglected in the development of human capital.

Many countries use external quality assessment as an important instrument to monitor the quality of higher education institutions, add value to quality assessment, and attach the credibility to the objective quality assurance system (see Table 2) (Mishra, 2007). However, it is argued that assuring quality should be a continuous process, and it should not be considered as a one-time activity for accreditation alone (Mishra, 2007). Therefore, despite the importance of external quality assurance and the credibility it can bring to the impartial system, developing an internal quality assurance mechanism is considered more important to assure the quality of educational institutions. Institutions have a major responsibility for assuring the quality of "teaching, research and internal organization," so it is important that each institution should develop its own effective system of IQA (Hanft & Kohler, 2008).

The higher education quality accreditation in Vietnam is still young; therefore, the MOET has been inquiring experiences from the international education systems of the US, Australia, Europe, etc. ... in order to build the national education quality accreditation model. Currently, MOET is focusing on the accreditation at the institution level rather than the program level. For the program level, MOET encourages the institutions approaching criteria of the international and regional networks such as AUN, ABET, AACSB, etc.

Nowadays, MOET and Vietnamese higher education institutions have been continually maintaining and expanding their participation in APQN, AQAN, AUN, ABET, ENQA, DAAD, etc. ... to learn how to build an effective and efficient quality assurance model which is suitable to the particular conditions of Vietnam.

Table 2. The Global Competitiveness Index 2014-2015

Country	Overall index		Higher education and training		Labor market efficiency	
	Rank (out of 144)	Score (1-7)	Rank	Score	Rank	Score
Cambodia	95	3.89	123	2.92	29	4.63
Indonesia	34	4.57	61	4.53	110	3.81
Laos	93	3.91	110	3.28	34	4.59
Malaysia	20	5.16	46	4.80	19	4.80
Myanmar	134	3.24	135	2.44	72	4.21
Philippines	52	4.40	64	4.45	91	4.03
Singapore	2	5.65	2	6.09	2	5.69
Thailand	31	4.66	59	4.58	66	4.24
Vietnam	68	4.23	96	3.74	49	4.37

Source: World Economic Forum (2015).

In Vietnam, as such reviewing every aspect of the tendency, from the integration, the formation and development of the quality assurance in higher education to the reality of deployment quality assurance at the institution and program level and from experts on quality assurance, it can be seen that the tendency "Applying the international quality accreditation standards to perform the internal quality assurance; focusing on assessment at the program level rather than at the institution level; and becoming a member of one of the international quality assurance networks" is appropriate for the Vietnamese higher education institutions in order to build their own solutions as well as develop their quality assurance systems that compatible with the integration context.

7. Practical Solutions

In order to bring into play the role of higher education in offering high qualified human resource for the modern society, all countries over the world, especially the developing countries have to quickly perform and sync the higher education quality assurance system with innovative solutions to improve the educational quality.

In Vietnam, The Ministry of Education and Training (MOET) should standardize official documents on self-assessment and accreditation in higher education in order to create unity in the implementation of quality assurance system. Moreover, MOET should respect institutional autonomy and develop trust in the capacity of the academic community to realize quality.

A well-performing higher education system needs to balance internal and external quality assurance; therefore, the institutions need to proactively build and enhance the operational efficiency of the internal quality assurance system which is consistent with the institutions' vision and mission in the integration of international education. Besides, institutions should create favorable conditions for high quality teaching, research and service to the community and should define their own mission.

Institutions should also cooperate and share experiences in the performance of quality assurance. Especially, the institutions which are the member of the regional and international networks should exert their role in order to effectively contribute to the network's activities as well as support the non-member-institutions in researching the educational quality criteria and participating in the network. Last but not least, institutions should develop their own quality culture, aimed at their institutional mission.

8. Opinions with Regard to Quality Assurance Networks

To meet the requirements of integration and development, the MOET has been made many efforts and solutions to enhance capacity, innovate teaching methods and improve the quality of training as well as learner support services, in which the quality assurance system has been implemented by higher education institutions to ensure their sustainable development. For instance, Vietnamese institutions have been actively deployed the self-assessment activities at the institution level according to the MOET criteria (up to October 31st, 2015, there are about 200 universities implemented self-assessment according to the MOET criteria). Besides, many universities have been actively learning and performing self-assessment activities as well as registering for external review at the program

level following the criteria of AUN and ABET (up to now, there are over 25 training programs of Vietnamese universities accredited by AUN, 2 training programs accredited by ABET). Although there have been many attempts, the result is still modest.

As a result, the institutions of Vietnam need to promote the progress in implementation quality assurance activities such as strengthening the internal assessment following national and international quality criteria to demonstrate quality and increase transparency; applying for the external assessment by quality assurance networks in order to build mutual trust and better recognition of qualifications, programs and other vision.

To promote the development of quality assurance system, the support of the regional and international quality assurance networks is very important and necessary. The practical activities show that the regional and international quality assurance networks have had many contributions to the development of quality assurance in Vietnam; however, because of the great demand and different operation methods of each network, institutions find it difficult to have the supports from these networks. With their mission and vision, quality assurance networks should establish more appropriate policies to strengthen their supports in the development of higher education in general and the quality assurance in Vietnam and other countries.

9. Conclusion

Being in harmony with the integration and globalization trend; higher education has been cross-border developing the not only cooperative but also competent environment in each country, in the region and over the world. In order to ensure the maintaining and developing, quality assurance in higher education is becoming an imperative need in each institution, each country, especially in the developing countries.

In the context of integration and globalization today, the higher-education institutions not only in Vietnam but also in the developing countries have to proactively approach and implement synchronous quality assurance systems in order to meet the more and more increasing requirements on quality. The

tendency of applying the international quality accreditation standards to perform the internal quality assurance; focusing on assessment at the program level rather than the institution level; and becoming a member of one of the international quality assurance networks will provide more advantages that help higher-education institutions in Vietnam establish and develop their own internal quality assurance system. This is definitely a fitting trend for quality assurance in Vietnam as well as developing countries in the future.

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The Construct Validation of Organizational Performance Results: Application of the Baldrige Criteria in Science and Technology University in Thailand

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ABSTRACT

Measuring of organizational performance is a crucial part of monitoring and evaluation processes in quality management system. The purpose of this study was to assess construct validity of an organizational performance result (OPR) model in the context of higher education in Thailand using confirmatory factor analysis (CFA). The proposed OPR model was based on Baldrige Criteria, which consists of six indicators, including Student Learning; Customer-Focused; Budgetary, Financial and Market; Workforce-Focused; Process Effectiveness; and Leadership and Governance. The level of the OPR was measured through 14 items which were rated using a 6-point Likert scale. Data were gathered from 190 participants in a science and technology university. The results of CFA confirmed that all of the six indicators contribute significantly to the OPRs, and empirical evidences revealed that for quality management, especially Leadership and Governance, Workforce-Focused and Process Effectiveness, are the highest related to the organizational performance results.

Keywords: Malcolm Baldrige Criteria, Quality Management, Confirmatory Factor Analysis, Construct Validity

1. Introduction

Since the early 21st century, higher education institutions (HEIs) around the world have increasingly become competitive enterprises, replacing the traditional collegial governance models (Altbach, Reisberg, & Rumbley, 2009; Leland & Moor, 2007). Due to competitions for scarce resources, they have been demanded to publicly demonstrate their productivities, effectiveness, efficiencies, and have to respond with varieties of measurements and evaluations. In this respect, to develop and maintain the strength of reputation/brand, HEIs have to account for measurable outputs and outcomes, compete to increase number of students, and improve quality of academic staff and services, as well as raise their profile national and internationally (OECD, 2003).

Especially in developing countries, most HEIs have faced great challenges and have little to control enrollments, their financial resources or how they deploy resources to achieve results to support stated long-term objectives (Ziderman & Albrecht, 1995). Therefore, HEIs need to enhance their performance and increase their contribution to socio-economic development to reduce poverty and pave the way for the future of the country (Cooper, 2010; Ezebuilo & Emmanuel, 2014). At the same time, HEIs have to respond to external demands and balance between interests of different stakeholders (van Deuren, 2013). Therefore, modern HEIs have to give the highest priority to their management process and pay attention to indicators of organizational performance. This situation is also true for a developing country like Thailand, in which in the present stage, organizational performance measurement is a part of the assessment process.

Because measuring of performance is a crucial part of monitoring an institution's progress, several tools have been established in the past decades to assess organizational performance, such as Baldrige Criteria, European Foundation for Quality Management (EFQM) Excellence Model, Balanced Scorecard (BSC), Deming Framework, Six Sigma, etc., among which Baldrige Criteria are widely used and have been recognized as a powerful self-assessment and improvement tool in many enterprises all over the world (Immordino, 2014). Although Baldrige Criteria and framework have been accepted as a means to enhance performance of business, education, nonprofit and healthcare organizations, there has been limited concrete theoretical and empirical evidence for their validity when applied in higher-education institutions.

Because the concept and the theoretical framework of Baldrige Criteria were originally proposed in the U.S. by the Department of Commerce (National Institute of Standards and Technology [NIST], 2015), in which the economic, social, political, and cultural contexts are different from those in Asia-Pacific countries, to effectively applied OPR in different environments, the concept and the theoretical framework must be tested before the actual applications. Moreover, since the OPR concept cannot be directly measured, observed indicators are used to indicate OPR. Therefore, to establish confidence in the usefulness of an OPR model (as construct), it should be examine theoretical of the measurement model by testing construct validity using confirmatory factor analysis (CFA) (Fairchild, 2002). In which the construct validity concerns about whether the indicator (or item) has an appropriate to represent the construct, theoretical concept, of interest (Korb, 2012; Waltz, Strickland, & Lenz, 2005). If results from the CFA acceptable construct validity indicates that sample data adequately represent the hypothesized model or the latent construct (Brown, 2006).

2. Objectives

The main objective of this work was to assess construct validity of an organizational performance results model, as measured by Baldrige Criteria, especially when applied to a science and technology university in Thailand.

3. Review of Literature

3.1 Organizational Performance

In the field of strategic management and planning, quality is one of the most important factors which influences organization's long term performance (Payne & Frow, 2013). Organizational performance measurement is therefore a part of quality management system which underlies decision-making process of administrator and helps improve the efficiency and effectiveness of the organization. To develop and improve organizational performance, various concepts have been put forward in the past decades, from which several measurement models were proposed to evaluate organizational performance. Some outstanding concepts and models are discussed as follows.

Kaplan and Norton (1992) developed the BSC model, by which organizational performance is assessed based on four perspectives: (1) Customer Perspective: in which typical concerns fall into four categories namely, time, quality, performance and service, and cost; (2) Internal Business Perspective: deals with customer satisfaction, such as cycle time, quality, employee skills, and productivity; (3) Innovation and Learning Perspective: in which goals and measures are focused on the ability to introduce entirely new products with expanded capabilities and; (4) Financial Perspective: considers profitability, growth, and shareholder values, to survive, succeed, and prosper. Dyer and Reeves (1994) alternatively proposed four possible outcomes in the measurement of organizational performance: (1) Human Resource (absenteeism, turnover, and individual or group performance); (2) Organizational (productivity, quality, and service); (3) Financial and Accounting (return on invested capital or return on assets) and; (4) Capital and Market Performance (stock value, growth or shareholder return).

Poister (2003) suggested that, to measure performance of public and nonprofit organizations, Effectiveness, Operating Efficiency, Productivity, Service Quality, Customer Satisfaction, and Cost-Effectiveness must be considered in the model. Whereas for academic institutions, Sallis (2002), in his book "total quality management in education," proposed 10 indicators for self-assessment of institutional quality. The indicators are weighted to show their relative importance in the quality assessment process: Access (5%), Services to Customers (5%), Leadership (15%), Physical Environment and Resources (5%), Effective Learning and Teaching (20%), Students (15%), Staff (15%), External Relations (5%), Organization (5%), and Standards (10%). Sallis suggested that the indicators of organizational performance, which are also known as value-added measures, are not just a measurement of quality. They can be used to support students' learning and institutional achievement as well (Sallis, 2002).

3.2 Malcolm Baldrige Criteria

Malcolm Baldrige National Quality Award (MBNQA) was established in 1987 to encourage organizations' quality awareness, promote the importance of performance excellence, and share information on successful performance strategies (NIST, 2012). MBNQA provides a system perspective to achieve excellent performance through a set of criteria for quality assessment and

improvement (NIST, 2007). The criteria can be used as a tool for self-evaluation to improve capabilities and enhance productivity and competitiveness (Foster, Johnson, Nelson, & Batalden, 2007).

The Baldrige Criteria framework consists of four basic elements namely, Driver, System, Measures of Progress, and Goals, whereas the core concepts embodied in Baldrige Criteria consist of seven categories. They explain what processes, procedures, and outcomes are associated with quality organization (NIST, 2007, 2009): (1) Leadership; (2) Strategic Planning; (3) Customer Focus; (4) Measurement, Analysis, and Knowledge Management; (5) Workforce Focus; (6) Operations Focus and; (7) Results. The criteria which are the basis of organizational self-assessment play three important roles in strengthening competitiveness: (1) to help improve organizational performance practices, capabilities, and results; (2) to facilitate communication and sharing of best-practice information among U.S. organizations of all types and; (3) to serve as a working tool for understanding and managing performance and for guiding organizational planning and opportunities for learning (NIST, 2007).

In addition to the U.S. national program, most U.S. states have their own local program that is based upon Baldrige Criteria. There are also national programs in the globe that use Baldrige or similar criteria to measure organizational excellence, for example, Excellence Canada, EFQM in Europe, European Quality Award (EQA), the Japan Quality Award (JQA), Australian Business Excellence Award (ABEA), Singapore Quality Award (SQA), Thailand Quality Award (TQA), Public Sector Management Quality Award (PMQA) in Thailand, Education Criteria for Performance Excellence (EdPEx) in Thailand, and others (Bailey, 2015).

Because HEI is a social organization that serves several functions of the society (Ballantine & Hammack, 2012) and has to regularly exchanges feedback with its external environment (Authenticity Consulting, 2015), Baldrige Criteria can be applied in the quality measurement and planning process to improve the institutional and students' learning outcomes (NIST, 2015). The Baldrige Education Criteria for Performance Excellence (NIST, 2009) has been established to assess academic organization's performance using six outcome indicators: (1) Student Learning; (2) Customer-Focused; (3) Budgetary, Financial and Market; (4) Workforce-Focused; (5) Process Effectiveness, and; (6) Leadership and Governance.

3.3 Construct Validity

In the field of quantitative research, validity and reliability are important to judge the quality of measurement. Researcher has to consider validity and reliability of questionnaire because within educational and social research, social theory constructs are often ambiguous, diffuse, and not directly observable (Neuman, 1997). Although reliability is directly related to validity and considered as the first step toward ensuring construct validity (Aiken, 2003; Anastasi & Urbina, 1997; Cronbach, 1951), their concepts are different. The term "reliability" is associated with consistency or repeatability of instrument (Trochim, 2006), whereas "validity" refers to how well the assessment instrument that is designed to measure variables, actually measures the underlying outcome of interest (Sullivan, 2011). This is different from reliability, which is used to assess the degree of consistency of tool or method on the same individual at different times or in different situations (Sauro, 2014). Validity is therefore important and needed to be considered to ensure that the instrument (e.g., questionnaire) is reasonable and truly measuring issues that are important; validation can also be considered as a process of gathering, evaluating and summarizing evidences to support the use of instrument (Sireci & Padilla García, 2014).

The concept of validity was formulated for the first time by Truman Lee Kelley (1884-1961), who suggested that the aim of validity is to confirm "whether a test really measures what it purports to measure" (Kelly, 1927). Whereas Fraenkel and Wallen (2003) defined validity as "the appropriateness, correctness, meaningfulness, and usefulness of the specific inferences researchers make based on the data they collect." It was also noted that reliability measures the consistency of the scores obtained (Fraenkel & Wallen, 2003). There are several types of validity tests used in the assessment of instrument. Traditionally, validity has been divided into three types including: content, criterion-related, and construct validities (Brown, 1996, pp. 231-249; Yen, 1998). As for internal and external validities, these types are particularly associated with assessing the validity of a research methodology (McLeod, 2013).

Conceptually, construct validity, sometimes also called factorial validity which is often referred to as structural validity (Guilford, 1950), was articulated by Cronbach and Meehl (1995, cited in Simms & Watsons, 2007), as appeared

in a classical article, "Construct Validity in Psychological Tests" (Cronbach & Meehl, 1955). This validity refers to "the ability of a measurement tool to measure the specific theoretical construct it was designed to measure" (Hudson, 1992, as cited in Faul & van Zyl, 2004) and there are two main subtypes of construct validity namely, convergent and discriminant validities (Campbell & Fiske, 1959). Convergent validity refers to the strength of the relationship between the scores for the same trait when measured with different measurement procedures and research methods, which can be estimated using correlation coefficients. Whereas discriminant validity demonstrates low correlations with other traits measured by either the same or different methods (Riazi, 2016). Convergent and discriminant validities can be explored systematically using the multitrait-multimethod (MTMM) matrix approach as introduced by Campbell and Fiske (1959), in which two or more traits are each evaluated by two or more methods (Campbell & Fisk, 1959; Marsh & Grayson, 1992).

Construct validity is generally related to content validity; while construct validity approach is a demonstration that the instrument is truly measuring the major dimensions of the concept under study or concerns with respect to theoretical expectations (Hudson, 1982), content validity focuses on the content of questionnaire (Yen, 1998). To assess the unidimensionality, reliability, content and construct validities, Hudson (1982) recommended to use confirmatory factor analysis (CFA). Results from CFA are important to content analysis in suggesting how to revise scale, and provide a summary index to define internal structures and cross-structures for set of variables in construct validity (Nunnally & Bernstein, 1994). Thus, CFA was used in this study to evaluate construct validity of the OPR measurement model by investigating the relationship between the OPR construct and their indicators.

4. Methods

4.1 Participants

The present study was conducted using a cross-sectional design, in which the target population was in a science and technology university in Thailand. The participants in this work were stratified randomly to reflect the population.

To protect the privacy of the participants and data confidentiality, researcher promised that all participants are anonymous and the collected information will be kept confidential. The questionnaires were brought directly to 348 participants, a total of 190 were returned, representing a response rate of 54.60%. The response rate is considered to be acceptable compared with those in the previous studies on organization effectiveness in higher education (Khampirat & Bowarnkitiwong, 2005; Khampirat, Bowarnkitiwong, & Kaemkate, 2006; Kwan & Walker, 2003). Of the total respondents, 98 (51.58%) were females and 91 (47.89%) males. In the category of current positions, 44 (23.16%) were administrators, 68 (35.79%) faculty members, and 78 (41.05%) support staffs. Regarding the highest level of education, 86 (45.26%) of the respondents hold doctorate degree, 62 (32.63%) master's degree, and 42 (22.11%) bachelor's degree. Nearly half of the total respondents, 94 (49.47%) were working in the university for 11-15 years, 52 (27.37%) for 5-10 years, 29 (15.26%) for more than 15 years, and 14 (7.37%) for less than 5 years.

4.2 Procedures and Measures

This study employed the indicators of Baldrige Criteria to validate the OPR measurement model. The Baldrige Education Criteria measures the organization's performance results through six outcome indicators namely (NIST, 2009): (1) Student Learning (Student) consists of 2 items; (2) Customer Focused (Customer): 2 items; (3) Budgetary, Financial and Market (Budgetary): 1 items; (4) Workforce-Focused (Workforce): 3 items; (5) Process Effectiveness (Process): 2 items, and; (6) Leadership and Governance (Leadership): 4 items.

To assess the organizational performance, standard Baldrige Criteria questionnaire was adopted and modified to comply with the context of Thai higher education. The levels of practice of organizational performance in the Baldrige Criteria application guidelines were measured through 14 items, rated using a 6-point Likert scale. They were in the range of 1 to 6; with "1" indicating "very poor" response, "2" indicating "poor" response, "3" indicating "fair" response, "4" indicating "good" response, "5" indicating "very good" response, and "6" indicating "excellent level perception" response. The questionnaire was scrutinized by four former vice rectors for planning of the university, who provided valuable comments in terms of wording and some other useful

information. Additional questions were included to allow respondents to provide their demographic information, e.g., sex, level of education, current position and years of working in the university.

To assess the internal consistency and reliability of the OPR measurement model, the Cronbach's alpha (α) were analyzed for all of the indicators. To ensure that the items measure the same construct, the internal consistency was evaluated based on the correlation between individual items and the total test score. It is generally accepted that the lowest limit of Cronbach's alpha is 0.70 when used in basic social science research (Nunnally, 1978). Whereas for general exploratory research, Hair, Black, Babin, and Anderson (2010) suggested that the value of 0.60 is acceptable to confirm the internal consistency. It turned out from the statistical analysis that the reliability alpha values of the six indicators are ranging from 0.751 to 0.851, which exceed the guidelines for adequate reliability in terms of internal consistency (George & Mallery, 2003; Nunnally 1978), and confirmed that the scales can be used to measure the perceptions on the organizational performance results with confidence.

4.3 Data Analysis

The participants' responses were analyzed using SPSS for Windows, by which means and standard deviations were calculated. The skewness and kurtosis analyses were conducted to test the normality of the data. The Pearson correlation matrix was constructed to examine the relationship between the indicators in the OPR model (Cohen, Cohen, West, & Aiken, 2003). To investigate the construct validity of the proposed model, confirmatory factor analysis (CFA) developed by Jöreskog (1973) was made using Mplus 6.12.

4.4 Evaluating Model

In this study, a factor model for the organizational performance result measurement was constructed. Because there is no standard method for model evaluation, to validate the proposed model with empirical data, various fit indices were used. The indices selected in this analysis were the chi-square goodness of fit (χ^2), the ratio of chi-square to degrees-of-freedom (χ^2/df) - also known as the relative chi-square, the comparative fit index (CFI), the Tucker-Lewis index (TLI),

the root mean square error of approximation (RMSEA), and the standardized root mean squared residual (SRMR). The information, especially the strength and weakness of these fit indices, is discussed as follows.

χ^2 is a traditional measure to assess the overall model fit (Hu & Bentler, 1999) and used to evaluate the appropriateness of the developed model. This index shows how well a model fits by evaluating the magnitude of the difference between the model's covariance matrix and the population covariance matrix (Hu & Bentler, 1999); *p*-value greater than 0.05 generally suggests a good fitting model. However, because χ^2 is sensitive to the sample size effects (Bollen & Long, 1993; Hu & Bentler, 1999), in such a way that a model based on large sample size could yield inflated chi-square values (statistically significant), which could lead to inaccurate conclusions of the model fit (Schumacker & Lomax, 2004). This problem can be solved to some degree using χ^2/df, which is less sample size dependent (Byrne, 1991; Marsh & Hocevar, 1985). However, there is no consensus to accept a standard value of χ^2/df (Bollen, 1989; Hooper, Coughlan, & Mullen, 2008); the smaller seems to be the better (Kline, 2005). Carmines and McIver (1981) recommended the ratio of less than 3.0, whereas some scholar suggested that 2 or less than 2 (Tabachnick & Fidell, 2007; Ullman, 2001) or as high as 5.0 (Marsh & Hocevar, 1985; Schumacker & Lomax, 2004; Wheaton, Muthen, Alwin, & Summers, 1977) are considered to be a reasonable fit between hypothetical model and empirical data.

For a good model fit, the comparative fit index (CFI), also known as Bentler comparative fit index, should be equal to or greater than 0.95. However, the CFI values between 0.90 and 0.95 are considered to be acceptable (Hu & Bentler, 1999). The CFI value of 0.95 indicates that 95% proportion of the covariance in the actual data is reproducible by the proposed model. For a well-fitting model, the RMSEA and SRMR values should be at or below 0.05 (≤ 0.05), and at or below 0.08 (≤ 0.08) for a reasonable or adequate-fitting model (Browne & Cudeck, 1993; Schumacker & Lomax, 2004). However, the model needs some modifications if they exceed 1.0 (Browne & Cudeck, 1993). Literature survey showed that, one could adopt rules of thumb, setting the cutoff at or below 0.10, 0.09, 0.08, and even 0.05, depending upon the authority cited.

The Tucker-Lewis index (TLI), also known as non-normed fit index (NNFI)

(Bentler & Bonett, 1980), was also used to confirm the fitting quality. TLI close to 1 generally indicates a good fit. Hu and Bentler (1999) suggested that TLI is equal to or greater than 0.95 (≥ 0.95) as the cutoff for a good model fit. This seems to be widely accepted (Schumacker & Lomax, 2004). However, the TLI values below 0.90 (< 0.90) indicate a necessity to modify the model.

In addition, convergent and discriminant validities of the measurement were considered in this work. In this case, the size of the standardized factor loading, the value of the average variance extracted (AVE) and the construct reliability (CR) were used to estimate the level of convergent validity among indicators (Fornell & Larcker, 1981). The size of the standardized factor loading should be at 0.5 or higher for acceptable indicators. When the value is equal to 0.7 or above, it is considered a good indicator (Hair et al., 2010). Meanwhile, Awang (2012) and Hair et al. (2010) recommended the AVE of 0.5 or higher for adequate convergence or internal consistency; CR should be 0.5 or higher, with 0.6 to 0.7 being acceptable.

5. Results

5.1 Descriptive Statistics and Data Screening

Descriptive statistics of the six indicators in the OPR model of 190 participants are presented in Table 1 and Figure 1. Based to the statistical analyses of the responses, participants' satisfaction level seems to be high only for Budgetary, Financial and Market (M = 4.63, SD = 0.75) and Customer Focused (M = 4.50, SD = 0.59), whereas those for Leadership and Governance (M = 4.45, SD = 0.81), Student Learning (M = 4.26, SD = 0.79), Workforce-Focused (M = 4.34, SD = 0.88), and Process Effectiveness (M = 4.13, SD = 0.94) are moderate.

It is important for behavioral research and inferential statistics to consider the estimated skewness and kurtosis to check normality assumption (Wuensch, 2016). Table 1 shows the skewness values ranging from -0.65 to -1.16 (< 3), which are less than the standard error of skewness of 0.018. The kurtosis values are ranging from 1.14 to 3.06 (< 10), which are greater than the standard error of kurtosis of 0.035. Although the values of skewness and kurtosis do not comply

Table 1. Descriptive Statistics for Each Indicator (N = 190)

Indicators	M (Range 1-6)	SD	Min.	Max.	CV	SK	KU	Kolmogorov-Smirnova	Shapiro-Wilk
1. Student	4.26	0.79	1.00	6.00	18.44	-1.04	2.23	0.203**	0.899**
2. Customer	4.50	0.59	2.00	6.00	13.22	-0.87	2.72	0.218**	0.895**
3. Budgetary	4.63	0.75	1.00	6.00	16.28	-0.74	3.00	0.207**	0.874**
4. Workforce	4.34	0.88	1.33	6.00	20.33	-0.78	1.20	0.128**	0.945**
5. Process	4.13	0.94	1.00	6.00	22.87	-0.65	1.14	0.204**	0.938**
6. Leadership	4.45	0.81	1.00	6.00	18.27	-1.16	3.06	0.126**	0.916**

Source: This study.

Note: Standard error of skewness (SE_{SK}) and kurtosis (SE_{KU}) for all scales was .018 and .035, respectively. ** = $p < 0.01$.

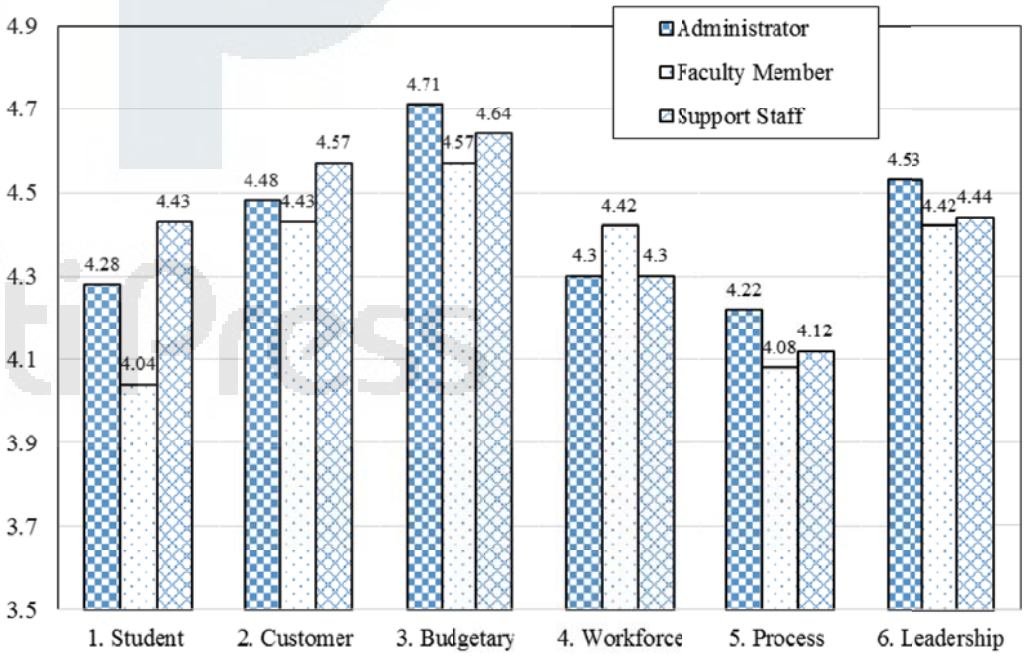

Figure 1. Mean Sores of the Six Indicators in the OPR Model Classified by Type of Participants

Source: This study.

with the Shapiro-Wilk and the Kolmogorov-Smirnov tests, and the results (p < 0.05) indicate a poor fit to the conditions of a normal distribution, the univariate skewness and kurtosis scores are still within the acceptable range of ± 2 (Garson, 2012; Schutz & Gessaroli, 1993). Therefore, all indicators were retained in further analysis because the distribution of this data are not critical. Based on these results, one can conclude that the normality assumptions are tenable and that the multivariate normality exists as well (Garson, 2012), which is appropriate for CFA (Kline, 2011).

5.2 Correlations between Indicators

The matrix of correlation coefficients for all of the six indicators, designed to measure the OPR construct of Baldrige Criteria, are listed in Table 2. It appears that the correlations between the indicators are statistically significant at 0.01 level (p < 0.01) and positively related, with the values of the correlation coefficients ranging from poor (0.281) to high (0.638). The Kaiser-Meyer-Olkin

Table 2. Matrix Correlation between Indicators of the OPR Construct (N = 190)

Indicators	Matrix Correlation					
	1.	2.	3.	4.	5.	6.
1. Student	1.000					
2. Customer	0.563**	1.000				
3. Budgetary	0.281**	0.429**	1.000			
4. Workforce	0.411**	0.507**	0.456**	1.000		
5. Process	0.345**	0.333**	0.287**	0.565**	1.000	
6. Leadership	0.401**	0.474**	0.562**	0.638**	0.628**	1.000

Source: This study.

Note: * = $p < 0.05$; ** = $p < 0.01$; Kaiser-Meyer-Olkin (KM0) = 0.807; Bartlett's Test of Sphericity = 437.680, p = 0.00.

(KMO) index, which measures the sampling adequacy, is 0.807, and Bartlett's test of sphericity, which examines whether the correlation matrix is an identity matrix and statistically significant, is 437.680 (p = 0.00). These statistical values support the use of factor analysis in this study (Hair et al., 2010; Munro, 2005).

5.3 Confirmatory Factor Analysis

CFA is a hypothesis testing for the unidimensionality of a measurement model which is used to compare between the hypothesized CFA model (structured population covariance matrix) and the sampled data set (estimated unstructured population covariance matrix). If model fit is correct or good the parameter estimates, this estimator will produce an estimated population covariance matrix that is close to the sample covariance matrix (Ullman, 2006). CFA generally focuses on testing of the postulated factor structure based on a priori knowledge to confirm or disconfirm how the observed variables (indicators) are linked to their underlying latent factors within the model; depending upon the measurement model, researcher assesses the strength of the regression paths from the factor to the observed variables (the factor loading) (Byrne, 2012).

Figure 2 shows goodness-of-fit indices and standardized parameter estimates of the OPR model. The chi-square test of goodness-of-fit suggests that the OPR model fits well to the data (χ^2 (6) = 7.076, p = 0.3136, χ^2/df = 1.179). The other fit

indices (CFI = 0.998, TLI = 0.994, RMSEA = 0.031 [90% CI = 0.01, 0.09], SRMR = 0.019) also confirm that the hypothesized model is consistent with observed data obtained from this science and technology university in Thailand and support the accuracy and applicability of the model.

Parameter estimates, factor loadings and indicator residual variances obtained from CFA are summarized in Figure 2 and Table 3. The CFA results indicate that all of the six indicators contribute significantly to the measurement of the OPR construct; the Z-values greater than 2.58 are significant at $p < 0.01$ and the standardized factor loadings are ranging from 0.479 to 0.841. Since the standardized factor loadings are greater than 0.50 with $p < 0.01$, the convergent validity at the indicator level is confirmed (Hair et al., 2010). In addition, the values of the average variance extracted (AVE) and construct reliability (CR) are .204 and 0.841, respectively, indicating that the OPR construct possesses adequate level of discriminant validity and internal consistency reliability as well (Fornell & Larcker, 1981). These results reveal the strength of the relationship between the OPR construct and their indicators (Kline, 1994); a large factor loading suggests that the indicator has a high contribution to the dimension of the OPR factor (Harman, 1976). The highest and lowest standardized factor loadings that load

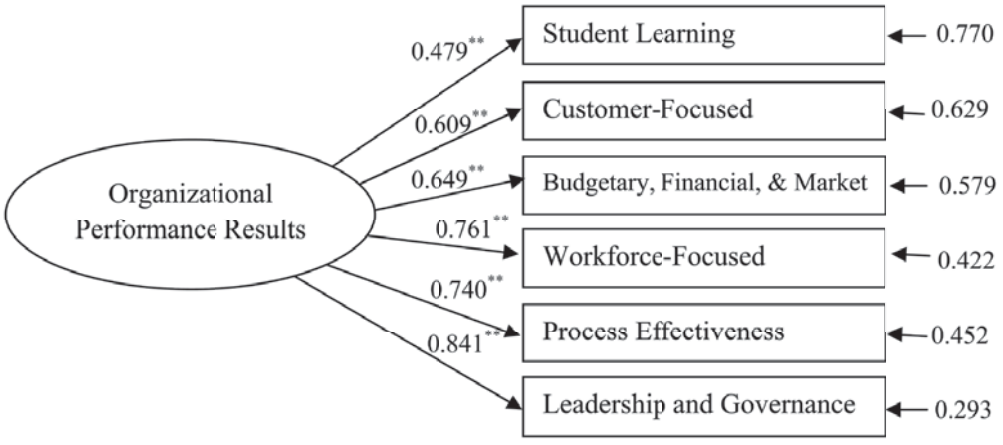

Figure 2. The CFA Model of Organizational Performance Results, *Mplus* Standardized Estimates

Source: This study.

Note: * Estimate is significant at *p*-value < 0.05; ** *p*-value < 0.01; $\chi^2 = 7.076$, $df = 6$, $p = 0.3136$, $\chi^2/df = 1.179$, CFI = 0.998, TLI = 0.994, RMSEA = 0.031, SRMR = 0.019, AVE = 0.204, CR = 0.841.

Table 3. Parameter Estimates of the OPR Model

Indicators	Unstandardized Score			Standardized Score				
	Factor Loading	*SE*	Residual Variance	Factor Loading	*SE*	Residual Variance	R^2 (Factor Loading Squared)	Factor Score
1. Student	0.550**	0.084	0.472	0.479**	0.061	0.770	0.230	0.016
2. Customer	0.528**	0.065	0.220	0.609**	0.054	0.629	0.371	0.170
3. Budgetary	0.715**	0.079	0.328	0.649**	0.051	0.579	0.421	0.200
4. Workforce	0.982**	0.085	0.327	0.761**	0.037	0.422	0.578	0.156
5. Process	1.019**	0.098	0.399	0.740**	0.043	0.452	0.548	0.221
6. Leadership	1.000[a]	- [a]	0.193	0.841**	0.03	0.293	0.707	0.269

Source: This study.

Note: [a] = The parameter of factor loading was fixed (constrained parameter) at 1.000, therefore the standard error (*SE*) for the fixed parameter is 0.000.

onto the OPR factor are Leadership and Governance (B = 0.841) and Student Learning (B = 0.479), respectively, whereas the contributions of the other factors are moderate; Process Effectiveness (B = 0.740), Workforce Focused (B = 0.761), Budgetary, Financial, and Market (B = 0.649), and Customer Focused (B = 0.609). Because the standardized factor loadings are similar to the weights in the multiple regression analysis, they can be to some extent interpreted as standardized regression coefficients. For instance, a one standardized score increase in the OPR model is associated with a 0.841 standardized score increase in Leadership and Governance (see Figure 2 and Table 3) (Brown, 2006).

The squared multiple correlation values of factor scores (R^2- R square) in Table 3 give the information on how much the variances of the OPR factors are accounted for by the indicators (Albright & Hun Myoung, 2009), which reflect the reliability of the measurements; in other words, R^2 is a square of the standardized factor loading. For example, for Leadership and Governance, $0.707 = (0.841)^2$, a high value of R^2 means that the factor is stable and well defined by the indicator (Tabachanick & Fidell, 2007). Therefore, in this case, the indicators can explain the OPR model from 23.0% to 70.7% of the total variance (R^2 ranging from 0.230 to 0.707), which supports the hypothesis that the OPR scale has a global factor which is described by the six indicators. Because the values of of Leadership and Governance (R^2 = 0.707) and Student Learning (R^2 = 0.230) are the highest and lowest, suggesting that they are the strongest and weakest indicators of the OPR model, respectively. Because the factor loadings in the proposed OPR model are relatively high and moderate, the corresponding errors of the measurement associated with each indicator are naturally small; the errors associated with the indicators are ranging from 0.293 to 0.770, confirming again that the six indicators define the OPR construct very well.

In addition, the factor scores in Table 3 can be used to describe how each individual would score on a factor. Therefore, the value of the OPR factor of each participant can be generated from the following equation:

$$\text{OPR Factor score} = 0.016 \times Z_{Student} + 0.170 \times Z_{Customer} + 0.200 \times Z_{Budgetary} + 0.156 \times Z_{workforce} + 0.221 \times Z_{Process} + 0.269 \times Z_{Leader}$$

In summary, the statistical results in this work are in accordance with empirical evidences which show that for quality management, particularly Leadership and Governance, and Workforce-Focused, and Process Effectiveness outcomes have high relationships with the organizational performance, and Leadership and Governance plays the most important role for higher education institutions to achieve performance excellence.

6. Conclusion

In this work, attempt has been made to develop a systematic method to assess construct validity of an organizational performance model of a science and technology university in Thailand, using descriptive statistics and a confirmatory factor analysis. Descriptive statistical analyses showed that administrator, faculty, and supporting staff satisfactions are the highest for Budgetary, Financial and Market, and Customer Focused outcomes, whereas those of Leadership and Governance, Workforce-Focused, Student Learning, and Process Effectiveness outcomes are moderate. The results obtained from the confirmatory factor analysis indicated that all of the six indicators of the Baldrige Education Criteria contribute significantly to the organizational performance results and confirmed the construct validity of the proposed OPR model.

Besides, because HEIs are open systems which have to interact with their environment (Daft, 2001; Thompson, 1967), improving the organizational performance evidently requires an alignment among their environment (Bradley, Pallas, Bashyal, Berman, & Curry, 2010). Therefore, further research work could focus on both internal and external factors that affect the organizational performance or on the development of strategies to improve organizational performance using a mixed-method approach; mixed-method approach is increasingly recognized as a powerful tool because it can provide more information and better understanding of research problems than single-method approach (Creswell & Plano Clark, 2007). Furthermore, a standard framework for measuring organizational performance can be created in the form of matrix table, which consists of both the dimensions of the organizational performance proposed by MBNQA and the domains of quality, efficiency, and sustainability in the context of HEIs.

Finally, because the analyses in this work were made based on information obtained directly from administrators, faculty members, and support staffs, the author believed that the results are useful for the development and improvement of the HEI performance, as well as providing suggestion and implication for practitioners and policy-makers in Thai and Asia-Pacific higher education institutions to improve their organizational performance based on evidences obtained from systematic research.

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Enriching the Induction Program for Academic Staff of National Universities in Sri Lanka with an Outcome Based Assessment: A Success Story

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ABSTRACT

This article explores the success story of an experiment carried out by the Staff Development Center (SDC) of the Wayamba University of Sri Lanka (WUSL) from 2006-2010 to enrich its Induction Program for newly recruited academic staff members, namely "*Certificate Course on Staff Development*," with an outcome based assessment criteria with the intention of producing multi-functional and multi-visionary academician equipped with the desired, essential and supplementary skills and capabilities. Moving beyond the quantum of lectures and traditional, subjective and informal assessment methods, the SDC introduced a systematic process covering review of literature, scientific writing, peer review and seminar presentations and is also characterized by standard guidelines and tight schedules to develop a "Staff Development Article" by each participant on a relevant topic of interest approved by the SDC. The selected articles are rewarded and published as a series of textbooks with ISBN and are in public domain for the benefit of a wider community.

Keywords: Higher Education, Induction Program, Outcome-Based Assessment, Staff Development, Teaching & Learning

1. Quest for a Skillful University Teacher

Imparting the academic staff attached to Higher Educational Institutes (HEIs) with the specific knowledge and skills required to perform their duties as well as the right attitudes and behavioral attributes such as allegiance, commitment, initiative, compliance with codes of practices, and ethics has emerged as the "motto" of education system in Sri Lanka, and in particularly that of the HEIs pioneered by the National Universities under the control of the University Grants Commission (UGC).

Induction of a new academic recruited to the university system has, thus, become an indispensable component in the endeavor of building their career path. Going along with this principle, the UGC has declared that a successful completion of an induction program accredited by the UGC is a "must" for those in their probationary period to obtain confirmation. To ensure this, the UGC has instructed and facilitated the Staff Development Centers (SDC) of National Universities to design such programs and obtain accreditation proving that the respective SDC fashions its program in such a way that it contributes to development of an ideal individual in his/her role as a university teacher.

2. UGC Accredited Induction Program: A Commendable Initiative, But Lacks a Proper Assessment Criteria

Though there is no blueprint in place, the induction course to be offered by any National University is expected to encompass more or less the same features. For example, the entire program shall be of 150 contact hours to be completed within 6 months time with the individual modules designed to address key areas pertaining to a career of university academic, including management of teaching and learning environment, assessment and skills development etc. However, as these programs were in progression, it was observed that the programs offered by different SDCs vary in their content, time duration and style of presentation, with a greater variation with respect to the assessment criteria. For example, in many programs, the assessments were confined to preparation of a Student Portfolio, which can be referred as a "*formative*" and "*traditional*" assessment method of

which the evaluations were, for the most part, carried out using "*subjective*" and "*informal*" assessment criteria.

2.1 Induction Program of WUSL: An Experiment Targeting an Outcome-Based Assessment

An Outcome Based Assessment (OBA) refers and emphasizes that the assessment of "*student outputs or end products*" as opposed to "*lecturer inputs.*" From its inception in 2006, the SDC of the Wayamba University of Sri Lanka (WUSL), with the proper guidance from the Quality Assurance and Accreditation Council (QAAC) and Standing Committee on Staff Development of the UGC, wanted to enrich its induction program, which was designed under the name of "*Certificate Course on Staff Development*" (CCSD), with learner-centered teaching and learning methodologies and technologies (i.e., to move away from the quantum of lecture hours) and innovative and outcome-based assessment criteria (i.e., to practice "portfolio plus") to ensure that SDC of the WUSL produces multi-functional and multi-visionary academic staff equipped with the desired essential and supplementary skills and capabilities.

Having identified the necessity of addressing the key features of an OBA, as a more dynamic and holistic approach of assessment, from our first 1st Intake in 2006, we have set forth the assessment criteria that, each participant of the CCSD must produce a publishable quality "*Staff Development Article*" as a partial fulfillment of the graduation.

2.2 Key Steps of the Process to Develop an Outcome-Based Assessment

The entire process followed in this respect can be summarized as follows, Each participant selects a topic of their choice reflecting various facets of teaching, learning, assessment and skills development in higher education and it's then "formally approved" by the Director of the SDC. Thereafter, an extensive review of literature into the topic assigned is carried out and the article is prepared adhering to the specific guidelines provided on the content, editing, formatting etc., reflecting the international standards for preparing a manuscript for a journal/magazine.

The articles submitted by the deadline are directed to 4 reviewers, i.e., 2 experienced educationists and 2 participants of the same course for the purpose of peer review. They make constructive criticism and allocate marks/grades on standard feedback report based on several criteria, including: the validity and relevance of content to the topic assigned; use of evidence through externally sourced material; developing correct arguments; critical evaluation; structuring the formal arrangement of essay content into paragraphs, and the use of language. The author, by taking into account the peer reviewer comments, revises the article and resubmits it by the specific deadline given.

Each participant must then present her article as a "Power Point Presentation" on the "*Seminar Presentation Day*," which is evaluated by a Panel of Judges appointed by the SDC. This is simultaneously assessed by fellow participants (peers) on a preset marking scheme to assess: knowledge of subject material, ability to answer or respond to questions, structure of presentation, use of audio/visual material, pace, timing, and delivery style etc. The accepted well revised and satisfactorily defended articles are selected to be published in one of the series of textbooks published by the SDC with an ISBN (Figure 1).

Figure 1. The Series of SDC Publications

Source: This study.

The books published so far are available on the SDC website (http://www.sdc.wyb.ac.lk) for the benefit of the wider community and all participants and reputed HIEs/libraries, staff developers etc. receive complimentary hard copies. The entire process is characterized by standard guidelines, tight schedules and deadlines; the "Six Sigma" principle is used to cross-check and validates the peer evaluations, upon which the "Best Performers" are recognized through awards.

3. Designing the Entire Process to Reflect the Features of an OBA

It is of our interest to make the entire process from "A" to "Z" to reflect the features of an OBA. Thus, we have designed it to highlight the following key components.[1]

3.1 Emphasis Is on "Outputs" or "End Products"

We make sure that the knowledge or content of the CCSD is no longer the principal focus, but instead the focus is on the *application* of knowledge and demonstration of the required skills and values within specific contexts. This is an ideal dynamic procedure, as the participants to the CCSD are now assessed on the competency of applying the knowledge into synthesizing new knowledge on a continuous procedure that enhances their active involvement in understanding, assessing, and evaluating the writing process.

3.2 It Is "Criterion Referenced"

We have moved away from "*norm*" referenced testing (i.e., designed for the purpose of comparing the participants with one another) towards "*criterion*" referenced assessment in which the judgments are made about learners by measuring their work against set criteria that are independent of the work of other learners.

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[1] We acknowledge the insights obtained from "A Brief Guide to Outcome Based Assessment" published by the Centre for Higher Education Research, Teaching and Learning of the Rhodes University.

3.3 It Is "Continuous"

The assessment criteria are now focused on using "frequent" and "varied" assessment techniques to guide the participants towards achieving the outcomes set for the CCSD. In contrast to "*continual*" assessment in which one is merely assesses repeatedly, "*continuous*" assessment makes use of a variety of assessment practices during this activity with the intention of understanding where the learner is instead of viewing assessment as a final judgment, this task is a continuous process throughout the course with immediate and conceptualized feedback.

3.4 Can Be Used for both "Formative" and "Summative" Purposes

Alongside the preparation of Student Portfolio, this is a rather dynamic method for assessment which guarantees both peer and self-evaluation throughout the task till the final output.

3.5 It Is Concerned with Issues of "Reliability" and "Fairness"

This does not make issues/difficulties that may arise in verifying whether the material submitted is the candidate's own work which may produce unacceptably low inter-rater reliability. Being a continuous assessment, this is a rather steadfast process with comparatively less paperwork as they are expected to defend their work through a written document as well as an oral presentation, and there exists more opportunities to rectify possible imperfections in the process.

3.6 It Uses "Valid" Practices

Here the assessment methods and criteria are matched and weighted with what is to be assessed; thus, the judgments or results showing measurement outside of what is stated are viewed as invalid. Additionally, no invalid grading criteria as of yet have been established to evaluate the quality of generated articles. Since the article is assessed by both peers and a trained panel of evaluators based on six-sigma principle, there is no or minimum room for biasness.

3.7 It Includes an "Integrated" Assessment

The entire process combines key foundational, practical and reflexive competence with some critical cross-field outcomes measuring the extent to which participants have integrated the knowledge, skills, personal qualities to ensure that he/she is a consistently competent individual, capable of undertaking the whole activity being assessed by a number of outcomes together rather than one restricted time consuming task.

4. Success of the Experiment on OBA That We Enjoy Today

Feedback received from over 100 participants who have successfully completed the course over the last five intakes (i.e., 1st in 2006/07 to 5th in 2011/12) shows that this was a unique and exceptional exercise for them which were felt to produce life-long outputs and outcomes. In addition to acquiring a variety of skills a teacher must process, including: *Cognitive* -- or intellectual skills that require thought processes; *Perceptual* -- interpretation of presented information; *Motor* -- movement control, and *Perceptual motor* -- involve the thought, interpretation and movement skills (of course, the outcomes of assessment process used), each participant is a proud author of a chapter in a textbook published as a series of selected articles on staff development.

The Ministry of Higher Education, QAAC and the Steering Committee on Staff Development of the UGC have highly commended this innovative outcome based assessment used in the CCSD of the WUSL to assess its candidates and have recommended to be implemented in other institutions using this exemplar as a success story. The World Bank under its project "Higher Education for Twenty-First Century" (HETC) has generously funded the SDC to publish hard copies of these textbooks and to upgrade the website to promote this endeavor.

The first copy of a composite book[2] which includes all articles and was edited

[2] "*Teaching, Learning, Assessment & Skills Development in Higher Education: Concepts & Applications*" (Edited by Udith K. Jayasinghe-Mudalige and Ajith Jayaweera), Published

for the purpose was handed over to the Honorable Minister of Higher Education in a ceremony participated by the Secretary to the Ministry of Higher Education and the Vice-Chancellor of the WUSK (Figure 2).

Figure 2. First Copy of Publication to the Honorable Minister of Higher Education

Source: This study.

Note: From Left to Right: Prof. S. J. B. A. Jayasekara (Vice-Chancellor, WUSL), Prof. U. K. Jayasinghe-Mudalige, Mr. S. B. Dissanayake (Honorable Minister of Higher Education), Dr. Sunil Jayantha Nawarathne (Secretary to the Ministry of Higher Education).

At present, most of the SDCs in National and Private Higher Educational Institutes as well as public and private schools dealing with primary and secondary education and other institutions dealing with training and capacity development activities around the country have been used these books as primary teaching and reference material, which is of proud and credit to the hard work of all those who have been involved in this process.

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by Staff Development Center, Wayamba University of Sri Lanka, 2012.

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Quality Assurance and Its Result Use in Taiwan Higher Education: Implication on Fully Accredited and Non-Fully Accredited Institutions

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ABSTRACT

Because Asian quality assurance agencies are either governmental institutions or affiliated with government, evaluation use and impact onaccreditation outcomes in higher education institutionsbecomes an importantconcern in Asian society. Higher Education Accreditation & Evaluation Council in Taiwan (HEEACT), a leading national Accreditor in Taiwan, carried out program and institutional accreditations over four-year universities and colleges since its establishment in 2005. Over the past decade, two cycle program accreditations and one institutional review have been completed. Hence, the public demand to assess the impact of quality assurance on higher education institutions and to realize its use in quality policy making is getting stronger and stronger. The purpose of the paper is to explore the impact and implication of accreditation on Taiwan higher education via a survey over academics and staff. There are several major findings in the study. First, accreditation outcomes affected both fully accredited and partially accredited institutions greatly, particularly on

faculty recruitment and academic programdevelopment. Second, the respondents from the accredited institutions tended to be more satisfied with the current QA policy. Third, the attitude toward evaluation use for the requirement of Excellence Project and Self-accreditation application differed between the respondents in the fully accredited andpartiallyaccredited institutions.

Keywords: Quality Assurance, Assessment and Evaluation Use, Higher Education

1. Introduction

Massification is expanding access to Asian higher education but is also increasing public concern about the quality of institutions and students, which poses challenges to quality assurance and management. In response, Asian governments have developed national quality assurance systems for higher education, including national and professional accreditors. The role of national accreditors is to accredit local tertiary education institutions and academic programs.They review certain groups of universities or types of program via a voluntary approach.

Before the establishment of their current national accreditor, several local accreditors, including professional accreditors, had emerged in some Asian countries. These local accreditors are self-funded agencies, "without any intervention of central governmental in its establishment or functioning" (Martin & Stella, 2007, p. 82). To date, half of the Asian nations have more than two accrediting bodies, including Japan, Hong Kong, China, Philippines, and Taiwan (Hou, Ince, Tasi, & Chiang, 2015).

Because Asian quality assurance agencies are either governmental institutions or affiliated with government, evaluation results use and QA impacts on higher education institutions are becoming a major concern in Asian society. It is agreed that "ideally the review processes will have encouraged and convinced higher education institutions to adopt more robust mechanisms for continuous quality enhancement, more rigorous self-evaluation, increased transparency, and a better understanding of the notion of quality and best practices" (Zoqaqi, 2011, p. 3). In 2011, the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) conducted a project focusing on the impact of quality assurance on higher education in seven Latin American countries. It was found that quality assurance has both positive and negative impacts on higher education, including its influence on policy decision and processes, increase value placed on teaching as a core function of universities, leading to an increased bureaucratization and heavy administrative workload. The study also showed that most positive consequences were occurring at the program level (Lemaitre, Torre, Zapata, & Zentrno, 2011). The other study conducted over three types of program accreditations in Taiwan also showed that program accreditations

had a great impact on higher education institutions, including emphasis on learning outcomes-based teaching, developing self enhancement mechanisms and strengthening internationalization capacities. Yet, it can be also found that the increased time and efforts by staff and faculty has inevitably resulted in resistance to program accreditations (Hou, Morse, et al., 2015).

It has been ten years since the Higher Education Evaluation and Accreditation Council (HEEACT) was established in 2005. As the first national accreditor in Taiwan, HEEACT assisted universities to develop internal QA mechanism through evaluation process and procedures. Inevitably, it also brought both positive and negative impacts on the higher education ecology. The purpose of the paper is to explore the impact and implication of accreditation on Taiwan higher education institutions via a survey over academics and staff. Based on the survey conducted by HEEACT in 2015, the fully accredited and partially accredited institutions' attitude toward accreditation policy and implementation, qualification and selection of the reviewers and the impacts on governance, program, faculty efficiency, student recruitment and internationalization are analyzed next. The accreditation results use by institutions and the government are discussed as a conclusion. Three research questions are addressed, as follows:

(1) How was quality assurance system developed in Taiwan and its challenges?

(2) What are the universities' perspectives on the external review of HEEACT?

(3) What are the impacts brought on fully accredited institutions and partially accredited institutions?

(4) What are the lessons that can be learned by other nations?

2. Development of Quality Assurance in Taiwan Higher Education and Its Challenges

2.1 Development of Taiwan Quality Assurance System

Because the number of Taiwan's higher education institutions increased dramatically since the 1980s, the public's desire to maintain and increase both

"quantity" and "quality" has placed tremendous pressure on Taiwan's government. Apart from encouraging institutions to conduct assessments on their own, a few professional associations such as the Chinese Management Association, the Chemical Society and the Physical Association of the Republic of China were chartered by the Ministry of Education to exercise program-based academic assessments beginning in the 1980s. In the 1990s, the government, having been continuously pressured by the public, began implementing a wide range of comprehensive institutional evaluations with the goal of establishing a non-governmental professional evaluation agency whose purpose was to conduct evaluations of higher education institutions (Hou, 2011).

In 1994, Taiwan's Congress, Legislative Yuan passed the "University Law" which stated clearly that the national government is entitled to university evaluation in order to assure higher education quality. In 2005, the Ministry of Education revised the "University Law," stipulating that "universities should periodically undergo self-evaluation on teaching, research, service, counseling, administration, and student engagement; evaluation guidelines should be set forth by each university" (Hou, 2011; Ministry of Education [MOE], 2005). Under the law, the Ministry of Education was obliged to "set up evaluation committees or support professional accrediting agencies to periodically conduct university evaluations and publish their results as reference for the government to allocate subsidy and the institutions to adjust their future development plans" (Hou, 2011; MOE, 2005).

According to the law, the Ministry of Education funded the establishment of Higher Education Evaluation & Accreditation Council (HEEACT) in 2005. In fact, several local accreditors had already begun providing quality assurance services to Taiwan's institutions prior to HEEACT, such as the Taiwan Assessment and Evaluation Association (TWAEA), which mainly undertook institutional assessment of Taiwan's technology universities. There are three other Taiwan professional accreditors in medicine, nursing and engineering. As the oldest professional accreditor, Taiwan Medical Accreditation Council (TMAC) established by the National Health Research Institute in 1999, aims to assess all medical schools. The other professional accreditor, Taiwan Nursing Accreditation Council (TNAC) was set up by the Ministry of Education in May 2006 to conduct nursing program evaluations. After the establishment of HEEACT in 2005, TMAC

and TNAC were officially moved into the HEEACT office. Due to the unique features of medical and nursing education, they have remained as independent accrediting agencies (Higher Education Evaluation & Accreditation Council of Taiwan [HEEACT], 2015). Founded in 2003, the Institute of Engineering Education Taiwan (IEET) is an independent, non-governmental and not for profit organization committed to accreditation of engineering and technology education programs in Taiwan. The difference between local accreditors and HEEACT is that these accreditors are self-funded institutions offering services on a voluntary basis. Those who voluntarily apply for accreditation by the local accreditor have to pay the fees by themselves.

Prior to the establishment of Taiwan's current quality assurance framework, Taiwan's universities had started to seek international quality recognition to sharpen their global competitive edge, particularly from AACSB International in the U.S. (Hou, 2011). Some of Taiwan's universities have also started to pursue U.S. institutional accreditation. The Middle States Commission on Higher Education (MSCHE), an American institutional level "regional" accreditor, which began a pilot project accrediting non-U.S. institutions in 2002, accredited Ming Chuan University in 2010.

In order to eliminate the duplication among various accrediting agencies and to lessen the institutional burden, in 2009, Taiwan's Ministry of Education announced "exemption policy." If a program or an institution is accredited by international accreditors recognized by the MOE's task force of "Local and International Accreditors' Recognition," it will not need to be assessed or re-assessed by HEEACT. Up to mid-2014, the task force had recognized three local accreditors, and two U.S. accreditors, including TWAEA, IEET, Advance Collegiate Schools of Business (ACCSB), AACSB, and Middle States Commission on Higher Education (MSCHE).

2.2 Role of National Accreditor (HEEACT) and Self-Accreditation Policy

As a national accreditor, HEEACT operates both institutional and program based accreditation. The external review costs are completely covered by the MOE. The detailed final reports are published on HEEACT's official website. In

2006, HEEACT began a 5-year, program-based, and nation-wide accreditation. The standards developed in the first cycle of program accreditation are as follows: (1) goals, features, and self-enhancement mechanisms; (2) curriculum design and teaching; (3) learning and student affairs; (4) research and professional performance; (5) performance of graduates. There are three types of accreditation outcomes, including "Accredited," "Accredited Conditionally," and "Denial" (HEEACT, 2012). According to HEEACT, the average rate in the first cycle for accredited status among a total of 3,120 programs is 87.11%, for conditionally accredited 11.5%, and for denied 1.3% (HEEACT, 2012).

Following the global trend of quality assurance, both institutional and the second cycle of programmatic accreditation focused on the assessment of student learning outcomes. Starting in 2011, HEEACT conducted a new comprehensive assessment over 81 4-year national and private universities and also continued the second cycle program accreditation. In HEEACT's handbook of the 2011 institutional accreditation, it emphasized that an institution will be evaluated and examined according to PDCA (Plan-Do-Check-Act) model and the based evidence: first it should have a clear mission to state its institutional identity; second, it should have favorable governance to integrate and allocate resources; third, it should have set up a mechanism to assess student learning outcomes (HEEACT, 2012). Five review standards include self-positioning, government and management, teaching and learning, accountability, and continuous quality improvement. Each institution will be accredited by each standard respectively. In other words, the institution will be granted with five individual results based on the standards. According to HEEACT, there are 47 institutions accredited fully by five standards, with the pass rate of 69.1% (Chiang, 2015).

The second cycle of program accreditation stressed the aim of realizing the development and operation of student learning outcomes evaluation mechanisms within programs and disciplines. The new accreditation model has been adopted to assist universities in analyzing their strengths and weaknesses to facilitate successful student learning. The new standards for the second cycle of program accreditation were as follows: (1) Educational goals, features and curriculum design; (2) Teaching quality and learning assessment; (3) Student guidance and learning resources; (4) Academic and professional performance; (5) Alumni performance and self-improvement mechanism (HEEACT, 2012). Generally

speaking, universities and programs were encouraged to develop measurable learning outcomes, to develop a variety of assessment tools at the course, program and institutional level, and to establish whether the learning outcomes are met. According to HEEACT, the pass rate of the second cycle program accreditation from 2011 to 2015 was up to 91% (HEEACT, 2015).

After 10-year QA exercise by HEEACT, the MOE determined to launch "self-accreditation" policy in 2012 in order to respond to the requests for university autonomy and to strengthen internal quality assurance (MOE, 2013). Self-accrediting universities are expected to realize their strengths and weaknesses as well as to develop their own review standards. At the same time, they will be given authority to conduct an external evaluation over their programs without being reviewed by HEEACT. The new policy represented that a binary quality assurance system in Taiwan higher education dividing institutions into "self-accrediting" and "non-self-accrediting" types was formed.

According to the MOE, universities can apply for self-accreditation status, if they meet one of the following requirements: the recipients of the MOE grants of the Development Plan for World Class Universities and Research Centers of Excellence; (2) the recipients of the MOE grants of the Top University Project; (3) the recipients of the MOE grants of the Teaching Excellence Project with more than 6.7 million in USD in the consecutive four years. Currently, there are 34 Taiwan institutions that are eligible to apply for self-accreditation status.

2.3 Three QA Challenges in Taiwan Higher Education

Over the past decade, "external validity," "evaluation use" and "evidence-base" approach, have been considered as the most crucial issues for Taiwan quality assurance system. The first challenge is "validity," which means that quality assurance agencies need to respond to public demand appropriately. The aim of the quality assurance agencies is to assure quality of higher education institutions through the review process. Those who are accredited are supposed to achieve the standard by the QA agencies and broadly recognized by the public. In fact, the quality of higher education institutions, particularly small private ones, still worried the public though they have been granted accreditation (Chiang, 2015).

Evaluation result use is the other challenge, which is quite related to quality

assurance effectiveness. The accreditation outcomes, on one hand, are used by the government for policy making, funding allocation, and even the eligibility for applying MOE's Excellence initiatives. On the other hand, some institutions use the accreditation outcomes to revitalize programs, reallocate resources, and recruit new faculty members. According to HEEACT, 97% of the accredited programs in the first cycle program accreditation still exist currently, comparing to 83% at the conditionally accredited status and only 45% at the denial status (Chiang, 2015).

Quality assurance system has been established for 10 years in Taiwan. Quality assurance agencies are obligated to enhance validity of QA through focus groups, stakeholders' survey, hearings, document analysis, etc. It has produced many practical experiences and successful cases in quality activities at the institutional levels. Yet, a lack of quantitative evidence to assist QA policy making will be another challenge in the following years.

3. Research Method

The study adopted a quantitative approach to collect the opinions of university's administrators, faculty members and staff toward QA development and policy, reviewers' quality and qualification, and impacts and implications on higher education. Theonline questionnaires on the 5-scale points were distributed to 79 4-year general universities and colleges. To avoid the university respondents' anxiety and embarrassment, the survey was conducted through an anonymous process. There were 490 responses returned by Oct. 31, 2015. All questions are simply analyzed by mean and STD, then *T*-test ad ANOVA are two checking tools to realize the differences among varying respondents' attitude.

4. Major Findings

4.1 University Respondents toward QA System Tended to Be Slightly Positive

There are 11 items on the first section of QA policy and development, including types of accreditation, self-accreditation, HEEACT accreditation,

accreditation status as a requirement for MOE excellence project application, student learning outcome based accreditation, institutional accreditation outcomes by individual standards, review cycle, institutional research, twenty-one evaluation activities integration. It was found that over 70% of the respondents agree on the current QA policy and development. The items agreed highly are "MOE self-accreditation policy," "institutional accreditation outcomes by individual standards," "6-year review cycle," "accreditation validity based on institutional performance," and "self-accreditation giving more autonomy to institutions." When it comes to "if they understand institutional research" and "if the integration of 21 evaluation activities reduces administrative loads," the respondents tended to be not supportive, with a score of 3.20 and 3.15 respectively. In addition, there is no significant difference among all types of respondents, except the item of "Institutional accreditation undertaken by HEEACT." Based on the analysis of variance, it showed that college deans and program heads disagreed on this item highly, comparing with the opinions of Presidents, QA heads, faculty members and staff (see Table 1).

4.2 Respondents Expected That Quality Assurance Agencies Would Offer More Training Courses for Reviewers and University QA Staff

There are 10 items on the second part of reviewers' qualification and quality, including reviewers' qualification and selection by HEEACT at institutional and program accreditation, reviewers' qualification and selection by self-accredited universities, offering training programs for reviewers and university QA staff, reviewers' professionalism, and international reviewers assisting university internationalization. The result showed that most respondents agreed on reviewers' professionalism and integrity, with a score of 3.51 and 3.59. In terms of reviewers' qualification and selection, it was found interestingly that the respondents thought that self-accrediting institutions recruited qualified reviewers more appropriately than quality assurance agencies did. With lowest scores on the training program, it was expected that quality assurance agencies could provide more courses for reviewers as well as university QA staff. Generally speaking, the respondents agreed more highly on "reviewers' qualification and selection at self-accrediting universities" and "reviewers' integrity" rather than the

Table 1. Level of Agreement by Varying Respondents on the Item of "Institutional Accreditation Undertaken by HEEACT"

Item	Level of Agreement						Significance
	President/VPs	Senior Administrators	College Deans and Program Heads	QA Officials	Faculty	Staff	Others	
Institutional accreditation undertaken by HEEACT	3.50	3.65	2.75	3.55	3.42	3.45	3.88	0.07

Source: This study.

other items. However, there is a significant difference between the fully accredited institutions and the partially accredited institutions on the following five items, including HEEACT reviewers' selection, reviewers' professionalism, HEEACT providing sufficient courses, reviewers' understanding QA purpose, standards, and implementing them on the onsite visit, and their performance on site visits. Obviously, partially accredited institutions did not agree highly on reviewers' qualification and overall quality (see Table 2).

Table 2. Level of Agreement by Fully Accredited and Partially Accredited Institutions

Items	Fully accredited institutions	Partially accredited institutions	Significance
Reviewers' qualification and selection by HEEACT at institutional review	3.45	3.05	0.0108
Reviewers' qualification and selection by HEEACT at program accreditation	3.44	3.18	0.1055
Reviewers' qualification and selection by self accrediting institutions	3.80	3.82	0.8928
HEEACT provides sufficient training courses for reviewers	3.31	2.92	0.0181
HEEACT provides sufficient training courses for university QA staff	3.24	2.90	0.0369
Reviewers realized accreditation purpose, indicators, standards, and regulations and implement them appropriately	3.38	3.05	0.0437
Reviewers provide constructive and suggestion and professional advice to the evaluated sectors	3.42	3.26	0.3270
Reviewers obey evaluation integrity	3.63	3.33	0.0771
Reviewers are professional	3.54	3.21	0.0455
International reviewers assist the evaluated sectors to be more internationalized	3.48	3.26	0.1935

Source: This study.

4.3 Internal QA Mechanism Development, Program Revitalization, Institutional Features Development Are the Three Major Impacts

There are 10 items on the last part of QA impacts. More than 72% of the respondents thought QA had a great impact on "internal QA mechanism," "affecting program merges and curriculum reform," and "forcing institutions to develop their own features." In contrast, the respondents agreed that they would likely misunderstand institutional and program external review by quality assurance agencies as a kind of "faculty evaluation" within campus. In addition, some respondents thought that it was not very appropriate to use accreditation outcomes as a requirement for applying MOE Excellence projects. There is a significant difference between the fully accredited institutions and the partially accredited institutions on this item (see Table 3).

5. Discussions

5.1 Efficient Use of Accreditation Results by Institutions

The study showed that the accreditation results brought great impacts on institutional governance and management. First, the respondents agreed that QA system has forced universities to identify their mission and objectives. The majority of the respondents thought that their institutions not only made great efforts to develop their features but alsostrengthened institutional governance and management on resources allocation, program revitalization, curriculum reform and staff recruitment. For example, the growth rate for the new faculty member recruitment at the fully accredited institutions was about 2.3% from 2005 to 2010, but it dropped to 0.5% from 2010 to 2013. In contrast, there was a big change at the growth by partially accredited institution. Although growth rate at faculty recruitment remained up to 2.5%, slightly higher than those fully accredited from 2005 to 2010, the total number of faculty members dropped dramatically 2.2% after 2010. The other implication is program survival and closure rate. According to HEEACT, 92.2% of accredited programs at the first cycle review were retained by institutions, in comparison with only 41.2% of not being accredited ones.

Table 3. Average Score by QA Impacts

Items	Average Score by respondents	Significance = 3.5	STD
Institutional review and program accreditation force universities to develop internal QA mechanism	3.59	0.0400	0.049
Self accreditation encourage institutions to develop its own features	3.58	0.0430	0.049
Institutional review and program accreditationaffect student recruitment	3.48	0.6905	0.049
Institutional review and program accreditationaffect resources allocation	3.50	0.5170	0.047
Institutional review and program accreditationaffect program merges and restructure	3.60	0.0130	0.047
Institutional review and program accreditationaffect faculty recruitment	3.34	0.9995	0.045
It is appropriate to apply accreditation results as the requirement of MOE excellence project application	3.18	1.0000	0.049
Institutional review and program accreditationaffect the collaboration between universities and industry	3.15	1.0000	0.047
Faculty and staff don't misunderstand HEEACT accreditation as faculty evaluation by institution easily	3.03	1.0000	0.057
HEEACT should develop online monitoring system to assist universities to enhance quality	3.23	1.0000	0.052

Source: This study.

In other words, two thirds of not being accredited programscame to a closure. Generally speaking, institutions indeed use the accreditation results to readjust institutional organization, staff hiring and program restructure.

5.2 Reviewers' Qualification and Quality Are the Major Concern of the Universities

The validity of external review depends on the quality of the reviewers. The study showed the importance of reviewers' selection and quality in the QA

process and procedures in the university's perspective. There is a high correlation of between reviewers' qualification and their performance with a score of 0.822 in the study. In other words, the more rigorous qualification and selection QA agencies apply for, the more professional the reviewers will be. Concerning internationalization, there is relatively lower correlation with other dimensions, including qualification, training and professionalism. It means that international capacity building of local reviewers and engaging international reviewers are not integrated into the Taiwan QA system completely (see Table 4).

Table 4. Correlation Coefficient among Qualification, Training, Profession, and Internationalization

Pearson Correlation	Qualification	Training	Professionalismand Integrity	Internationalization
Qualification	1	0.735*	0.822*	0.530
Training	0.735**	1	0.794**	0.526**
Professionalism and attitude	0.822**	0.794**	1	0.593**
Internationalization	0.530**	0.526**	0.593**	1

Source: This study.
*p-value, 0.05 means level of significance is obviously correlated; **p-value, 0.01 means level of significance is obviously correlated.

5.3 The Correlation between Institutions and Government in Accreditation Outcomes Use Tends to Be Positive

As indicated in the previous section, the respondents highly agreed that institutions were affected by the accreditation results in varying aspects. The government also adopts the accreditation outcomes as the eligibility for applying Excellence Projects. The study shows that there is a medium high correlation in the accreditation use by institutions as well as government, with a score of 0.63. It means that those who agreed that QA had a high impact on universities tended to agree on the government policy. In addition, they also thought that QA agencies should develop on-line monitoring system for all evaluated sectors' continuous improvement (see Table 5).

Table 5. Correlation Coefficient Among QA Impact, Governmental Use and Online Monitoring System

Pearson Correlation	Accreditation Outcomes Used by Government	Developing On-Line Monitoring System
QA impact	0.643**	0.528**

Source: This study.
**p-value, 0.01 means level of significance is obviously correlated.

5.4 Building Public Trust and Enhancing Evaluation Use by Employers and Students

The study shows that the accreditation outcomes have been widely used by institutions and governments in terms of resources allocation, organizational transformation, curriculum restructures, and faculty recruitment, etc. Yet, there is a strong voice that quality assurance should embrace society's needs, propagate QA influence and maintain pubic trust. Truly speaking, accreditation in Taiwan higher education gained less attention from employers and students than global rankings in Taiwan society. In spite of the pitfalls in methodology created by rankings, many employers heavily rely on global rankings as one of the selection criteria of new staff recruitment. Besides, students and parents use global rankings as the most important reference for choosing a college to study domestically and abroad. Currently, several international QA networks advised that national QA agencies should "make their reviews and evaluation public and available to society and provide information regarding the performance of higher education institutions" (Hénard, 2016, p. 26) in order to facilitate the communication between QA agencies and society and build public trust.

6. Conclusion

Nowadays, there is a growing awareness that as quality assurance agencies increase their effectiveness, they can better help universities improve quality (Zoqaqi, 2011). The study demonstrated that an established quality assurance system would bring positive and negative impacts on higher education institutions. The evidence presented in the research also indicated that QA has been used by Taiwan's institutions to enhance internal quality mechanism as

well as to respond the new challenges in an aging society. Accordingly, Taiwan government also used the accreditation outcomes as an incentive for the MOE major initiatives application. Yet, some challenging issues in Taiwan society should be taken into consideration seriously in the future, such as if the new self-accrediting policy could fit into Taiwan context; if national accreditation, like HEEACT, was able to cater society's needs in the next decade; if national accreditors could bring international benefits to accredited institutions and programs, etc. Hence, measuring the impact of accreditations through a longitudinal approach will be an important long-term research activity in Taiwan higher education.

Over the past decade, the Asian governments have endeavored to elevate their quality of higher education by setting up national quality assurance system. Although several Asian nations have developed a diversified and decentralized QA framework, such as Japan, Taiwan, and Philippines, accountability of QA remained unrecognized by varying stakeholders of higher education. As Woodhouse states, "The number of quality assurance agencies has risen rapidly in the recent decades to meet the need in higher education, and it is essential that quality assurance agencies themselves carry out their tasks professionally or they have no value at all" (Woodhouse, 2016, p. 21). Understanding evaluation use becomes necessary if quality assurance agencies would like to build public trust. Taiwan's experience will likely inspire other Asian nations to implement more adequate QA policies and re-identify the role of quality assurance agency to society.

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Part III: Conclusion

Higher Education Quality Assurance in a Changing World: Envisioning the Future of Asia Pacific
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Pathways to Best Practices of Quality Assurance in the Rapid Development of Asian Higher Education

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ABSTRACT

This book, covering 9 countries and 1 region, illustrates the practices and impacts of quality assurance of higher education. Based on the findings, this chapter attempts to identify common themes and lessons that can be taken into consideration to adopt good practices of educational quality in the rapid developed Asian higher education.

Keywords: Higher Education, External Quality Assurance, Internal Quality Assurance

1. Fast Development in Quality and Quantity of Asian Higher Education

Higher education in Asia has being developed rapidly in quantity and quality. The tertiary enrollments are growing, which change the higher education from elite to mass education (Trow, 2007). Mass education has changed the Asian society from labored intensive to technology based economy (Shin, 2015). However, mass education and declining birth rates pose challenges as education quality and university sustainability. Traditional quality control system by the government cannot fulfill the large amounts of institutions and the various needs of education. Therefore, the fitness-to-purpose or fitness-of-purpose approaches was applied instead by the external quality assurance (EQA) bodies to make judgement of institutional quality.

The EQA systems in Asian countries are different from other regions. Most Asian EQA bodies are funded by the government, or directly belonged to the government (Hou, Ince, Tsai, & Chiang, 2015). Most Asian countries require all institutions undergo evaluation with a compulsory nature. However, the innovation of informational technology and cross border education increased has changed the higher education environment rapidly. These changes influence the way of quality assurance of higher education (Eaton, 2015). As the 10 chapters in this book mentioned, the Asian countries adopted new strategies in response to the changing environments by reconsidering the validity and flexibility of internal to external quality assurance, and expanding from national to regional level of quality assurance.

2. Reconsidering the Validity and Flexibility of Internal and External Quality Assurance at the National Level

Quality assurance of higher education is composed of EQA and internal QA (IQA). EQA are the activities conducted by the EQA bodies to make judgments of accountability according to the institutional performance. IQA is performed by the institutional itself to monitor its performance for self-improvement. EQA and IQA are complementary to each other (Vanhoof & Petegem, 2007; Volkwein,

2010). Take accreditation model for example, the institution will self-evaluated its performance by IQA approach, and the EQA body will organize an on-site-visit team to make judgement of institutional quality by EQA approach.

Higher education systems across Asia face challenges in the fast changing environments for higher education, including maintaining and improving education quality, and improving curriculum in the rapid change of economic growth (Asian Development Bank, 2011). The Asian countries adopted new strategies to assure the educational quality to support social needs. In this book, New Zealand (Chapter 6) applied information technology to systematically manage EQA process. Taiwan (Chapter 10) assessed the impact and implication of accreditation on the institutions, including results use and attitude toward evaluation. Considering the impact of context on EQA approach, Chapter 2 displayed the roles of EQA in lower income countries.

IQA is a powerful and direct approach for institutional improvement. In the changing environment, developing new IQA approach can help institutions self-monitor institutional progress. Vietnam (Chapter 7) recently focused on the development of IQA to help institutions devoted on quality assurance in program level, instead of institutional level. Thailand (Chapter 8) applied Baldrige criteria to make sure institutional performance. Sri Lanka (Chapter 9) adopted an outcome based assessment to evaluate staff development.

Although IQA and EQA are complementary to each other, a gap can be found between the two different approaches. A reflection of the relationships between IQA and EQA are conducted in Taiwan (Chapter 4), illustrating the discrepancy between the views of institutional staff and reviewers.

3. Expanding Quality Assurance of Higher Education from National to Regional Level

The growth of cross border education in Asia is remarkable in the past decade. As the demand for international education increased, the student mobility and the education providers across national borders increase significantly (Knight, 2007). In addition to traditional higher educational institutions, various providers are emergent, such as branch campus, joint programs across countries,

or international on-line learning programs. However, an important question is whether the institutions, or the programs that are qualified, or recognized by the delivered and receiving countries. Therefore, quality assurance of cross border higher education has to be adjusted from national to regional level (Altbach & Knight, 2007). In order to monitor the quality of transnational education, more and more countries make efforts to establish criteria and procedures for recognition or quality assurance of provided programs. In this book, Japan (Chapter 5) shared its experiences of establishing a joint program, CAMPUS Asia, with China and Korea. With the same goals of high quality learning, each of the three countries monitors its delivered programs through its national quality assurance agency.

Another way to assure the quality of cross border education is to recognize the best practices conducting by national QA agencies through the guidelines developed by the regional quality assurance network, such as EQAR in Europe, and APQR in Asia-Pacific region. In Chapter 1, new development of ESG in Europe was introduced, for it adopted new standards for quality assurance of joint programs. Recognition of the best practices of the QA agencies by the regional QA networking will increase the cooperation at national level, or regional level and facilitate student mobility across countries.

4. Conclusion

The case studies of this book offer valuable insights into the complex practices that institutions and quality assurance systems striving to become the best practices of quality assurance of higher education. With reflection of on-going quality assurance systems and innovation of new QA methods, the institutions can improve the educational quality. With appropriate collaboration with other countries, the educational quality of cross border can be assured even the contexts can be different in different countries. The book confirm the importance of quality assurance for accountability and institutional improvement, even in the fast changing environments of Asia.

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