

**The Development and Impact of the Quality
Assurance System on Higher Education in Taiwan**

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Declaration

I, Yu-Ping Hsu, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Abstract

The purpose of this thesis is to analyse the development of the national quality assurance (QA) system, introduced in Taiwan in 2005, and identify the impact it had on four higher education institutions (HEIs), each with a very different mission and features. The study addresses two broad research questions: firstly, how has the current QA system developed in Taiwan, and what are its features and characteristics? Secondly, how do university staff prepare for and perceive the impact of the QA system undertaken by the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT)? The key features of the QA system are identified by using documentary analysis and interviews. The documentary analysis focuses on HEEACT publications. Having analysed the documents, policymakers who were involved in the development of the QA system were interviewed. A case study approach is utilised to analyse the perceived impact of the QA system on four universities. The four universities were chosen to cover the range of higher education institutions in Taiwan. Two are prestigious institutions which have received generous funding (one public and one private), while the other two (also one public and one private) are less prestigious institutions which have received less funding than the first two.

Since 2005, the Taiwan government has distributed expenditure, and restructured higher education according to the results of the QA system conducted by HEEACT. All HEIs are therefore under pressure to meet the demands of the QA system as the results of evaluations will affect their resources and reputation, as well as whether they will be able to win competitive research and teaching funds. The HEIs perceive that in order to satisfy the requirements of HEEACT, they have to introduce new processes and structures, and the characteristics of individual HEIs have changed as a consequence.

The Taiwanese approach to QA is a hybrid of different approaches to QA, including the accreditation system borrowed from the U.S.A. Its key distinctive features are that: (a) it evaluates both teaching and research within one single assessment exercise; (b) its results are used to determine resource allocation of the higher education system; (c) it has also been used to merge and close HEIs by the government; and (d) some of the terminology used is ambiguous.

A number of organisational changes occurred in the four universities as they prepared for the QA exercise. The internal measures introduced were categorised into three types: rewards, staff evaluations and structures. However, the changes initiated in the four universities varied and are driven by their different features including their institutional purpose, mission and whether they are public or private institutions. Together, these changes have resulted in a new

form of management in the HEIs and this can be seen as an unanticipated consequence of the QA system.

The contrast between research-oriented and teaching-led universities has been sharpened by the QA system as it has forced Taiwan's HEIs to choose one path or the other in order to be successfully evaluated by HEEACT. The public university with a good reputation built on its strong points and its original advantages and reinforced its position as a research-led university, whilst universities with less prestigious reputations were forced to focus on teaching regardless of whether they were public or private institutions. Academic staff also felt that they had to choose either to improve their teaching expertise or to focus on research in response to the QA system. The changes triggered by the QA system have influenced the nature of the academic profession and this, in turn, appears to have reshaped academic identities and professionalisation.

This thesis offers three main contributions. First, the thesis has identified the distinctive features of the Taiwanese approach to QA. Although Taiwan's QA system was influenced by Western approaches to QA, it is in effect a hybrid of different approaches, and represents its own distinctive QA model. Second, the thesis contributes to understanding the impact of QA systems on universities. By combining the approach from Morley (2004) with the model of Brennan and Shah (2000), the resulting analytical framework explains the impact of the QA exercise on HEIs in the context of Taiwan, and possibly in the East Asia region. Finally, the thesis contributes to the QA literature by analysing the differential impact of a QA system has had on four universities with very different missions.

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APQN	Asia Pacific Quality Network
CEPDE	Centre for Evaluation and Professional Development in Education
DPP	The Democratic Progressive Party
EHEA	European Higher Education Area
EI	Engineering Index
ENQA	European Association for Quality Assurance in Higher Education
EUA	European University Association
HE	Higher education
HEIs	Higher education institutions
HEEACT	Higher Education Evaluation and Accreditation Council of Taiwan
IEET	The Institute of Engineering Education Taiwan
IMHE	Programme on Institutional Management in Higher Education
KMT	The Guomindang
MOE	Ministry of Education
MQA	The Malaysian Qualification Agency
NICs	Newly Industrialising Countries
OECD	The Organisation for Economic Co-operation and Development
PDCA	Plan, do, check and act
QA	Quality assurance
QAA	Quality Assurance Agency
QE	Quality enhancement
RAE	Research Assessment Exercise
RCSAE	Research Centre for the Studies of Accreditation and Evaluation
REF	Research Excellence Framework
RESHSSAT	Reflections on the Evaluation System of Humanities and Social Sciences in the Academia in Taiwan
SSCI	Social Sciences Citation Index
SCI	Science Index
SWOT	Strengths, weaknesses, opportunities and threats
TQM	Total Quality Management
TWAEA	Taiwan Assessment and Evaluation Association
UKAS	United Kingdom Accreditation Service

Chapter One: Introduction

In the 1980s, higher education in developed Western countries was transformed from being an elite system into a mass education one. In a similar fashion, higher education (HE) in Taiwan followed a similar trend during the same period. It was feared that such a rapid expansion within a relatively short time had led to the lowering of academic standards, and this raised concerns about quality assurance (QA) (Mok, 2003). At the same time, in order to achieve the maximum output from their allocated budgets, universities faced pressure to demonstrate their 'efficiency', 'effectiveness' and 'accountability' (Brennan and Shah, 2000). The main way to reconcile the expansion with these requirements was to introduce national quality assurance systems.

The initial aim of QA systems was simply to help higher education institutions improve the quality of their provision. However, QA systems has evolved to also determine or influence resource allocation, and this affects the way in which universities work internally, as well as the way they react to external pressures such as the allocation of funding by the government.

This thesis looks at the history and development of the QA system in Taiwan, and explores the impact of the introduction of the national QA system on higher education institutions. More specifically, the thesis will analyse how the QA system developed and was influenced by socio-economic factors, and the impact of the system on higher education from the perspective of those working in universities in Taiwan.

1. Context: Quality Assurance Schemes in Taiwan

Until the 1990s, higher education institutions were responsible for the quality of their provision in Taiwan. Since the 1980s, however, the growth in the number of new private institutions, the diversification of higher education, and cuts in the funding of higher education have given rise to concerns about the quality of higher education provision. One common approach to ensure the quality of higher education is to adopt a system of quality assurance. The concept of quality assurance has its origins in management culture, and is linked to the concept of accountability. The need for accountability has arisen from concerns about how resources are used as well as a desire for value for money in mass higher education in a knowledge society.

As Westerheijden, Stensaker and Rosa (2007) indicate, quality assurance that focuses on accountability has to do with knowing what is done in higher education, and how it affects students and external stakeholders such as employers and society. Various evaluation and accountability systems, such as new monitoring schemes, quality reviews, reporting systems and new funding schemes, have been developed to meet the demand for accountability in

higher education (Stensaker and Harvey, 2010). This increasing interest in, and use of, systems of accountability has been one of the most significant changes in higher education in recent decades.

The quest for ensuring quality is now a global one, and many countries have adopted forms of quality assurance in higher education, including the establishment of national agencies, in an attempt to improve the quality of their higher education and ensure global competitiveness (Stensaker, 2004). Since the 1980s, there have been public sector reforms in several European countries, involving approaches central to the new public management system and the rise of 'the evaluative state' (Neave, 1988). As part of these public sector reforms, European countries implemented policy initiatives to secure and improve the quality of higher education (Stensaker, 2004).

With regard to Taiwan, the need to keep up with emerging trends and meet the challenges of internationalisation and globalisation in higher education has led to the use of quality assurance mechanisms as a basic method to ensure quality and accountability. For more than 40 years until 1987, higher education was strictly controlled by the central government. However, with the advent of democracy and an increase in the demand for higher education, Taiwan's higher education institutions (HEIs) gradually began to enjoy greater academic freedom and autonomy, especially after the University Act was amended for the seventh time in 1993. This Act specifies the obligations and privileges of universities. It was promulgated in 1948 and then amended twelve times, the latest occurring in 2011. Since 1980s, as higher education expanded and the state reduced its direct control over universities, the Ministry of Education (MOE) attempted to ensure the quality of higher education by encouraging competition and introducing a QA system.

In 1975, the Ministry of Education conducted its first subject evaluation in agriculture, science and medicine at universities. Intended as a pilot for the introduction of a national QA system, this first evaluation simply provided advice on ways for universities to improve themselves. In the 1990s, the Ministry of Education changed its process of evaluation, and mandated professional groups to experiment with Institutional Evaluation for all higher education institutions. This fledgling system of quality assurance remained at this experimental level for the 30 years until 2005 when the current, compulsory system was introduced along with the thorough overhaul of the University Act in 2005 when 42 Articles were amended. Article 5 specifies that the Ministry of Education has the power to allocate expenditure and cut student enrolments based on the results of its evaluations. The Act also decreed that higher education institutions should regularly formulate and undertake self-evaluation as part of the process:

'Universities shall regularly carry out self-evaluation on teaching, research, services, instruction, academic affairs, administration, student participation and other proceedings; regulations for the evaluation shall be formulated by the universities. The Ministry of Education, in order to promote the development of universities, shall organize an Evaluation Committee, entrust academic organizations or professional evaluators to carry out regular evaluation on the universities and publish the results as reference for educational subsidies from the government and the scale of adjustment and development of universities; methods of evaluation shall be formulated by the Ministry of Education.'

(University Act 2005, Art. 5)

The changes to the quality assurance system arising from the University Act thus gave the government the power to regulate and supervise universities. Moreover, based on Article 7, the Ministry of Education can propose a merger plan for national universities after measuring relevant factors. The factors include: the development of higher education, distribution of educational resources, the geographic conditions of the relevant universities and the results of evaluations. A merger plan will be submitted to the Executive Yuan (or Parliament) for approval by the Ministry of Education. Once approved the plan shall be implemented by national universities. This was a controversial move, especially since it significantly changed the HE landscape; among other things, it was seen to compromise the autonomy of universities. Furthermore, with Article 21, academic staff in universities should accept internal evaluations regularly. There was criticism about these evaluations inside the universities. For example, in 2004, a conference (Reflections on the Evaluation System of Humanities and Social Sciences in the Academia in Taiwan) argued that both academic freedom, as well as several disciplines such as History and Chinese, were being adversely affected by the use of specific performance indicators in these evaluations, such as the Social Sciences Citation Index (SSCI) and Science Citation Index (SCI).

Following the University Act of 2005, the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT), was established by the government and higher education institutions in 2005. The establishment of this agency represented a new era in evaluation of universities in Taiwan and the role of the Ministry of Education changed from that of controller to that of regulator and supervisor. Although HEEACT uses the term "accreditation system" to describe its work, it does not accredit everything as such a system in the U.S.A. would do, something which will be clearly explained in following chapters. HEEACT uses an overall quality management PDCA (Plan, Do, Check, and Act) model to conduct the new systems of 'Programme Accreditation' and 'Institutional Accreditation', which the agency created. Programme Accreditations have been in use since 2006, and Institutional Accreditations have also been implemented from 2011. The two accreditations are done as separate exercises by

HEEACT. In addition, the two accreditations require all higher education institutions to present their self-evaluation reports before onsite visits are conducted by an expert peer group.

Since 2006, the Programme Accreditations have focused on analysing the teaching and students' learning of all the programmes offered in a university, but it also evaluates the quality of research. The evaluative items of the Programme evaluation include self-improvement, curriculum and teaching performance, students' learning and affairs, research and professional performance, and the performance of graduates. Under HEEACT, an Institutional Accreditation is conducted every five years from 2011 with the goal of enhancing self-improvement in higher education institutions. All higher education institutions are categorised into 49 disciplines (HEEACT, 2012). The five major items that are evaluated in the Institutional Accreditation include the aim and orientation of the institution, institutional administration and operation, teaching and learning resources, accountability and social responsibility, and the mechanism for self-enhancement and quality assurance. Each item carries the same weight in scoring.

When HEEACT was established, its aim was to improve the quality of universities; it was also given direct power to influence and change the funding of universities. According to the University Act, the Ministry of Education has the power to allocate expenditure and cut enrolment based on the results of the evaluation. However, this was greeted by extensive commentary from newspapers, journals, researchers from the Academia Sinica, etc. expressing concern that the QA system as carried out under the aegis of HEEACT would have a negative impact on universities in Taiwan. The main issue is that although HEEACT claims that the criteria and performance indicators in the QA system are simply being evaluated for consultation purposes, universities will invariably make an effort to meet the demands of evaluations in ways which are unacceptable to universities because the results will affect their reputation, resources allocation and success in accessing competitive projects. The competitive projects launched by the Ministry of Education include: the 'University Teaching Excellence Programme' in 2005 and the 'Programme for Developing First-Class University and Top Research Centre' in 2005. Because these competitive projects use performance indicators similar to those in the Programme Accreditation and the Institutional Accreditation to allocate funds, HEEACT included the criteria of competitive projects into its 2006 Programme Accreditation and 2011 Institutional Accreditation exercise.

There is evidence from the UK and Norway which indicates that external quality measures have both positively and negatively affected HEIs and have contributed to the organisational changes within HEIs (Brennan and Shah, 2000; Stensaker, 2004). Since the Taiwanese government distributes funding directly according to the results of the evaluations, universities adjust their performance to achieve the desired outcomes; this will then bring them financial

rewards and help them to avoid punitive measures. The QA system has also become a tool for university rankings and the government can lead and influence the development of universities through the evaluation process. Thus the purpose of this study is to explore the way in which the QA system has developed and affected higher education institutions in Taiwan.

2. Terminology

Quality assurance is a new term that has entered the vocabulary of higher education over the past few decades in spite of the existence of various means to ensure quality in higher education. As the OECD (2004) indicates, the terms used for quality assurance vary across countries; similar terms are used in different countries whilst different terms are sometimes used to mean the same thing.

There are inconsistencies in the use of terms relating to quality assurance in Chinese, and this can be observed in the literature on quality assurance in Taiwan. For example, terminology related to QA such as evaluation (píng jiàn), assessment (píng liàng), benchmarking (biāo gān), accreditation (rèn kě) and quality assurance (pǐn zhí bǎo zhèng) are sometimes used interchangeably and not always consistently. The reason is partly that quality assurance is a relatively new field for Taiwan's higher education, and the term only came into widespread use in the 1980s; at the same time English words cannot always be translated smoothly into Chinese and, hence, different translations may be used. The result is that the same words are often used with different meanings. For example, in Western literature, 'evaluation' has various forms such as accreditation and audit. However, the term 'higher education evaluation (gao deng jiao yu ping jian)' in the University Act refers not just to evaluation (ping jian) in higher education but also to the whole QA and accreditation system specifically as the term 'evaluation' is directly translated from Chinese to English.

In order to describe Taiwan's QA system precisely, and to assist with the collection and analysis of the data, I will refer to the broader literature, and compare and distinguish between the various terms that are used in Taiwan; I will then use these terms consistently in this thesis. The term 'evaluation' is used in a generic sense to refer to any assessment or, systematic review of educational provision in the institutions of Taiwan's higher education system. The term 'quality assurance' embraces not only the assessment of learning and teaching but also evaluations assessing the quality of research in higher education institutions in Taiwan.

Table 1.1 provides a brief introduction of the terms relating to quality assurance in Taiwan's QA system and Table 1.2 presents other key policies referred to in this thesis. The columns of Programme Accreditations and Institutional Accreditation suggest that, accreditation

does not actually take place. For example, universities do not require Programme Accreditation in order to actually run programmes.

Table 1.1 Brief introduction of terms used in Taiwan's QA system

Terms	Meaning
Quality assurance	A general concept including various approaches
Evaluation	a. Refers to all kinds of assessments b. Equal to the QA system in Taiwan (higher education evaluation)
Accreditation	The term used by HEEACT to describe the approach adopted in Taiwan's QA system
Assessment	Methods of measuring the quality of teaching and research
The QA system in Taiwan	Programme Accreditations and Institutional Accreditations conducted by HEEACT (both teaching and research in one exercise)
Programme Accreditation	Evaluations (a) conducted by HEEACT (departments and faculties; all programmes of a university are visited separately at one time; both teaching and research are evaluated in one exercise)
Institutional Accreditation	Evaluations (a) conducted by HEEACT (at the institutional level; focusing on administrative system, but both teaching and research in one exercise)

Table 1.2 Key policies referred to in this thesis

Terms	Meaning
National University Fund System Act in 1999	New funding policy enacted for public universities. Under the new system, 80% of the public HEIs' income is granted by the MOE, while 20% is from other sources, including tuition fees, collaboration with private sector, launching continuing education and donations.

<p>MOE's Funding Programme for Private Universities and Colleges in 2001</p>	<p>New funding policy enacted for private universities. The government in 1999 cut the budget for public universities by 20-25%, and provides this funding to private universities in the forms of rewards, subsidies and financial assistance. Since 1999, 20% of the revenue of private universities has been granted by the MOE.</p>
<p>The programme for Aiming for the Top Universities (The Aim for the Top University Project) in 2005</p>	<p>Aims to achieve the goal of developing a world-class university. From 2005, an amount of NT\$ 50 billion has been budgeted for this five-year programme. 12 research universities, including both public and private universities, were selected for funding.</p>
<p>The Programme for Promoting Teaching Excellence in Universities (Teaching Excellence Programme) in 2005</p>	<p>The MOE launched this programme. It commenced with a budget of NT\$ 1.2 billion allocated to 13 universities in 2005. The 13 universities included both public and private universities. The amount of funding and the number of funded HEIs has since increased gradually. These universities are locally prestigious and multi-purposed but not research-oriented.</p>
<p>The Exit Mechanism in 2003</p> <p>Principle for Promoting Mergers of Public Universities in 2012</p> <p>Principle of Improving or Closing Private Higher Education Institutions by the Ministry of Education in 2013</p>	<p>In order to respond to the low-birth rate and the concern with quality of higher education, the government set up the Exit Mechanism in 2003, which aims to close universities. Under the Exit Mechanism, there are two further 'principles' for merging or closing HEIs.</p> <ul style="list-style-type: none"> • 'Principle for promoting merger of public universities' introduced in 2012. Its purpose is to merge public universities. • 'Principle of improving or closing private higher education institutions by the Ministry of Education' in 2013. Its purpose is to merge or close private HEIs. In 2014, there were two polytechnic colleges closed by the MOE.

3. Researcher Motivation

Since my personal beliefs, feelings and experiences may have an influence on my collection and interpretation of data, I shall briefly explain my personal background and

experiences relevant to this study. While studying for my master's degree at a prestigious public university in Taiwan, I noticed that the day-to-day life of academics and as well as the operation of the university were affected and intensified by a situation in which resource allocation depended on the outcome of the QA evaluation. Most of the information and opinions I heard from lectures were negative towards the QA system: my supervisor and other academics complained about having to reduce their time for teaching to meet the requirements of the QA, and that they were under great pressure to publish. The QA system and 'evaluation' seemed to me to have a negative effect on teaching in higher education. I subsequently worked for the Ministry of Education in Taiwan as an administrator, and found that the ministry regarded the QA system as an efficient way to ensure accountability, and were committed to carrying out evaluations at every level of the education system. As a ministry official, my task was to contact universities and schools to arrange their evaluations. I encountered difficulties, and found out that there were two main opposing attitudes towards the QA system: the government and QA experts strongly promoted the benefits of the QA system, but individual academics and school teachers were resistant to being evaluated and claimed they suffered from it. I became interested in the changes to higher education that were driven by the QA system, and to find out what the impact of evaluation was, and why there were such contradictory views on the QA system. Nonetheless, I had originally been sympathetic to the views of my lecturers during my Master's degree, and I need to be aware of a possible bias when I conduct this study. As the study progressed and I interviewed both those working in higher education and policy makers, I began to appreciate that the QA system served multiple, and sometimes, competing goals which were furthered by different stakeholders. By seeking to obtain these diverse views in this study, I have managed to avoid, or minimise, any bias arising from any initial exposure to this topic.

4. The Main Research Questions and Purposes

As mentioned earlier, the Taiwanese QA system developed over the 30 years following the first subject evaluations undertaken in 1975. The University Act was enacted in 2005, and the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) was established in the same year. These two changes symbolised a new era for the QA system in Taiwan and resulted in a shift in the means of evaluation and resource redistribution. The Ministry of Education in Taiwan now has the right to distribute funding based on the results of evaluations, and higher education institutions responded by making efforts to meet the demands of the QA system so as to maximise the funding for which they would be eligible.

Overall, this thesis looks at the history and development of the QA system and explores the impact of the introduction of the QA system on higher education institutions in Taiwan. Two specific research questions are addressed:

- (a) How has the current QA system developed in Taiwan, and what are its features and characteristics?
- (b) How do university staff in four universities with different features prepare for and perceive the impact of the QA system undertaken by HEEACT?

The purposes of the first question are to understand how the QA system is interlinked with the social and political context, and to describe the foundation and features of the QA system in Taiwan. This will be done through a review of relevant documents and literatures, and interviews with key persons who contributed to the development of the QA system. This historical analysis will not only provide insights into the QA system, but also lay the foundation for exploring how higher education institutions and departments have been affected by the current QA system. The second question is designed to explore the impact of the QA system on higher education institutions, including how key personnel perceive they have been affected by the QA system. The data has been obtained by interviewing administrators and academics from four universities which have been significantly affected by the QA system.

5. Research Design

In order to answer the two research questions, I employ a variety of methods, primarily drawing on documentary analysis, interviews, and a case study approach. I use a documentary research strategy and interviews are utilised to investigate the impact of the introduction of the QA system on higher education institutions. Coupled with documentary research, I conduct a case study to examine the way in which higher education institutions have been affected by the QA system. These methods are regarded as the major source-gathering tools to ensure the diversity and richness of data. I aim to eliminate bias by utilising multiple sources of information and databases, and the resulting validity and reliability will enhance confidence in theory formulation or expansion.

The first research question focuses on the development of the QA system in Taiwan. This is addressed by means of a historical and policy analysis, which includes QA policies in Taiwan from 1975 to 2011 as well as HEEACT publications in order to determine the genesis of the QA system. I then develop the conceptual framework to analyse the impacts of QA system on higher education in Taiwan, and formulate the interview protocol for empirical work. In the methodology chapter, I refine the conceptual framework based on the interview data collected.

In order to explore in depth how Taiwan's QA system was established and implemented, some of the key personnel involved in the process were interviewed. Five interviewees were invited to attend a semi-structured, individual, face-to-face interview lasting for 40 to 60 minutes. These interviewees included policy-makers, academics, and administrators in the national evaluative agency (HEEACT); all of whom had influenced the development of the QA system, and are still in influential positions in the conducting of evaluations at universities.

The second research question seeks to assess the way in which higher education institutions react to the demands of the QA system, and how these institutions have been affected by the system. Having established the scope of the research, and addressed the first research question by examining the QA system by means of documentary research and interviews, a case study approach was utilised to conduct and systemise the data collection process to answer the second research question.

The case studies for the second research question were conducted at four universities, two of these are prestigious institutions which have received generous funding since the introduction of the QA system, while the others are less prestigious institutions which have received less funding than the first two. I chose two public universities (University A and University B) and two private universities (University X and University Y). Each pair embodied one relatively more prestigious university (University A and University X) and one less prestigious (University B and University Y). University A and University X, passed the 2011 Institutional Accreditation successfully, enjoyed good reputations and more resources than the others. The other two universities, University B and University Y failed to pass the same assessment, and became more disadvantaged due to the QA system. University B is now facing a forced merger with another stronger public university (not the one dealt with in this sample). University Y has struggled with a decreasing enrolment and insufficient funds.

At each university, the question of how the level of funding made available under QA has impacted their internal and external operations will be explored. Moreover, how the universities have reacted to the evaluation exercise will be discussed. The choice of the four universities is dictated by two general criteria. First, the case study sites would reflect the larger population of traditional universities in the interview sample. Second, a diversity of sites would shine a light on a variety of reactions to the introduction of the QA system. Thus, in order to make systematic comparisons, the criteria mentioned above were considered when selecting cases.

Five administrators and academics were interviewed at each university, who have experience of both old and new forms of evaluation. The chosen sampling method is purposive, since this can reduce the bias of homogeneous sampling when conducting an evaluation (Yin, 2009). The interview type is semi-structured and face-to-face, lasting approximately 40 to 60

minutes, and each one is tape-recorded. The over-arching purpose of the interviews is to discover how the interviewees think the QA system has affected their institutions and how they think they have responded to the QA exercise. The interview questions are derived from the research questions and existing literature. The questions focus on the process of preparing for evaluations and the interviewees' views of the changes in their institutions resulting from the evaluations, covering areas such as finance, the balance between research and teaching, academic autonomy, and academic culture.

Data analysis is the process of drawing meaning from data and at the core of constructing theory from case studies. In this research, which uses one-to-one interviews as one of its major data collection tools, transcribing and coding are the first step in organising the database. Transcription is the process of transferring audio-recordings into textual data. Similar texts can be linked together by coding and located under the same category according to their particular pattern; NVivo qualitative data management was used for this process.

Respondent selection for qualitative research is based on 'information-orientated' sampling rather than 'random sampling'. Since each participant is unique, it is important to carefully consider validity and reliability. Yin (2009) indicates that case studies can be generalised to develop theoretical propositions, but not to make universal claims regarding the wider population or to other cases. In this sense, case studies do not represent a 'sample', and the investigator's goal is to expand and generalise theories (analytic generalisation) rather than enumerating frequencies (statistical generalisation). Thus, in this research, the theoretical foundations and goals of the QA system could be re-examined, expanded upon, or supported by the collected data, while any result from a particular case is not expected to predict the outcome of other qualitative research.

6. Significance

One of the reasons why this thesis is significant is because it provides evidence for the impact of the QA system on universities after the establishment of HEEACT in 2005. The current lack of impact studies will become evident in the literature review chapter. With regard to Taiwan, most studies relating to quality assurance focus on how to construct an ideal QA system. For example, there are few studies which examine issues caused by the Taiwan QA system. As such, this thesis can be expected to add substantially to the knowledge on how HEIs change in response to the QA system, as well as the nature of the changes in higher education brought about by external demands.

From an international perspective, Taiwan provides an example of a country facing the impact of globalisation and attempting to adapt to global trends. Although the elements of

Taiwan's QA system are similar to the 'general model' used by European countries and to the accreditation system in the USA, the processes and strategies of adapting the QA system have been different from Western countries due to Taiwan's particular local and historical circumstances. Thus this study also contributes to providing a comparative insight into the role of QA system in higher education.

7. Boundaries

Higher education in Taiwan is based upon a binary system of universities and polytechnics. Both have developed their own QA systems. Moreover, there are other kinds of evaluations for specific areas of education such as teacher education and medical education conducted by the Ministry of Education. Universities and Polytechnics have different evaluative indicators and agencies for evaluations, however closer examination reveals that the QA system for Polytechnics is based on that of the Universities. Consequently, the QA system developed for universities has been central to the development of the entire QA system in Taiwan. Therefore, this study will focus on examining the QA system used in the university sector in Taiwan and exclude the other derivative evaluations.

This study explores the impact of the QA system on HEIs before a new QA policy of 'self-conducted external evaluation' was launched in 2012. That new policy is running in parallel to the QA system launched in 2005. The 'self-conducted external evaluation' will be explained in Chapter Three. The 'self-conducted external evaluation' is still under development and needs future studies to examine its implementation and possible impact on the QA system and higher education.

8. Structure of the Thesis

The thesis is presented in eight chapters, including this introductory chapter. In Chapter Two, the literature relating to the nature of quality assurance is reviewed. The chapter ends with the creation of the conceptual framework to be used for formulating the interview protocols. Then the analytical framework is refined from the conceptual framework. Chapter Three discusses the methodology for answering research questions. The research design and analysis of the data are discussed. A qualitative research design is used, comprising documentary research, interviews and a case study. At the end of the chapter, the history and vital characteristics of the four case universities under discussion are fully illustrated.

In Chapter Four, in order to answer the first research question, an overview is given of higher education in Taiwan, together with an overview of the development of the QA system between 1975 and 2012. A short description of the higher education system is provided, and the main part of the chapter comprises an examination of the QA system.

In Chapters Five to Seven, the key themes emerging from the collected data are analysed. Using the analytical framework introduced in Chapter Two, the findings, which answer research question two, are presented in the following chapters. The impact of the QA system can be categorised into three levels of HEIs, namely, at the system level (Chapter Five), at the institutional level (Chapter Six) and at the individual level (Chapter Five). Chapter Eight summarises the data and findings, identifies gaps and areas for further research, and draws conclusions about the impact of the QA system on HEIs in Taiwan. The research questions are revisited and some policy implications are suggested on the basis of the findings from the case studies.

Chapter Two: Quality Assurance in Higher Education: Influence, Issues and Impact

This chapter reviews the general academic literature relating to quality assurance in higher education. In this study, 'quality assurance' is used as a generic term to cover all structures and processes, both in teaching and research, as well as internal and external activities, which involve evaluating, assessing and assuring quality in higher education. This chapter contains four sections, each of which focuses on the literature relating to a different aspect of quality assurance.

The first section focuses on the development and features of quality assurance in higher education, and describes the way in which it operates at the national and institutional levels. The second section explores the critical issues relating to the goals of quality assurance systems in higher education. These include the role of quality assurance agencies; the tension between the impetus for improvement and accountability in QA systems; and changes facing the academic profession due to quality assurance.

The third section addresses impact studies of quality assurance both of Western literature and Taiwan. Subsequently, in the fourth section, I construct a conceptual framework based on the impact model of Brennan and Shah which I initially use to illustrate the nature and type of impacts arising from quality assurance systems on higher education institutions. As I analysed the empirical data, however, new coding categories emerged from the data necessitating a modification of the Brenna and Shah model that is used as my analytic framework. This modified framework is addressed after the description of the conceptual framework.

1. The Nature of Quality Assurance in Higher Education

The global trends which have affected the emergence of quality assurance are first illustrated in this section. Then the definitions of quality and quality assurance are addressed. Finally the development and approaches to current quality assurance (QA) mechanisms are explained.

(a) The Global Trends towards the Emergence of Quality Assurance

Quality became a central concept in many discussions about higher education in many countries in the early 1980s. This led to the rapid growth in Quality Assurance (QA) mechanisms, driven by three trends; globalisation, internationalisation and accountability which in turn have shaped QA mechanisms.

Globalisation

Globalisation is the term used to explain the development of increasingly integrated systems and relationships beyond the nation (Marginson and Rhoades, 2002). In higher education, there are global forces and processes that have taken place over time. For example, the British and

French models of the university have influenced higher education systems in European and Asia countries. This influence is often explained with reference to both historical colonialism as well as the current economic power of Britain and France. More recently, the American university model, which embodies a mixture of public and private autonomous institutions, has - because of US economic power - become a new force shaping foreign higher education systems and institutions.

The rapid spread of quality assurance system in higher education that has taken place at different times in different regions of Europe is also an example of globalisation in higher education: alongside the influence of Britain, France and the US, European trends and developments in quality assurance development, especially those developed by the EU, have also played an influential role in the world (Marijk, Van Der Wende and Westerheijden, 2001). The influence of European higher education systems was especially enhanced following the Bologna Declaration, which established a European area of higher education, and sought to spread this European system worldwide (Temple, 2011).

Higher education expanded in Western Europe in the 1960s and 1970s, in Southern Europe in the 1980s, and in Central and Eastern Europe in the 1990s. These societies could afford this expansion thanks to post-war economic growth. However, with slower economic growth in the 1970s and 1980s, the rising costs and increased visibility of higher education stemming from the expansion, drew attention to the issue of quality. In the 1980s, the relationship between government and society changed with the introduction of managerialism and all that that implied. Managerialism refers to the way in which contemporary business practices and private sector ideas or values have permeated publicly funded institutions and work practices (Deem, 2001). This has led to a greater demand for governments to be accountable for the expenditure of taxes, including in the area of higher education (Westerheijden, 2005).

The trend of managerialism was a response to the call for improving efficiency and effectiveness as well as excellence in higher education, and it led to changes in the way that publicly funded institutions were managed. Among other things, it led to a shift in the funding of higher education from depending entirely or mainly on the public purse to raising funds from tuition fees, endowments, and offering consultancy services. This shift has become an important aspect of what is generally referred to as the marketisation of higher education.

Quality assurance procedures are also part of managerialism in that these determine how funds are competed for and allocated. The relationship between higher education, governments and society has changed from being state-controlled to being increasingly governed by the market. In many countries in the West, marketization has been part of efforts made to find effective ways to respond to the challenges posed by mass higher education, such as the growth in student numbers, and the greater complexity in running HEIs.

According to Marijk, Van Der Wende and Westerheijden (2001), the UK, US and Australia led the world in the area of quality assurance in the early 1990s. However, their approaches with regard to quality assurance differed. In the UK, new forms of academic auditing of teaching and research have been introduced to regulate the professions in the public sector, and enhance government control over them. In contrast, between 1993 and 1994, Finland and the Netherlands introduced approaches which stressed self-evaluation, in addition to developing assessment instruments (van der Wende, 1995). In 1999, the establishment of the European Network of Quality Assessment Agencies (ENQA) marked the beginning of a network of inter-governmental cooperation within Europe.

In addition to aiding the spread of the models of quality assurance and managerialism, globalisation has been also used by governments as a reason for implementing new political approaches such as those inspired by neo-liberalism, where the market replaces the state as the main mechanism of distributing public goods and services, and social welfare is reduced to a safety net (Deem, 2001). These political approaches have affected state policy on universities' autonomy and on universities' responses to the market. This is due in part to the fact that universities have adapted to external markets by fostering entrepreneurial activities.

Clark (1998) calls this phenomenon 'the entrepreneurial university' referring to the increasing emphasis put on business in tertiary education. For example, universities are increasingly required to operate within financial boundaries and deliver 'value for money'. This, according to Neave (1998), is the root of the 'Evaluative State', which uses performance indicators such as quality indices, and benchmarks to measure academic productivity in order to control the status of institutions. In this way, governments' power over higher education has become more direct. For example, the increasing focus on accreditation is one indication that quality assurance can be seen as a tool for the implementation of supranational policies, such as the European Bologna process. The traditional autonomy enjoyed by universities, such as the freedom to define the educational process, has come under the strictures of accountability.

Following Clark (1983), there have been a number of comparative studies analysing global forces and their impact on higher education (Marginson and Rhoades, 2002). Some of these studies have focused on how academic work is changing to respond to the emergence of the global market (Deem, 2001). Among these studies, the 'academic capitalism' proposed by Slaughter and Leslie (1997) is the most well-known study.

Slaughter and Leslie (1997) investigated global mechanisms in higher education, and used the term 'academic capitalism' to define and analyse market and market-like behaviours of universities and faculty. The study of academic capitalism analyses the phenomenon in which academics act as capitalists while HEIs and faculty have to compete for resources and engage

in for-profit activities (Slaughter and Leslie, 2001). The concept of academic capitalism is widely used to explain the behaviour of universities today.

This study will utilise the concept of academic capitalism to analyse the impact on higher education caused by QA mechanisms, particularly the trend towards managerialism and marketization. In addition to globalisation, another widespread phenomenon in higher education is internationalisation.

Internationalisation

Internationalisation has become a widespread phenomenon in higher education. The processes of sharing of ideas, knowledge, and the trend of students moving across borders are the core elements of internationalisation (Deem, 2001). International competition is not only focused on economics but also on broader human capital interests; for example, countries make an effort to attract talented students and graduates worldwide. There are several forms of internationalisation in higher education, such as the increasing mobility of students studying abroad, the mobility of teaching staff, the internationalisation of curricula and mergers between institutions (Van Damme, 2000). The first forms of internationalisation were characterised by the university systems in the context of colonization (Van Damme, 2000). Nowadays, internationalisation is situated in the context of development aid and international trade in education. The challenges resulting from today's internationalisation push universities to develop new policies and organisations to enhance their global competitiveness.

One issue that can be identified in terms of internationalisation is the expansion of current QA mechanisms. The trend towards increasing internationalisation has led to cross-border activities and mobility in higher education in terms of speed and size, and a number of initiatives have emerged to ensure the quality of these activities. For example, an international system of licensure, certification and accreditation, termed 'European Qualifications Framework (EQF)', has emerged as a powerful means of ensuring international mobility within higher education, since its introduction by the EU in 2008.

Along with the globalisation and internationalisation, there are several changes occurred in higher education. One of the significant changes is the increasing accountability.

Accountability

Brennan and Shah (2000) argue that higher education systems generate three main features to meet the demands of globalisation and internationalisation; generally, the first feature is various higher education systems. The second feature is the changing relationship between higher education and the state. The application and idea of the concept of accountability in higher education is the third feature.

With the limits on public expenditure in many countries, HEIs are forced to turn to the marketplace to raise extra funds. Higher education systems have started to restructure the overall size, departments and resources of their HEIs. In this context, QA mechanisms and national QA agencies are the two main forces acting between higher education and the state. The function of the two forces is to ensure the fair distribution of public expenditure on HEIs, and accountability about how HEIs use their funds.

Accountability has been the dominant underlying rationale for introducing quality evaluation since the 1990s, and it has been used to further government interest regarding the characteristics and performance standards of higher education systems (Van Vught and Westerheijden, 1994; Harvey and Newton, 2004). Stensaker and Harvey (2011) argue that evidence of the increasing degree of accountability embedded in higher education can be found in the steadily growing numbers of international students and academics, international performance rankings of universities, and the establishment of international quality assurance schemes. In countries where university autonomy is a tradition, such as the UK, a demand for accountability has increased. The reasons for this are the costs and problems connected with increased enrolment, as well as pressure to ensure value for public monies spent on higher education institutions. Accountability for how public money is spent is seen by the governments to be the major purpose of an external quality process (Harvey and Newton, 2004). To be considered accountable, universities are expected to deliver courses that are evaluated as being of good quality; they are also expected to constantly improve the quality of their courses.

However, Barnett (1994) argues that evaluating quality and improving quality cannot be effectively accomplished as a value-free and wholly technical process. Higher education is a social and cultural enterprise, not just an economic one, and it involves the idea of a good life, as well as notions of purity, character, control over the total environment, democracy, and national identity and security.

According to Stensaker and Harvey (2011), external accountability mechanisms have some monitoring characteristics in common: peer review, reporting systems, performance indicators, new funding and governance initiatives to check accountability. These five characteristics have become the key elements of QA mechanisms at supra-national level, which will be more fully illustrated in the following section.

(b) Definitions of quality and quality assurance

Before moving on to the section on the features and characteristics of QA mechanisms, the definitions of quality and quality assurance need to be clarified because a large, and potentially confusing, terminology has built up around the quality movement in higher education in different

countries. The terms 'quality' and 'quality assurance' were originally employed in a value-neutral sense but recently 'quality' and 'quality assurance' have been combined to describe a process in which a government sets standards for teaching and seeks assurance of excellence in higher education.

Quality

Although there is no consensus about the definition of quality in higher education, concern about quality is not new. Universities traditionally emphasised self- and collegial-accountability and self-improvement (Brennan and Shah, 2000). They trusted their staff and relied on the professionalism of academics to maintain their quality and standing in society. According to Green (1994) and Perry (1994), quality and standards did not become a matter of public concern until the 1980s. The 1980s was the decade when public services were driven toward greater efficiency, cost-consciousness and value for money, while the 1990s was the decade in which the spotlight was shone on quality. Governments typically conceptualised quality in terms of the minimum performance standards that should be met by higher education institutions.

In the early 1980s, the political economy of higher education changed toward a focus on privatisation, output-based funding and the marketisation of services (Green, 1994; Perry, 1994). This was part of a broader neo-liberal reform agenda designed to change the values, structures and management processes, particularly of the public sector. This neoliberal agenda involving marketization and privation formed the backdrop to the new emphasis on accountability. In this context, educational outputs became increasingly standardised and represented as being a measurable commodity that could be compared and exchanged in the global market (Morley, 2004; Neave, 1998). Governments that were cash-strapped and felt under pressure to reduce funding to universities were now using accountability to ensure that they spent their funding efficiently.

In the 'stages of development in approaches to quality' analysis of Middlehurst (1997), the meaning of 'quality' develops from quality control, to quality assurance, to quality enhancement, and to quality transformation.

Harvey and Green (1993) and Westerheijden (2005) argue that, in general, the concept of quality can be grouped into five categories. These are: quality as exceptional, as perfection (or consistency), as value for money, as fitness for purpose, and as transformative.

The first category is quality as exceptional. The notion of quality being exceptional implies that it is distinctive, embedded in excellence, and capable of passing a set of required standards. It implies that the output of quality is the result of quality inputs, and performance can be measured and defined in terms of measurable and quantifiable standards. Quality in education is

normally judged by the reputation of the institutions, which is dependent on the performance of the graduates and the faculty as well as other factors such as the level of resources available to the institutions. The standards of outputs are static (Walsh, 1991); for example, at an institutional level, it means recruiting the right undergraduates and providing appropriate opportunities for individuals to develop knowledge and reach their potential.

With regard to the second category, quality as perfection or consistency, the focus is on process and includes setting specifications. The aim of 'as perfection or consistency' is to meet the standards perfectly (Harvey and Green, 1993). The notion of zero defects and getting things right first time involves a philosophy of prevention embodied in this particular form of quality culture. This approach, originating in management and industry, requires higher education institutions to achieve excellence by exhibiting 'zero defects', rather than achieving higher standards. When applying this definition, the quality of higher education is seen as being the totality of features and characteristics of a product or service that affect its ability to satisfy stated or implied needs (ISO, 2003).

The third category of quality is that of value for money (Ball, 1985). Terms used include 'quality products at economic prices' and 'quality at a price you can afford'. Quality as value for money implies a high standard specification at a reduced cost. Since the mid-1980s, the quality of education has been linked with value for money as stakeholders demand efficiency and effectiveness in the public sector, and 'value for money' is often at the heart of accountability (Pfeffer and Coote, 1991; Kogan, 1986).

The fourth category is 'fitness for purpose'. In this, the quality of a product or service is judged by the extent to which it meets its purpose. The assumption is that a quality product is one that meets customers' requirements. In the case of higher education, this implies that students are direct customers of universities and the employers include the government, the market, and society. The indicators used for quality as fitness for purpose may include the graduation rate, the effectiveness of training courses, or the reputation of the higher education institution. Quality, in the form of 'fitness for purpose', is often taken to mean fitness for performance in the market (Harvey and Green, 1993). Thus, fitness for purpose is intrinsically linked with the accountability approach to quality assurance (Harvey and Newton, 2007). However, there is still a problem of judging whether or not an institution is achieving its mission or purpose. Institutions will have different purposes.

The fifth category is quality as transformative, and in this aspect, Harvey and Green (1993) emphasise that higher education is not simply a service for customers, but it is intended to have a specific effect on students. The intrinsic qualities of higher education refer to the ideals of the search for truth and the pursuit of knowledge.

These above five categories of quality provide a framework which can be used to analyse processes in higher education, including quality assurance. Most of these are related to two main perspectives. The first of these is the objectivist perspective in which quality is considered an absolute threshold that needs to be exceeded in order to obtain a quality rating; alternatively, there may also be predetermined national standards that the output has to meet.

According to the second main perspective, quality is seen to be depend on the user of the term and the circumstances. This perspective often involves concepts like ‘liberty’, ‘equality’, ‘freedom’ or ‘justice’. Quality is therefore also value-laden, because it is subjectively associated with something good and worthwhile (Pfeffer and Coote, 1991). This means that different people may adopt different concepts of quality at different times, and since higher education has stakeholders, including students, employers, staff, government, funding agencies, auditors, and professional bodies, this raises the questions of ‘what quality’ and ‘whose quality?’ According to Vroeijenstijn (1995), that quality is ‘stakeholder-relative’ and it is hard to try to define quality. Different stakeholders in higher education may have different views about the purpose of education. While the definition of quality is wide-ranging, the criteria of stakeholders must inevitably be considered when quality is being assessed in higher education (Harvey and Green, 1993; Harvey and Williams, 2010). As Williams (2009) points out, the fundamental purposes of quality assurance depends on who wants what and for what purpose. Therefore, countries adopt various quality assurance mechanisms and approaches in higher education in line with different views of what quality is.

Table 2.1 Rationale to quality: an analytical framework (Barnett, 1992)

Approaches		Source of approach	Dominant level of assessment	Purpose	Focus of evaluation	Form of performance indicators	Institutional context
Objectivist		External	Institutions	Summative	Input and output	Quantitative	Comparative
Relativist (Fitness for Purpose)	Hierarchical (Gold standard)	External	Institutions	Summative	Input and output	Quantitative	Comparative
	Parallel (non-judgemental)	External	Institutions and courses	Mainly summative, but possibly formative as well	Inputs, output, and processes (marginally)	Quantitative and qualitative	Non-comparative
Developmental		Internal	Courses	Formative	Processes	Qualitative	Non-comparative

Table 2.1, from Barnett (1992), illustrates various forms of quality assurance mechanism that emphasise different possible aims, such as improvement, accountability, validation and

information, all of which are based on different perspectives on the nature of quality, and range from the developmental and relativist to the objectivist (Westerheijden, 2007: 10).

These different approaches to quality reflect different conceptions of the nature and phases of higher education. Quality procedures translate particular rationalities into new forms of governance and professional behaviour.

Objectivist conceptions of quality assume that it is possible to identify and quantify certain aspects of quality in higher education. One common assumption is that effective teaching has a direct and positive relationship with the amount of research undertaken by staff, and the typical indicators are the outputs of degree results and the take up rate of postgraduate education. Performance indicators such as these are quantifiable and the availability of scores encourages the ranking of institutions in higher education. In contrast, the developmental viewpoint is orientated toward improving the quality of an institution's work, as well as considering the way in which internal members, such as staff and students, review that work and their own performance. These institutional and individual reviews focus on past performance and guide the policy or decision-making at both the institutional and national levels.

The basis of a relativist view of quality is based on 'fitness for purpose', and this has been used by national bodies to measure the performance of institutions in higher education, and to make decisions on a national basis. In this sense, higher education institutions are seen as being equal but different. They not only have to develop their own mission, but also have to achieve excellence in teaching and research, these two factors being the key criteria for decision-making by national bodies. Thus, the relativist approach is both objective and developmental (Barnett, 1992).

Barnett (1992) argues that when allocating public expenditure for higher education, the objectivist approach, which is expected to be neutral and comparable across institutions, is the most common way to measure performance. The desire to measure leads to the developing of numerical indicators, especially quantitative ones. While the developmental approach focuses on qualitative methods of assessment, the relativist approach combines a mid-way position between the objectivist and developmental methodologies.

Temple (2014) believes that the analysis of different stages is a reminder that 'quality' is always related to various purposes and activities in higher education. These three distinctive approaches reflect the values embedded within various quality assurance mechanisms. They also reflect the fact that the concept of 'quality' in higher education contains two concepts, namely, one which focuses on accountability and the other on improvement.

Quality Assurance

Westerheijden, Stensaker and Rosa (2007) claim that quality assurance is a new form of regulation of higher education, while Harvey and Green (1993) portray it as a key element of the 'new managerialism'. Quality assurance is one of three types of monitoring mechanism for higher education (the other two being rankings, and accountability measures) (Shin and Toutkoushian, 2011). Regulatory techniques are associated with minimum standards and financial rewards or penalties for performance. In this regard, it is assumed that quality can be assured. Governments in most countries claim that the common aim of a quality assurance mechanism is to support both quality improvement in higher education, and ensure that higher education institutions are accountable to society in terms of effectiveness and efficiency.

Different values are embedded in different QA mechanisms. Brennan and Shah (2000) point out that four sets of values relating to quality that underpin different approaches to quality assurance. These values may be: academic, management, pedagogic or employment-focused. The academic type is based on traditional academic values. It focuses on knowledge and curricula in higher education, and issues involve changes in professional authority and academic hierarchy in quality assurance. In the management type, such as Total Quality management (TQM), there is the assumption that quality can be produced by good management; relatively little attention is paid to academic matters. The pedagogic type focuses on the staff' teaching skills and classroom practice, while the employment type takes account of customer requirements, graduate output characteristics, and learning outcomes.

(c) Approaches to Quality Assurance

According to Harvey and Newton (2004), quality assurance mechanisms can be categorised into four types of approach, as shown in Table 2.2, namely, accreditation, audit, assessment, and external examinations (or external standards).

Table 2.2 Four approaches to quality assurance (Harvey & Newton, 2004)

Approach	Accreditation	Audit		Assessment	External examinations
Object	Provider	Programme		Learner	Output
Focus	Governance & regulation	Curricula-um design	Learning experience	Medium of delivery	Student support
	Content of programmes	Financial viability	Qualification	Administration support	Organisational processes
Rationale	Accountability	Control		Compliance	Improvement
Methods	Self-assessment	Performance indicators (PIs)		Peer visit	Inspection
	Document analysis	Stakeholder surveys		Direct intervention	Proxy delegate

The emphasis placed on each approach varies between systems in different countries. The objects of each approach range from institutions, subjects and programmes on the one hand, to service provision and learners or learning outcomes on the other. The focus of each approach is also diverse, and ranges from governance and regulation, through financial viability and qualification, to compliance and improvement.

Harvey and Newton (2004) argue that the rationale for the four approaches lacks clarity. In many countries, Harvey and Knight observe that quality evaluations are referred to as tools for a process of improvement, yet the emphases are usually on accountability, compliance and control, which is part of a political agenda (Harvey and Knight, 1996, Harvey and Newton, 2004). The rationales for the four approaches in Table 2.2 lie within the Relativist (Fitness for Purpose) perspective defined by Barnett (1992). For example, the tendency to pursue both summative and formative purposes, and use quantitative and qualitative performance indicators at the same time can be found in each external examination.

Of the four approaches, audits and accreditation are the two most popular around the world. When examining the forms of quality assurance mechanisms applied in different countries, it is clear that accreditation is an important approach in both Western and Eastern countries. This became more universal than other approaches (Westerheijden, 2007), especially after the Bologna Declaration in 1999. The other main quality assurance mechanism in Western countries is the audit; for example, in the U.K., the institutional audit is driven by the Quality Assurance Agency (QAA). The features of audit and accreditation are briefly illustrated below.

Audit

Harvey and Newton (2004) point out that audit explores internal processes, which aims at providing guarantees that institutions have suitable quality control mechanisms in place. Audit was first developed in the UK in 1980s, and subsequently adopted by Sweden, New Zealand and Hong Kong. It is an accountability mechanism that emphasises the way in which units manage their quality, rather than focusing on programmes or the units themselves. Thus, a quality audit aims to improve the capacity of higher education institutions to ensure the quality of their academic degrees and student learning.

There are problems in implementing an academic audit, such as the selection and training of audit teams, audit self-studies, conduct of visits, reports, and follow-up. For example, an audit in the UK evaluates performance and effectiveness, and then judges the value or reputation of the particular higher education institution under scrutiny. Although the audit aims to aid the development of quality assurance systems within institutions, improve teaching and learning in

institutions, reinforce institutional quality cultures, provide information, and confirm the accountability of institutions, Dill (2000) argues that academic professionalism has been negatively affected by the quality assurance mechanism. The bureaucracy involved in the audit, the time taken, and the implied perception of distrust in the professionalism of academics has caused a great deal of tension in terms of professional values (Cheng, 2009; Dill, 2000; Woodhouse, 2003).

Accreditation

Accreditation differs from the quality assessment and the quality audit, according to Westerheijden (2007). Accreditation leads to a brief formal statement confirming that a certain quality threshold level has been reached, thereby giving programmes or institutions the official right to operate in higher education. The audit approach focuses on strengthening institutional management, whilst accreditation aims to determine whether or not an institution has reached certain predetermined standards (Temple, 2011). Institutional accreditation is usually undertaken by regional bodies that are themselves controlled by higher education institutions, while programme accreditation tends to be conducted by state-based or national profession-controlled bodies (Harman, 1998: 359).

In the USA, the accreditation of higher education institutions consists of a procedure of self-assessment by the organisation seeking accreditation. This is followed by a visit from a team of external assessors and a final decision using pre-existing accreditation standards. Accreditation has two forms in the USA, one of which is institutional accreditation undertaken by higher education institutions themselves while the other is specialised accreditation conducted nationally by professional bodies (Van Vught and Westerheijden, 1994).

Over the past three decades, accreditation systems have been established on the American model in many Asian and Latin American countries. These systems play a key role in higher education of Asian countries, such as Taiwan, South Korea, Hong Kong, Japan, and the Philippines. In Europe, Weterheijden (2001) notes that there are already accreditation mechanisms in many Central and Eastern Europe countries after the Bologna Declaration of 1999 which became a guideline for establishing QA mechanisms in the region.

Although there are distinct approaches to quality assurance, the elements of each approach to quality assurance are often combined into one. Quality assurance is a broad concept since it involves the ways in which a unit organises its internal quality assessment to ascertain the current state of quality (quality control, which means mechanisms within institutions designed to maintain and enhance the quality of their provisions) and the way in which the unit manages its quality improvement (Westerheijden, 2005).

The trend towards the convergence of approaches to quality assurance

Most European countries have been influenced by what van Vught and Westerheijden (1994) term a 'general model' of quality assurance that is promoted by the European Union. This model was influenced by the well-established national assessment systems in place in the Netherlands, the UK and France, and also by US accreditation systems. Although the methods used, the range and types of national bodies, the level and focus of assessment, and the purposes of evaluation differed between countries, the quality assessment methods of most established and developing agencies include four main elements. These elements are a national co-ordinating body, institutional self-evaluation, external evaluation by academic peers, and published reports. This quality assurance framework appears to have been influential in shaping developments in Europe.

The Bologna Declaration of 1999 aimed to make European higher education more transparent, and encourage the development of clearer quality-assurance processes (Westerheijden, 2001). The Bologna Declaration stated that quality assurance systems should be based on the following principles: autonomy and independent bodies responsible for quality; transparency of evaluation process; both internal and external procedural elements for HEIs; involvement of all the players; and finally the publication of evaluation reports.

This Bologna model has been developed and adopted in European countries and indeed EU protocol require them to do so. Currently most Western European countries have established their own external quality assurance mechanisms, and many Central and Eastern European countries have expanded theirs after the collapse of Communism. According to Temple (2011), the quality processes of Eastern European countries were largely developed in response to a perceived threats to academic standards after the collapse of communism.

Westerheijden (2007) argues that the idea of accreditation only moved from Central and Eastern Europe, where this method had been adopted, to Western countries with the Bologna Declaration. Launched in 1999 by the Ministers of Education and university leaders of 29 countries, the Bologna Process aimed to create a European Higher Education Area (EHEA). The European Association for Quality Assurance in Higher Education (ENQA) was responsible for developing common standards for quality assurance mechanisms, and the frameworks of quality assurance established by the ENQA then became supra-institutional schemes across higher education in Europe (ENQA, 2012).

It was seen earlier that there are two main approaches to quality assurance, audit and accreditation. However, a four-step model seems to be applied in most quality assurance mechanisms (Westerheijden, 2007). This involves a national co-ordinator, self-evaluation, peer review and public reports about the outcome of the external evaluation. Brennan and Shah (2000)

indicate that methods of quality assurance in higher education have a number of dimensions, involving who assesses what, how, and how often. For example, the ‘what’ question considers whether evaluation involves the whole institution, a faculty, a department, a programme, or an individual staff member; or whether it focuses on teaching, research or administration. There are two methods to assess quality assurance procedures, namely, quantitative and qualitative methods; and while these methods appear mutually exclusive, they can be complementary. Both methods use performance indicators and peer review to assess the quality of higher education.

(d) A model of the development phase of quality assurance

Quality assurance is a phenomenon that ‘travels’ between countries, creating a field in which both adopters and latecomers can be identified (Neave, 1994). For instance, in European countries, the pattern of policy-borrowing encompasses the use of indicators and benchmarks, ideas of regulation, funding, and policy instruments that are disseminated throughout higher education in different countries. It should be noted that quality assurance schemes are not stable over time. The nature of quality assurance involves change, which can be analysed to uncover the mechanisms.

According to Westerheijden (2007), the development of quality assurance mechanisms in European countries can be divided into four developmental phases over the time, as shown in Table 2.3.

Table 2.3 Phase model of quality assurance mechanisms (Westerheijden, 2007)

Phase	Problems	Role of quality assurance	Internal evaluation/information base	Nature of external review
1	Serious doubts about educational standards	Identifying substandard educational programmes	Descriptive reports; performance indicators	Summative; accreditation, checking standards, report to the state
2	Doubts about the efficiency of the higher education system and/or institutions	a) public accountability b) creating quality awareness in institutions	Descriptive/strategic reports selling of ‘self’ covering: a) procedures b) performance	Ranking of institutions; identifying good practices; reports to the state and institutions
3	Doubts about innovation capacity and quality assurance capacity of institutions	Stimulate self-regulation capacity of institutions’ public accountability	Self-evaluation reports about: a) procedures b) performance	Audit report to the institution and to the state
	Need to stimulate	Split between:	Split between:	Split between:

4	sustainable quality culture in institutions	a) improvement based on self-regulation b) public accountability	a) self-evaluative reports about processes and strategies based on SWOT and benchmarking b) self-reporting performance indicators	a) audit report to the institution b) verifying data to be incorporated in public databanks
New challenges	Decreasing transparency of higher education systems	Market regulation, i.e. informing clients (students, employers)	Performance indicators about 'products' (knowledge and skills of graduates)	Publication of comparative performance indicators; standardised testing of graduates?

As Table 2.3 shows, QA mechanisms in Europe can be grouped into different developmental stages, which Westerheijden (2007: 9) argues relate to different circumstances and policies of governments. The dominant discourse in society can be seen to define the main problems (first column) in higher education from which the main aims of quality assurance (second column) are derived. The third and fourth columns then characterise the forms of internal evaluations and external review that seem to be most appropriate as solutions to the problems identified. The development of the QA system in Taiwan is a good example of the four phases of the QA development model shown above. These stages have also been experienced in Taiwan and I will discuss this further in Chapter Four.

2. Critical Issues relating to Quality Assurance

A number of issues have emerged with regard to QA systems since the 1980s. There are three main issues identified in the literature, which are: the role of quality assurance agencies; the tension between the impetus for improvement and accountability in QA systems; and changes facing the academic profession due to quality assurance (Cheng, 2009; Harvey and William, 2010; Morley, 2001; Yorke, 1998).

(a) The role of quality assurance agencies

Concepts of quality assurance that originated in North West Europe and the US have been the basis of developments in QA around the world. However, there are few studies related to quality assurance agencies (Harvey and William, 2010). An independent quality assurance agency is a key element of a mature QA system, and its existence demonstrates that the state no longer controls higher education directly. The responsibility for quality assurance management in most countries rests with a central agency responsible for coordinating higher education, whether it is a ministry of education, a ministry of higher education, a university grants commission, or a specialised quality assurance agency, which is a sub-agency of the main higher education body (Brennan and Shah, 2000; Barnett, 1994; Vroeiijstijn, 1995).

In the process of evaluation, the agencies are a key element to ensure external academic accountability. The legal status, function, and sources of funding of the national quality assurance agencies differ from country (Brennan and Shah, 2000). Most of the national agencies are responsible for making evaluations, establishing criteria of quality, training peer assessors to conduct peer reviews, and publishing evaluative reports.

Quality assurance agencies are designed to prevent unwanted consequences, such as political interference, from occurring from the quality assessment process. As Neave and van Vught (1991) point out, governments reduce direct controls over higher education in order to support the trend towards the deregulation of central control of institutions. Subsequently, national quality assurance agencies have come to replace governments' direct control over HEIs. Most national quality assurance agencies have the power which Finch (1997:153) calls 'legitimate authority' to practise state power and pursue their aims through legislation and funding. Harvey and William (2010) argue that quality assurance agencies have led to a mushrooming of qualifications frameworks and a tendency to accredit everything. Although these are unintended consequences of QA systems, both Stensaker (2002) and Newton (2002) point out that the most positive aspect of QA systems is the increased institutional transparency. According to Newton (2002), the evaluations have made the 'black box' of higher education more open and quantifiable, bringing it closer to student needs. The major issue with quality assurance agencies is what degree of independence they should have, and whether such independence will lead to greater trust or more government control of higher education.

(b) The tension between the impetus for improvement and accountability in QA systems

The tension between improvement and accountability exists in QA systems due to the combination of these two different approaches to evaluation. Accountability and improvement are not two ends but two separate dimensions of quality assurance. QA systems have usually tried to combine the two functions, however many agencies have failed to develop an appropriate balance between them (Harvey and Williams, 2010).

Rosa and Amaral (2012) argue that the failure to combine accountability and improvement is due to a gap between the expectations (quality) and outcomes of QA systems (quality assurance), and the main reason for the gap is due to the use of performance indicators.

The need to compete in the market of higher education and increased demands to provide information regarding the quality of education to consumers have been emphasised in QA systems. This emphasis results in the use of performance indicators. Performance indicators have been developed as quality instruments for this aim because they can translate macro

policies into micro practices in QA systems by scoring and monitoring efficiency. While performance indicators are used to assess accountability in higher education, Yorke (1995) indicates that such indicators actually achieve the opposite since they simply measure verifiable statistics rather than evaluate the underlying issues in higher education institutions.

In addition, using performance indicators to measure the allocation of resources is a common way to ensure quality in higher education by calculating the research and publication productivity of individual academics and academic units (Morley, 2004). For example, in the UK, research used to be audited by the Research Assessment Exercise (RAE), which was a mechanism for distributing funding (currently replaced by the Research Excellence Framework (REF), with the aim of maximising and rewarding research output. However, Morley (2004) states that in the UK, the audit culture combines powerful moral reasoning with the methodology of financial accounting.

Morley (2004) supports the argument of Van Vught and Westerheijden (1994). All three argue that a direct relationship should not be established between quality review reports and funding decisions, since this leads to the formation of a compliance culture. When higher education institutions aim to meet the required criteria, whether or not the performance indicators were suitable for the task, their self-evaluation would blindly comply with the perceived criteria without any consideration for appropriateness (Henkel, 1999).

In this context, research and teaching are viewed as products and students as consumers of educational services. Universities become mere factories of educational production and consumption. In this sense, quality assurance systems are an alternative to typical accountability models rather than a tool for improvement, and in such schemes, trust plays little part in the usual accountability and accreditation processes (Stensaker and Harvey, 2011). Thus Harvey and Williams (2010) indicate that higher education seems to clash with academic values by this process of marketisation, thereby causing a reshape of academic profession.

(c) Changes facing the academic profession due to quality assurance

The phenomena of the growing culture of management and the evolution of the traditional academic culture within universities has opened a discussion on the relationship between the QA system and institutional cultures. Thus, before analysing the changes to academic culture brought about by the QA system, I have to first mention the relations between management and organisational culture in higher education.

Culture encompasses values, attitudes and behaviours, which are how people define who they are, what they feel about their work and what institutions they belong to (Brennan and Shah, 2000; Clark, 1983). The most frequently cited literature on culture in higher education is a study

by Clark (1983). Clark (1983) identifies three levels of culture in higher education: the culture of the enterprise (organisational culture), the culture of the disciplines and the culture of the academic profession and/or national system. The research following Clark's contribution has focused on the role of administrators and managers in organisational culture. Bright and Cooper (1993) provide a definition of the concept of organisational culture. As culture relates to organisations, it is the general pattern of behaviour and values that members hold in common.

More recent studies of organisational culture have focused on the actions, language and symbols expressed by academic staff and which influence the core activities of teaching and research (Dill, 2012; Stensaker et al, 2012). Stensaker et al (2012) argue that within higher education, there are two concepts of culture. One is that culture is organisation, which inspires academic research, as well as professional and academic identities. This implies a conception that organisational culture can be affected by the decision-making of managers and is dependent on structures and hierarchy within HEIs. The other concept is quality culture. Forming a 'quality culture' in HEIs, which means academic staff of HEIs are intrinsic to the improvement of quality, is one of the ultimate aims of the QA system.

The European University Association's (EUA) 'Quality culture' project between 2002 and 2006 is an example of another concept of culture. As a spin-off from the Bologna Process, ways on how to establish 'a quality culture' by developing QA mechanisms was emphasized by the EUA (Stensaker et al, 2012). It believes that an organisation has culture and it emphasises the need to change the function of HEIs. This latter concept of culture is more widely embraced worldwide and culture has come to be seen as an instrument for improving organisational performance in higher education. This assumption goes further to include the notion that different concepts of culture have different stakeholders and therefore culture is also a controversial issue within HEIs.

Those who advocate establishing a culture of quality within HEIs suggest that a culture can be introduced, copied and transferred to other processes and places, which means a quality culture is capable of being managed (Stensaker et al, 2012). To this aim, the management of quality requires changes in the way people behave (Bright and Cooper, 1993). Many scholars have addressed the changes experienced by academic staff in higher education, focusing on two main aspects. One is the changes in academic work and institutional management (Etzkowitz, 1989; Rhoades, 1997). The other is how academies have shifted from having liberal arts cores to becoming entrepreneurial institutions in response to marketization and globalisation (Clark, 1983; Neave, 1988; Marginson, 1993).

The main aim of managerialism is to improve higher education and ensure high quality at lowest cost. According to Trow (1994), there are 'soft' and 'hard' concepts of managerialism for

higher education. The soft managerialists see higher education as an autonomous activity governed by the academic community itself. By contrast, those holding the hard concept of managerialism, basically those in government and business, have no trust in the wisdom of the academic community, and try to control higher education through funding formulas and mechanisms of accountability.

Most countries follow the hard concept of managerialism, including the UK and the U.S.A. This decrease in trust in universities by governments has led to the establishment of bureaucratic agencies and performance criteria to ensure the efficiency and effectiveness of higher education, and these mechanisms are used to assess quality and set funding. The management of intellectual labour, namely academics, becomes the focus of governments. At the same time, universities have been forced to create bureaucratic mechanisms to steer and manage themselves (Trow, 1994). Morley (2004) points out that new constituencies, consumers, partnerships and rainbow coalitions of stakeholders have challenged the whole higher education system. Henkel (2012) also points out that in order to fulfil extensive management functions, universities now pay greater attention to various forms of professional expertise and to recruiting personnel with the necessary skills and experience. In this regard, QA mechanisms have contributed to reshaping the academic profession, which will be further discussed in Chapter Seven.

3. Impact Studies on Quality Assurance

In following section, various ways of conceptualising the impact of QA are illustrated. Having explored the literature thoroughly, the conceptual framework of this study will be created in the fourth section, based on the impact model of Brennan and Shah.

(a) The impact of quality assurance worldwide

In Table 2.4 I summarises the key features of impact studies of QA. Table 2.4 provides a sample of studies from Appendix 6. It shows that the research focuses of impact studies have gradually changed from teaching and learning to a greater concern with the links between quality assurance schemes, markets in higher education, the funding allocation models of governments, and the lives of academics.

Table 2.4 A sample of impact studies (full table please see Appendix 6)

Aspects	Study	Purposes	Methods	Findings
Impact on outcomes (research, teaching and learning)				
	Frederiks, <i>et al.</i> (1994) Effects of quality assessment	Developing a theoretical framework which is related	Case study	An increased attention towards the quality of teaching due to

	in Dutch higher education.	to a successful evaluation.		the external assessments.
Measurement problems				
	Askling, B. (1997) Quality monitoring as an institutional enterprise in the UK.	Discusses the impact of QA mechanisms on HEIs.	Case study	The National Agency has improved the institutions' management in the UK.
Funding and resource allocation				
	Kogan, M., Bauer, M., Bleilie, I. & Henkel, M. (2000) Transforming higher education. A comparative study.	A large comparative study of change processes in higher education in the UK, Sweden and Norway during the 1990s.	Qualitative study	External quality assurance systems have affected the lives of English academics.
Impact on organisation and academic leadership				
	Henkel, M. (2000) <i>Academic identities and policy change in higher education</i> . London: Jessica Kingsley.	The purpose of the book is to clarify and analyse the changes of academic identity.	Using both quantitative and quantitative research methods.	Some external assessment exercises in the UK have been found to establish an institutional compliance culture to meet these requirements.
	Brennan, J. & Shah, T. (2000) Managing quality in higher education. An international perspective on institutional assessment and change.	An OECD study investigating impacts of quality assessment procedures in institutional governance and management structures.	Case study	A model to illustrate the quality management and assessment.
	Stensaker, B. et al. (2012) managing reform in universities. The dynamics of culture, identity and organisational change.	The book examines the dynamics of reform attempts, culture and identity in organisational change.	Both qualitative and quantitative methods.	How universities are coping with range of reforms and including leadership, quality management, and academic work.

Conceptualising impact				
	Morley, L. (2004) Theorising quality in higher education.	Examining how regimes of power are experienced micropolitically in the academy.	Documentary analysis.	The political and psychic economy of quality assurance in higher education and the discourse and practices associated with the audit culture.
	Stensaker, B. (2008) Outcomes of quality assurance a discussion of knowledge, methodology and validity.	The aim of the paper is to discuss the relevance of these assumptions in the light of more recent insights from organisational theory.	Documentary analysis.	How organisational change takes place in outcomes of quality assurance.

Early impact studies have argued that QA systems are responsible for ensuring an appropriate balance between accountability and improvement in higher education (van Vught & Westerheijden, 1994) and research has focused on identifying the benefits of quality assurance schemes for teaching and learning (Frederiks *et al*, 1994; Dill, 2000). For example, Frederiks *et al* (1994) developed a framework to identify factors which contribute to a successful evaluation, and the relationships between evaluations of teaching and student learning.

However, more recent studies on the outcomes and impact of quality assurance systems have identified a number of difficulties in providing evidence regarding their impact on teaching and learning in higher education (Westerheijden *et al.*, 2006; Stensaker, 2008). There are three methodological problems (Asking, 1997; Stensaker, 2002):

First, HEIs are complicated and different from one another in their decision-making and information-processing processes. It is difficult to isolate the impact of a specific process and to measure how the external input effects internal outcomes. The cause and effect of the impacts are sometimes difficult to untangle as conditions are shaped by a mixture of external schemes, the environment, or other mechanisms (Brennan and Shah, 2000). Second, quality assurance schemes have many potential uses. Sometimes one intended outcome is generated not by the original purpose of the policy, but by other administrative or organisational measures. The third methodological problem is that the impact of quality assurance schemes is often measured overly

optimistically. Politicians and administrators in higher education sectors are prone to claim that they are 'good' implementers of quality assurance schemes.

Harvey (1999) identifies three broad types of impact studies: the first is 'theoretical' analysis, which tries to predict the effects of evaluation systems; the second provides analysis based on evidence, such as reports of self-evaluation; the third is analyses based on systematic data collection. The first type comprises mostly impact studies, and emphasize the effectiveness of the QA systems. Nevertheless, relatively few studies explore the impact of the QA systems on the processes of learning experience, pedagogic development, and the nature of research outcomes within the institutions (Harvey and Newton, 2004).

Kogan *et al* (2000) and Stensaker (2008) argue for a more realistic view of the impact and outcomes of QA systems, believing that this necessitates a broader perspective that takes account of how quality assurance is embedded in and interacts with the system of higher education to which it is connected. This would require analysing changes to: organisational learning, institutional behaviour, and how individuals and institutions interact and relate to each other (Henkel, 2000; Kogan *et al.*, 2000; Newton, 2002; Stensaker, 2008).

Some empirical studies try to analyse whether the policies concerning quality also have contributed to changing power structures (e.g. institutional autonomy) and decision-making process within HEIs (see, for example, Stensaker, 1997; Kells, 1999; massy, 1999; Brennan & Shah, 2000). Such research suggests that more studies addressing the micro-politics of quality evaluation are needed. However, there are a few studies focusing on the micro world of HEIs, such as the sorts of change that has occurred in the evaluated institutions, what is the depth of that change, and the value that has been added by the external quality assurance with respect to institutional behaviour and organisation (Brennan and Shah, 2000; Henkel, 2000; Morley, 2004; Stensaker, 2008).

In sum, from Table 2.4, it can be seen that most studies of quality assurance focus on approaches to and methods of quality assurance. The effects of quality assurance on organisational processes within higher education are seldom studied. Although previous sections explored the relations between the academic profession and the QA system, few studies have identified features of organisational culture changed by the QA system. Recent studies have suggested that 'identity' can be used as a bridge between academic behaviour and institutional structure and also used to portray change in higher education (Henkel, 2000; Stensaker *et al*, 2012; Valimaa *et al*, 2012). For example, Allred and Miller (2007) argue that the consequences of using performance indicators provide evidence that traditional academic values have been challenged by external research measurements, with regards to the changes in academic identities. The point of asking questions such as 'Who are we?' and 'What sort of organisation is

this?’ is for academics to make sense of changes at the institutional level (Stensaker, 2015), while asking ‘Who am I?’ and ‘Where do I belong?’ can help individual academics to identify individual and community values, and their commitment to universities.

In this sense, the changing missions of HEIs and academic identities in the process of evaluation need to be considered in future quality assurance studies.

(b) Impact studies on quality assurance in Taiwan

As with the Western literature on the impact studies of quality assurance schemes, impact studies in Taiwan can also be categorised into the same six aspects shown in Table 2.5. Nevertheless, there are some differences between the impact studies of Western countries and Taiwan due to local context.

In Appendix 7 I summarize most of the available impact studies in Taiwan. Table 2.5 provides a sample of studies from Appendix 7.

Table 2.5 A sample of impact studies in Taiwan (full table please see Appendix 7)

Aspects	Study	Purposes	Methods	findings
Constructing the QA system				
	Wang, P. J. (2003) <i>Gui hua cheng lid a xue ping jian shi wu zhi cai tuan far en zhuan ze bao gao.</i> (The report of planning setting up HEEACT)	Provide suggestions to establish the HEEACT for the government.	Documentary analysis, focus group, questionnaires, and survey	The HEEACT should be an independent agency.
Comparative studies				
	Yang, Y. (2010) <i>Liang an si di gao deng jiao yu ping jian zhi du</i> (Higher education evaluation system of China, Hong Kong, Macau and Taiwan).	Compare the difference of evaluation systems in Taiwan, Hong Kong, Macau and China.	Documentary analysis	The structure of QA system of Hong Kong should be taken into consideration for future development of evaluations in Taiwan.
Learning and teaching				
	Chen, C. Y. & Su, J. L. (2013) <i>A Study on the Teaching Professional Development Strategies for the University Faculty.</i>	Explore the theory and practice of teaching professional development strategies of universities.	Documentary analysis and case study.	The teaching research grant and teaching development certification programs were not sufficient for Taiwanese universities.

Research-performance indicators				
	Critical Reflections committee (2005) Globalisation and knowledge production—critical reflections on the practices of academic evaluation.	The purpose of the book is to criticise the problems caused by using T/SSCI as performance indicators in evaluations.	Document analysis, survey and case studies.	T/SSCI are just one kind of performance indicators, and other measurements should be considered in academic evaluations.
Funding and resources allocation				
	Hsiu-Hsi Liu (2013) An Analysis of Policy Instruments for Higher Education: The Connection between the Results of University Evaluation and the Allocation of Funding.	This study analyses the connection between the results of university evaluation and the allocation of educational funding.	Focus group and interviews	The evaluation policies and competing funding programmes are tools of the governments.
Organisational change and HEIs				
	Lan, W. H. (2007) A study of the effect of higher education evaluation on academics Unpublished MA dissertation, National Taiwan Normal University of Education, Taiwan.	Exploring the influence of the evaluation of the higher education on the academic freedom in Taiwan.	Questionnaire survey and interview	Department directors suffer more pressure than normal teachers when facing the evaluation of higher education.
	Chou, P. (2011) The discourse and counter-discourse formation of the University Evaluation in documents since 1975.	Review the development of evaluations from different discourse.	Discourse analysis	Taiwan's QA system has generated new power relationships between HEIs and the government by directing the resources allocation of higher education.

From Table 2.4 and Table 2.5, we can see that there is a difference between research on the impact in Western countries and Taiwan. In Table 2.4, the Western literature focuses on 'conceptualising impact' and 'measurement problems', 'impacts on teaching and learning' and

‘impact on funding allocation’; more recently studies focus on ‘Impact on organisation and academic leadership’. However, in Taiwan, most studies related to quality assurance still focus on advocating how to construct an ideal QA system or comparing the system in Taiwan with systems elsewhere. There are few studies concerned with the direct impact on higher education either at the national level or the institutional level. In Table 2.5, it can be seen that the focus in the early 2000s was on ‘constructing a national QA system’, on comparative studies (especially in the field of policy borrowing), and on suggestions how to improve elements of the QA system, such as the use of ‘performance indicators’. Recent research has started to focus on ‘Learning and teaching’. There are also few studies related to ‘Organisational change and HEIs’ and ‘funding and resources allocation’. Similar to the impact studies on quality assurance worldwide, the institutional changes of HEIs influenced by QA mechanisms also need to be considered in future quality assurance studies.

4. Conceptual Framework and Analytical Framework

This section develops a conceptual framework and an analytical framework that I will use to explain the implementation of the QA system and its impact on higher education in Taiwan.

(a) Conceptual framework

The conceptual framework was developed at the start of my research, and it evolved over time in the light of the data gathered. The conceptual framework guides the research design before I entered the empirical field, and it was further modified in the methodology chapter.

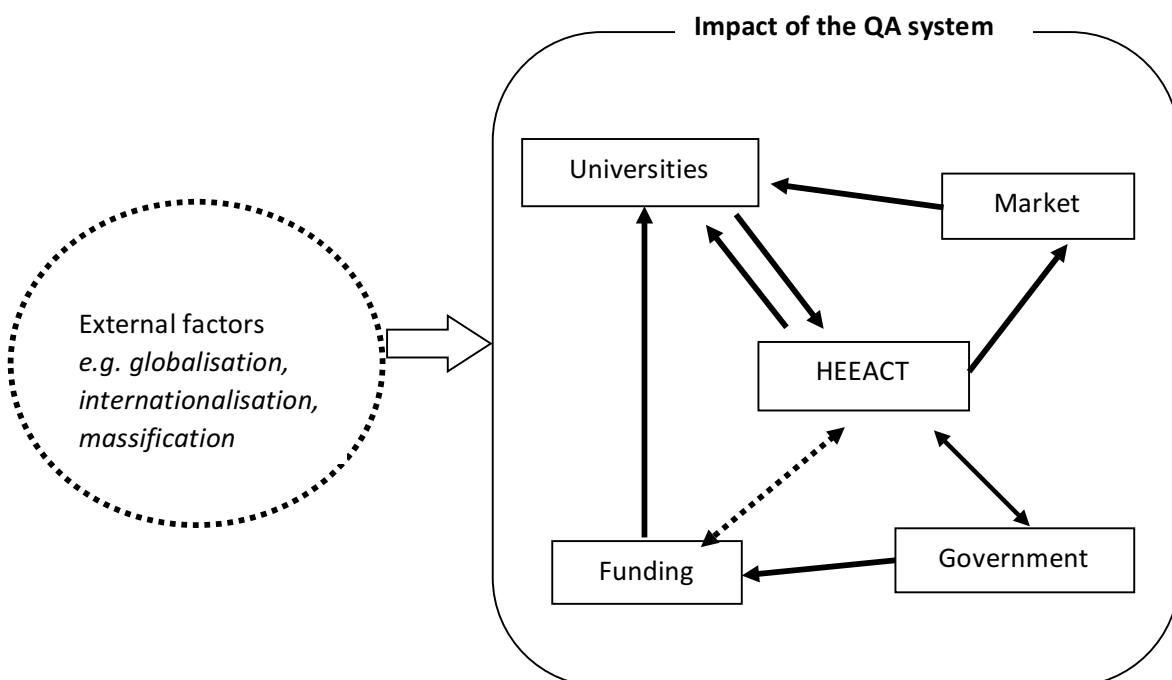


Figure 2.1 Conceptualising the QA system in Taiwan

In Figure 2.1, the cause-effect lines radiate from the centre, the QA system, which is specifically formed by Higher Education Evaluation and Accreditation Council in Taiwan (HEEACT). HEEACT mainly conducts two evaluations: Institutional Accreditations and Programme Accreditations. HEEACT is given power by law to provide the results of evaluations to the MOE to allocate funding. The QA system also strongly influences the internal quality initiatives in HEIs as universities refer to it when they create internal quality initiatives to evaluate academic staff and undertake self-evaluation. The reports of evaluations from the QA system affects the higher education market, such as enrolment and the reputation of universities. In this way, HEEACT, which is responsible for conducting the QA system, also influences the higher education market indirectly. In addition, the results of the QA system are the key to universities obtaining funding for competitive projects.

HEEACT was given direct power by the MOE to influence and change the funding of universities based on the results of evaluations carried out since 2005. However, there was extensive commentary, in newspapers, from Academic Sinica, and in the academic literature claiming that the QA system conducted by HHEACT would have a negative impact on universities in Taiwan. For example, some scholars at Academic Sinica argued that university autonomy was threatened by HEEACT because of its control of funding.

In order to clarify the linkages and the relationships between the government, the QA system and HEIs, such as whether the QA system has a negative impact on HEIs, and the identification of the elements generated by universities in response to the QA exercise, two research questions (RQs) are addressed in this study:

The first research question (RQ1):

How has the current QA system developed in Taiwan, and what are its features and characteristics?

The second research question (RQ2):

How do the universities prepare for, and the academic staff perceive, the impact of the QA system undertaken by HEEACT?

Features of the model of Brennan and Shah

Having reviewed the literature related to studies of the impact of QA and articulated the research questions for this study, I use the study 'Managing quality in higher education: an international perspective on institutional assessment and change' by Brennan and Shah (2000) to conceptualise and analyse the impact of QA on higher education in this thesis. The Brennan and Shah model emphasizes the nature of QA mechanisms, the interaction of QA mechanisms

and local contexts, and the impacts of QA mechanisms on HEIs. The model also provides concepts about which external forces have an impact on the QA mechanisms, how the forces work on HEIs as well as their relationships.

There are two reasons for using Brennan and Shah’s model. First, it is viewed as one of the main contributions to impact studies, and can be used to represent the impact of quality assessment on higher education. It is built on large-scale case studies which cover 29 HEIs and agencies in 17 different higher education systems. Entitled ‘Quality Management, Quality Assessment and the Decision-Making Process’, it supported by the Programme on Institutional Management in Higher Education (IMHE) of the Organisation for Economic Co-operation and Development (OECD). Second, in aiming to clarify different outcomes and impacts on institutional management and decision-making, the model provides explanations of impact, not only at the national level (as numerous other studies have done), but also, uniquely, at the institutional level, which indicates how the QA mechanism actually works in HEIs.

The approach of Brennan and Shah’s conceptual model is described as being one of assessment, but it could equally well be applied to a quality assurance approach (Temple, 2014). Originally, assessment specifically refers to the measurement of how well a university is doing in an academic area, and is accompanied by scores or grades that can be used in comparisons with the same academic field in other universities. When applied to the quality assurance approach, Brennan and Shah’s conceptual model is used to assess universities’ own processes to see if these are well designed and implemented.

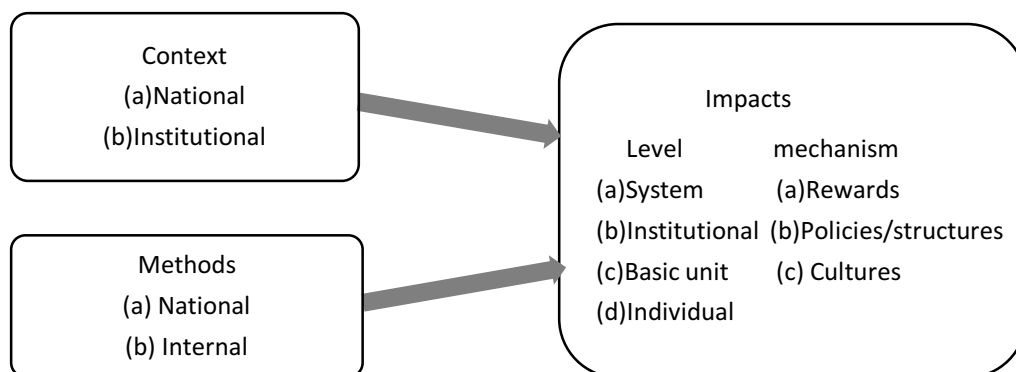


Figure 2.2 The model of impact of quality assurance on higher education (Brennan & Shah, 2000)

In Figure 2.2, Brennan and Shah’s model describes the impact of quality assurance as a function of two things: the methods used, and the national and institutional contexts in which they are used. A major aim of the model is to explain the extent to which differences in method and context determine the impact of quality assurance systems. Underlying the operation of the model are issues of power. Brennan and Shah (2000) argue that the model reflects the

responses of HEIs to external requirements and a re-balancing of interests within institutions in response to diverse national and institutional contexts. The conclusion of the study by Brennan and Shah is that the impact of QA systems ‘all depends’, meaning that the benefit and threats from quality assurance differ depending on what methods are used, in what context and for what purpose.

The contents of each column of the model in Figure 2.2 are explained separately in the following figures (from Figure 2.3 to Figure 2.7).

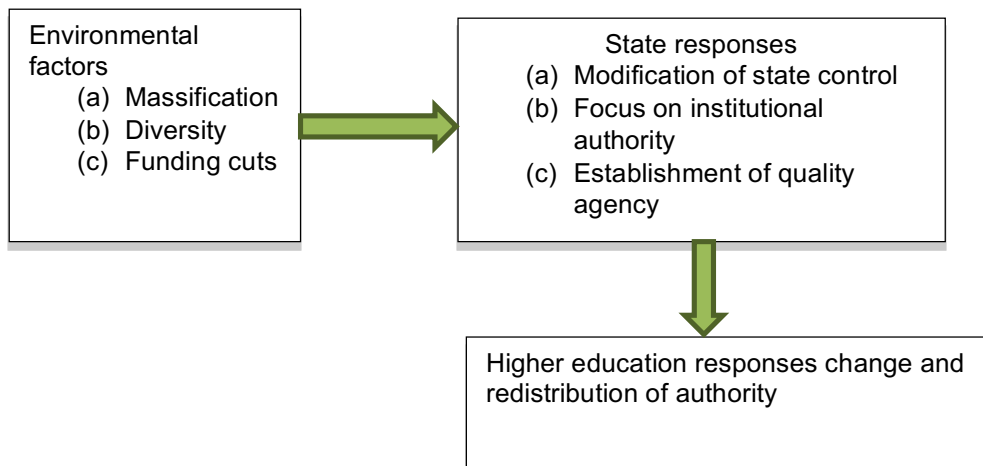


Figure 2.3 Context: (a) National contexts for the emergence of QA mechanisms (Brennan & Shah, 2000)

Figure 2.3 illustrates the broader contextual changes and the types of responses from HEIs. Brennan and Shah (2000) argue that the most common environmental factors influencing QA mechanisms are the trends of massification, the diversity of HEIs and funding cuts. They argue that nations have three main responses to these trends, which are modification of state control, focus on institutional authority and establishment of a QA agency. Governments often accompany these changes by introducing new higher education policies to reduce institutional autonomy, and foster more competition and more accountability in HEIs. Brennan and Shah (2000) point out that QA agencies appear to be drivers of change in higher education, citing the effect which accreditation bodies in the U.S.A. have had on the status of HEIs.

As shown in Chapter One, Taiwan’s higher education has been influenced by global trends, namely, massification, the diversity of HEIs and funding cuts (Figure 2.3). Taiwan’s HEI sector has more than doubled in size since the 1980s, from 67 HEIs in 1996 to 167 HEIs in 2012. There are various types of HEIs, including traditional universities, poly-tech universities and colleges. Naturally, government resources for HEIs are limited and HEIs have faced funding cuts. In order to respond to these factors, the Taiwanese government has been

conducting the QA exercise since 1975 and using the results to allocate the HEI budget. In 2005 the government created a QA agency, HEEACT. This has affected the existing HEIs in numerous ways, such as their relationships with the government, the administrative structures within HEIs, even down to academics' daily lives. The details of this national context for the emergence of the QA exercise, the government's relationship to this context, and the responses of HEIs to the government's QA policies will be further discussed in Chapter Four.

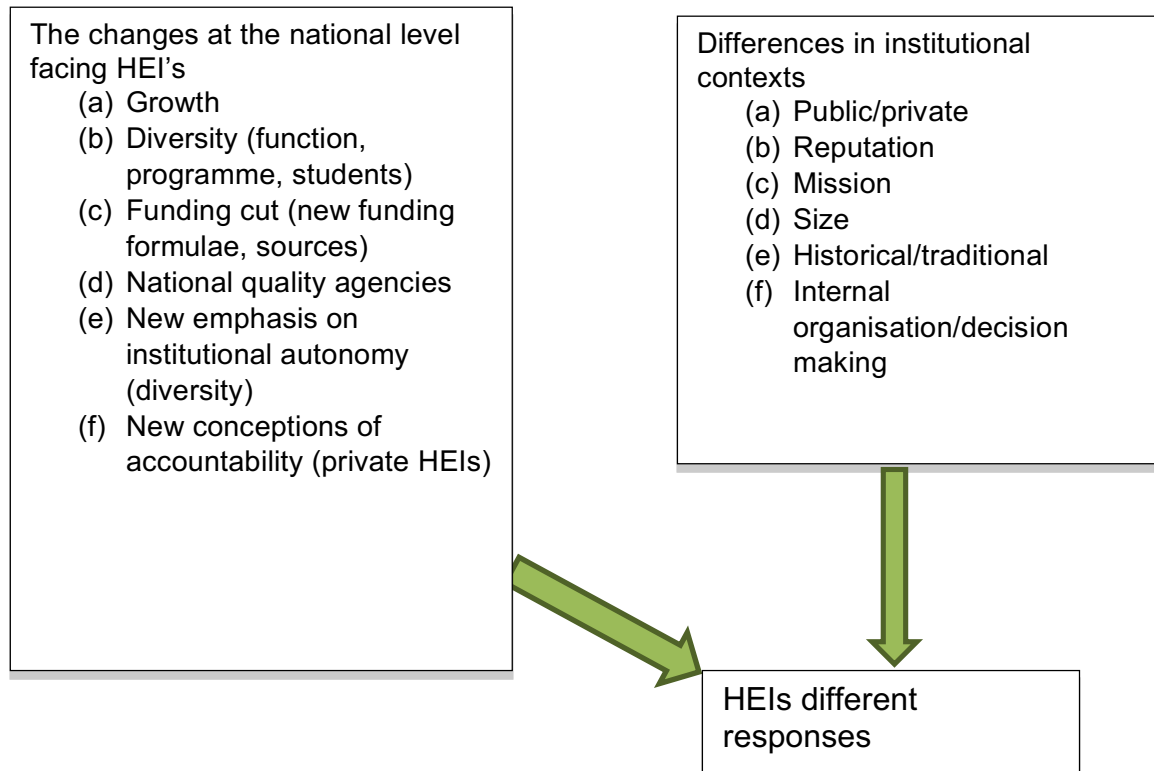


Figure 2.4 Context: (b) Changing institutional contexts (Brennan & Shah, 2000)

Figure 2.4 describes different responses of HEIs facing the consequences of policy changes at the national level, including those relating to rewards, QA policies and cultures, which interact with various institutional contexts. Different nations and HEIs adopt different approaches to quality management and assessment driven by such factors as history, tradition and culture.

There are two main responses of HEIs to the external requirements of the QA system: a need to initiate internal changes to deal with internal problems caused by changes in the external environment; and a need to comply with external requirements. The nature of universities' responses to the consequences of policy changes at the national level is related to their institutional reputation and how well they are at competing for resources.

- (a) The range and types of national bodies
- (b) The level and focus of assessment
- (c) The purposes of self-evaluation
- (d) The types of external peers used and their selection and training
- (e) The types of reports (to whom they are addressed, and who follows them up)
- (f) The consequences (that result from the evaluations; how they affect decision-making in the national HE system)

Figure 2.5 Methods: (a) national level (Brennan & Shah, 2000)

In Figure 2.5, Brennan and Shah identify six features of QA methods at national level; this has been described as a ‘general model’ by van Vught and Westerheijden (1993). The elements of this ‘general model’ are: a national co-ordinating body; institutional self-evaluation; external evaluation by academic peers; and published reports. Methods used within HEIs differ on a number of dimensions. Brennan and Shah interpret the elements of the ‘general model’ by asking a series of questions ‘Who assesses what, how, and how often’, e.g. ‘Who initiated the assessment? Who carried it out? Who is expected to act on its results?’.

Figure 2.6 presents the reasons for HEIs to set up institution-wide QA systems. For example, in some institutions, the reason is the need to respond to a national QA agency. At the same time, the establishment of a new, internal QA system also reflects processes of institutional change and new management approaches as described in the results column in Figure 2.6. Different levels within the ‘approach’ in Figure 2.6 refer to the whole institution, part of an institution, an individual, or a combination of these.

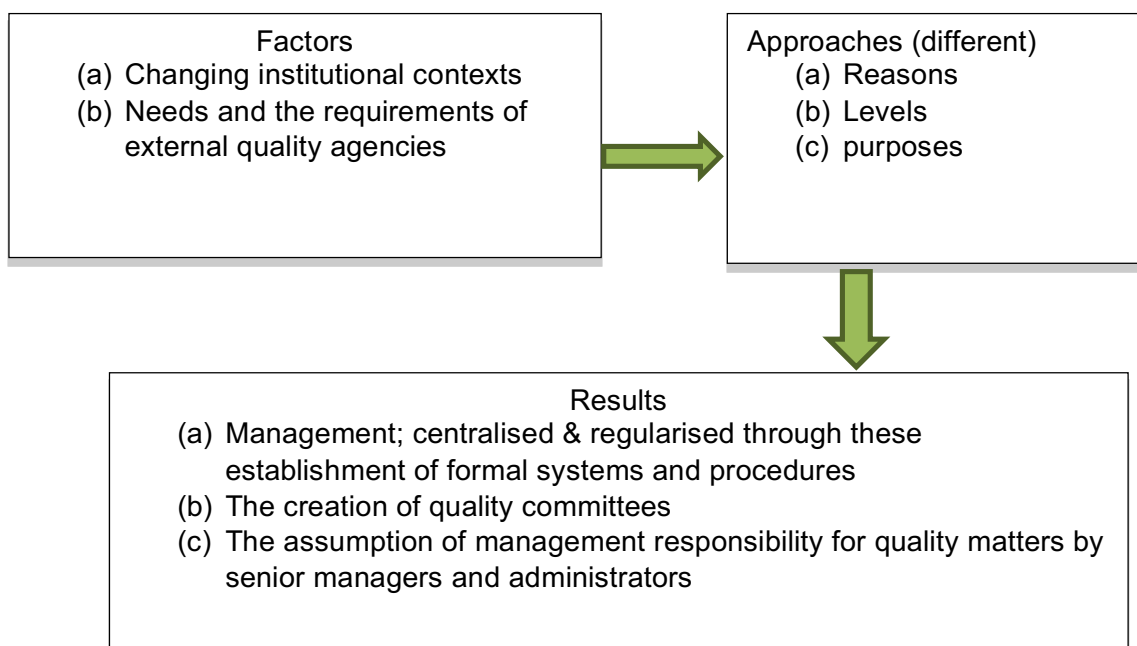


Figure 2.6 Methods: (b) internal level (Brennan & Shah, 2000)

Brennan and Shah (2000) note that institutional quality management involves both accountability and improvement. Accountability reflects on an institution's central management while improvement is related to institutional change and development. For example, at the basic unit level, institutional quality management is usually concerned with academic pedagogical values, which is associated with the purpose of improvement.

Brennan and Shah's model distinguishes impact at four levels. These are the national system, the institution, the basic unit (a course, a department or a faculty) and the individual. Impact could happen through three mechanisms, which are: rewards and incentives, policies and structures and culture. The major difficulty in analysing impact derives from determining what causes a change in quality. Brennan and Shah (2000) try to deal with this problem by considering the extent to which impact occurs through three mechanisms, timing (how impact occurs), agency (who determines impact), and a distinction between direct and indirect forms of impact of the QA system. These questions are all interconnected. Figure 2.7 shows how they are related to each other.

Aspects Mechanisms	Method	Timetable	Actor
Rewards	External QA reports	Financial- immediate Reputational-long term	External groups Institutional management
New Structures, internal policies	Institutional QA External reports	Dependent on institutional decision-making	Institutional management
Cultures	Self-evaluation Institutional QA	Long term	Basic units Individual staff

Figure 2.7 How quality assessment makes an impact on institutions (Brennan & Shah, 2000)

Figure 2.7 shows that impact through rewards is likely to be a function of the published outcomes of the QA system, which in turn can affect funding and reputation.

Impact through changing policies and structures is likely to arise because of the introduction of quality assurance related procedures within HEIs in an attempt to anticipate the requirements of external QA system, such as changed committee or curriculum structures. Brennan and Shah (2000) indicate that impact through policies and structures is likely to be achieved through institutional management processes, but cultural change, for example, changes to academic values, priorities and relationships within HEIs are part of the changing culture, primarily affects basic units/departments and individual staff members. Impact through changing cultures is likely to arise from the ongoing experiences of staff of the self-evaluation process and the institutional quality assurance procedures. Cultural change is a slow process, taking place over several years. Attitudes and behaviours relating to teaching and research are

central to academic cultures and self-image. Thus structural and policy change can be achieved more quickly through institutional decision-making procedures than cultural change.

Following Brennan and Shah's model, I elaborated on the two research questions to include a number of sub-questions as shown below:

The first research question (RQ1):

How has the current QA system developed in Taiwan, and what are its features and characteristics?

- (i) The contexts for quality assurance: as HEIs face new external quality and standards monitoring requirements from the national agency, the HEEACT, what institutional changes are made/introduced?

The second research question (RQ2):

How do university staff in four universities with different features prepare for and perceive the impact of the QA system undertaken by HEEACT?

- (ii) How do external quality requirements impact upon the institution at the levels of rewards, structures and internal policies, and culture: in other words how do HEIs cope with the QA system? Are HEIs adopters of policies, or resisters, adapters, or makers and shapers of quality policy initiatives?
- (iii) How does the quality assurance system (both internal and external) affect the management and decision-making processes: do the HEIs pursue greater managerialism?
- (iv) With regard to the internal quality assurance methods that are in place within the institution: do staff engage with quality frameworks or policy emanating from the national or institutional levels? And how has the concept of quality for academics evolved and how has it been shaped by the quality revolution?
- (v) How are quality systems and quality monitoring viewed and interpreted by academics? And how are academic values affected?

By using Brennan and Shah's impact model and considering the research questions mentioned above, I designed the interview protocols, and conducted interviews and a case study. However, I modified the impact model of Brennan and Shah after conducting the pilot study. The processes of re-designing and conducting fieldwork are described below.

(b) Analytical Framework

The interview protocols were formulated based on the model of Brennan and Shah. However, I found that the model has some limitations after conducting pilot study (please see Chapter Three). From the initial data analysis, I found that some new themes emerged from the interviews. In order to explain the internal impact of the quality assurance system in higher education in Taiwan in more depth, the approach from Morley (2004) 'Theorising quality in higher education', which provides explanations for the micro politics of quality assurance in higher education, is used to support and improve the impact model of Brennan and Shah into a new analytical framework which fits and explains the specific circumstances in Taiwan.

Theorising quality in higher education according to Morley

Several themes such as the powerful influence of QA, academic professionalism and the political terms of quality assurance emerged from interviews. A major difficulty with literature on the subject is that there is very little sense of any resistance, innovation or rebellion from academic staff to the introduction of quality assurance systems (Trowler, 1998; Newton, 2002). Moreover, there is little attention paid to the perspectives of front-line actors engaged in the implementation of policy. Academic staff are both makers and shapers of policy. Thus there is a need to focus on what academics think and do, and what meanings they attach to the different policies, and how they work, change and work around policies.

Morley (2004) describes how quality becomes a powerful meta-narrative in higher education. The quality procedures translate particular rationalities and moralities into new forms of governance and professional behaviour where quality is combined with funding arrangements. Although individual academics may lose some of their power in the process, this may stimulate new forms of cooperation and foster a collegial spirit between academics, administrators and students in the area of teaching and learning.

Moreover, Morley (2004) indicates that the essential of quality assurance is the nexus where three policy technologies, the market, managerialism and performativity identified by Ball (2003), converge and underpin educational reform. These policy technologies create norms such as regulatory and performance indicators. These norms have made the academic *profession* itself undergo a re-formation. Furthermore, Morley provides a new analysis of the relationships between quality assurance and higher educational activities, which she terms the 'psychic economy of quality assurance'. The term mainly refers to how HEIs translate their activities into cash terms and league tables, and how HEIs have established new relations of power through the process.

The improved model for data analysis

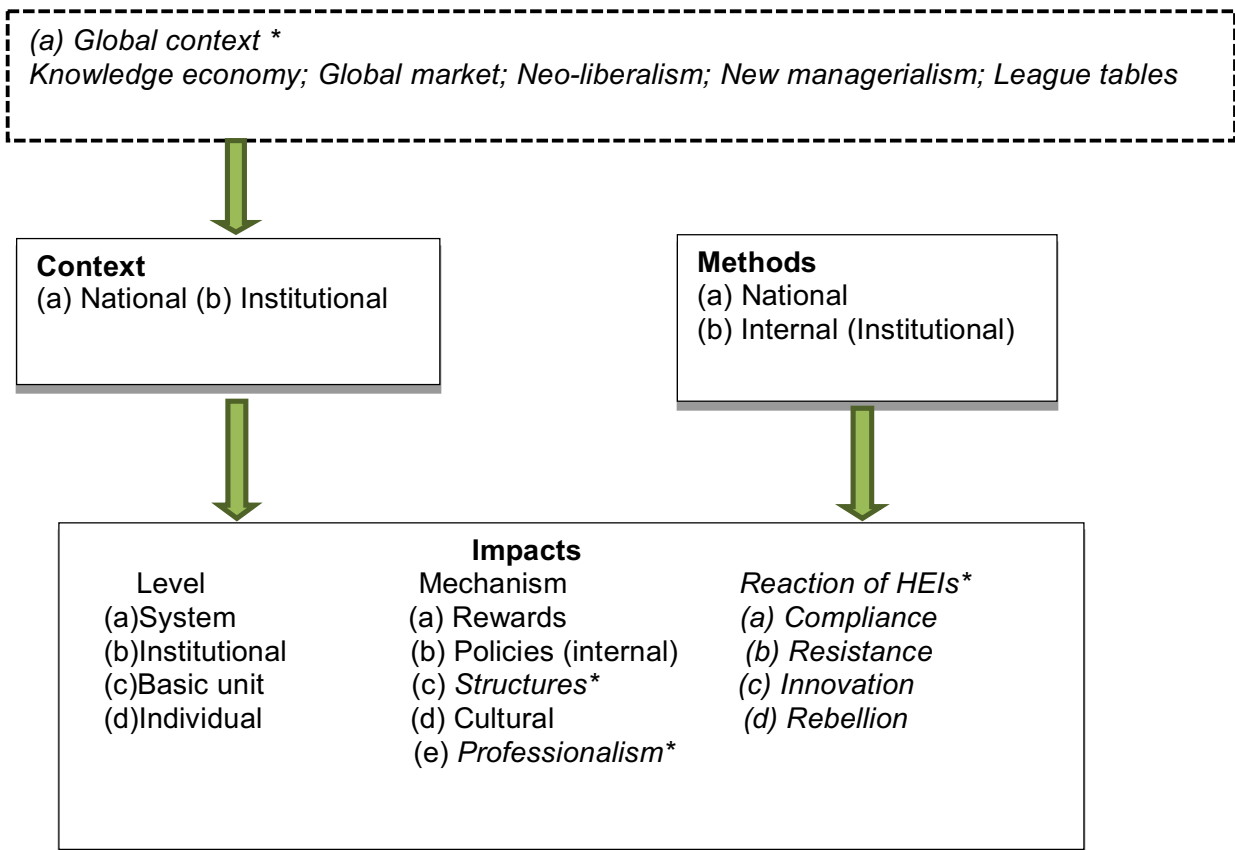


Figure 2.8 The analytical framework of this study (* Adapted from Morley (2004))

The use of the improved model to analyse the individual case studies is adopted as a way to identify any possible cause-effect patterns from interviews. The analytical framework (Figure 2.8) provides a practical tool for designing and conducting analysis of the impact of QA on higher education. It aims especially to facilitate understanding to how HEIs are changed by the QA system within a national context, to offer a more focused explanation within institutional contexts, including how these HEIs respond to the QA system and the consequences of the response and finally, it aims to facilitate independent analysis (specific institutions) and comparative analysis (across institutions). Based on the conceptual framework—the impact model of Brennan and Shah — the analytical framework is improved in two aspects.

First, from the view of Morley, there are worldwide trends affecting both national and local contexts, including the rise of the knowledge economy, a competitive global HE market, new kinds of university governance changed by neo-liberalism and new managerialism, and a new powerful tool in higher education, the league table. These external factors are added to the model of Brennan and Shah as features of the new global context. Moreover, Brennan and Shah divided the impacts into two parts: the impacts at different levels and the impacts resulting from mechanisms through rewards and initiatives, policies and structures, and culture. Although

these two levels cover most of the impacts of the QA system, in order to explain the Taiwan context more specifically I separate initial 'policies and structure' into policies and structure, and add professionalism to the impact of mechanism. Second, I add a new category of impact to analyse data specifically for my second research question. The new category, *Reaction of HEIs*, is created based on Morley's views of political and psychic economy towards quality assurance and related literature (Trowler, 1998; Newton, 2002; Ball, 2003) to describe various reactions of HEIs to the QA system. The 'Reaction of HEIs' includes the behaviours of university staff to the QA system, which are compliance, resistance, innovation and rebellion (Morley, 2004). Each such behaviour will be fully discussed and presented in following chapters.

5. Summary

This chapter explored the literature related to the nature of quality assurance, and issues surrounding the implementation of quality assurance schemes. This chapter begins by identifying the factors affecting the emergence of quality assurance. These include international trends and global competitiveness, governmental and social concerns about academic standards, the level of achievement of graduates, the expansion of the number of students in higher education, and decreased government funding. Then, the quality assurance approaches in higher education adopted by governments and evaluation agencies are discussed. The quality assurance policies in many countries are currently undergoing a process of rapid evolution and change and, at the same time, there is an increasing convergence of government approaches internationally. The phenomenon of convergence also suggests a significant degree of national systems borrowing policies from one another.

These critical issues are the intended and unintended outcomes of quality assurance systems. One of the main intended consequences is to make universities accountable for ensuring quality. This raises fundamental questions: does quality assurance work, and how does it work? While quality assurance programmes often aim to serve a variety of purposes, their primary purpose is generally to combine accountability of universities to the public with improvement in the quality of research and education provision in higher education. However, the literature suggests that there is a gap in some countries between the stated purpose and the actual outcomes of the programme, as well as tensions between accountability and improvement. Furthermore, regardless of the methods adopted, the process of quality assessment often resulting in altering organisational structures and the academic profession within institutions. Following that, the conceptual framework was created based on literature on impact studies. Then, in light of the results from the pilot study, the conceptual framework was modified and that version was used as the analytical framework for this study.

Chapter Three: Methodology

This chapter explains the research methodology used for this study. First, in section one, the research design, which includes the research questions, the research methods and how the empirical work was conducted, are explained. Then in the second section the analytical framework, data analysis, and interpreting criteria are addressed. Finally, the ethical considerations and this researcher's position are presented in the last section.

1. Research Design

The research design is framed by the research questions, thus in the following section we will take another look at the research questions, and then explain the methodology, methods and empirical work.

(a) Research Questions

Overall this thesis looks at the history and development of the quality assurance (QA) system, and explores the impact of the QA system on higher education institutions (HEIs) in Taiwan. The key elements on which this study focuses and their interrelationship are explained in Chapter Two as Figure 2.2 shows. By law, the HEEACT has the power to determine funding and support improvement. It is apparent that the QA system has developed to include other elements created in response to the introduction of HEEACT, market pressures and league tables. Thus HEEACT seems to be more influential within universities through other elements rather than directly. So in a sense, the work of HEEACT has been achieved by the things universities generated in response to HEEACT.

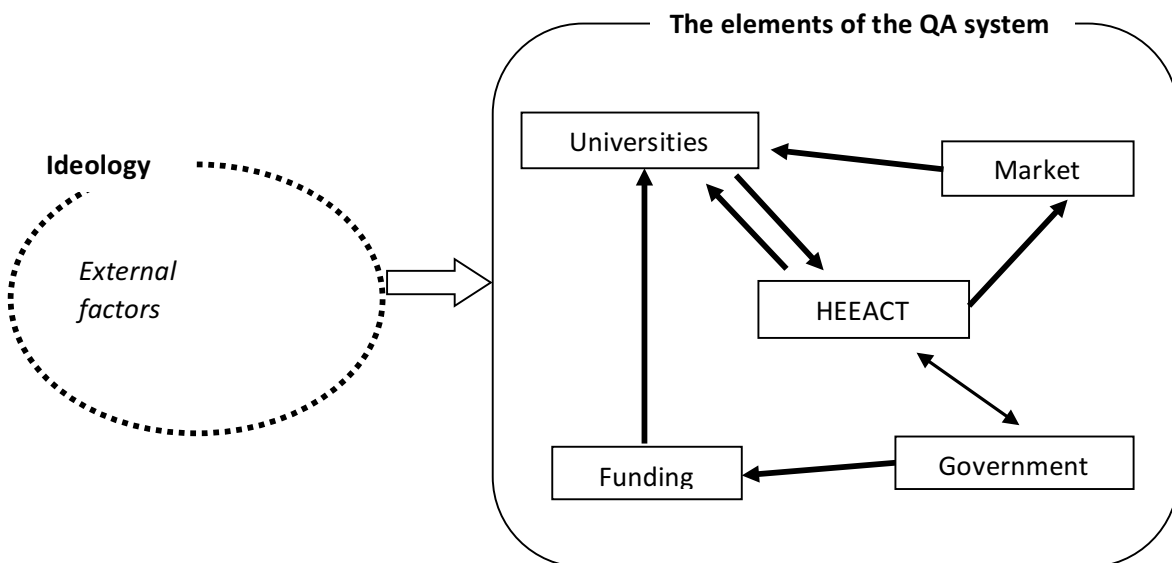


Figure 2.2 Conceptualising the impact of the QA system in Taiwan

When the QA system was introduced in Taiwan, claims and counterclaims were made about how it would benefit and damage education. The government maintained that the new QA system, the HEEACT specifically, was all about how to improve the quality of the higher education system. Academics and universities retorted that HEEACT would have negative consequences on higher education.

The critics point to a contradiction between improvement and accountability of HEIs, while supporters highlight the move to the marketization of higher education, which is related to new management, new liberalism and new capitalism. In order to clarify these debates around the QA system, two specific research questions (RQs) are addressed in this study:

RQ 1: How has the current QA system developed in Taiwan, and what are its features and characteristics?

RQ 2: How do university staff in four universities with different features prepare for and perceive the impact of the QA system undertaken by HEEACT?

The purpose of the first research question (RQ1) is to understand how the QA system is interlinked with global and local contexts in Taiwan, and to describe the features of the QA system through a literature review and by interviewing key persons who contributed to the system's development. This historical analysis not only provides insight into the QA system, but also lays the foundation for exploring how HEIs have been affected by it.

The second research question (RQ2) is designed to explore how the staff at universities perceive they have been affected by the QA system, especially in regards to the changes in how funding is allocated. Data is obtained by interviewing administrators and academics from four universities which were significantly affected by the QA system to ascertain its impact on HEIs in Taiwan.

(b) Methodological approach

This study utilises an interpretative perspective within which the gathering and analysis of data are to be understood as a process, and are actively 'constructed' and 'picked out' rather than being passively 'gathered' (Stensaker, 2004). The following paragraphs make explicit the reason why interpretivism was chosen as a paradigm underpinning this study.

Qualitative research, which involves a series of techniques ranging from description and decoding, to translation, can be positive or interpretive depending on the researchers' philosophical assumptions. One of these is interpretivism. Interpretivism is a perspective which attempts to understand and explain the interaction of human and social reality, and which is in contradistinction to positivism. A positivist approach follows the methods of the natural

sciences, and seeks to identify the universal features of the world. In this approach, research should be value-free, observation should be detached and general laws should be established where possible. In contrast, the interpretivist approach looks for 'culturally derived and historically situated interpretations of the social life-world' (Crotty, 1998:67). It assumes that the world and reality are interpreted by people in accordance with historical and social practices. This means that experience of the world is subjective and understood in terms of the individual's perspective rather than the researcher's objective definitions.

Crotty (1998) identifies three historical streams in the interpretivist approach: hermeneutics, phenomenology, and symbolic interactionism. These three 'streams' assume that culture is an inherited meaning system in the human world. Nevertheless, each 'stream' has different views regarding 'what culture is'. First, phenomenology focuses on understanding a comprehensive set of meanings of culture. Second, symbolic interaction used to explain how the human mind, the self, and self-consciousness come into existence. Phenomenology treats culture with a good deal of caution and suspicion (Crotty, 1998:71), whilst symbolic interactionism seeks to understand culture which provides a meaningful matrix that guides human lives. Hermeneutics is an approach focusing on analysing texts, human practices, and situations. Within the interpretivist approach, hermeneutics is the 'stream' that is most widely used by researchers to explain the socially constructed nature of reality, such as language, consciousness and meanings.

Crotty (1998) further suggests that - for researchers who seek to deal with people's perceptions, attitudes and feelings, and explore a society inherited from a culture shaped by racial, class or sexual dominance - the interpretivist approach may be the best way forward. The interpretive approach also gives researchers greater scope to address issues of influence and impact and, for example, to ask questions such as how and why particular trajectories are created. I chose an interpretive approach as the philosophical rationale for this study because of its potential to generate new understandings of complex human phenomena, such as the individual identity construction process. Furthermore, it was chosen to give me an ability to understand things from the participants' point of view.

In addition to the philosophical assumptions underlying research design and data collection, it is also necessary to choose appropriate research methods. The most common classification of research methods is in terms of qualitative and quantitative approaches. According to Lincoln and Guba (1985), a hypothesis is not needed to begin a piece of qualitative research. Qualitative research utilises inductive data analysis to provide a better understanding of the interaction of realities and experiences of the researcher and participants. Silverman (2013) also points out that qualitative research helps researchers to understand the

complexities of different social and cultural contexts. It uses 'soft' and 'rich' data sources, which include both observation and participant observation, interviews and documents.

This study is about the impact of the QA system on higher education institutions and on individual academics; it rests on documentary evidence and academics' perceptions. Given the research questions of this study, the features of qualitative research – particularly the use of interviews and case study - are appropriate in terms of accounting for the complexity of individual behaviours and the interrelationships between institutions and individuals.

According to Crotty (1998), research methodology describes the strategy or plan of action, which shapes the researchers' choice of particular methods and is linked to the desired research outcomes. In order to answer the two research questions, I employ a case study as the methodological approach along with documentary analysis and interviews. Using both documentary analysis as well as interviews can provide deep and comparable data across case studies. These methods are regarded as the major data-gathering tools to ensure the diversity and richness of information obtained.

Case studies are the preferred strategies when 'how' and 'why' questions are being posed, i.e. when the investigator wishes to understand activities within circumstances (Stake, 1995; Yin, 2009). According to Stake (1995), there are four features of qualitative case studies, the four being holistic, empirical, interpretive and empathic. The holistic feature suggests that researchers should consider the interaction between the phenomenon and its contexts. Empirical means that researchers conduct their studies based on their observations of cases. The interpretive feature rests upon researchers' intuition and researchers see research basically as a researcher-subject interaction. The empathic feature means that researchers reflect their experiences in the imagination through the feelings or actions of the subjects. A case is an integrated system in which there are boundaries, and it can be a person, a group, a programme, a specific policy, an institution and so on. The strength of case study research lies in allowing investigators to understand complex social phenomena and retain the holistic and meaningful characteristics of real-life events, such as group behaviour, organisational and managerial processes, and international relations (Creswell, 2012; Cohen, Manion and Morrison, 2011). But such an approach also carries with it a set of limitations. The decision to undertake a case study indicates that gathering and analysis of data will be carried out qualitatively. Thus, significant features will be made up of 'soft' data (document analysis and interviews). Furthermore, one of the concerns related to this study is that case study research provides little basis for scientific generalisation. A frequently heard question is 'how can you generalise from a single case?' Yin (2009) has emphasized that case study research does not limit researchers to only representing a sample, but also allows them to expand and generalise

theories. However, Yin is not only approaching case studies from a positivist stance and his own philosophical stance is within the positivistic tradition (Yazan, 2015). In contrast, Stake's (1995)'s position is that qualitative case studies have multiple perspectives and views to be presented, and there is no way to establish one best or 'objective' view. As stated in the previous section, this study uses interpretivism as a paradigm to underpin the methodology. Thus instead of taking Yin's approach of generalising theories from case studies and trying to provide the response of every HEI to the QA system in Taiwan, this study utilises Stake's perspective, and depicts the phenomena/phenomenon of the impact of the QA system on HEIs, and uses local experiences to enrich studies of the impact of quality assurance systems.

(c) Research Method

The majority of qualitative researchers use interviews to gather data on how people experience the phenomenon under focus. Silverman (2013) has sketched out four main types of interview, viz. structured interviews, semi-structured interviews, open-end interviews and focus groups. The aim of an interview is to understand the culture and language of interviewees, and an interview can allow interviewees the freedom to talk, thereby yielding rich data to the interviewer. Neither interviewers nor interviewees are passively waiting for fixed answers. The interview could be conversational, but interviewers have some level of control, such as deciding how to follow up comments made, and when to open and close topics (Silverman, 2013).

Of the four types of for interpretative studies, semi-structured interviews and focus groups are the most utilised for collecting data. A focus group is a group discussion to identify thoughts and perceptions about specific topics from a selected group. Focus group members should be able to express their opinions freely and in a non-threatening atmosphere. The aim of a focus group is to generate discussion among the participants to yield valuable information for the research. In focus groups, participants can listen to and reflect on others' opinions. However, there is a risk that in some situations people may follow those with a stronger personality or power, especially when a certain hierarchy exists in that group (Rallis & Rossman, 2012).

A semi-structured interview of an individual provides the researcher with a chance to have an in-depth understanding of the interviewees (Cohen, Manion and Morrison, 2011). During one-to-one interviews, people can talk about their personal feelings and experiences without influence from others. It also provides a chance for the researcher to gain insights into how different people interpret the same topic.

Individual interviews and focus groups each have their own advantages and drawbacks. I chose to use focus group interviews for the pilot study, and semi-structured interviews for the main data collection. The purpose of the pilot study was to test interview protocols and the

conceptual framework, which were then used for main interviews and data analysis. The reason I used a focus group for my pilot study was to obtain a range of responses to the interview questions, and to revise my interview questions based on the discussion. The discussion that followed the focus group provided some very useful insights on the interview questions and procedures. For example, I realised the hierarchy within universities would have an impact on my interviews when I observed that the answers of academics were influenced by the president in the focus group. Learning from this, I chose individual interviews instead of focus group method for my main data collection.

For the main data collection, I used individual interviews. Two things made me go in that direction. Firstly, due to their differing schedules and locations, it was difficult to gather all academics into focus groups and thus it was easier to meet people one to one. Secondly, such interviews enabled me to directly access the interviewees and see what they actually thought in real life. During the interview, both interviewer and interviewee are actively constructing meaning. A third reason is that interviews are particularly useful for accessing individuals' attitudes and values. According to the design of my research there are various types of participants in this study, including policy-makers, QA experts, academics with administrative position, senior academics and junior academics, and I wanted to understand their attitudes, thoughts and values. However, in a society like Taiwan, hierarchies exist between these participants within the universities. Without the presence of colleagues of a different status, one-to-one interviews would mean the interviewee could speak more openly. This allowed me to gain a more honest and considered response from each individual, which meant access to their genuine views.

To answer RQ1, documentary analysis focusing on HEEACT publications was used. After analysing the documents, key people who were involved in the development of the QA system were interviewed. The interviewees were two policy-makers and three experts in quality assurance. Each interview was semi-structured, individual, conducted face-to-face lasting for 40 to 60 minutes. The interview protocol was developed after the literature review and pilot study.

Having examined the development and features of the QA system by documentary analysis and interviews, a case study was used to answer RQ2. There are two reasons to adopt this approach. First, RQ2 aims to explore how higher education institutions and departments perceive they have been affected by the QA system. Case studies investigate people's behaviour and beliefs by describing, analysing and interpreting data, and focus on single or small numbers of individual events, activities or phenomena (Creswell, 2012; Yin, 2009). Thus adopting case study research can furnish this study with a huge variety of evidence, including documents, artefacts and interviews.

Second, RQ2 is designed to ascertain how higher education institutions react to the QA system. The response to this kind of question needs to be traced over time, rather than measuring frequency or incidence; therefore, RQ2 can be classified as a 'how' question and an 'explanatory' case study. Explanatory cases are designed for undertaking causal studies and used to examine and refine theories (Stake, 1995; Yin, 2009). The more that research questions seek to explain some current social circumstances, the more the case study method will be relevant. Therefore this study utilises a case study research to answer RQ2.

The case study design of this study is a multiple-case study, also called 'a collective case study' (Creswell, 2012:477). A multi-case study can provide descriptions of an issue and comparisons with other issues (Creswell, 2012). According to Yin (2009), there are two essential elements of a multiple-case study: first, the researcher should collect multiple forms of data; second, the researcher needs to locate the cases within a social context. Accordingly, this study is designed with three parts. The first part analyses the causal relationships between context (political and social factors) and phenomenon (the QA system) in the four universities. The social context is perceived to encompass multi-variables, which affect the way in which higher education institutions and departments have been influenced by and respond to the QA system. The second part presents a documentary and historical investigation into the process of preparing for evaluations in the four universities. The third part contains the interviews with academic staff in the four universities, which provide the sources necessary to complete the picture of the impact of the QA system on higher education. These sources are based on the interviewees' memories and personal understandings of the events. A detailed design of this study will be explained more fully below.

(d) Data collection

Two interview protocols were developed which focus on the development of the QA system (RQ1) and the case study (RQ2). The protocols are derived from the research questions and have been improved based on a pilot study. In order to answer RQ1, the interview questions emphasize the process of establishing the QA system and the negotiations between the government and HEIs. The interviews regarding RQ1 are designed to strengthen and complement the documentary analysis by identifying typical patterns of outcomes and relationships that were noticed from the replies given by policy-makers and QA experts. As for the case study, the over-arching purposes of the interviews are to discover how interviewees thought the QA system affected their higher education institutions and how they responded to the QA exercise.

(i) Pilot study

Pilot cases are conducted for several reasons, the most important being the information they can provide about relevant field questions and the logistics of the field inquiry (Yin, 2009). Thus the main purpose of conducting a pilot study for this research was to test interview protocols and improve them. In this research, the pilot study represents a small sample case, and can be compared to the case study of the four universities. As it happened, none of the interviewees for the pilot study were connected to any of the four case universities. They were all Taiwanese academics, including the president of a university, an officer in the Ministry of Education and senior academics. A focus group interview was adopted as the research method due to time limitation on the part of interviewees. The overall interview took 60 minutes and the occasion acted as a rehearsal for the future formal interviews of academics.

In the pilot study, relevant data collection issues were confronted and some conceptual clarifications for the research design were provided by interviewees. First, I found that in Taiwan the definitions of 'QA' and 'evaluation' are still used in rather imprecise terms. Second, according to the interviewees, funding distributions are actually influenced by the Programme Accreditation but not by the Institutional Accreditation. Third, all of the three interviewees thought that Taiwan's universities should be categorized according to their main features, such as research, teaching and art, and should be evaluated separately, using different evaluative standards. However, most universities refuse to be categorized as teaching universities because they will then receive less funding than research universities. Fourth, Taiwan's QA system has learned from the USA's accreditation system. They suggested that the QA system should be adjusted according to Taiwan's local circumstances. Fifth, they thought the Institution Accreditation helps departments to improve their quality of teaching and research. Academic staff may feel stressed when preparing for evaluations, but the management of universities has become more efficient and transparent as a result of being evaluated.

In light of the findings from the pilot study I revised my interview protocols (Initial interview protocol and revised one please see Appendix 1).

(ii) Interview protocols

In Chapter Two (p.48), I elaborated on the two research questions based on Brennan and Shah's model, and I developed a number of sub-questions as part of the interview protocol for the pilot study (for the full interview questions for the pilot study please see Appendix 1: Pilot Study). The interview questions for pilot studies were 'how' and 'why' questions and could not be answered with a 'yes' or a 'no'. I sometimes phrased questions I had just asked slightly differently to see if this elicited a different, even contradictory, response. For example, I first asked

interviewees the question, 'Do you think that higher education evaluation has helped your university/faculty to improve?' and then asked them the question, 'Do you think the efficiency of administration has been improved due to the QA system?'. If there were any contradictory answers, I would ask for further explanation or reasons.

Table 3.1 Interview structures

Interview	For research question 1	For research question 2
Type	Semi-structured interview, one to one and face to face interview, 40-60 minutes	Semi-structured interview, one to one and face to face interview, 40-60 minutes
Aims	Aim 1: Describe the development and features of the QA system in Taiwan. Aim 2: Understand how the QA system is interlinked with the social and political circumstances in Taiwan.	Aim 3: Exploring the impacts of the QA system on HEIs and departments. Aim 4: What they perceive has been affected by the QA system. Aim 5: The changes in funding allocation.
Example	Could you tell me how Taiwan's QA system started? Who proposed it and when did it become an official policy? The Ministry of Education announced that the results of evaluation would be used for the "Exit mechanism". Do you think it works? What is your opinion on this issue?	Could tell me how your university/faculty prepared for higher education evaluations? Are there specific forms or processes designed for the evaluations? Are you satisfied with the results of the evaluation this time? Do the results of evaluations influence your university/faculty? If yes, could you explain in what aspect?

The formal interview protocols were improved based on the pilot study and contain two parts. There are several specific interview questions under each aim as Table 3.1 shows (for further full interview protocols, please see Appendix 2), but the interview questions were presented to interviewees in a different sequence depending on specific interview circumstances.

The interview type was semi-structured and face-to-face, and every interview was recorded and lasted for between 40 to 60 minutes. The first set of interviews focuses on answering RQ1 and involved five key persons who were policy-makers and experts in the field were chosen as interviewees. Specifically two policy-makers and two academics who contributed to establishing the QA system, and one administrator who was responsible for conducting evaluations in HEEACT were included in the interview process.

Then in the second set of interviews, the questions related to how the university staff perceived the impact of the QA system. In this study, there are four universities chosen as cases. The questions asked consisted of a combination of open, semi-open and closed questions. The interview questions were a mixture of general questions as well as questions tailored to the

specific characteristics of each institution. The characteristics include the history of the institutions, traditions of management, and degree of focuses on teaching and research in each university. Furthermore, the features of organisational changes and responses to the QA system were emphasized during interviews.

Besides, interview protocols were adjusted according to the situations, for example, additional questions were used to clarify various statements and explore the meaning attached to certain concepts stated by the interviewees.

(iii) Sampling

Having adopted Brennan and Shah's model as my conceptual framework, I conducted a pilot study before deciding on the selection of the universities and interviewees. For this, I chose a purposive sampling method, which is a sampling technique in which researchers rely on their own judgments in choosing members of a population to participate in the study. Purposive sampling can reduce the bias of homogeneous sampling, and allow more useful or insightful information to be collected when conducting an evaluation. According to Gall, Borg, and Gall (1996), there are 15 purposeful sampling strategies. I chose three of these sampling strategies, viz. 'criterion sampling', 'snowball or chain sampling', and 'purposeful random sampling' in accordance with my research questions. Criterion sampling involves selecting cases that meet researchers' predetermined criteria of importance. Snowball or chain sampling utilise well-informed people to identify critical cases or phenomena. The aim of purposeful random sampling is to identify a population of interest and develop a systematic way of selecting cases. However, these selected cases are not based on advanced knowledge or predicted outcomes. To answer RQ1, I used 'criterion sampling' because this is useful for selecting cases to satisfy important criteria, specifically, I selected people who were in charge of the creation of the QA system as this was the focus of RQ1. Where my interviews were concerned, I chose five key persons, two policy-makers and three QA experts in the QA field. The criteria are: one policy-maker and one QA expert who were responsible for creating the QA system, and one policy-maker and two QA experts who worked for the government or HEEACT in 2012. To answer RQ2, I utilised 'criterion sampling' to select the four case universities. Universities in Taiwan are either publicly or privately funded, and they can be prestigious or not. I therefore used these criteria (public or private, and high or low in prestige). By choosing a high prestige public university, a high prestige private university, and a low prestige public university, and a low prestige private university, I covered the spectrum of the different types of universities in Taiwan. I then used 'snowball or chain sampling' and 'purposeful random sampling' to choose interviewees within the four universities.

'Snowball or chain sampling' involves asking 'well-situated' people to recommend cases to study (Gall ed., 1996:234). There were hundreds of academic staff and administrators in each

university. In order to narrow down and select highly credible samples, I studied evaluation reports of the four case universities and found specific offices and people who were responsible for preparing for the QA system. There were one or two academic staff in administrative positions in charge of preparing for the QA system. These people were ‘well-situated’ in that they had experience of and insight into the process of preparation for the QA. I therefore invited them to be my interviewees and to recommend other administrators. From the pilot study, I learnt that key decisions were made by the president of the university, so I also included them as interviewees.

RQ2 is related to how university staff perceived the impact of the QA system. I wanted to obtain a variety of views not only from administrators and academic staff with administrative position, but also from a range of academic staff at the universities. I used ‘purposeful random sampling’ to select academics in each institution. ‘Purposeful random sampling’ is not intended to be representative of a population, as in quantitative research; rather, it is to ensure the sampling procedure is not biased. I began by randomly choosing one department from each university from different disciplines. Then scanning the university website, I sent emails to three academics I identified at random from each department to invite them to be interviewees.

In an ideal situation, the interviews should have involved two administrators and three academics from each university who had experienced both the old and new evaluation systems. However, the final number of administrators and academics I was able to interview depended on those who responded to my email and agreed to be interviewed. A few declined to participate for personal or other reasons, such as a lack of time or a lack of interest in the research topic. In the end, a total of 22 in-depth interviews were carried out at three levels in the four universities, including academics in administrative positions, administrators, and academics (senior and junior) without administrative responsibilities relating to the QA. Table 3.3 shows the three categories of interviewees; the full tables are presented in Appendix 3. For the interviews for RQ1, there were two policy-makers, two academics who were QA experts, and one HEEACT administrator from an academic background. For RQ2, there were 17 interviews - one administrator without an academic background, three presidents and one vice-president, four academics in administrative positions, four senior academics without administrative positions and four junior academics without administrative positions.

Table 3.3 Interviewees selection: University A

Interviewees	Academics holding administrative positions	Academics	Administrators
Number	2	2	1
Name1	SCL	BJF	Refused (Too busy but
Name2	RHJ	YHH	

Position	1. Professor and president 2. Professor and manager of university	1. Professor 2. Assistant Professor	recommended another university's staff)
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The small number of interviews means that I need to be cautious with respect to the conclusions I draw from the data; among other things, any findings cannot be generalised. The sample size in qualitative research is much smaller than that in quantitative research. However, Gall, Borg, and Gall (1996) point out that purposeful sampling in qualitative research is not meant to achieve large population validity. In other words, the intention is not to select individuals representing accurately a defined population, but to achieve an in-depth understanding of the phenomena which the study aims to capture. In purposeful sampling, the main criterion in selecting a sample is to be 'information-rich' for the study (Gall ed., 1996). Having said that, I am conscious that interviews do not give researchers direct access to the 'facts'. I am also conscious that interviewees present data not only through what they say but also by non-verbal actions. This means I have to bear in mind that interview responses would not simply be true or false accounts of reality. A better strategy is to treat interviews as a display of perspectives in which individual attitudes and values and cultural contexts are embedded.

Silverman (2013) points out that one issue with interview data is that it is difficult to ascertain what is valid and reliable, independently of the research setting. He also notes that the researcher is never interacting in a value-free context but, rather, is always embedded in and selectively drawing on broader institutional and organisational contexts. There are therefore issues of trustworthiness with respect to what interviewees reveal to me as an interviewer, and the accounts I produce from the interviews. The issue of trustworthiness will be discussed more fully at the end of this chapter.

(iv) The four universities

Selection of the four case universities

Stake (1994) makes a distinction between three forms of case studies: intrinsic (where the institution is to learn something from a particular case), instrumental (where the intention is to provide insight to an issue or to refine a theory), and collective (which is actually an instrumental case study design extended to several cases jointly). As mentioned in the previous section, this study is a collective case study, or a multi-case study (Creswell, 2012; Yin, 2009). The reason is that higher education in Taiwan comprises a number of institutions with different characteristics, traditions, geographic locations, size, academic specialisation, and history. Thus, the selection of institutions within this study has been made with a view to embracing the variations which allows for further comparisons.

In this study, four HEIs: University A, University B, University X and University Y (see Table 3.2), have been selected for their differences. Two of them are prestigious universities, one public and one private, which have benefited since the introduction of the QA system, while the other two are less prestigious universities, again, one public and one private, which have been more disadvantaged by the QA system.

The selection of the four universities was also dictated by two general concerns. First, the four universities should be representative of the larger population of universities. The main reason for selecting two private and two public institutions is that they may be impacted differently by the QA system due to institutional characteristics. Second, the universities would enjoy different levels of autonomy and face different challenges when implementing the QA system. Thus, in order to make systematic comparisons, both of the concerns mentioned above were considered while selecting cases.

Table 3.2 Criteria for selecting the four universities

University	A	B	X	Y
Reputation	Highest	Low	High	Low
Type	Public	Public	Private	Private
Result of the 2011 Institutional Accreditation	Passed	Failed	Passed	Failed

There are therefore three criteria for selecting cases (see Table 3.2), which are the types of HEIs, their reputation, and the outcome of the QA exercise. Considering the dual nature of the higher education system in Taiwan with its mixture of longer established universities and more modern polytechnics, I chose four non-polytechnic universities, two public and two private. One in each category was a prestigious university and one a less prestigious institution. I expected that different types of universities would make different sorts of demands on their staff and faculty during the implementation process of QA exercise. The third selected criterion is based on the 2011 Institutional Accreditation report by HEEACT. Two of the universities, one public and one private, passed the 2011 Institutional Accreditation and were highly recommended by HEEACT and lauded by newspapers and. these two were chosen as cases that have experienced advantageous outcomes under the QA system. The other two cases illustrate the opposite outcome, having failed to pass the 2011 Institutional Accreditation.

Some additional conditions were considered, such as locations and size, but these dimensions were discarded as less promising. Using the three criteria to choose the cases gave a sufficiently diverse selection of universities. All these dimensions were attended to during data collection and analysis.

Case description

Table 3.4 Cases description

University	Public and high reputation (A)	Public and low reputation (B)	Private and high reputation (X)	Private and low reputation (Y)
Number	1	1	1	1
Background /context /Reasons	Excellent performance on teaching and learning The top university in Taiwan	The sole public university which did not pass 2011 Institutional Accreditation & confronted a crisis of forced institutional merger	Passed all evaluations and got 9 years of 'Programme for promoting Teaching Excellence of Universities'	Did not pass 2011 Institutional Evaluation

The universities have a wide geographic range and are varied in their community settings. The history, vital features and characteristics of the four universities are briefly described below. For the full text overview of each university, please see Appendix 4.

University A

Introduction

University A has been regarded as the best and most prestigious national university since Japanese colonial times in Taiwan. With its long history and excellent achievements in various disciplines, such as medicine, politics, languages and business, University A has been the most prestigious institution which students can strive to enter when sitting the College Entrance Examination, held every July.

Central internal measures

University A initiated their own evaluations before the demands of HEEACT in 1997, including setting the standards for teacher evaluations and self-evaluations. The Secretariat and Office of Academic Affairs of University A is responsible for conducting self-evaluations and preparing for the evaluations of the HEEACT.

- ✓ The 'Faculty Member Evaluation Policies' was enacted to evaluate academic staff in 1998.
- ✓ Regulations governing faculty promotion were brought into effect in 1999.
- ✓ From 2006, University A was awarded the MOE's program (The Aim for the Top University Project) to develop top ranking universities and research centres from the Ministry of Education.
- ✓ In 2009, University A entered the list of the Global Top 100 universities for the first time when it was ranked 95th by The Times Higher Education World University Rankings.

- ✓ University A underwent the first-term Program Accreditation in 2009. Out of a total of 239 faculties and departments, only one department earned an 'accredited conditionally'.
- ✓ University A passed the first-term Institutional Accreditation in 2011.
- ✓ University A will undergo the second-term Program accreditation in 2015.

University B

Introduction

University B is a young, fine arts university, established in 1996. There are only three such universities in Taiwan, two of them located in Taipei and University B was established in another city in order to create a geographical balance.

Issue: Merger of universities

After the results of 2011 Institutional Accreditation were published, it was reported in the media that University B was to be merged with another university due to its failure to pass the accreditation.

Central internal measures

In the beginning, the Secretariat (also including academics) was the main organisation to prepare the evaluations conducted by the HHEACT; then a specific office, 'The office of Research and Development, The Academic Affairs Division' was established to be handle responsibility for all kinds of evaluations.

- ✓ Regulations governing the faculty promotion were brought into effect in 2004.
- ✓ The 'Faculty Member Evaluation Policies' was enacted to evaluate academic staff in 2006.
- ✓ University B failed to win the teaching program 'Program for Promoting Teaching Excellence Universities' in 2008.
- ✓ Regulations for self-evaluations were enacted at the HEEACT request in 2010.
- ✓ University B underwent the first-term Program Accreditation in 2006. Four departments were 'accredited conditionally' and two departments received a 'denial' (fail) out of 17 faculties and departments.
- ✓ University B was the only public university which did not pass the 2011 Institutional Accreditation. There were three evaluative items listed as 'accredited conditionally' and one evaluative item was given a 'denial'. (Overall there were five evaluative items in the process)

- ✓ University B underwent the second-term Program Accreditation in 2012. Two departments received an ‘accredited conditionally’ and one department a ‘denial’ again out of 17 faculties and departments. The department that received a ‘denial’ was forced to stop recruitment from 2012.

University X

Introduction

University X was established in 1956 as a college, and was granted university status in 1991. University X is a traditional private institution with a good reputation. It has focused on media studies, and is engaged in improving industry-academic cooperation.

Internal measures

The Office of Research and Development is responsible for all kinds of evaluations. University X passed the 2011 Institutional Accreditation.

- ✓ Regulations governing faculty promotion were brought into effect in 1998.
- ✓ The ‘Faculty Member Evaluation Policies’ was enacted to evaluate academic staff in 2006.
- ✓ University X has been awarded 9 years of ‘Programme for promoting Teaching Excellence of Universities’
- ✓ University X underwent the first-term Program Accreditation in 2008. Two departments were judged to be ‘accredited conditionally’ out of 43 faculties and departments.
- ✓ University X passed the first-term Institutional Accreditation in 2011.
- ✓ University X underwent the second-term Program Accreditation in 2014.

University Y

Introduction

University Y is a traditional private university which was founded in 1962. It enjoyed a good reputation before the expansion of universities in the 1980s. The traditional Chinese Arts and Physical Education were the earliest departments established.

Internal measures

The Office of Research and Development is responsible for every kind of evaluation. University Y did not pass the 2011 Institutional Accreditation. University Y conducted the 2013 Program Accreditation. The results of that evaluation were published in 2014.

- ✓ Regulations governing faculty promotion were brought into effect in 2002.

- ✓ The 'Faculty Member Evaluation Policies' were enacted to evaluate academic staff in 2007.
- ✓ University Y was awarded 'Programme for promoting Teaching Excellence of Universities' for 4 years in a row.
- ✓ University Y underwent the first-term Program Accreditation in 2007. 22 departments received a result of 'accredited conditionally' and two departments were given a result of 'denial' (fail) out of 104 faculties and departments.
- ✓ There was one evaluative item accredited as 'accredited conditionally' in the 2011 Institutional Accreditation. (Overall there were five evaluative items in Institutional Accreditation)

(v) Site access

Once the cases were chosen, I made contact with the interviewees to arrange interviews, with the understanding that the interviews would be anonymous, recorded and only used for this study. During the interviews, the consent forms were signed by interviewees.

I wrote an email to each interviewee directly and got responses of acceptance or refusal from them. When I got a refusal from a promising interviewee, other candidates were considered and contacted immediately. For the interviews of policy-makers and experts of QA, it was not easy to contact them directly so I had to go through their assistants to confirm the interviews. Most of the interviewees in the case study are academics from universities and they replied to emails personally and helpfully. The whole process of getting site access took one month to complete, including confirming the interviewees and making appointments.

2. Data analysis

I used Miles and Huberman's (2014) approach to the analysis of interviews which involves the following sequence: first, aggregating information and looking for themes, patterns, similarities and relationships; next, creating a matrix of categories and placing evidence in respective categories in order to isolate patterns and catalogue frequency of events; then outlining initial generalisations consistent with cross-case similarities and differences; and, finally, mapping generalisations based on the analytical framework (as indicated in Chapter Two). Thus in this section, the process of coding and examples of how to use the analytical framework to analyse data are explained. Afterwards, the validity and reliability, and ethical considerations are discussed.

(a) Coding

Data analysis is the process of drawing meaning from the data and is the core step of constructing theory from case studies. This research uses one-to-one interviews as its major data

collection tool, and transcribing and coding are the first step in organising the database. I transcribed all interview records, including details of timing, hesitation, and laughter, and developed codes from the transcriptions. Furthermore, NVivo qualitative data management was used for this process.

In order to understand the impact of the QA system, first I developed six categories (see Table 3.5) that emerged from the research questions, literature review and conceptual framework (as indicated in Chapter Two) before moving on to analyse both documentary and interview data. The categories of emergence, development and expectation of the QA system are derived from RQ1, and the categories of HEIs management, external pressure and internal responses to QA are derived from RQ2. Then the interview questions were designed to correspond to the six categories. These categories are used for constructing the interview protocols, data collection and creating codes from empirical data.

Table 3.5 Six categories and codes

Research questions	Categories	Interview question-Aims	Codes
RQ1: How did the current QA system develop in Taiwan, and what are its features and characteristics?	Emergence	<u>Aim 1:</u> Describe the development and features of the QA system in Taiwan	Code 1: HE Policy Code 2: policy borrowing Code 3: low quality of HE Code 4: difficulty in HE funding
	Development	<u>Aim 1:</u> Describe the development and features of the QA system in Taiwan <u>Aim 2:</u> Understand how the QA system is interlinked with the social and political context in Taiwan	Code 5: definition of QA Code 6: rewards and penalty Code 7: Legal
	Expectation	<u>Aim 2:</u> Understand how the QA system is interlinked with the social and political context in Taiwan	Code 8: improvement Code 9: accountability Code 10: exit mechanism
RQ2: How do university staff in the four universities, each with different features, prepare for and perceive the impact of the QA system undertaken by HEEACT?	HEIs management	<u>Aim 3:</u> Exploring the impacts of the QA system on HEIs and departments	Code 11: social responsibility Code 12: university autonomy Code 13: academic freedom Code 14: characteristics of university Code 15: the idea of university leaders

			Code 16: administrative system Code 17: university ranking
	External pressure	<u>Aim 4</u> : How they perceive what has been affected by the QA system <u>Aim 5</u> : The changes in funding allocation	Code 18: reputation Code 19: competing for resources Code 20: requirements from competitive projects Code 21: obligation
	Internal responses to QA	<u>Aim 4</u> : How they perceive what has been affected by the QA system	Code 22: internal evaluation system Code 23: personal promotion Code 24: overload of work Code 25: balance between teaching and research Code 26: the hierarchy in academy Code 27: issues of the implementation of QA

Analysing each case, I gradually developed a total of 27 codes. The codes are organised according to the interview questions. Each code emerging from the data was put under related categories. These codes enabled the case study to make systematic comparisons across all four cases. Codes can be divided into two sorts as Huberman and Miles (1984) identified. One is a descriptive code such as 'definitions of QA', used in the margin of field notes to characterise a 'chunk' of the interview data. The other kind of code is a metacode. Metacodes emerge from the empirical data collected within the four universities, and may be developed as 'repeated themes' or causal explanations of outcomes. Similar themes within the transcriptions are linked together by coding according to a particular discernible pattern, and are grouped together under the same categories from interview protocols. Thus in this study, a metacode is termed a 'category'.

These six categories and codes are combined and examined in each case within the analytical framework. For example, internal measures have been created for the requirements of the QA system in one university, and this process of creating internal measures is coded as code 21 and code 22. This process also crosses two categories, which are 'external pressure from HEEACT' and 'internal responses to QA exercise'. Then I went back to the analytical framework to examine its related possible institutional context and factors. I believe the cause-effect relationships between these categories and codes can be clarified in this way.

(b) The cross-site analysis of the four universities

As Huberman and Miles (1984) point out, methods of qualitative data analysis are often left vague or implicit in research reports. In order to provide enough clarity about method, this analysis places emphasis on developing descriptions and explanations that are reasonably comparable across the four diverse cases.

The data analysis continues with the preparation of four structured case reports, each with tables, charts, and narrative text focused on the two research questions. To do this, the interview protocols were designed according to the two research questions. Then working from the research questions, an exhaustive list of codes was developed to categorise the interview data. The codes have more meaning to the readers in the process of cross-case analysis, and their meaning becomes clearer as the analyses proceed. The data-display from the four universities on particular issues enabled a careful review of the data. Then a cross-causal network was created with each theme, which shows comprehensive explanations that seem applicable to all universities.

(c) Writing up

After applying these research methods and the analytical framework to analysing the data, draft reports on the individual cases were written according to the results of the documentary analysis and empirical data, and are presented in the thematic cross-case reports in the following chapters. Each cross-case report contains the empirical outcomes which make the connection between the QA policy and the responses to the QA system in each case.

(d) Data presentation

Data presentation involves a wide range of possible choices of style. As comparison of the responses of HEIs to the QA system are important aims of this study, a certain degree of systematisation and categorisation is needed.

Therefore the data presentation is arranged in a way that the basic features of each case are introduced in the methodology chapter, including the history, features and institutional activities of quality assurance. Then a synchronic comparison, based on a firm structure around the interview questions and the model of this study, is made of all the institutions with each other. Each analytical chapter, chapters five to seven, presents a particular theme from the results of the cross-site analysis.

(e) Trustworthiness

A research design should represent a logical set of statements (Lincoln and Guba, 1985). Within the conventional paradigm, the classical criteria for judging the quality and logic of

research designs for all social science subjects are internal validity, external validity, reliability and objectivity (L. Kidder & Judd, 1986). Lincoln and Guba (1985) suggest that, instead of the conventional paradigm, a naturalistic paradigm might be more appropriate for qualitative research. This would use the criterion of trustworthiness, viz. credibility, transferability, dependability and confirmability.

The challenge of achieving trustworthiness is that the researcher has to both reflect the reality of the interviewees and their self-image. Moreover, the research has to be aware of her personal biases which may influence interpretations and outcomes. For the strategy for achieving trustworthiness in this study please see Table 3.6.

Table 3.6 Strategies for achieving trustworthiness in this study (adapted from Lincoln and Guba, 1985)

Criteria	Techniques	Strategies
Credibility	<ol style="list-style-type: none"> 1. Activities increasing the probability that credible findings will be produced. 2. Peer debriefing. 3. Negative case analysis. 4. Referential adequacy. 5. Member checks. 	Use analytic techniques, including pattern matching; documentary analysis; peer review
Transferability	<ol style="list-style-type: none"> 1. Set out working hypotheses together with a description of the time and context in which they were found to hold. 2. Transferability is not meant to provide an index of transferability, but to provide the database that makes transferability judgements possible on the part of potential appliers. 	Careful use, examination and interpretation of appropriate literature, including whether this study's referencing conceptual framework works properly.
	<ol style="list-style-type: none"> 1. Examine the process of the inquiry, and in determining its acceptability, the author should 	Careful justification of the qualitative research methodology, for example, examining case study protocol,

<p>Dependability</p>	<p>attest to the dependability of the inquiry.</p> <p>2. Examine the product—the data, findings, interpretations, and recommendations—and attest that it is supported by data and is internally coherent so that the ‘bottom line’ may be accepted.</p>	<p>interview protocol, and empirical procedure employed in this study.</p>
<p>Confirmability</p>	<p>1. Same as no.2 in dependability. This process establishes the confirmability of the inquiry.</p> <p>2. The confirmability audit. Confirmability can be seen to dovetail with the audit process and hence the two are no longer discussed independently.</p> <p>3. Triangulation.</p> <p>4. The keeping of a reflexive journal (about ‘self’).</p>	<p>Careful structuring of data analysis, including structure of categories (themes, definitions and relationships); findings and conclusions (interpretations and inferences); a final report; process notes, including methodological notes (procedures, designs, strategies, rationale); trustworthiness notes (relating to credibility, dependability and confirmability); instrument development information, including pilot forms and preliminary schedules.</p>

The trustworthiness of a piece of research is determined on the basis of the above four criteria – credibility, transferability, dependability and confirmability. To understand the phenomena of QA, this study conducted a pilot study and has also used multiple sources of evidence, including governmental documents, HEEACT reports, newspaper reports and other media resources. This helped me to achieve transferability. Also, in order to achieve dependability, I used purposive sampling to select representative interviewees and conducted in-depth one-to-one interviews. During interviews, I designed questions to find any exceptions to a rule and conducted negative case analysis based on these interview questions. The next step was to clarify the terminology of the QA system and some key practices of the QA system within the four case universities by sending emails to participants. These research processes have helped me to ensure the credibility of this study.

As Table 3.6 indicates, the main strategies to achieve confirmability are careful structuring of data analysis, including structure of categories (themes and definitions), findings and conclusions (interpretations and inferences); and keeping of a reflexive journal in the analysis process. In addition to ensuring trustworthiness of the data, I also triangulated data from several sources. Triangulation is used to enhance the solidity of the interpretation. Denzin (1970) distinguishes four forms of triangulation, viz. data triangulation, investigator triangulation, theoretical triangulation and methodological triangulation. In order to meet these four forms of triangulation, I first selected participants through three different purposive sampling, and conducted in-depth interviews to gain an insight into their perspectives. During the analysis stage, I compared the data from the interviews to determine areas of agreement as well as areas of divergence. This strategy ensured data triangulation. Second, in order to achieve investigator triangulation, I used a pilot study. Investigator triangulation involves using several different qualitative methods (interview, observation, case study, or focus groups) in the analysis process. The pilot study involved the application of the interview protocol with several interviewees. I then asked the interviewees what they thought of the interview protocol. I reflected on their suggestions, including rearranging the sequence of questions, and using more neutral phrases in the questions. Based on these suggestions, I developed a better understanding of how future interviewees might view the interview questions. Third, to achieve theory triangulation, I utilised multiple perspectives to interpret a single set of data. Initially, Brennan and Shah's model was used as the conceptual framework. After the pilot study, I realised that it was inadequate, and there were categories of responses that were not covered by the Brennan and Shah model. I therefore added Morley's approach to the analytical framework. And, as I analysed the data from the main interviews, I found that I needed to further modify the Brennan, Shah and Morley frameworks. Fourth, as stated above, this study used multiple qualitative methods to achieve methodological triangulation. I used documentary and interview data and analysis for RQ1. I used case study as the main approach to investigate RQ2. The use of a variety of research methods enhanced confidence in the research findings. Finally, in the process of analysing the interview data, I maintained journals and a research diary of what was done throughout this study. By doing these, I was able to achieve confirmability.

(f) Ethical Considerations

This section discusses various ethical issues around this study.

Voluntary informed consent

All interviewees involved in the study completed and returned signed consent forms before participating in the research (Appendix 5). In the consent forms, all interviewees were given a sheet that clearly explained the nature of research, how the data would be collected, identified

the researcher's position and background, and explained their right to not participate or have their names used in the research. The consent forms were sent by email to all interviewees before the interviews or were presented to them at the beginning of their interview.

Sensitive data

In this study, only personal data could be sensitive and so all participants were informed that all such information would be anonymous.

Anonymity

All interviewees and the four universities are anonymous. Names, positions and places have been changed where necessary to protect the participants.

Reporting on the research

All interviewees who requested a copy of the final thesis will be provided with one report.

3. Summary

This chapter outlines the methodology of this study. In the following three chapters, chapters five to seven, the themes generated from the cross-site analysis are presented in the study.

Chapter Four:

The Development of the Quality Assurance System of Higher Education in Taiwan

This chapter answers the first research question, which focuses on the development and features of Taiwan's quality assurance (QA) system. First, before analysing the quality assurance system in Taiwan, a brief overview of the society, the economy and the current higher education system are provided below. Following that, I shall explain the four stages of the development of the QA system in Taiwan. Finally, I shall put forward the point that Taiwan's QA system is a hybrid model of different approaches to QA with four features: (a) it evaluates both teaching and research within one single assessment exercise; (b) its results are used to determine resource allocation of the higher education system; (c) it has been used by the government to merge and close HEIs; and (d) some of the terminology used is ambiguous.

1. A Brief History

Taiwan is an island with an area of about 36,000 sq km with a population of 23.4 million. It is located in eastern Asia and is separated from the People's Republic of China by the Taiwan Strait. The majority of its population are ethnic Chinese with about 2% of the population being aborigines who descended from early settlers from Southeast Asia (Young, 1995). In 1895, Taiwan was ceded to Japan by the Chinese government and colonisation lasted until 1945, when World War II ended. Taiwan was then returned to China, but the Chinese Civil War ended in 1949 with China divided between The People's Republic of China (PRC) under a communist government and Taiwan ruled by the Nationalist President, Chiang Kai-shek. From 1945 to the lifting of martial law in 1987, Taiwan's government was controlled by the Guomindang (KMT), and Taiwan was portrayed as being "the base for the recovery of the China mainland" (Lall and Vickers, 2009). Taiwan experienced rapid growth with high levels of equality and social cohesion from the 1960s. It was one of a group of countries referred to as the Asian 'Tigers' or 'Dragons' or NICs (Newly Industrialising Countries) along with Hong Kong, South Korea, and Singapore. The KMT government inherited the educational system built by the Japanese during the colonial period. Political stability and economic growth were the Nationalists' two main missions in the early years. The HE sector, including what was published and taught, were also strictly controlled.

In the 1960s, rapid economic growth was accompanied by a significant shift in family size, life expectancy, population growth rates, income distribution and political stability (Morris, 1995). Taiwan entered a stage of economic lift-off. Educational policies began to emphasise investment in basic schooling, high status for the teaching profession, and the development of secondary and higher education. These educational policies further contributed to Taiwan's rapid economic

growth. Explanation for the country's economic success has focused on the importance of land reform, the crucial role played by the government, and an emphasis on education and human resources leading to rapid economic growth (Young, 1995).

Taiwanese society acquired real democracy only at the end of martial law in 1987. Major political reforms included a series of liberalisation measures, such as the abolition of restrictions on newspapers, permission for Taiwanese residents to visit Mainland China and to hold public demonstrations (Young, 1995). The late 1990s saw the emergence of many social and political reform movements, and the Democratic Progressive Party (DPP) was elected to office in 2000. People started to demand educational reforms from compulsory education to higher education, and sought to introduce educational policies from developed countries to improve education in Taiwan. Democratisation led to an increasing emphasis on education rather than on economic development.

2. Development of Higher Education

Taiwan's QA system is closely related to the development of higher education and the changing pattern of educational expenditure in Taiwan. Chinese cultural tradition is deeply rooted in Taiwan, and the approach to education continues to have a Confucian ethos (Lall and Vickers, 2009). Education is seen by the population as a vehicle to preserve the cultural heritage, and a means of fostering social mobility. When the KMT government took over from Japan in 1945, Taiwan had only four universities. No further plans or policies were laid for higher education from 1949 to 1953 because the focus was on maintaining political control and economic growth. Both public and private educational institutions were supervised tightly under the central control of government.

A move towards mass higher education began in the 1980s. With the lifting of martial law in 1987 the system experienced an even more rapid expansion. Between 1987 and 1997, the number of universities and colleges increased from 28 to 67, with enrolment almost doubling from fewer than 200,000 to more than 380,000 students. The number of higher education institutions swelled from 7 universities in the 1950s to 167 HEIs by 2012 (Ministry of Education, 2012). As Brennan & Shah (2000) indicate, the changes in the socio-economic context caused by the impact of globalisation and marketisation inevitably led to changes in universities.

The expansion of higher education institutions mainly took place over two periods, between 1954 and 1971 and again during the 1990s. In the 1960s, when the economic and political situation had stabilised, the period of compulsory and tuition-free schooling was extended from six to nine years, adding junior secondary education to primary schooling (Yang, 2010). Educational policies continued alongside rapid social changes. After completing compulsory

education, students were then able to take an entrance examination to be selected for vocational or academically oriented senior high schools. Higher education was provided by two or three-year junior colleges and universities. However, there were insufficient HEIs for the increasing number of secondary students. The enrolment rate of higher education institutions was under 30% until the government established more junior colleges in the 1970s, which were funded both by public and private sources, to respond to the demand for higher education. Young (1995) argues that although the increased number of junior colleges provided more opportunities for students, they also raised concerns about the quality of higher education. In 1972, the government decided to freeze the establishment of private schools and higher education institutions, and introduce a system of higher education quality assurance to review educational standards.

The resulting phenomenal quantitative expansion of the school system can be seen as a result of central planning and government funding. Young (1995) points out that, in the two decades from 1965 to 1986, Taiwan, in common with the other three Asian Tigers, expanded secondary education, and began to catch up with high-income economies by increasing enrolment in higher education. The government established overall manpower policies to meet the needs of the labour market, and educational policies were coordinated in parallel in order to push economic growth, such as the 'Middle and Long Term Plan for Human Resource Development in Economic Construction in Taiwan: 1986-2000'. At the same time, educational policies in this period focused on the deregulation of management and the promotion of a mass or universal higher education model.

With the end of martial law in 1987, a movement emerged to reform the education system. People began to demand more opportunities to enter higher education, since this was seen to be the grand road to social mobility. Various pressure groups and stakeholders all pushed the Ministry of Education (MOE) to loosen its control over the higher education system. In response to these demands, the government revised the Teachers Law, the University Act, modified the standardised school curriculum, and widened access to higher education by changing the joint entrance examination system and establishing more universities. The MOE increased the number of higher education institutions by encouraging enterprises to fund private colleges in the 1990s (Ministry of Education, 2012).

In 1994 the "University Act" was passed, and this confirmed that universities should have autonomy, and symbolised the elimination of government control of higher education. From 40% to 70% of the incomes of private universities were from tuition fees, while national universities received over 80% of their income from the government (MOE, 2012). However, as the number of both public and private institutions increased rapidly and became more diverse, the MOE instituted a new financial policy in the 1990s to reduce the financial pressure on the State. In

accordance with the revised University Act, the MOE introduced a 'National University fund System' to promote financial performance in 1995. In its experimental stage, from 1995 to 1999, the MOE provided 80% of the funding for national higher education institutions, leaving them to find the remaining 20% themselves. Since the 'National University Funding System Act' was enacted in 1999, the ratio of subvention from the government to national universities decreased every year to under 60% of their total income now. In order to raise money, national universities now have to compete with private universities for students, take part in additional industry-university cooperative research projects and competitive projects provided by the government. The 'National University fund System Act' has pushed Taiwan's higher education system to become more market-orientated than ever before. The government claimed that these reforms are intended to enhance universities' financial autonomy as laid down in the University Act.

Mok (2000) argues that the Taiwanese government tried to 'package' and 'justify' the then proposed changes to the funding system in higher education by referring to the global trends of privatisation and decentralisation. For example, in order to address the challenges of globalisation and internationalisation, the MOE introduced new educational policies such as the 'Programme for Promoting Academic Excellence in Universities' in 2000, an 'Exit Mechanism' in 2003, 'Aiming for the Top University and Elite Research Centre Development Plan' in 2005, and a 'Programme for Promoting Teaching Excellence in Universities' in 2005. The 'Exit Mechanism', under which institutions can be shut down, is the most powerful of these policies and was a response to the low-birth rate and the concern with the quality of higher education. It allows universities which do not pass evaluations to be closed. These policies can be seen as the central parts of the overall QA system because HEEACT integrated the criteria for allocating competitive projects into the Programme Accreditation and Institutional Accreditation exercise and the results of evaluations are used as references to close universities (Yang, 2010).

Although these policies implied that the government's higher educational policies had become more deregulated and focused on accountability in higher education, they also symbolised the shift of higher education into a global competitive market, which is effectively measured by global university rankings such as those of Shanghai Jiao Tong University or the Times Higher Education Supplement. Whilst the government had reduced its direct control over higher education at the institutional level due to the democratisation of Taiwanese society, the power of the market and the role of the QA system has taken over as the major influence on higher education.

In Taiwan, education, which was initially a product of governmental planning, gradually exerted a democratising effect on society, and contributed to political changes (Young, 1995). However, as mentioned above, with the trend of globalisation and internationalisation in recent

decades, the role of the state has shifted from promoting human resource development for economic growth to enhancing the ability to compete internationally (Brennan & Shah, 2000). After democratisation, Taiwanese society's expectation of the relationship between education and the government also changed, so that the government was compelled to seek a new way, the QA system, to improve the quality of higher education and to maximise the global role of education. In this socio-economic context, the creation of a quality assurance system became a contentious issue and was perceived by many as a method for the government to indirectly supervise and regulate the development and quality of Taiwan's higher education.

3. The Development of the Quality Assurance System

First, as mentioned in Chapter One, the terminology has to be clarified due to confusion between English and Chinese expressions regarding QA therefore this section provides more detail concerning the terminology used in Taiwan's QA system. Following on from that, the influence of internationalisation and globalisation on the creation of the QA system is discussed. At that stage, I shall identify the first distinguishing feature of the QA system in Taiwan: the fact that the QA system is a hybrid model combining different approaches to QA, where both teaching and research are evaluated within one single assessment exercise. Finally, how the quality assurance system emerged and developed is addressed at the end of this section.

Terminology

Different countries define 'quality assurance' in higher education differently. In Taiwan, there are various expressions regarding quality assurance and accreditation. Su (1997) indicates that Taiwan's scholars do not distinguish the differences between 'evaluation' and 'assessment' strictly and use the two terms interchangeably. Some Taiwanese scholars argue that the quality assurance system is akin to an accreditation system, and therefore, from this viewpoint, the audit (now 'Higher Education Review') in the UK would be categorised as part of the quality assurance system (Wang, 2003). Other studies (Harvey and Newton, 2004; Hou, 2011) argue that quality assurance is a general concept that includes various approaches to quality assurance, such as accreditation and auditing.

The Higher Education Evaluation & Accreditation Council of Taiwan (HEEACT), which was established by the MOE together with all the HEIs in Taiwan, has adopted the view that accreditation is one of the approaches to quality assurance, and defined its work as 'higher education quality assurance evaluations' and defined its approach as accreditation (HEEACT, 2012). In the official documents of the HEEACT, different terms are used to refer to the evaluations, such as 'higher education evaluations', 'evaluations of universities', and 'university evaluations'. In this chapter the definition of quality assurance used by the HEEACT is adopted

and the QA system refers to the evaluations conducted by HEEACT. As mentioned in Chapter One, Table 1.1 (please see page 15) is a brief introduction of terms used in Taiwan's QA system in this study.

The fourth feature of Taiwan's QA system, namely that some of the terminology used is ambiguous, will be explored in more detail in Chapter 5 by use of the interview data but we should clarify some of the terms which cause this ambiguity now.

Influence of internationalisation and globalisation on creating the QA system

Like other South East Asian states, since 1980 Taiwan's higher education has undergone educational reforms, which have been influenced by the trend of new managerialism and neo-liberalism, in order to respond to the growing impact of globalisation (Deem *et al*, 2008). Similar to elsewhere, Taiwan's government and society feared that the rapid expansion of higher education could lead to the lowering of academic standards (Mok, 2000). In response to this concern, the Taiwanese government announced that the output from higher education institutions should equal or exceed government investment in them.

Thus the MOE emphasized the importance of learning about QA policies from Western developed countries when establishing the system in Taiwan. HEEACT claims that Taiwan's QA system is an accreditation system adopted from the U.S.A. The reason why HEEACT chose the accreditation system was that most European countries had adopted accreditation as their approach to quality assurance as mentioned in an OECD report on the matter (HEEACT, 2012).

Just like the 'cut-and-copy' policies referred to by Sursock (2011), which helped to spread quality assurance mechanisms from Western European countries to Eastern European countries, there was a similar phenomenon in Taiwan. Although Taiwan's QA system has its own distinctive features, the policy-borrowing process can be clearly seen throughout the four developmental stages. Taiwan's higher education was deeply affected by the concept of accountability in the U.S.A. For this reason the structure of Taiwan's QA system gradually grew more similar to that of the U.S.A after 2005. However, Taiwan's QA system does not function exactly the same as the accreditation system in the U.S.A; there is a gap between how the two countries implement their QA systems. Despite adopting the terminology from the U.S.A, there are criticisms that the original spirit of accreditation regarding university autonomy cannot be fully practised in Taiwan because of the traditional, bureaucratic supervision by the MOE (Chou, 2011). For example, HEIs in Taiwan are not formally accredited by the QA system. The function of accrediting HEIs, including the power to shut down institutions which fail accreditation, cannot be practised under Taiwan's QA system.

In fact, Taiwan's QA system is a hybrid model with a mixture of features from an accreditation system as well as other approaches to quality assurance. The elements of HEEACT are similar to the institutions for implementing QA in the IMHE study of Brennan and Shah (2000) which they describe as the 'general model' promoted by the European Union. The elements of the 'general model' are four distinct features: a co-ordinating body, self-evaluation, external peer review and published reports. Stensaker and Harvey (2011) argue that in countries and regions where universities have less symbolic and cultural capital, they seem to be more exposed to various external QA mechanisms. In addition, in countries and regions where higher education has been perceived as a sector for economic development by the government, their quality assurance schemes usually place emphasis on the efficiency and accountability of higher education institutions.

However, Taiwan's QA system is distinctive because it evaluates both teaching and research within one single assessment exercise. In addition, problems have emerged in the application of aspects of the 'general model' in Taiwan. As seen in Chapter Two, I found that many issues emerged, including whether to focus on the institutional or programme levels or both; how to select 'peers' and whether to train them; how to present and use the reports, and the fact that some academics feel that, as van Vught and Westerheijden (1994) argue, QA mechanisms are not supposed to be linked to funding allocations for higher education. These differences help to distinguish Taiwan's QA system from the accreditation system of the U.S.A and 'the general model' (van Vught and Westerheijden, 1994) of European countries.

The development stages

The introduction of the QA system thus replaced the direct control of the State. After illustrating the background of Taiwan's higher educational system, this section focuses on the historical development and features of the QA system. The development was a dynamic process, which reflected the socio-political changes in Taiwan. The development of the QA system in Taiwan has been divided into several stages according to different authors (e.g. Lin, 2009; Yang, 2010) which are summarized in Table 4.1. The criteria on which these stages are based include: socio-economic changes, the degree of state control, and historical patterns in higher education and the discourse of evaluation.

Table 4.1 Different stages of the development of the QA system grouped according to different approaches

Approaches	Social-economic changes	The degree of state control	The historical institutionalism	The discourse of evaluation
Numbers of Stages	6 stages	3 stages	6 stages	4 stages
Author (representative)	Yang (2010)	Lin (2009)	Wu (2007)	Chou (2011)
Stages	<p>Stage 1: 1975-1990 the QA system was shaped according to the demands of the government</p> <p>Stage 2: 1991-1994 the MOE entrusted academic groups with proposing an independent agency to take charge of the QA system</p> <p>Stage 3: 1994-2000 the structure of the QA system became stable</p> <p>Stage 4: 2001-2004 the MOE encouraged and promoted the importance of self-evaluation and brought further financial reforms to bear on universities</p> <p>Stage 5: 2004-2005 the MOE started to entrust evaluations to private foundations</p> <p>Stage 6: 2005-now the coming-of-age of the QA system</p>	<p>Stage 1: 1975-1990 tight control of higher education by the government</p> <p>Stage 2: 1991-1994 the power of government decreased and the QA system was performed by professional academic groups</p> <p>Stage 3: 1994-now the enactment of the University Act in 1994, amended in 2005, when the role of the government shifted from controller to supervisor of the QA system</p>	<p>Stage 1: 1970s-1980s the evaluations aimed at improving the qualifications of teachers in universities and only used qualitative methods</p> <p>Stage 2: 1980s-1990s discussions about QA became a public issue</p> <p>Stage 3: 1990s-now the MOE changed higher education policies due to changing expectations of evaluations among academics</p>	<p>Stage 1: 1975-1982 directly controlled by the MOE</p> <p>Stage 2: 1983-1993 The MOE entrusted academic groups with conducting evaluations</p> <p>Stage 3: 1994-2002 Evaluations were conducted by the MOE based on the 1994 University Act</p> <p>Stage 4: 2003 to now The MOE entrusted third parties to conduct evaluations</p>

As shown in Table 4.1, the most popular way to describe the development of the QA system is to divide it into six stages according to the broader socio-economic changes (Chen, 2005; Lv, 1982; Su, 1997; Wu&Wang, 2004; Yang, 2010). These stages are: from 1975 to 1990, the QA system was shaped according to the demands of the government. The government led the QA system and was responsible for evaluating universities. Universities were not required to be evaluated; indeed, evaluations were not part of the MOE's long-term plan. Then in stage two from 1991 to 1994 the MOE entrusted academic groups to propose an independent agency to take charge of the QA system. In stage three between 1994 and 2000, the structure of the QA system became stable. The 'University Act' was also revised in order to build an independent legal status for the future evaluation of higher education. In this period, the QA system was implemented by the MOE which then disbursed financial incentives, to encourage universities to undertake self-examination. The 1994 'University Act' gave the MOE the right to evaluate universities, and from then on, all higher education institutions (HEIs) were evaluated under the supervision of the MOE. Then in stage 4, from 2001 to 2004, the MOE encouraged and promoted the importance of self-evaluation and brought further financial reforms to bear on universities. Stage 5 was a significant move for the MOE. From 2004 to 2005, the MOE started to entrust evaluations to private foundations. The sixth stage represents the coming-of-age of the QA system. After the newly revised 'University Act' was introduced and the government and HEIs established the HEEACT in 2005, the QA system obtained legal status and became more specialised.

The development of the QA system is also divided into three stages based on the degree of state control by Lin (2009). The first stage, which lasted from 1975 until martial law ended in 1987, was marked by tight control of higher education by the government. The government controlled academic freedom, including the standards of teaching and who could publish what and where. Then from 1991 to 1994, as Taiwan became more democratic, the power of the government decreased and the QA system was performed by professional academic groups. The third stage began with the enactment of the University Act in 1994, amended in 2005, when the role of the government shifted from controller to supervisor of the QA system, and the QA system became more specialised. Political influence then diminished and the QA system came under the supervision of the law. Although government control gradually diminished when Taiwanese society became democratised, political power still works in some form or other.

There are two other approaches used to analyse the stages of development of the QA system. One is from the view of the historical institutionalism, which analyses educational phenomena from the dynamic aspect of institution and system (Wu, 2007). The development of the QA system is seen as a historical process of establishing evaluative agencies, which are the result of struggles between stakeholders and policies, and the interaction between internal and

external factors. The other approach, used by Chou (2011), analyses the discourses of the QA system. The meaning of the QA system has also changed over time with socio-economic changes in Taiwan. The discourse of evaluation has changed in different stages due to the changing concepts of evaluation from the 1970s till now. For example, in the 1970s, the evaluations aimed to improve the qualifications of teachers in universities and only used qualitative methods. At that time, the MOE confessed that they did not have a complete plan for conducting evaluations and did not try to link evaluations to any rewards and funding allocation. Although Taiwan's QA system has been evolving since 1975, discussions about it did not become a public issue until the 1980s. However, the MOE changed higher education policies due to criticisms of the evaluations among academics in the 1990s. Some voiced criticisms arguing that evaluations should be practised more efficiently by using both qualitative and quantitative measurements.

In this study the QA system's development is separated into four stages based on the direct changes in higher education policies. The ways in which the QA system was affected and moulded by higher educational policies is used in this study as the basis for analysing its development because, from the outset, the MOE decided everything, and all universities had to obey government policies, which were coordinated with Taiwan's economic policies. Although universities now have greater autonomy and are protected by the 'University Act', they are still affected by various forms of political power. While higher education policies have changed under pressure from internationalisation and globalisation to increase the country's competitiveness, the QA system is seen as a means to ensure the universities meet the demand of national standards and trends. The MOE has introduced new educational policies, such as the Programme for Promoting Academic Excellence of Universities, Aiming for the Top University, and the Elite Research Centre Development Plan (Yang, 2010). These policies all contributed to the building of the new QA system and became integral parts of it.

Second, the establishment of the HEEACT symbolised the mature stage of the development of the QA system, and while it is responsible for conducting and improving all higher education evaluations in Taiwan, it is not without criticism for the way the QA system developed. For example, under the 'University Act' of 2005 the government has allocated funding based on the results of evaluations. However, the linking of the QA system to funding is viewed as problematic and may negatively affect the development of higher education (Tang, 2011). This issue is dealt with in more detail in Chapter Five.

The key features of the four stages are shown in Table 4.2. These four stages are: evaluation under the control of the government from 1975 to 1990, deregulation and public participation from 1991 to 1994, the development of self-evaluation from 1995 to 2004, and the establishment of an independent national agency from 2005 to 2012. After I conducted this case study in May 2012,

a new QA policy of 'self-conducted external evaluation' was launched by the MOE in December 2012. This study explores the impact of the QA system on HEIs before 2012. The 'self-conducted external evaluation' will be explained clearly in the following section. The table describes the following features of each stage:

Table 4.2 Four stages of the development of the QA system in Taiwan

Stages Factors	Stage1:1975-1990	Stage2: 1991-1993	Stage3: 1994-2004	Stage4: 2005-2012
Key Policies/ legislation	The expansion of junior colleges and universities & 'Middle and Long Term Plan for Human Resource Development in Economic Construction in Taiwan: 1986-2000' & The lifting of martial law in 1987	The expansion of higher education institutions & The government started to entrust academic expert groups & 'Mid-term Plan for the Affairs and Development of Colleges and Universities' in 1991	'University Act' in 1994 & 'Consultants' Concluding Report on Education Reform' from the commission on Educational Reform in 1996 & 'National University fund System Act' in 1999 & 'Programme for Promoting Academic Excellence of Universities' in 2000 & Exit Mechanism in 2003	'Aiming for the Top University and Elite Research Centre Development Plan' in 2005 & 'Programme for Promoting Teaching Excellence of Universities' in 2005 & 'University Act' in 2005 & 'University Evaluation Act' in 2007 & 'Results of University Self Evaluation and Professional Evaluative Institutions Accreditation Directions' in 2009 & 'Private School Law' in 2011
Features	Direct control by the government	Deregulation and professional participation	The development of self-evaluation	The establishment of an independent national agency, HEEACT

Political Content	Strictly controlled by KMT until 1987	Gradual deregulation	The University Act was enacted in 2004 & Educational reforms	The University Act was revised in 2005, The University evaluation Act was passed in 2007
Sources of influence (policy borrowing)	The Accreditation system of the U.S.A.	The Accreditation system of the U.S.A.	The Accreditation systems of the U.S.A. & the U.K.	The Accreditation system from developed countries (e.g. Netherland, Denmark, the U.S.A and the UK)
Form of evaluation	Subject evaluation Voluntary	Subject evaluation & Institutional evaluation Voluntary	Subject evaluation & Institutional evaluation Voluntary	Subject evaluation & Institutional evaluation Compulsory
Who was evaluated	Only maths, physics, chemistry, medicine and dentistry departments in 1975	All universities	All universities	All universities
Evaluators (by whom)	Principals and professors from national universities (by MOE)	Academic expert groups (CIEE, CMA, CSME, RCSAE) from 1992-1993	The MOE & Academic expert groups (TWAEA from 2004)	HEEACT, TWAWA
Evaluation process	1. Form Filling (by MOE) 2.The evaluative process was determined by experts in different subject	1.The 'Mid-term Plan for the Affairs and Development of Colleges and Universities ' reports & forms to evaluators 2. Onsite visits by Principals and administrators in universities	1. The MOE provided evaluation guideline handbook & performance indicators to universities 2. Form filling & onsite visits	1.Self-evaluation & fill out the "University Evaluation Basic Information Form" 2. Two days of peer review onsite visits (interview, questionnaire, document review)
Evaluation result/ Public or not	Pass or Fail & Not public	Pass(distributing funding based on universities' plan) or Fail & public	Three ranks (excellent, good, need improvement) & public	Public & results 1.Accredited, 2.Conditionally accredited, 3.Accreditation denied

Principles for appeal	N/A	N/A	N/A	'Principles for Appeal of Program Evaluation in Universities and colleges' (Regulations regarding appeal)
Effect on Funding	For improvement	For improvement & funding distribution	For improvement & funding distribution	For improvement & funding distribution
Key Issues for the QA system	Not systematized	The need for specialised evaluators	The need of an independent national agency	Inappropriate performance indicators

Continuing Table 4.2

Stage 1: 1975-1990 direct control by the government

During this stage, higher education was evaluated directly by the Ministry of Education, and only one kind of evaluation was undertaken, namely, subject based evaluations. In the early 1950s, Taiwan was trying to recover from the damage caused by the war. The government focused on political and economic development and had no long-term educational policies. The economy of Taiwan gradually changed from being an agricultural economy to a modern industrialised one between 1953 and 1962. In the 1960s Taiwan entered the stage of economic lift-off, and its rapid economic growth brought many reforms to Taiwanese society. In 1968 economic growth provided the government with the funds to extend the period of compulsory and tuition-free schooling from six to nine years covering both primary and junior secondary education (Yang, 2010). Then the MOE expanded the number of higher educational institutions by establishing a number of public and private five-year junior colleges (which combined senior high school and junior college levels) and universities. However, this rapid expansion led to concerns about quality. In response, the government paused the expansion in 1972 and began to plan for the introduction of a QA system for higher education to respond to citizens' concerns.

Most of Taiwan's educational policies have been influenced by developed countries. The evaluation of higher education in Taiwan was strongly affected by the concept of accountability in the U.S.A. The policy of conducting subject evaluations in higher education was introduced in Taiwan in 1975 by scholars who had studied in the U.S.A. These were not a long-term project, but merely an experiment by the government. The goal of the evaluation in this period was simply to examine the quality of higher education. The evaluated items were educational goals, teaching, research, service and the management of institutions. The evaluative tool was simply a form provided by the MOE to universities. Experts from each discipline would check these forms

submitted by University departments and give suggestions, and these suggestions were only released to the universities (Ministry of Education, 1993). Only five disciplines were evaluated, namely, maths, physics, chemistry, medicine and dentistry. Following the first evaluation in 1975, the MOE extended the subject evaluation to art, teacher training and the social science departments at all universities.

However, initially the QA system was viewed as incomplete and was roundly criticised by the universities. The main criticism was that there was no independent, national agency responsible for evaluations; thus, the fairness of the process was questioned. In 1983 the MOE invited experts and principals from universities to discuss the issues with the QA system, and formed an academic team to investigate the accreditation system in the U.S.A. Based on the report of this team in 1983, the MOE started to enhance external reviewers' knowledge about evaluation. In addition, the subject evaluation, which had lacked funding and a long-term plan, was abandoned in 1983. After the lifting of martial law in 1987, the government faced many demands from universities, such as increased freedom of publication, academic freedom of speech and wider access to higher education. According to Mok (2000), Taiwan's higher education underwent a process of denationalisation, decentralisation, autonomisation and marketisation beginning in the 1980s. Before the mid-1980s, higher education in Taiwan was rigidly controlled by the government, but after the lifting of martial law in 1987, society sought to pursue the ideal of equal opportunities in education. In order to respond to the growing demand for higher education, the government broadened higher education opportunities by allowing different sectors and the market to engage in creating more opportunities for students (Ministry of Education, 1996). This spurred the MOE to re-start subject evaluations between 1988 and 1990 (Wang, 2003) but made changes to the system including revising the performance indicators and introducing an onsite visit process. The results of the evaluation in this stage were only given to the universities themselves for the purpose of self-improvement.

The main features of this stage were that it centred on subject evaluations, and the QA system was not linked to the distribution of educational funding. Although the subject evaluation helped universities and the government to understand the quality of higher education, it was not a long-term project and the QA system still lacked independent evaluative agencies (Wu & Wang, 2004). The evaluators were all from the government and higher educational institutions, and this cast doubt on the equity and justice of the evaluations (Kao, 2007). Although higher education became more diverse and accessible to Taiwanese society after the lifting of martial law in 1987, evaluations were still tightly controlled by the ruling party, the KMT, and the universities were still passive receptors of evaluations undertaken by the government.

Stage 2: 1991-1993 deregulation and professional participation

There are two main features of this stage, the first of which is that the government commissioned the Research Centre for the Studies of Accreditation and Evaluation (RCSAE, now the Centre for Evaluation and Professional Development in Education, CEPDE) at the National Hsinchu University of Education to improve the QA system. The second feature is that the process of evaluation became more complete than previously after adopting the recommendations of RCSAE (Su, 1997).

The main criticism at that time was that private universities thought it was unfair that all the experts who joined in the Evaluation exercises were academics and principals from public universities. Responding to this criticism, in 1991 the government suspended evaluations, invited principals of universities and administrators of the MOE to form a committee entitled 'Mid-term Plan for the Affairs and Development of Colleges and Universities', and laid plans to establish an independent, national agency, HEEACT, to conduct higher education evaluations. Although there were no formal evaluations of universities in 1991, Su (1997) indicates that the 'Mid-term Plan' was indeed a form of evaluation, and was the beginning of the evaluation of institutions rather than subjects. The MOE evaluated the plans and used them as the basis for allocating funding and rewards.

In addition, the MOE then entrusted subject evaluations to academic groups in 1992 and 1993 to meet universities' demands for a fair evaluation process. These groups included the Chinese Institute of Electrical Engineering, Chinese Management Association, and Chinese Society of Mechanical Engineers. Each academic group had its own evaluative standards and processes, and the RCSAE provided assistance in terms of educational policy (Su, 1997). These academic groups were responsible for evaluations until the establishment of the national evaluative agency in 2005. However, there were some drawbacks with this process, such as a lack of clear evaluative structures and processes, and inconsistent evaluative indicators across the groups. Therefore universities suggested that the government should set up an independent evaluative agency to ensure a more stable QA system.

Stage 3: 1994-2004 the development of self-evaluation

In the late 1980s different stakeholders, including scholars, teachers and politicians urged the government to implement various programmes and policies to promote quality in education. In response, the government introduced various policies including the 'Programme of Open Admissions to Upper Secondary Schools' in 1990, the 'Programme of Ten-Year National Compulsory Education Based upon Vocational Education' in 1993, the revised 'University Act' in 1994, the Education White Paper of the Republic of China in 1995, and the revised 'Teacher Law'

and the 'Private Education Law' (Mok, 2000). In 1996, 'the Consultants Concluding Report on Education Reform' (MOE, 1996) from the Commission on Educational Reform proposed that universities should promote their quality of research and teaching, and recommended that the number of universities be increased. The consultants were experts on education, senior academics and administrators invited by the MOE. This report suggested that universities should be subject to evaluations by an inspectorate. Such a system would have several benefits: allowing more autonomy and encouraging decentralization of the management of HEIs that would then let them demonstrate the high quality education they were offering.

The MOE conducted a Comprehensive Evaluation to examine the operation of all universities in 1997, and the evaluators included key people from the government, university principals and experts (Su, 1997). This was the first experimental evaluation of all universities since the suspension of subject evaluations in 1991. The items evaluated included the accountability of teaching, research, and service and management. Moreover, the results of the evaluations were not published, but were just reported to the participating universities. The results of these evaluations were not used to rank institutions, but rather to improve their management.

After the Comprehensive Evaluation, the RCSAE conducted a meta-evaluation, which was required by the MOE, to provide information to improve the QA system. The MOE also encouraged all universities to establish a self-evaluation system from 2001. The MOE provided additional funding as a reward to universities which implemented self-evaluations. Besides, all universities had to work on the 'Mid-term Plan for the Affairs and Development of Colleges and Universities' introduced in 1991, and an important aspect of this project was the requirement for an annual self-evaluation. By 2004, 90% of higher education institutions had already established self-evaluation systems.

The MOE also created a committee, made up of principals of universities and enterprises, and entitled the 'Taiwan Assessment and Evaluation Association' (TWAEA) in 2003, to undertake subject evaluations from 2004. These subject evaluations were separated into several different fields according to disciplines, such as social science departments, arts and humanities department, science, engineering and medicine. 76 universities voluntarily joined the subject evaluation. The criteria of the subject evaluation included teaching, internationalisation, services, liberal education, administrative management and self-evaluation (Ministry of Education, 2005).

The main feature of this stage was the University Act of 1994 when the government started to accelerate the process of improving evaluations and creating new organisations to develop the QA system. Besides, in order to enhance the function of evaluations, professional groups, such as TWAEA, were created and entrusted by the government to conduct evaluations. It can be seen as a stage on the road towards professionalizing the QA system.

Stage 4: 2005-2012 the establishment of an independent national agency

In this stage, as shown in Table 2, the government revised the “University Act” in 2005, confirming its right to supervise the quality of higher education and making it obligatory for the first time for universities to be evaluated:

‘Universities should periodically undergo self-evaluation on teaching, research, service, counselling, administration, and student engagement; evaluation guidelines should be set forth by each university. In order to encourage the development of universities, the Ministry of Education should form evaluation committees or commission academic entities or professional evaluation agencies to periodically conduct university evaluations and publish their results as reference for the government to allocate subsidies and for the institutions to adjust their future development plans.’

(University Act, 2005)

Article 5 of the 2005 University Act stipulated, the enactment of the ‘University Evaluation Act’ which was promulgated in 2007 and created a national QA system to ensure standards and promote the improvement of higher education. Article 21 of the 2005 University Act also requires all HEIs to establish internal QA schemes to assess the performance of teaching and research of academics. In addition, the QA standards and methods of HEIs have to be reviewed by committees of HEIs and the MOE. These laws integrated HEEACT into the daily life of HEIs.

The aim of the 2007 University Evaluation Act is to encourage private universities to undertake evaluations. In 2009 the government revised the 2007 Act and enacted ‘Results of University Self Evaluation and Professional Evaluative Institutions Accreditation Directions’, to allow private universities which passed their evaluation to decide their structure of departments, enrolment, entry requirements, and tuition fees, without being constrained by regulations (Yang, 2010). Moreover, since 2005, the government has distributed funds to both national and private universities according to the results of the higher education evaluations based on the 2005 University Act. Competition between universities has become ever more intense and the QA system largely determines the result of that competition.

The national QA agency: HEEACT

In 2005, both the MOE and universities funded the establishment of the first independent national agency for evaluation, the ‘Higher Education Evaluation & Accreditation Council of Taiwan’ (HEEACT) set up by the 2005 University Act. The members were chosen by the MOE. HEEACT defines its position as a third-party, professional organisation specializing in higher education evaluation and accreditation. HEEACT is responsible for establishing a national quality assurance framework for universities. The main mission of HEEACT is to develop performance indicators and mechanisms for the QA system, to implement evaluations of higher education commissioned by the MOE and to provide evaluation reports to the MOE for policymaking

(Ministry of Education, 2005). In 2006 it began to undertake Programme Accreditations and in 2011 the government authorised HEEACT to conduct Institutional Accreditations. The Programme Accreditation was undertaken for the second time in 2013 and the MOE adjusted enrolments and distributed funding based on the results.

In order to ensure its own quality, HEEACT was accredited by the United Kingdom Accreditation Service (UKAS) and received ISO9001:2008 and ISO/IEC 27001:2005 certification at the beginning of 2011. In 2013, HEEACT passed an inspection conducted by the Société Générale de Surveillance (SGS), which is an international inspection agency for improving quality and productivity, reducing risk, verifying compliance and increasing speed to market.

Programme Accreditations and Institutional Accreditations

Both types of higher education evaluations, Programme Accreditations and Institutional Accreditations, have similar elements, including the processes of evaluation and how the results are used. According to the reports of HEEACT, the main principles of both evaluations are specificity, equity, neutrality and equivalence, and they also stress self-regulation and accountability. The processes of both involve the following stages: pre-process work, self-evaluation, fieldwork, announcement of the results, and meta-evaluation.

The two accreditations are based on concepts from management theory, such as PDCA (plan, do, check and act), Total Quality Management (TQM) and SWOT (strengths, weaknesses, opportunities and threats). The Programme Accreditation focuses on each department and discipline, and emphasises the competence of the whole university and uses a PDCA (Plan, Do, Check, Act) model. It has five aspects, namely: the role of the university, administrative management, teaching and learning resources, accountability and social responsibility, and a self-evaluation system.

As for the Institutional Accreditation, it addresses the characteristics of the institutions and their self-evaluation systems. Its operation involves four main questions and five aspects. The four main questions are: what has the department achieved in each term, how the department did it, what the results were, and what improvements could be made. The five aspects are: characteristics of universities, teaching and curriculum design, learning, and research performance. Table 3.4 shows the components of these two accreditations.

In addition, in 2012 the government announced that the results of both evaluations would also be used as references for the Exit Mechanism (HEEACT, 2012). The Exit Mechanism was introduced in 2003 by the MOE. Since 2012, the QA system has been linked to the Exit Mechanism. So we can see that, the QA system was originally introduced to enhance quality but was later amended to facilitate the allocation of resources and the closure of non-performing HEIs.

Table 4.3 The components of HEEACT evaluations

	1st cycle of Programme Accreditation (2006 to 2010)	2nd cycle of Programme Accreditation (from 2012 to 2016)	1st cycle of Institutional Accreditation (2011)
Rationales	<ol style="list-style-type: none"> 1. The expansion of HEIs 2. To ensure HE quality: research and teaching 3. The 2005 University Act 4. Keeping up with the U.S.A and European countries 	<ol style="list-style-type: none"> 1. Continuing to evaluate student learning and outcome 2. Systematising the QA system 3. Evaluating new programmes: general education; degree programmes 4. Cooperating with the 2011 Institutional Accreditation 5. Keeping up with the U.S.A and European countries 	<ol style="list-style-type: none"> 1. 1996 'The Consultants' Concluding Report on Education Reform' policy paper 2. The 2005 University Law 3. Keeping up with the U.S.A and European countries
Objectives	<p>Teaching and Learning:</p> <ol style="list-style-type: none"> 1. Accrediting HEIs 2. Ensuring the creation of internal quality assurance mechanisms in HEIs 3. Helping HEIs to develop their features and excellence 4. Providing results of evaluations to the MOE for policymaking 	<p>Using the concept of PDCA</p> <ol style="list-style-type: none"> 1. Student learning outcomes 2. Accrediting HEIs 3. Ensuring the creation of internal quality assurance mechanisms in HEIs 4. Helping HEIs to develop their features and excellence 5. Ensuring the quality of degree programmes and meeting the expectations of industry 6. Providing results of evaluations to the MOE for policymaking 	<p>Using the concept of PDCA</p> <ol style="list-style-type: none"> 1. Checking Taiwan's HEIs' ability of competence 2. Examining HEIs' 'middle and long range school development plans' 3. Selecting benchmark HEIs 4. Supervising HEIs which did not perform well. 5. Providing results of evaluations to the MOE for policymaking
Unit of Analysis	<p>One cycle: 5 years, 17 or 18 HEIs were evaluated every year; total 79 HEIs and 1,907 departments.</p> <p>2006: 44 disciplines and 370 departments in 17 HEIs.</p> <p>2007: 46 disciplines and 615 departments in 19 HEIs</p> <p>2008: 47 disciplines and in 17 HEIs</p>	<p>One cycle: 5 years, 17 or 18 HEIs were evaluated every year; total 83 HEIs.</p> <p>2012: 49 disciplines and 17 HEIs</p> <p>2013: 49 disciplines and 14 HEIs</p> <p>(2014 to 2016: continuing)</p>	<p>81 HEIs in one year.</p> <p>The first half of 2011: 40HEIs</p> <p>The second half of 2011: 41 HEIs</p>

	<p>2009: 47 disciplines in 17 HEIs</p> <p>2010: 49 disciplines (two new disciplines of military and police) and in 9 police colleges and universities</p>		
Evaluative domains	<ol style="list-style-type: none"> 1. Idea, goals, and features 2. Curriculum design 3. Faculty capabilities and instructional quality 4. Learning resources and environment 5. Organisation, administration management and self-improvement mechanism 	<ol style="list-style-type: none"> 1. Objectives, core skills and curriculum design 2. Faculty teaching and student learning 3. Student guidance and learning resources 4. Academic and professional achievement 5. Performance of graduates and self-improvement mechanism 	<ol style="list-style-type: none"> 1. Mission and goals 2. Governance and management 3. Teaching and learning resources 4. Accountability and social responsibility 5. Quality assurance mechanisms
On-site visit	2 to 4 days and 4 to 6 external reviewers in one HEI	2 to 4 days and 4 to 6 external reviewers in one HEI	<p>2 days</p> <p>10 to 12 external reviewers for HEIs under 5,000 students</p> <p>14 to 16 external reviewers for HEIs over 5,001 students</p>
Additional special evaluations	None	General evaluation (basic abilities for students, such as Chinese literature, foreign languages, physical education, and service learning)	<p>The results of 1, 2 & 3 were directly used by the MOE to allocate special funding.</p> <ol style="list-style-type: none"> 1. Evaluation of gender balance in higher education 2. Environment and facilities evaluation 3. College and Junior College Physical education Evaluation 4. National University Endowment Fund evaluation 5. Traffic safety education evaluation 6. Digital learning evaluation
Others	None	Claim: performance indicators were for reference. HEIs can decide their own indicators.	In order to reduce paperwork for HEIs, HEEACT provided a table to compare

			performance indicators with: 1. Institutional Accreditation 2. 'The Aim for the Top University Project' 3. 'Programme for Promoting Teaching Excellence of Universities'
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From the table it can be seen that from 2006 HEEACT began Program Accreditations, which is a five-year, programme-based, nation-wide check for all programmes offered by HEIs. The Program Accreditation checked the learning environment in the first-cycle Programme Accreditation (2006-2010), while an emphasis was put on student performance in the second-cycle (2012-2016). The evaluative domains of the first round in 2006 were ideas, goals, and features; curriculum design; faculty capabilities and instructional quality; learning resources and environment; and organisation, administration management and self-improvement mechanisms. In the second-cycle of Program Accreditations (2012-2016) these domains were changed to objectives, core skills and curriculum design; faculty teaching and student learning; student guidance and learning resources; academic and professional achievement; and performance of graduates and self-improvement mechanisms. There were several indicators under each evaluative domain. The performance indicators within each evaluative domain have been flexible for all HEIs since 2013.

The objectives of these two cycle Programme Accreditations were similar to each other. Both of them included: evaluating HEIs, ensuring the creation of internal quality assurance mechanisms in HEIs, helping HEIs to develop their features and excellence and providing results of evaluations to the MOE for policymaking. However, the second-cycle of Programme Accreditation added student-learning outcomes to emphasize the new aims of the second round evaluation, and the concept of PDCA (plan-do-check-act) model was used to complete the processes of Programme Accreditations. The concept of PDCA was also used in the Institutional Accreditation to guide its implementation.

The 'Unit of Analysis' points out that Programme Accreditations were not completed before implementation. HEEACT changed the number of disciplines which were evaluated each year. It is evident that HEEACT revised the processes and principles of Programme Accreditations over time.

The on-site visits of Programme Accreditations lasted for 2 to 4 days with 4 to 6 external reviewers visiting one HEI at a time. As for Institutional Accreditations, the on-site visits lasted for 2 days at a time. In addition, the number of external reviewers was adjusted according to student

numbers: 10 to 12 external reviewers for HEIs with under 5,000 students, and 14 to 16 external reviewers for HEIs with over 5,001 students.

HEEACT also combines specialised evaluations with the Program Accreditation and the Institutional Accreditation. The special evaluations are for: medical education, engineering education, teacher education and general education. Thus some HEIs have to be reviewed for more than one type of evaluation by different types of quality assurance agencies at the same time, such as the Institute of Engineering Education Taiwan (IEET), the Taiwan Medical Association Council, and the Chemical Society in Taiwan. Preparing for evaluations has become burdensome for HEIs.

However, HEIs have faced several problems in the implementation of the QA system. In the following section, these problems are discussed.

4. Issues

Scholars in Taiwan have criticised the QA system for causing many problems in higher education (Chou, 2011; Tang, 2011). According to Reflections on the Evaluation System of Humanities and Social Sciences in the Academia in Taiwan (RESHSSAT, 2004), there are three main issues with the implementation of the QA system. However, I found that some issues were directly caused by the HEEACT, while others were indirectly generated by the responses of universities to the QA system.

The first issue I identified is that it is difficult to measure the outcomes of the QA system (RESHSSAT, 2004). In order to reduce the cost and pressure on universities, several different evaluations are combined together by HEEACT, including evaluations of teaching and research. As discussed in Chapter Two it is hard to separate the distinct cause-effect of the quality assurance schemes and evaluate whether the outcomes respond to the aims of the QA system or not.

The second issue cited is that some unqualified external reviewers were used by HEEACT (RESHSSAT, 2004). The HEEACT has adopted a peer review system in the QA system. The external reviewers are categorised by HEEACT into two groups, one consisting of professionals from academic disciplines and the other made up of third-party professionals, mainly drawn from administrators in companies or the civil service. According to the reports of the appeals committee, inappropriate behaviours or judgements of external reviewers are one of the frequent complaints by HEIs (Wu *et al*, 2012).

The third issue is the problems associated with the criteria of the evaluations. Participants at the conference on 'Reflections on the Evaluation System of Humanities and Social Sciences in Academia in Taiwan' drew attention to the fact that the process of satisfying the criteria of the

evaluations has influenced the development of academic disciplines and universities. Before 2006, the experimental QA system used the SSCI and SCI to measure research output in universities and this served as a performance indicator for ranking universities. The rationale for using the SSCI and SCI is that it was believed that being published in international peer reviewed journals in prestigious publications (with an emphasis on both quality and quantity of publications) would be a fair metric by which to compare HEIs. HEIs confronted huge pressure to meet these performance indicators.

After many years of criticism, in 2006 the HEEACT cancelled the research-oriented performance indicators, specifically the use of the SSCI and SCI, and revised the criteria for the Program Accreditation and the Institutional Accreditation. These had been criticized because academics were under pressure from the research-oriented performance indicators, especially front-line academics who have to struggle for promotion and are responsible for the overwhelming amount of paperwork connected with the evaluations. In general, academics have already accepted a shift to an emphasis on research and use these performance indicators as indicators of personal promotion and appraisal. For example, faculty promotion, reappointments, tenure, dismissals, discontinuance and rewards within HEIs also adopted the research-oriented performance indicators because HEIs are eager to compete for funding and good reputations. Furthermore, the HEEACT analysed and released its 2008 worldwide university performance ranking (HEEACT, 2012) by using the SSCI and SCI as criteria.

The participants at the abovementioned conference also argued that linking the level of funding allocated to HEIs to the outcomes of evaluations is inappropriate. The government has used the results from the QA system as a criterion to distribute higher education expenditure and also to merge and close HEIs. In accordance with the University Act in 2005, the government has devolved responsibility and power to individual HEIs, including autonomy for financing. The government started a new funding programme from 1996 which allows HEIs more autonomy in allocating their resources. Under this programme, public universities are required to find 50% of their annual expenditure themselves. Moreover, the government portion of their funding is linked to the results of the evaluations. As stipulated by the 2005 University Act HEIs which fail accreditation have to reduce their tuition fees, cut back enrolments and also receive less funding from the government. Therefore, in order to achieve the desired outcome and obtain sufficient funding, universities have prepared for the evaluation to maximize financial rewards and avoid punishment.

All public universities currently seek external funding resources, by means of fund-raising and by cooperating with industry. One way to get abundant funding is from a scheme called 'competitive projects', introduced by the government. One of the criteria for applying for the

competitive projects is the results of the Programme Accreditations and the Institutional Accreditations. The abundant rewards available attract universities to join the quality assurance system and meet the criteria of those evaluations. For example, in response to the quest for creating universities of world-class status, the government launched the 'Programme for Developing First-Class University and Top Research Centre' in 2005. The programme aimed to see at least one university ranked as one of the world's top 100 universities within five years. A NT\$50 billion budget was allocated for this programme. Universities competed for the programme not only for the generous funding on offer but also for the reputation of being a 'Research University' and the 'Top University' in Taiwan. The aim of this 'five-year-fifty-billion' program is to create 'world-class universities' in Taiwan.

This intensive competition has widened the financial gap between universities (Liu, 2013). However, although there has been criticism (e.g. from the 'Reflections on the Evaluation System of Humanities and Social Sciences in the Academia in Taiwan') about connecting the results of evaluation to funding allocations, it is one of the most efficient ways for states to influence higher education. Furthermore, the combination of the QA system and funding allocation has generated other issues as well. The MOE also uses the results of the QA system as one criterion to close and merge HEIs. In order to ensure the quality of higher education and the performance of graduates, the government has set minimum standards which HEIs must meet, and one of those standards is whether the HEI passes the evaluations. Linking the QA system to the Exit Mechanism has been controversial. Some critical voices argue that the aim of the QA system is not just for accountability but to encourage improvement, and combining two different policy instruments makes the HEEACT a tool of the government (RESHSSAT, 2004).

These discussions above highlight the second and third features of the QA system in Taiwan: the fact that QA results are used to determine resource allocation in the higher education system; and have also been used by the government to merge and close HEIs. These two features will be further explored in Chapters Five and Six.

5. 2012 new policy

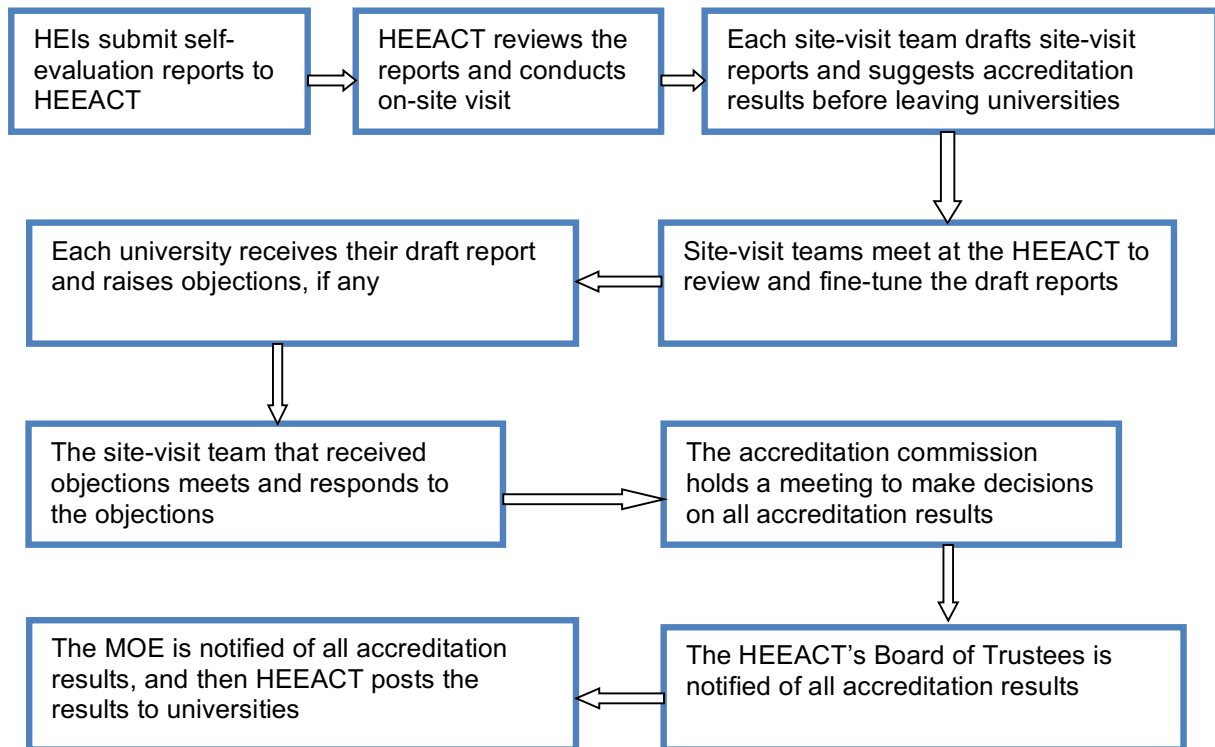
In order to respond to the issues mentioned above, such as inappropriate performance indicators according to the perceptions of some academics, problems with external reviewers, the overwhelming amount of paperwork required and the resistance among academics to using SCI/SSCI journals as criteria for evaluations, a new QA policy of 'self-conducted external evaluation' (Lee *at al*, 2013) was launched by the MOE in 2012. That new policy is now running in parallel to the system launched in 2005. Prior to 2012 all HEIs had to be evaluated by HEEACT, which is a third party body, independent from the MOE and HEIs. However, in 2012,

the MOE chose 34 HEIs to participate in 'self-conducted external evaluations'; all of them had passed and performed well on all previous HEEACT evaluations. 18 of the 34 were public universities, and the other 16 were private. All of them enjoyed a good reputation and status in Taiwan. While the 34 HEIs conducted 'self-conducted external evaluations', other HEIs were still subject to Institutional Accreditations and Programme Accreditations conducted by HEEACT. This study explores the impact of the QA system on HEIs before 2012.

The 'self-conducted external evaluation' introduced for some Universities from 2012 was a major change to the QA system and for HEEACT. Tables 4.4 and 4.5 explain the differences between the processes of HEEACT evaluations, Programme Accreditations and Institutional Accreditations, and the 'self-conducted external evaluation' from 2012, with a look at the current QA system first.

Table 4.4 shows the review procedure of Institutional Accreditation and Programme Accreditation that was set up in 2006 and has been running since then. First, HEIs have to submit self-evaluation reports to HEEACT, and then HEEACT reviews the reports and conducts on-site visits in HEIs. HEIs could raise objections after receiving the drafts of the on-site visit reports. Finally HEEACT holds a meeting to decide the results of the evaluations, then notifies the MOE and HEIs and then publishes the results.

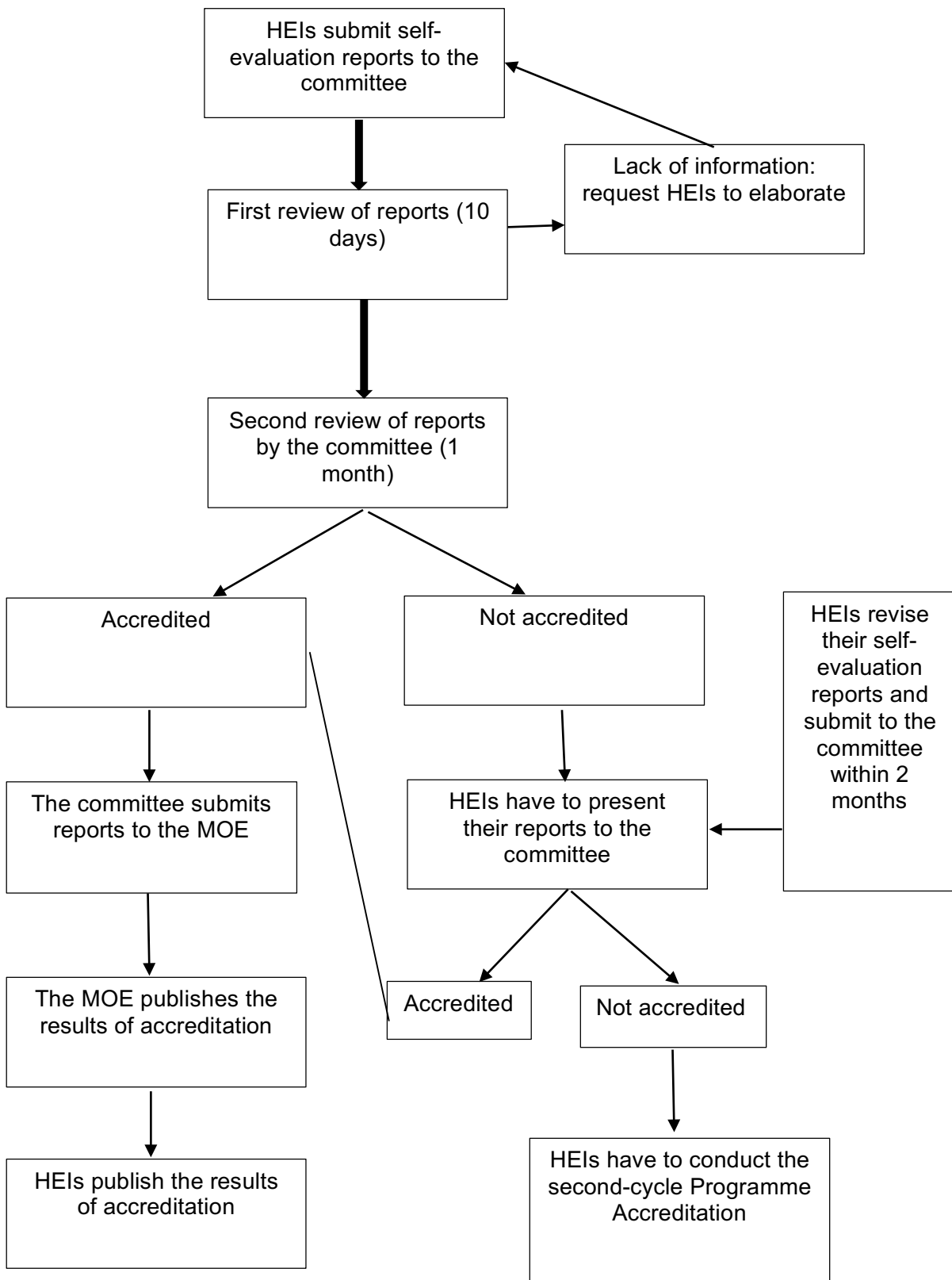
Table 4.4 The review procedure of Institutional Accreditation and Programme Accreditation (Lee *at al*, 2013)



These 34 HEIs do not have to be evaluated by HEEACT for the second-cycle Programme Accreditation (2013-2016), though these 34 HEIs will still have to conduct the second-cycle Institutional Accreditation and other special evaluations in the future (Interviewee M, expert in QA).

The implementation process of the 'self-conducted external evaluation' is described in Table 4.5. In this process, these 34 HEIs can select external reviewers according to their needs. After conducting the self-evaluations, the 34 HEIs have to submit their reports to a committee set up by the MOE that is responsible for accrediting these HEIs. Committee members include policymakers from the MOE, experts and academics, but nobody from HEEACT. This committee reviews the reports, decides the results of the 'self-conducted external evaluations' and reports the results to the MOE. HEIs which pass 'self-conducted external evaluation' are 'accredited' by the MOE. Those HEIs which do not pass should revise their self-evaluation reports and submit them to the committee again. If they cannot pass again, then they have to return to evaluations undertaken by HEEACT.

Table 4.5 The 'self-conducted external evaluation' (Lee *et al*, 2013)



The MOE believes this new policy will eliminate HEIs' resistance to HEEACT evaluations (Interviewee A, a current policymaker in the MOE). Interviewee U explained the reason why the MOE introduced the new QA policy:

'The MOE knew of the critical voices from HEIs. In addition, many HEIs complained that they were tired of preparing for different kinds of evaluations. Thus we (the MOE) decided to promote the new policy.' (Interviewee U, former leading policymaker for the QA system)

Interviewee U also argued that the new QA policy is a good strategy for the development of HEIs:

'The 'self-evaluation and external reviewer' is only a change regarding the procedures of evaluation [...] I thought that HEIs could better develop when they can decide their own performance indicators.' (Interviewee U, former leading policymaker for the QA system)

Interviewees A and U pointed out the attitude of the MOE to the new QA policy. HEEACT in its original design has always been regarded by the MOE not as an independent QA agency, but as a tool of the MOE, one that could be dispensed with if necessary. The MOE's attitude manifests itself in the implementation process of the 'self-conducted external evaluation', in which the MOE has effectively taken back the power to accredit these 34 HEIs.

Although the MOE announced that the 34 HEIs could decide their own performance indicators, most of them kept using the performance indicators from the HEEACT evaluations. Interviewee M pointed out that these 34 HEIs worried that, one day, they might have to submit to being evaluated by HEEACT again. Other interviewee supported this view:

'The MOE's policies were unstable, especially higher education evaluation policies.' (Interviewee P, former executive director of HEEACT)

Interviewee A, a policymaker at the MOE, also admitted that the 'self-conducted external evaluation' was implemented in a rush and is not complete. The 'self-conducted external evaluation' may eventually be ended and responsibility for evaluations taken back by HEEACT.

As illustrated above, both policymakers and experts from HEEACT thought that the new QA policy introduced in 2012 was a response to criticisms of the then existing QA exercise from academics and HEIs. However, differences in their attitudes towards the new QA policy can be discerned. On the one hand, policymakers regarded the new QA policy as an effective way to deal with the existing criticisms from HEIs; on the other hand experts from HEEACT were worried that HEEACT might lose its power over the national QA system and its influence over higher education.

Academics, on the other hand, hold different opinions of the new QA policy; there were a variety of responses towards the new policy across the four case universities. Most interviewees had a positive attitude towards the new policy, agreeing that it could give

universities more freedom to weigh the adequacy of the performance indicators and select their own external reviewers. Interviewee D pointed out that the new policy gave the university space to decide its own performance indicators:

'In fact, I thought that the spirit and procedures of the new policy and the HEEACT evaluations were similar. The only difference between them was the performance indicators. HEEACT provided specific performance indicators for all HEIs, but one performance indicator should not apply to all disciplines and HEIs. For example, there were departments focusing on different disciplines in University Y, such as fine art, Chinese literature and physical education'. It is difficult for these departments to pursue the same performance indicators. [...] So I thought that the new policy would let HEIs enjoy more freedom to decide their own performance indicators. It would benefit the development of the university's unique features. (Interviewee D, a senior academic with a managerial role in University Y)

Some academics thought that the new policy could help to solve the negative influence of what they saw as inappropriate performance indicators from HEEACT on universities. For example:

'I knew that some universities had always conducted self-evaluations without HEEACT's supervision, such as National Sun Yat-Sen University and NCCU Graduate Institute of Technology, Innovation and Intellectual Property Management. I thought the new policy would give universities more scope and allow for diversity without the interventions of HEEACT.' (Interviewee S, a junior academic with a managerial role in University B)

One interviewee from University X, a private university with a good reputation, also suggested:

'For the administration in University X, the preparation process for the new policy was similar to that for HEEACT evaluations. In my opinion, I was glad that we didn't need to follow all HEEACT regulations and performance indicators because they were rubbish to us.' (Interviewee L, senior administrator in University X)

In addition some interviewees pointed out that their universities could benefit if they could decide their own performance indicators and external reviewers. For example:

'In order to prepare for the new policy, my department established several committees to discuss what performance indicators could benefit us, such as how to promote the features of the department. But we still followed most of the performance indicators from HEEACT because they were reasonable and practical. [...] it was also a good thing that we could choose external reviewers according to the new policy thereby allowing us to avoid inappropriate external reviewers from HEEACT. I thought this could really help us to examine the performance of our department.' (Interviewee J, senior academic in University X)

The president of University X was also satisfied about the new regulations brought in under the new QA policy, especially the freedom to choose external reviewers:

'I thought that the new policy was similar to HEEACT evaluations. The only difference for the university was that we gained the freedom to invite external reviewers. Sometimes the external reviewers from HEEACT were not suitable. In addition, I thought that the HEEACT evaluations were used by the government as a tool to penalise us.

Universities tried to present only their good aspects. Once universities had the freedom to choose their own performance indicators and external reviewers, they would not be afraid of evaluations and achieve self-improvement.’ (Interviewee O, president of University X)

One interviewee from University X suggested that the top universities could benefit from the new policy.

‘I thought that HEEACT evaluations had positive influences on universities which had lower rankings. HEEACT evaluations could ensure students’ rights and guarantee the quality of instruction in those universities. However, I thought that HEEACT evaluations had a relatively negative impact on the top universities. For example, my university performed consistently well, however, we were not good at writing reports and consequently we received poor evaluations from HEEACT which had affected our reputation and chances of winning government awards. I felt that the most negative influence of the HEEACT evaluations on the top universities was that they curtailed diversity because all universities had to meet the same performance indicators. [...] So in my opinion, the new policy may have a positive influence if universities can choose their own performance indicators.’ (Interviewee N, senior academic in University X)

Another interviewee also supported this view:

‘I thought that the MOE should give top universities more freedom. The new policy also focused on self-evaluation. But top universities already had their own processes of self-evaluation. The MOE was wasting time and money doing the same thing. [...] However, for private universities, I thought the new policy was necessary. Self-evaluation was the basic quality check for universities.’ (Interviewee I, a senior academic with a managerial role in University Y)

For University A, which is a highly ranked public university, academics also held a positive attitude towards the new policy. Interviewee G pointed out that the new policy was a good development in QA, and University A had confidence in how to respond to HEEACT evaluations and any new QA policies (Interviewee G, a senior academic with managerial role in University A). The president of University A also supported this statement:

‘For the university, the new policy was similar to HEEACT evaluations. We already had a well-designed self-evaluation system before the establishment of HEEACT.’ (Interviewee E, president in University A)

However, there were some different views about the value of the new policy:

‘Nevertheless, I thought it would eat up too many resources if University B tried to go it alone without HEEACT’s guidance. Currently University B conducts HEEACT evaluations. I thought it was a good strategy for the university to cooperate with HEEACT.’ (Interviewee S, a junior academic with managerial role in University B)

‘I thought that the reason why the government introduced the new policy was due to the amount of negative criticism about HEEACT evaluations. The government tried to do something. [...] However, I do not think that the new policy can solve this problem. The government didn’t truly respond to the needs of universities.’ (Interviewee O, president of University X)

In order to respond to the challenge to its authority posed by ‘self-conducted external evaluations’, HEEACT published a report to stake its future position as a third party QA agency

(Lee *at al*, 2013). HEEACT stressed the necessity of simultaneously conducting Programme Accreditations and Institutional Accreditations for all HEIs but it is also stressed that it is keen to support the 'self-conducted external evaluation' designed by the MOE. To do this, HEEACT intends to provide external reviewer training programmes for the MOE to conduct the 'self-conducted external evaluation', offering suggestions and consultants for these 34 HEIs, and become a QA agency which can accredit other QA agencies in Taiwan while gaining recognition from international QA authorities (Interviewee P, former executive director of HEEACT; Lee *at al*, 2013). Further responses of the universities and HEEACT will be discussed in Chapter Five.

6. Summary

In this chapter, I have identified four stages in the development of the QA system, and four distinctive features of the system: (a) it evaluates both teaching and research within one single assessment exercise; (b) its results are used to determine resource allocation of the higher education system; (c) it has been used to merge and close the HEIs by the government; and (d) some of the terminology used is ambiguous. These features will be further discussed in Chapters Five, Six and Seven.

Taiwan's QA system has seen a clear shift over its existence. Corresponding to the development of quality assurance systems internationally, the development of the system in Taiwan is divided into four stages, namely, direct control by the government from 1975 to 1990, deregulation and public participation from 1991 to 1994, the development of self-evaluation from 1995 to 2004, and the establishment of an independent national agency, the Higher Education Evaluation & Accreditation Council of Taiwan (HEEACT), from 2005 to 2012. This study explores the impact of the QA system on HEIs before a new QA policy was launched in 2012.

Taiwan's QA system began in 1975; however, it did not become a key feature of the HE landscape until the 1980s. HEEACT was not established until the 'University Act' of 2005. Forces outside of higher education institutions, namely, the government, pressed for the introduction of the QA system. These forces, which were then manipulated by the government to exert pressure on universities, included marketisation, decentralization, cuts in funding levels, calls for new management of education both from voices within the public and private sectors, and a desire to increase the international competitiveness of Taiwan's universities.

Regarding the implementation of the QA system, three main issues, which were directly or indirectly caused by the system itself, were identified by participants who took part in a national conference 'Reflections on the Evaluation System of Humanities and Social Sciences in the Academia in Taiwan' in 2004. The first issue has been the difficulty of measuring the outcomes

of the QA system. It is hard to distinguish between the causes and effects of the QA exercise and evaluate whether the outcomes respond to the aims of the QA exercise or not. The second issue has been the use of some unqualified external reviewers by HEEACT. The third issue concerns the use made of the evaluation, specifically, problems associated with the criteria of the evaluations. First, the process of satisfying the criteria of the evaluations has affected universities, albeit very differently, regarding faculty promotions, reappointments, tenure, dismissals, discontinuance and rewards. Some academics argued that the government can use these criteria to influence the development of academic disciplines within universities and the way universities themselves develop according to the government's own wishes. For example, some academics criticised that fact that the diversity of research has been reduced because HEEACT only used the SSCI and SCI as performance indicators to measure the research output of academics. Other ideas and publications which were not in the SSCI and SCI journals became unimportant to academics and universities, because these non-SSCI and SCI publications cannot contribute to personal appraisal and pass evaluations. Second, the government also used the results from the QA system as a criterion to distribute higher education expenditure. Most academics argued that since the original aim of the QA system was to improve HEIs, it is wrong of the government to use the results of the both Programme Accreditations and Institutional Accreditations to allocate funding.

At the end of 2012, the MOE announced a new QA policy, which has a great influence on the legal position of HEEACT. The new policy allows 34 HEIs selected by the MOE to evaluate themselves. The MOE believes that the new policy can satisfy universities and be a solution to the criticisms and issues raised regarding the QA system.

Chapter Five: The State, HEEACT and the Four Case Universities

The aim of Chapter Five is to answer RQ2: How do university staff in the four universities, each with different features, prepare for and perceive the impact of the QA system undertaken by HEEACT? As discussed in the literature review, it is difficult to analyse ‘impact’. Scholars have suggested that, instead of analysing ‘impact’ directly, a more realistic view of the impact and outcomes of QA systems would be to analyse how quality assurance is embedded in and interacts with the system of higher education to which it is connected. This would require analysing changes in things such as organisational learning, institutional behaviour, and interactions relating to individual and institutions (Henkel, 2000; Kogan et al., 2000; Newton, 2002; Stensaker, 2008). So my method in this thesis, is to analyse what ‘changes’ have taken place in order to find out what the ‘impact’ of the QA system has been.

In this chapter, I look at the impact of the quality assurance (QA) system on higher education institutions (HEIs) at the system level. I argue that the QA system has impacted on the parameters of higher education, and it has also impacted on the governance of HEIs in the ways that senior academics in administrative positions responded to the QA system. In order to examine this argument, first, I will explore the changing relationships between higher education, the government and HEEACT by analysing the interview data of the key policymakers of the QA system and HEEACT staff, as well as staff at the four universities in the study. Second, I will analyse the effects of the QA system on university governance. In the following sections, I will present the data in each of these areas, and show how these differ from university to university, and identify the factors that account for the differences.

In Chapter Six I will look at the influence of the QA system by examining what took place within the four case universities and then examine its impact on individual academic staff in Chapter Seven.

1. The changing relationships between the MOE, HEEACT and universities

There was a change in the relationship between the MOE and universities after the setting up of HEEACT. I will start by looking at the reasons why the MOE set up structures to improve its supervision and control of universities, and the measures they put in place for this. I will then look at the nature of the change in the relationship between the MOE, HEEACT and universities.

(a) The reason for the MOE’s need to change its relationship with universities

As was seen in Chapter Four, the MOE’s relationship with universities had started changing in the 1970s, prior to HEEACT. In this, the MOE had been driven by considerations of

university accountability and the need for universities to respond to globalisation. After HEEACT was set up, the considerations changed to include competitiveness in international university rankings, the wish of the MOE to differentiate between research-led and teaching-led universities, and the need to reduce the large number of universities in Taiwan.

The MOE's concerns: funding and standards, and globalisation and internationalisation

In the 1970s, the MOE sought a way to ensure the accountability of universities and it was out of this that the idea of establishing the QA system emerged. The 1970s was also a period of unqualified academics, shortages of teachers and research facilities, and inadequacies in the curriculum. To address these problems, the MOE implemented an experimental QA system for universities. Although policymakers and academics supported the QA system, they did so for different reasons. However, there was one reason on which they agreed: this was that the QA system was an inevitable international trend, and Taiwan had to keep up with the trend. The MOE initially sought inspiration from the accreditation system in the US, and sent groups of academics to the US to learn more about this in 1983. A former leading policymaker for the QA system explained:

‘The MOE’s claim was that the QA system was necessary because of increasing competitiveness on globalisation and internationalisation. However, this might merely have been an excuse. The real reason was that the MOE was experiencing a shortage of funds, and wanted to make HEIs responsible for securing their own sources of funding, as well as maintaining the quality of their provision. The number of HEIs had increased rapidly in the previous two decades. However, the budget of the MOE was limited. The MOE could not afford to distribute enough funds to each HEI. Yet the MOE wanted to require HEIs to maintain a high quality of research and teaching. For these reasons, the MOE implemented the QA system.’ (Interviewee U, former leading policymaker for the QA system)

Hence, according to interviewee U, one of the real reasons for the introduction of the QA system was the need to reduce expenditure on universities while requiring them to maintain quality of provision. The need for increased competitiveness to cope with globalisation and internationalisation was an excuse for the introduction of the QA system. However, the excuse became embedded as the actual aims of the QA system. The interviews also revealed that globalisation and internationalisation were included as the aims of HEEACT when this was subsequently set up. As Interviewee U, the leading policymaker for the QA system, explained:

‘Actually, the context at that time (also) influenced our decision. All Western and Eastern countries were talking about accountability. Thus in order to keep pace with this international trend, the idea of setting up a QA system (to promote this) emerged. Of course, ensuring the quality of higher education was the main consideration.’ (Interviewee U, former leading policymaker for the QA system).

Interviewee A, who is a current policymaker, elaborated on why a QA system was needed to connect Taiwan universities to international standards:

‘The QA system is useful for the Taiwan government’s diplomacy. [...] Once HEEACT (representing the MOE) was granted international status by academies in other countries, the reputation of Taiwan’s academics would be improved.’ (Interviewee A, a current policymaker in the MOE)

In other words, the QA system was a diplomatic measure intended to improve the standing of Taiwan academics and universities through HEEACT’s acceptance by similar organisations worldwide. It was intended in part to enable HEEACT:

‘(t)o participate in international professional quality assurance organizations’ networks to enhance Taiwan’s visibility in the global context of evaluation.’ (HEEACT official website, 2012)

Among other things, HEEACT became a member of the Asia Pacific Quality Network (APQN) in 2013, and complied with its requirements, and created frameworks and standards comparable to those for HEIs in APQN member countries. It even co-operated with the APQN to publish a report, *Higher Education Evaluation and Development (HEED)* (HEEACT, 2012). This was viewed within Taiwan as an indicator of HEEACT’s and, by extension Taiwan’s HEI’s, acceptance by equivalent bodies in the region. It is necessary to understand the geopolitics of the Taiwan Straits to understand the significance of this to Taiwan. Currently, the People’s Republic of China claims Taiwan to be a renegade province, and Taiwan has almost no recognised status on the world stage. For any of Taiwan’s institutions to receive recognition by international bodies means a great deal to the Taiwanese authorities. There was also an economic consideration; the authorities hoped that Taiwan’s HEIs would be able to compete equally with other Asian countries for international students and resources.

In summary, the MOE had its own reasons for introducing the QA system: funding shortages meant that it wanted HEIs to be responsible for securing some of their funding, and also for ensuring the quality of their provision. At the same time, the MOE was also concerned with enhancing the accountability of Taiwan’s HEIs, and the QA system was intended to contribute to this. Indeed, policymakers, such as Interviewees U and A, supported the QA system and considered it an efficient solution to the problems in higher education. For them, the QA system functioned not only to improve the quality of higher education, and compete internationally for students and resources, but also as a diplomatic measure to enhance the visibility of Taiwan’s HEIs.

How the QA system has been used to classify universities

During the period of the experimental QA system in 1980s, the birth rate in Taiwan declined and has remained low since. This meant an oversupply of university places and HEIs (see Chapter 3). To address these concerns, the government determined that there was a need to close universities that did not meet standards. It was stated in the HEEACT website during this time that:

‘Even as the number of higher education institutions has increased at a speedy rate, the number of incoming students is decreasing drastically, due to the dropping birth rate. This phenomenon has led to an escalating admission rate year after year. People began to be concerned about the quality assurance (QA) as well as quality enhancement (QE) of higher education, and there was an urgent need for the establishment of an impartial and objective QA mechanism.’ (HEEACT official website, 2012)

In this regard, the combination of the increase in HEIs and the low birth rate meant that standards were lowered to admit less qualified, even unqualified, students. This caused public concern about the quality of provision in HEIs. As Interviewee P put it:

‘I thought that the establishment of HEEACT was due to (a combination of) the expansion of HEIs, low birth rate and the influence of the media. At that time, one student scored only 18 points in the College Entrance Examination but gained entry to a private university. This was why the media criticised the quality of higher education.’ (Interviewee P, former executive director of HEEACT)

Students sit for five subjects in the College Entrance Examination. Each subject is worth a possible 100 points, and the total possible score is 500. To qualify for the top universities, students need to score 300 points; for private universities, they need to score around 200 points. Therefore, 18 points was an abysmally low score to gain entry to a university. According to Interviewee P, this particular student was just one among hundreds of similar cases. There was therefore reason to be very concerned, not only about entry standards, but also the kind of provision necessary to cater to these very low achieving students.

Notwithstanding the serious issues with standards, the MOE had plans for the development of higher education. In 2003, it selected the presidents from a number of universities to form a committee, the Council on Macro-planning for Higher Education. The Council was responsible for making recommendations for the development of higher education and improving global competitiveness. The report of ‘the Council on Macro-planning for Higher Education’ in 2003 by the Council indicated that there were two main problems in Taiwan’s higher education. First, the number of HEIs had increased rapidly in 1980s due to the massification of higher education. Second, there was a lack of accountability of HEIs in a knowledge society. The Council argued that the two factors had contributed to a shortage in resources and a decline in the quality of universities. Following the report, the government

devised an Exit Mechanism ,effective from 2003, to close universities which did not pass evaluations. The Council also recommended to the MOE that it should begin classifying universities, and make universities compete for project funding; in order to use resources more efficiently. As Interviewee A put it:

‘The idea of classifying universities was presented in the report of ‘the Council on Macro-planning for Higher Education’ in 2003. The report provided many proposals for this. For example, ‘The Aim for the Top University Project’ and the ‘Programme for Promoting Teaching Excellence of Universities’ were suggested in the report. In fact, these proposals were designed as competitive projects for which universities could compete for funding. We (the MOE) thought these competitive projects could lead to (i.e. help with) the classification of universities.’ (Interviewee A, a current policymaker in the MOE)

As Chapter Four indicates, the performance indicators for competitive projects were included in the QA system. In preparing for the QA process, HEIs would now compete for projects, and follow instructions for these. In other words, by participating in the QA system, they had no choice but to participate in the classifying of universities. As an MOE policymaker put it:

‘Today, we (the MOE) use the QA system to help classify universities. I found that universities changed their plans and curriculum to prepare for HEEACT evaluations.’ (Interviewee A, a current policymaker in the MOE)

The QA system, which was established following the recommendations of the Council on Macro-planning for Higher Education, has now been in place for more than a decade. Over the years, the MOE has gradually achieved its aim of closing some institutions and classifying the rest of the universities in Taiwan. In 2014, three private colleges were closed by the MOE. The impact of this, and of the Exit Mechanism that was also set up, will be discussed in the third section of this chapter and also in Chapter Seven.

(b) HEEACT and the QA system: the MOE’s tools for supervision and control of universities

As was described in the last section, the MOE believed that HEEACT and the QA system could improve the quality of higher education, and guide its development. Many interviewees regarded HEEACT as a new tool to control HEIs that would ensure the HEIs took the QA system seriously. It was also noted in the last section that there were complex reasons for the MOE’s wish to introduce a QA system in Taiwan. These reasons were mainly to do with needing to decrease funding to universities while still maintaining standards of provision. However, the reasons that were officially given were to do with globalisation and internationalisation, and these made their way into the aims of HEEACT and the QA system. In this section, I will look at how HEEACT and the QA system and, through this, university funding, have been used by the MOE to supervise and control universities.

HEEACT

The MOE claims that HEEACT is an independent and neutral agency. However, the introduction of HEEACT was not at all straightforward, but went through a series of political negotiations and academic debates. In this section, I will draw on the interview data to examine the process of the introduction of HEEACT and indicate a change in the relationship between the MOE and HEEACT.

It was earlier seen in Section One that the MOE strongly believed that setting up and legislating for the QA system was necessary for the continued implementation of QA. The QA policies that were devised went through a consultative process between the MOE and academics (one of whom was Interviewee Q, a senior academic at Academic Sinica). These academics were mostly scholars from Academic Sinica – an institution that is regarded as Taiwan's national academy - and presidents of public universities. The involvement of Academic Sinica and university management executives in higher education policymaking is a common phenomenon in Taiwan. Whenever there is an issue in higher education, the practice of the MOE is to set up a committee and invite scholars to provide recommendations. However, the list of scholars that contribute in these committees, and to the MOE policy making process, are decided by the MOE and, most of the time, the MOE invites scholars who are likely to agree with its policies (Chou, 2011). At the same time, presidents of HEIs are proposed by academics at the HEIs, but appointed by the MOE. This strategy of inviting MOE-appointed HEI presidents on committees makes it that much easier for the MOE to obtain support for its pre-determined higher education policies.

The MOE has also strategically used the resistance of HEIs to the initial experimental QA system as one of the justifications to promote the necessity of a quality assurance infrastructure, specifically, HEEACT and the current QA system. In the experimental stage of the QA system from 1975 to 1990 which involved 'direct control by the government', few HEIs voluntarily participated in it. They saw this system as being an implicit criticism of their standards and practices and were, for that reason, reluctant to take part in it. When this voluntary approach did not work, the MOE used the HEIs' resistance as the rationale for legislating a QA system that included all HEIs. Interviewee P, who was involved in the decision to set up HEEACT and the formal QA system, explained:

'HEIs showed resistance in the beginning. It was for this reason that the MOE legislated for higher education institutions to be evaluated.' (Interviewee P, former executive director of HEEACT)

The interviewees' accounts also cast light on the creation of HEEACT, and how this was underpinned by three different rationales. The first rationale concerned the notion of 'guanxi'

(relationship), and the way this might influence the result of evaluations. As mentioned in Chapter Four, the HEIs thought that the experimental QA system conducted by the MOE was unfair. They complained that HEIs which had good guanxi with the MOE were ranked higher and received more funding than others. To eliminate or reduce the effect of guanxi, the HEIs proposed that any QA exercise should be implemented by a neutral QA agency instead of the MOE. Thus in 1991, the MOE formed a committee entitled 'Mid-term Plan for the Affairs and Development of Colleges and Universities', and laid plans to establish HEEACT.

Second, global models were referenced by universities as the justification for making HEEACT independent from the MOE (Chou, 2011). Interviewee P explained how the government responded to the proposal by HEIs of creating a neutral QA agency, and how it was encouraged by references to practice used in the West to regard this as being the best approach.

'The concept of quality assurance changed during its developmental stages. Before 2005, the MOE led the development of the QA system. However, in Western countries, the QA systems were conducted by third parties in order (for quality assurance efforts) to be objective. Thus the 2005 University Act supported the idea of establishing a national QA agency.' (Interviewee P, former executive director of HEEACT)

Third, the policymakers and experts believed that an independent QA agency could ensure accountability of HEIs and academic freedom.

'I thought that universities should keep a balance between accountability and academic freedom. HEEACT can help with this. [...] HEIs use public goods from the government. Of course HEIs should improve their quality and be accountable.' (Interviewee P, former executive director of HEEACT)

Although interviewee P thought that the establishment of HEEACT would not harm academic freedom, it is difficult to deny that academic freedom is not affected; this is because the MOE has increased its control over HEIs through the QA system. Academics in the four universities argued that the QA system has had an impact on academic freedom by allocating funding for HEIs based on the results of evaluations. Interviewee O provided an insight into this:

'The MOE used funding to guide the development of universities. Each university was forced by the MOE to choose between being a research-led or teaching-led university. Why can a university not both do research and teaching?' (Interviewee O, President of University X)

Interviewee O further argued that the diversity of universities was eliminated by the MOE and the QA system:

'I thought each university had its own aim and developmental process. (However), (t)he MOE uses the QA system to guide the development of higher education. In this way Taiwan's universities will become the 'MOE's universities'.' (Interviewee O, President of University X)

In addition, the president of University A also supported this argument:

‘(T)he QA system interferes with the diversity of universities. Universities are becoming similar to each other because they have to meet the standards of the QA system. We (universities) cannot decide our own developmental directions and features. In the end, the QA system has influenced the development of higher education.’ (Interviewee E, president of University A)

Despite claims to the contrary, therefore, at least some HEIs do see their academic freedom being compromised by the QA system. The development and features of HEIs have been affected by the QA system. For them, HEEACT is not a neutral and independent QA agency as claimed, but a new way for the MOE to control HEIs, and interfere with their functioning and development.

Funding

As Chapter Four shows, there are two new policies to regulate funding allocations in higher education since the 1990s, the ‘National University Fund System Act’ and the ‘MOE’s Funding Program for Private Universities and Colleges’. The MOE noticed that universities were reluctant to join the experimental QA system so in order to include all universities in the future QA system, the MOE decided to use funding and the threat of the Exit Mechanism as a form of carrot and stick to corral all universities into implementing its policies.

The interviewees who were policymakers explained how the MOE linked funding allocations to the QA system. Interviewee U indicated that first the MOE linked the ‘MOE’s Funding Program for Private Universities and Colleges’ to the experimental QA system in 1990. After implementing this funding programme, all private universities joined the experimental QA system as the MOE had expected. The MOE then launched a new funding system for public universities in 1999.

‘After the MOE began promoting the ‘MOE’s Funding Program for Private Universities and Colleges’ to private universities in 1990, the MOE launched its ‘Middle and Long Range School Development Plan’ and ‘National University Fund System Act’ in 1999 for public universities. It was the first time the MOE linked funding allocations to evaluations.’ (Interviewee U, former leading policymaker for the QA system)

However, the reason why the MOE implemented these funding policies was not only to tie-up with the QA system but more importantly, a shortage of funding. Interviewee U further explained:

‘Government finances were limited and the MOE could not afford the expansion of HEIs. So the MOE implemented the ‘Middle and Long Range School Development Plan’ and ‘National University Fund System Act’ in 1999. The MOE thought that these plans could also ensure the quality of public universities. [...] These strategies were not only effective for the government to cope with the insufficient funding for universities, but also

contributed to the establishment of the formal QA system.’ (Interviewee U, former leading policymaker for the QA system)

From interview data, it is evident that the shortage of funding for higher education was the hidden rationale for the government to implement the QA system and link funding allocations to the system.

(c) Impacts

The previous sections provide an interesting view of how the QA system is used as a policy tool for the MOE. However, the way the MOE used the QA system also contributed to uncertainty around the QA policies, which has influenced the design and the terminology of the QA system.

Impact of the constant changes in the design of the QA system

Academic staff in the four case universities complained that the main problem with the QA system is its design. Since 2006, HEEACT has implemented two evaluations, Programme Accreditation and Institutional Accreditation. The cycle of each evaluation was based on different rationales and focused on different objectives. As illustrated in Table 4.3 in Chapter Four, the QA cycles are analysed in terms of their rationales, objectives, units of analysis, performance indicators, on-site visits, additional special evaluations, and special strategies.

Table 4.3 The components of HEEACT evaluations

	1st cycle of Programme Accreditation (2006 to 2010)	2nd cycle of Programme Accreditation (2012 to 2016)	1st cycle of Institutional Accreditation (2011)
Rationales	1. The expansion of HEIs 2. To ensure HE quality: research and teaching 3. The 2005 University Act 4. Keeping up with the U.S.A and European countries	1. Continuing to evaluate student learning and outcome 2. Systematising the QA system 3. Evaluating new programmes: general education; degree programmes 4. Cooperating with the 2011 Institutional Accreditation 5. Keeping up with the U.S.A and European countries	1. 1996 ‘The Consultants’ Concluding Report on Education Reform’ policy paper 2. The 2005 University Law 3. Keeping up with the U.S.A and European countries
Objectives	Teaching and Learning:	Using the concept of PDCA	Using the concept of PDCA

	<ol style="list-style-type: none"> 1. Accrediting HEIs 2. Ensuring the creation of internal quality assurance mechanisms in HEIs 3. Helping HEIs to develop their features and excellence 4. Providing results of evaluations to the MOE for policymaking 	<ol style="list-style-type: none"> 1. Student learning outcomes 2. Accrediting HEIs 3. Ensuring the creation of internal quality assurance mechanisms in HEIs 4. Helping HEIs to develop their features and excellence 5. ensuring the quality of degree programmes and meeting the expectation of industry 6. Providing results of evaluations to the MOE for policymaking 	<ol style="list-style-type: none"> 1. Checking Taiwan's HEIs' ability of competence 2. Examining HEIs' 'middle and long range school development plans' 3. Selecting benchmark HEIs 4. Supervising HEIs which did not perform well. 5. Providing results of evaluations to the MOE for policymaking
Unit of Analysis	<p>One cycle: 5 years, 17 or 18 HEIs were evaluated every year; total 79 HEIs and 1,907 departments.</p> <p>2006: 44 disciplines and 370 departments in 17 HEIs.</p> <p>2007: 46 disciplines and 615 departments in 19 HEIs</p> <p>2008: 47 disciplines and in 17 HEIs</p> <p>2009: 47 disciplines in 17 HEIs</p> <p>2010: 49 disciplines (two new disciplines of military and police) and in 9 police colleges and universities</p>	<p>One cycle: 5 years, 17 or 18 HEIs were evaluated every year; total 83 HEIs.</p> <p>2012: 49 disciplines and 17 HEIs</p> <p>2013: 49 disciplines and 14 HEIs</p> <p>(2014 to 2016: continuing)</p>	<p>81 HEIs in one year.</p> <p>The first half of 2011: 40HEIs</p> <p>The second half of 2011: 41 HEIs</p>
Performance Indicators	<ol style="list-style-type: none"> 1. Goals, features and improvement mechanisms of department 2. Curriculum design and teaching 3. Student learning performance 	<ol style="list-style-type: none"> 1.Goals, core abilities and curriculum design 2. Teaching and assessments 3. Student counselling and learning resources 4. Research performance 	<ol style="list-style-type: none"> 1. Mission and goals 2. Governance and management 3. teaching and learning resources 4. accountability and social responsibility

	4. Research performance 5. Graduate performance	5. Graduate performance and improvement mechanisms	5. quality assurance mechanisms
On-site visit	2 to 4 days and 4 to 6 external reviewers at each HEI	2 to 4 days and 4 to 6 external reviewers at each HEI	2 days 10 to 12 external reviewers for HEIs under 5,000 students 14 to 16 external reviewers for HEIs over 5,001 students
Additional special evaluations		General evaluation (basic abilities for students, such as Chinese literature, foreign languages, physical education, and service learning)	The results of 1, 2 & 3 were directly used by the MOE to allocate special funding. 1. Evaluation of gender balance in higher education 2. Environment and facilities evaluation 3. College and Junior College Physical education Evaluation 4. National University Endowment Fund evaluation 5. Traffic safety education evaluation 6. Digital learning evaluation
Special strategies	None	Claim: performance indicators were for reference. HEIs can decide their own indicators.	In order to reduce paperwork for HEIs, HEEACT provided a table to compare performance indicators with: 1. Institutional Accreditation 2. 'The Aim for the Top University Project' 3. 'Programme for Promoting Teaching Excellence of Universities'

As Table 4.3 shows, many changes were made at each cycle of evaluation, to factors such as the rationales and objectives. However, these changes resulted in several problems. The reason why problems emerged is that the design of the QA system was not finalised before being implemented. HEEACT has changed its objectives and methods several times during each cycle in accordance with the MOE's QA policies. In interviews, academic staff complained about inconsistencies in each cycle of evaluation. For academic staff, the uncertainty surrounding the QA policies increased the difficulties of preparing for the QA evaluations.

For example, a senior academic, N, in University X pointed out that no one knew how to prepare for HEEACT evaluations at the beginning. In an effort to perfect the QA system, HEEACT revised the Programme Accreditation and the design of the second cycle was more fully developed than the first one had been. The most significant change between these two cycles was the shift in the aim. Interviewee P provided his understanding of this shift:

'(A)lthough the aim of the QA system was to ensure the quality of higher education, the first-cycle of Programme Accreditation was designed (solely) to improve the learning environment in HEIs. Then, in the second-cycle, the aim was changed to evaluating student learning outcomes.' (Interviewee P, former executive director of HEEACT)

The changes in the aims and objectives of the QA system has changed in accordance with the MOE's higher education policies (HEEACT, 2012b). On their part, HEEACT members regarded these changes as necessary to help improve teaching quality in HEIs. A former HEEACT executive director insisted that the response of HEIs to the changes in the aims of Programme Accreditation were positive:

'In fact, HEEACT received praise from the HEIs. Although most people did not like evaluations, HEEACT evaluations make HEIs emphasize quality assurance. For example, in order to pass evaluations, the HEIs would introduce more practical courses for students, and (also) focus on student learning outcomes.' (Interviewee P, former executive director of HEEACT)

Hence, HEEACT members thought that the Programme Accreditation was helpful in ensuring the quality of HEIs regardless of the difficulties the HEIs faced in preparing for it. For HEEACT, the QA system was necessary medicine-unpleasant in the short term, but beneficial in the long run.

Of course it was easy for HEEACT to claim that QA was necessary medicine. However, for academic staff in the four case universities who had to prepare for the evaluations, the constant changes in QA aims, such as the different objectives between the 1st and 2nd cycles of Programme Accreditation, have made the process difficult; in fact they found this aspect even more difficult than the administrative work required for evaluation.

‘The most difficult part of preparing for the first cycle of Programme Accreditation was that no one knew how to do. I had to establish every regulation and committee for the first cycle of Programme Accreditation. However, the aim of the second cycle of Programme Accreditation changed so we (the university) had to adapt to the new aim. Nevertheless, we (academic staff) have become more used to the preparation process and know what to do for the second cycle.’ (Interviewee C, senior academic staff in University X)

In addition to the confusion and additional work caused by the changing aims and designs of the QA system, two other problems were noted by interviewees. First, there was a lack of qualified external reviewers. During the implementation of the first cycle of Programme Accreditation between 2006 and 2010, HEEACT changed the numbers of disciplines to be examined every year and added regulations asking external reviewers to recuse themselves on the basis of potential conflicts of interests. The combination of these two actions meant it became difficult to find adequate numbers of external reviewers qualified to evaluate the various subjects.

Indeed, HEIs have been pointing out problems with external reviewers since the very first cycle of evaluation in 2006. For example, interviewee V pointed out that the external reviewers selected to evaluate HEIs were not qualified in their disciplines, and, in the opinion of some, they made recommendations that were inappropriate (Senior academic V, University B). After receiving complaints from numerous HEIs, HEEACT started to review the grounds on which external reviewers could be recused, and these were stated clearly after the 2008 cycle of Programme Accreditation. HEEACT did respond to feedback from the HEIs by adopting a number of regulations, and providing training courses to improve the quality of external reviewers.

‘I know there were some criticisms of external reviewers. (But) even though their wages were meagre, the external reviewers were enthusiastic about their work. HEEACT also provided training courses and developed criteria to select (suitable) external reviewers.’ (Interviewee P, former executive director of HEEACT)

Evidence from Interviewee M, a QA expert, supported the view HEEACT did respond to HEIs concerns:

‘(E)ternal reviewers have to participate in three training courses and meet the recusal principles. (Admittedly, there were) some external reviewers who had disagreements with HEIs. Thus from 2006, HEEACT asked academics questions in follow-up surveys after the on-site visits regarding the qualifications of the external reviewers. These questionnaires were confidential, and used to select future external reviewers.’ (Interviewee M, expert in QA)

Hence, HEECAT has engaged in addressing the problems of the QA system, and revised the criteria for selecting external reviewers in response to HEIs’ concerns. However, problems still exist, and one of these is caused by the changing aims and design of the QA system,

specifically with regards to the performance indicators. The performance indicators used in HEEACT evaluations were regarded by HEIs as having a seriously negative impact on higher education. Indeed, HEIs argued that the performance indicators, especially the MOE-imposed requirement that articles had to be published in SSCI/SCI journals in order to be considered eligible for evaluation, damaged their academic freedom. For example, interviewee B pointed out how his academic work has been influenced by the requirement:

‘I do not think that SSCI/SCI journals are an appropriate assessment metric for research performance, especially for disciplines in social science. We (academic staff) are forced to publish ‘small’ papers instead of a book which could include more complete ideas. I thought in this way our (academic staff) discipline could not develop properly and our academic freedom was impinged upon.’ (Interviewee B, junior academic staff in University A)

In order to deal with the above criticisms, HEEACT has changed its performance indicators at each cycle of evaluation; among other things, it has removed the requirement for articles in SSCI/SCI journals as a performance indicator. HEEACT now claims that HEIs can determine their own performance indicators, and that they enjoy academic freedom. However, HEIs continue to follow the requirements of the QA system to avoid the risk of failing evaluations. The reason why HEIs are still afraid of failing evaluations is that good results in these evaluations are necessary for HEIs to apply for competitive projects. The stipulation for articles to be published in SSCI/SCI journals has been kept by the MOE as a performance indicator for competitive projects, so in this regard, HEIs still believe they are hampered by the requirement to publish in such journals.

For example, interviewee C indicated that HEIs had to follow the performance indicators of HEEACT in order to obtain good results in the evaluations.

‘Research performance is important for academics’ promotion and tenure. Thus most academics focus more on publishing in SSCI/SCI journals than on teaching. [...] even though HEEACT claimed that being published in SSCI/SCI journals was only one performance indicator for evaluations and academics’ research performance would be evaluated by various measurements. However, with the criteria hanging over them, academics and HEIs would push themselves to achieve the performance indicator anyway, in order to ensure that they would be evaluated well.’ (Interviewee C, senior academic in University Y)

One senior academic in University A held a similar view:

‘HEEACT claimed that performance indicators were only for references for external reviewers, however, HEIs could not risk failing the HEEACT evaluations’ (Interviewee G, a senior academic with a managerial role in University A).

Some academics stated that they continued using HEEACT’s performance indicators not only in relation to publishing in SSCI/SCI journals, but also for other reasons (Interviewee K, senior academic in University X). For example, interviewee S pointed out that HEEACT

provided general guidelines for HEIs and suggested that the university could develop its own distinctive strengths within the requirements of HEEACT.

‘I thought the performance indicators for the HEEACT evaluations were fine for my department. Although some performance indicators did not fit the needs of my department, most were general guidelines for teaching. Without these indicators, we (academics in the department) would not know how to prepare for HEEACT evaluations. [...] we could identify the features of the department within the existing HEEACT evaluation.’ (Interviewee S, junior academic in University B)

Hence, despite HEEACT’s claims to the contrary, academics and HEIs considered that following HEEACT’s performance indicators was considered a key element for passing HEEACT evaluations, and also for personal advancement. At the same time, HEIs and academics preferred to prepare for the indicators designed by HEEACT than try to develop their own original indicators, in case they ended up failing the HEEACT evaluations.

It is evident from Table 3.4 and the interview data that the policies and strategies of HEEACT evaluations have been uncertain, and have changed according to the demands of the MOE but also in response to criticism from HEIs.

Impact of the ambiguity in terminology

In addition to the uncertainty caused by changes in the QA system, another problem with the evaluations has been caused by a degree of ambiguity in terminology.

As Table 1.1 (from Chapter One, please see page 15) indicates, although Taiwan’s QA system uses the term ‘evaluation’ to refer to the QA system, the approach to quality assurance of the QA system is in fact that of accreditation, though the QA system does not practice any formal accrediting function as it does not believe the provision of programmes. Interviewee M, an expert in QA, recognised the confusion with respect to the different terms and understandings relating to QA.

‘The name HEEACT (the Higher Education Evaluation and Accreditation Council of Taiwan) contains both ‘evaluation and accreditation’ [...] However, HEEACT’s approach is (actually) only accreditation.’ (Interviewee M, expert in QA)

In HEEACT’s name, ‘evaluation’ refers to all assessments carried out within the QA system, and is equivalent to this, while ‘accreditation’ refers to the approach adopted in Taiwan’s QA system. Interviewee M observed quite correctly that HEEACT’s approach to quality assurance included a mixture of approaches including evaluations, accreditation and audits.

Interviewee A, currently one of the main policymakers in higher education policies, seemed muddled about the meaning and definition of a QA system. For a policy-maker, however, the definition of a concept or system was not a key factor in determining and implementing policy and

practice. For Interviewee A, the QA system is just a tool for the government to ensure the quality of higher education.

‘Universities have to be accountable to Taiwanese society and the government. Universities receive a lot of funding from the government. They should show what they have achieved. So is the QA system an evaluation accreditation, or quality assurance? (It doesn’t matter because) at the end, the government has to ensure that universities are accountable. Of course, the QA system is also for ensuring quality of higher education. [...] Yes, it is a ‘tool’ (for ensuring accountability).’ (Interviewee A, a current policymaker in the MOE)

The attitude of interviewee A typifies the view of the MOE towards the QA system. The QA system was, and still is, seen as a new form of governance to improve the quality. The ambiguity of terminology also confused academics. For example, interviewee Q was confused about the terminology of the QA system. He could not discern the differences between HEEACT evaluations and academic evaluations conducted by the Ministry of Science and Technology. He attributed the harmful effects of academic evaluation on academics to HEEACT and the QA system. The reason why he failed to distinguish between these two different evaluations is that both of them used the same term ‘evaluation’ (píng jiàn).

‘Does academic evaluation include Programme Accreditation and Institutional Accreditation? Other evaluations? I thought all kinds of evaluations were included in academic evaluation, which is the responsibility of HEEACT and the MOE.’ (Interviewee Q, senior academic in Academic Sinica)

The confusion typified by interviewee Q explained why HEEACT regarded the criticisms from HEIs as incorrect. The view of interviewee Q towards the QA system revealed the most common attitude of HEIs: HEEACT represents the MOE and should be responsible for all problems related to evaluations.

Interviewee N pointed out that evaluations, research performance, and academics’ tenure or promotion were linked by the government even before the establishment of HEEACT in 2005. HEEACT clarified that academics’ tenure and promotion were decided not by HEEACT and its evaluations but rather by the universities themselves. Universities however enjoy autonomy in using the results of HEEACT’s evaluations for their own management purposes. However, academics and HEIs still have the impression that they had to follow the criteria of the evaluations in order to conduct research and that the results of evaluations were important to winning tenure or promotion (Interviewee N, senior academic in University X).

President of University X supported interviewee N’s opinion:

‘HEEACT claimed that they did not use publication in SSCI/SCI journals as an evaluation criterion. However, the MOE and National Science Council did include it as a criterion before 2004. [...] Nevertheless, academics only received the message that they had to

publish in certain journals; they were not aware of who was in charge of these evaluations.’ (Interviewee O, the president of University X)

Some academics were aware of the problems caused by the ambiguity in terminology. Interviewee V pointed out that the MOE used evaluations as an excuse to rearrange funding allocations for HEIs:

‘The MOE set up competitive projects and claimed that HEIs could compete for the grants attached to them. However, the MOE did not actually increase overall funding for higher education. These grants were from the original budget. Then the MOE emphasized that HEIs could apply for these grants if they had performed well on HEEACT’s evaluations. [...] This gave academics and HEIs the impression that evaluations were equal to competitive projects.’ (Interviewee V, a senior academic with managerial role in University B)

Interviewee F held a similar opinion to interviewee V. She suggested that one way to prevent this misunderstanding is to separate evaluations for research and teaching, for example, HEEACT could be responsible for conducting teaching evaluations, whilst the National Science Council could take charge of research evaluations (Interviewee F, senior academic in University A). This idea was heard in other universities; interviewee H thought that the HEEACT evaluations could avoid the problems of ambiguity of terminology if Taiwan’s QA exercise could separate teaching and research evaluations, like the QAA and REF system in the UK (Interviewee H, junior academic in University Y).

The discussion above shows that some academics were aware of the problem of ambiguity of terminology while others were confused by it. They could not distinguish one evaluation from another nor could they distinguish the agencies responsible because all kinds of evaluations used the same phrase ‘evaluation’ (píng jiàn). Hence, the perceptions of academic staff regarding the QA system were inaccurate, which resulted in the manufactured issue described below.

(d) Manufactured issue

In Chapter Four I identified three problems which were perceived to have been created by the QA system: problems connected with the difficulties of measuring the outcomes of the QA system, the use of some unqualified external reviewers by HEEACT, and problems associated with the criteria of the evaluations. Scholars in Taiwan have argued that many problems in higher education are the fault of the QA system. For example, interviewee Q particularly laid the blame at the door of HEEACT.

‘HEEACT’s performance indicators were applied to all HEIs and its system of evaluations eliminated the differentiating features and characteristics of HEIs.’ (Interviewee Q, senior academic in Academic Sinica)

However, from the interviews, I found that these criticisms primarily derive from the controversial relationship between the MOE and HEEACT. Universities attributed the pressure, constraints and inconvenience to HEEACT. However, only one problem, 'the criteria of the evaluations', was directly generated by the responses of universities to HEEACT.

The debates about the criteria used for the evaluations

The experimental QA system in place from 1994 to 2004 used SSCI/SCI journals as performance indicators even before HEEACT was established. Lin (2013) pointed out that although the MOE did not admit responsibility for requiring these criteria for academic evaluation, the forms and criteria in the 2004 Institutional Evaluation conducted by the Taiwan Assessment and Evaluation Association did specify SSCI/SCI journals as criteria. The 2004 Institutional Evaluation required all HEIs to report the number of articles accepted by SSCI/SCI journals.

The relationship between the MOE and the international league tables can illuminate the position of the MOE. In order to compete in international league tables, such as the Times-Higher Education Supplement and the Shanghai Jiao Tong listing, the MOE has created new higher education policies to aid in the competition for international rankings and to promote the accountability of higher education. In 2003, the MOE started to use the Sciences Citation Index (SCI), the Social Sciences Citation Index (SSCI) and the Engineering Index (EI) to evaluate the academic performance of universities and rank them according to numbers of publications (Lin, 2013).

In order to gain a high ranking and produce good results in evaluations of their academic performance, universities also began to require academics to publish in these journals for personal tenure, promotion and faculty member evaluation. In 2004, the criteria for applying for academic projects funded by the National Science Council also began to include publications in these journals. Academics opposed these higher education policies; however, these criteria were reinforced with the introduction of competitive projects in 2003 by the MOE (Reflections on the Evaluation System of Humanities and Social Sciences in the Academia in Taiwan, (conference held in 2004)). Having more articles published in SCI/SSCI journals, would win universities more funding through being awarded competitive projects. Thus HEIs think the 'evaluation' (ping jian) is to blame for the consequences of using these performance indicators.

HEEACT conducted a 'Performance Ranking of Scientific Papers for World Universities' at the behest of the MOE from 2007 to 2010. Although this project was taken over by the National Taiwan University and renamed 'NTU Ranking' from 2011, the influence of HEEACT on

academic performance indicators has remained an issue. Interviewee P argued that the ranking conducted by HEEACT was objective.

‘It is a pity that HEEACT did not continue conducting the rankings, which were research projects from the MOE. The HEEACT ranking used ESI, SCI, and SSCI to evaluate HEIs’ research performance. I thought that HEEACT was objective and these rankings were reliable. However, some HEIs were ranked low and then they criticised HEEACT and evaluations. Thus the MOE asked HEEACT to stop compiling the rankings. I thought it was a shame that people who were not awarded funding complained about the objectivity of the rankings.’ (Interviewee P, former executive director of HEEACT)

When the national league tables of HEEACT were published at that time, from 2007 to 2010, resistance strengthened from universities and individual academics to the QA system conducted by HEEACT. Then HEEACT was forced to stop ranking HEIs from 2010.

However, the national league table compiled by HEEACT, ‘Performance Ranking of Scientific Papers for World Universities’, made HEIs and academic staff think that HEEACT keeps using these research performance indicators, though the HEEACT ranking was stopped.

Changing professionalization and the criteria of the evaluations

As Chapter Four illustrates, both the white paper from the ‘2013 Higher Education and Technology Policy’ published by Academic Sinica and the one from Taiwan Higher Education Union argue that the processes of preparing for the QA exercise and peer review have negatively affected professionalization. Academic Sinica claimed that the specification of guidelines and criteria of the QA exercise might give undue weight to factors outside a specific discipline, which could in turn limit the rightful influence of that discipline’s values. Thus, the QA system was seen as a vehicle for transmitting specific values from outside parties to HEIs.

However, HEEACT claimed that performance indicators were only for reference in the second cycle of Programme Accreditation. HEIs could decide their own indicators and the process would not influence the development of the HEIs.

‘I thought that HEEACT evaluations did not influence the development of HEIs. HEEACT evaluations only required HEIs to establish internal QA mechanisms to ensure quality.’ (Interviewee M, expert in QA)

However interviewees argued that although HEEACT and the MOE allowed HEIs to decide their own internal QA mechanisms and performance indicators, HEIs were afraid of making their own decisions (Interviewee D, a senior academic with managerial role in University Y).

Interviewee V also pointed out that:

‘[...] external reviewers had different options, but the university felt it better to follow the opinions of those external reviewers and the performance indicators of HEEACT in order to pass the evaluations.’ (Interviewee V, Senior academic staff in University B)

HEEACT's attitude toward QA policies rebuts the criticisms from HEIs. Interviewee P indicated that HEEACT already did its best.

'I knew what HEIs' reaction would be. HEEACT already announced that HEIs can decide their own performance indicators. However, HEIs were afraid of making changes. Thus HEEACT cut back the number of performance indicators and gave HEIs more discretion.' (Interviewee P, former executive director of HEEACT)

In addition, the white paper from the '2013 Higher Education and Technology Policy' published by Academic Sinica and the one from Taiwan Higher Education Union also argued that the use of SSCI/SCI journals as performance indicators by HEEACT to evaluate academics' research performance severely curtails academic freedom. However, Interviewee P pointed out that what makes academics feel that academic freedom has been threatened is not HEEACT evaluations but competitive projects. And he clarified that the misunderstanding arose from a table provided by HEEACT to reduce the load of paperwork on HEIs. HEEACT compared performance indicators of 'The Aim for the Top University Project' and 'Programme for Promoting Teaching Excellence of Universities' with the 2011 Institutional Accreditation in a table, which was attached to the guideline of the 2011 Institutional Accreditation. He thought that the table could help HEIs save time on preparing for the different kinds of evaluations, however, HEIs were misled by the table and thought that HEEACT was responsible for using the SSCI and SCI journal as indicators. Interviewee P indicated that, in fact, the SSCI and SCI journal as indicators applied only to 'The Aim for the Top University Project' and 'Programme for Promoting Teaching Excellence of Universities'.

'[...] For example, 'Programme for Promoting Teaching Excellence of Universities' required that teaching methods and assessments be 100% computerised and that each department prepare 'curriculum mapping'. These criteria were the same as the teaching performance indicators of the 2011 Institutional Accreditation.' (Interviewee P, former executive director of HEEACT)

Interviewee M also reported that HEEACT emphasized that its evaluations no longer use SSCI/SCI journals as performance indicators, and attributed the pressure about publishing to the competitive projects introduced and run by the MOE and the National Science Council.

'The main criticisms came from the Taiwan Higher Education Union, established under the Labour Union Act. But I thought that they did not understand HEEACT evaluations. [...] HEEACT evaluations did not require academics to publish in SCI/SSCI journals. HEEACT accepted any papers with blind review. I guessed that HEIs were using HEEACT evaluations as an excuse. For example, HEIs may stipulate that academics publish five papers a year in order to prepare for future evaluations [...] I thought that the Taiwan Higher Education Union did not read HEEACT's proposals and publications thoroughly. They may only have been thinking about their rights and the pressure to get tenure or promotion, which requires publishing in SCI/SSCI journals.' (Interviewee M, expert in QA)

Interviewee P indicated that the Taiwan Higher Education Union imputed all faults to HEEACT.

‘I did not mean that HEEACT was innocent. HEEACT evaluations examined HEIs’ internal QA mechanisms, faculty member evaluations were part of the process—but in cases where internal faculty member evaluations were too strict (in a particular university), some external reviewers gave (the institution concerned) friendly suggestions about the faculty member evaluations (to counteract the overly strict approach).’ (Interviewee P, former executive director of HEEACT)

From interview data and official documents, it is evident that HEEACT evaluations no longer demand performance indicators, specifically the SSCI and SCI. However, the MOE aims to push universities up the international league tables and links competitive projects, which use the SSCI and SCI journals as performance indicators, to the results of HEEACT evaluations. In a sense, HEEACT was required by the MOE to include performance indicators of competitive projects in evaluations. Universities are not aware of which body’s requirements they are responding to, but just focus on competing for more funding and enough resources to survive.

Inappropriate connections between funding and the criteria of the evaluations

In Chapter Four, it was noted that the media, HEIs and Academic Sinica argue that HEEACT dictated the development of HEIs in the manner in which it allocates limited resources and funding. They argued that there is an inappropriate link between the outcomes of the QA system and the funding of universities. According to the 2005 University Act, the MOE can use the results of evaluations to allocate funding to HEIs. This linkage between performance and funding by the government forces HEIs to act in predetermined ways to the QA system. However, some interviewees argued that this criticism is misguided. Interviewee A, a current policymaker in the MOE, indicated that HEIs incorrectly attributed the pressure they were under to HEEACT and that Academic Sinica did not have an accurate understanding of the QA system.

‘The relationship between Academic Sinica and HEEACT evaluations was not close. The white paper, ‘2013 Higher Education and Technology Policy’, published by Academic Sinica, was based on the views of some academics who also worked in HEIs. I thought that these academics only expressed complaints. They misunderstood the differences between HEEACT evaluations and the requirements for tenure promotion, which were based not on the demands of the MOE but of the National Science Council (now the Ministry of Science and Technology).’ (Interviewee A, a current policymaker in the MOE)

Interviewee A, a current policymaker in the MOE, also claimed that HEEACT evaluations only affect 6 % of the ‘MOE’s Funding Program for Private Universities and Colleges’. In addition, she argued that HEEACT evaluations were only basic references for ‘The Aim for the Top University Project’, and thus were not influential in funding allocations.

The responses of interviewee A pointed out the contradictory attitudes towards higher education policies between the MOE and HEIs. In interviews at the four case universities, most academic staff in the private universities reported that the QA system did affect their funding and their universities suffered from a shortage of resources. In order to ensure a steady income from tuition fees, academic staff at private universities have had to try to increase the rate of enrolment. However, the MOE felt that 'HEEACT evaluations only affects 6 % of the 'MOE's Funding Program for Private Universities and Colleges' and therefore was not a decisive influence on private universities.

Many interviewees are of the opinion that it is HEEACT that can change funding allocations on the basis of evaluations, but this is actually something in the remit of the MOE and not HEEACT. According to interviewee U, it seems that HEEACT evaluations have indirectly influenced the 'National University Fund System Act' and 'MOE's Funding Program for Private Universities and Colleges'. Interviewee M clarified that the funding allocation mechanisms were not triggered by HEEACT evaluations but rather by competitive projects for university rankings. As interviewee M explained:

'The Programme Accreditation was not linked to the MOE's funding allocation, but the Institutional Accreditation was. The Institutional Accreditation was related to the 'MOE's Funding Program for Private Universities and Colleges' and 'Programme for Promoting Teaching Excellence of Universities' more than to 'The Aim for the Top University Project'. 'The Aim for the Top University Project' required HEIs to provide proof of their research performance, such as by publishing in SCI/SSCI journals; this was not something required by HEEACT evaluations.' (Interviewee M, expert in QA)

Since competitive projects and additional special evaluations in Table 3.4 have been initiated by HEEACT, the criteria for competitive projects include how carefully the universities listen to the voice of the MOE or respond to government demands.

The former head of HEEACT also claimed that it carried out other special evaluations and performance indicators of competitive projects on behalf of the MOE.

'Others may question whether HEEACT achieved its aims; I thought it did. Despite the fact that HEEACT evaluations got mixed up with competitive projects, such as 'The Aim for the Top University Project' and 'Programme for Promoting Teaching Excellence of Universities'—we did not intend to mix them, it was the MOE's demands.' (Interviewee P, former executive director of HEEACT)

From interviews it is clear that, although HEEACT implemented these schemes for the MOE, HEEACT members knew that the MOE was responsible for the implementation of HEEACT evaluations and felt HEEACT should not be blamed for conducting the MOE's policies. For example, even if the faculty member evaluation was a necessary performance indicator for HEEACT evaluations, HEEACT members thought all extra requirements of the

faculty member evaluation were not directly caused by HEEACT evaluations but by other evaluations.

‘I thought that these evaluations conducted by HEEACT did not affect the independence of academics. HEIs tended to compete, so the pressures on academics were from their universities, not HEEACT. I thought the main pressure on academics was from their faculty member evaluations. Especially some private universities used those results to fire teachers due to low student enrolments. As far I know, the most onerous parts of faculty member evaluations were also deemed part of the preparations for competitive projects and this led many academics to attribute the pressure they felt to ‘evaluations’.’
(Interviewee P, former executive director of HEEACT)

From interview data, it can be seen that the MOE and HEEACT hold different views regarding the relationship between funding allocations and the QA system. HEEACT members attributed all problems about funding allocation to competitive projects, which were MOE policies. Although HEEACT argued that funding allocation was not the aim of HEEACT’s evaluations, the MOE achieved its policy objectives by using the results of the evaluations.

(e) HEEACT’s responses to the impacts mentioned above and the MOE’s QA policy

Although the QA system was described as part of the trend towards globalisation and yet designed by MOE to fit Taiwan’s circumstances, the QA system was perceived differently by policymakers, academics and HEEACT. In interviews, HEEACT members had different views of their relationship with the MOE and the performance of HEEACT evaluations.

HEEACT’s responses to these impacts

In 2012, in order to examine the outcomes of the QA system, HEEACT entrusted the Taiwan Higher Education Association to carry out two meta-evaluations to evaluate the first cycle Programme Accreditation and the 2011 Institutional Accreditation. The methods of the two meta-evaluations included questionnaires sent to all HEIs involved and focus group interviews (HEEACT, 2012).

The results of the meta-evaluation of the first cycle Programme Accreditation indicated that the passing rate of the evaluation was 77.10% in 2006 and 94.72% in 2009 (HEEACT, 2012) which HEEACT thought was a significant achievement.

‘HEEACT entrusted a third party (the Taiwan Higher Education Association) to conduct meta-evaluations for HEEACT evaluations. The third party was selected by public tender. The contents of meta-evaluations were related to the aims and processes of HEEACT evaluations. Most results of the exercise were positive for HEEACT.’ (Interviewee P, former executive director of HEEACT)

However, the meta-evaluation of the 2011 Institutional Accreditation lists the different perceptions of presidents and academics in HEIs. Although most presidents agreed that evaluations had a positive influence on management, both presidents and academics disagreed

with the performance indicators. They thought that it was inappropriate to use the same performance indicators for all HEIs (HEEACT, 2013).

In addition academic staff pointed out that they were overwhelmed by paperwork at least for two years before being evaluated by HEEACT. They argued that the evaluations led to a reduction in the quality of teaching, research and administrative work.

Although different voices from within HEIs emerged through the meta-evaluations, HEEACT claimed that the two evaluations had achieved their aims. In this sense, HEEACT believes that their organisation plays an appropriate role in carrying out QA policies and improving the quality of HEIs, the main aim of the QA system. However, HEEACT's views of the MOE and the QA policies are not as positive as the perceptions of HEEACT of the achievements of the QA system.

HEEACT's responses to the MOE's new QA policy

As mentioned in Chapter Four, the MOE implemented a new QA policy '*self-evaluation and external reviewer*' at the end of 2012. There were two reasons for creating the 2012 policy. Firstly, the MOE had to tackle problems related to the 2005 QA system, such as issues with external reviewers and the voluminous paperwork required of HEIs. Secondly, academics, especially university presidents, objected strongly to the QA system. In this sense, the implementation of the new QA policy is a response by the MOE to the voices of academics critical of it.

However, as part of the 2012 programme, the MOE announced a measure that affects the legal role of HEEACT. Under this new measure, 34 HEIs were selected by MOE (based on their performance on the Programme Accreditation and Institutional Accreditation) to implement the new 2012 programme, whereby they are allowed to conduct self-evaluations and then submit reports to the MOE. Then the MOE reviews these reports and decides whether to accredit HEIs. All other HEIs in Taiwan are required to continue participating in HEEACT evaluations.

However, HEEACT members felt that there were several problems with the 2012 QA policy, the first being that these strategies would cause the QA system to regress to an administration model, which is how it was before the establishment of HEEACT. The 2005 QA system is linked to international QA agencies. For example, as a third party, HEEACT represented the MOE when signing the Agreement of First Degree with the Malaysian Qualification Agency (MQA) in 2012. Evaluating HEIs through a third party is seen as an international trend (Interviewee P, former executive director of HEEACT).

Moreover, the second problem is that evaluations may cost HEIs substantial amounts of money. Government funding is decreasing, and HEIs cannot increase their tuition fees due to

political and social pressure. These difficulties may reduce resources for students. Despite the tightening financial situation, both interviewees M and A thought that being selected to conduct the new policy would be an honour for HEIs. This would push HEIs to establish good internal QA mechanisms for self-evaluation and take responsibility to ensure quality and accountability. Since HEIs want to decide their own performance indicators, some fresh approaches may arise.

The third problem concerns the transparency of evaluations, which is related to the first problem. HEEACT thinks that HEIs cannot evaluate themselves properly. Interviewee P revealed that HEEACT lost the trust of HEIs and he further criticised the attitude of the MOE:

‘I can understand why the MOE made this 2012 QA policy. Although MOE spent a lot of money, it was still severely criticised by HEIs. The MOE thought that it could save money and stop these complaints if HEIs could evaluate themselves. However, I think this policy inappropriate. It would be like letting academics decide on their own promotion. I wonder if HEIs would agree to that.’ (Interviewee P, former executive director of HEEACT)

Experts and staff in HEEACT complained that the procedures and details of the new policy were unclear because the MOE decided to implement the policy suddenly. The MOE also asked HEEACT to share its expertise in evaluations to help set up the new system even though HEEACT still supports the 2005 system with its external evaluations by third parties. In addition, the new policy requires the 34 HEIs to pay for the self-evaluations themselves and so the MOE has cut funding to HEEACT (Interviewee M, expert in QA). This brings us to the fourth problem; the future of HEEACT.

‘Some HEIs will conduct the ‘self-evaluation and external reviewer’ policy. The load of evaluations on HEEACT will fall. It also means that the MOE’s funding for HEEACT would decrease. Thus HEEACT has to restructure its organisation and yet help the MOE at the same time.’ (Interviewee P, former executive director of HEEACT)

‘HEEACT may evolve into an umbrella organisation responsible for accrediting all QA agencies in Taiwan [...] a job currently done by the MOE.’ (Interviewee M, expert in QA)

The position of HEEACT has become a point of controversy since the implementation of the new/2012 QA policy. This issue reveals that HEEACT is not exempt from the centralised control of the MOE, though the agency claims to be neutral and have autonomy from the government, (Interview P). The reason why HEEACT has to cooperate with the MOE’s policies is that its sole source of funding is the MOE. HEIs did not pay for HEEACT evaluations. Thus although HEEACT claims to be an independent organisation, it cannot be as neutral and objective as it is supposed to be.

These concerns of HEEACT are still unsolved and the reconstruction of HEEACT and the QA system were still in progress when this thesis was completed.

2. Changes relating to university governance arising from the introduction of the QA system

As we have seen, universities have several concerns related to the QA system introduced before 2012. The first concern is that a new form of public management and bureaucratic system has had to be created by HEIs. Although the MOE claimed that HEIs would enjoy more autonomy under the QA system, the development and governance of HEIs have been influenced by the system. From interviews it is clear that universities are in agreement that their autonomy was reduced by the MOE, though the quality of education has improved under the QA system. Second, the overload of paperwork associated with the evaluations has increased pressure on academics. The third concern is about the changes to the working life of academics due to evaluations. The latter two concerns are fully explained in Chapters Six and Seven. This section focuses on the first concern, specifically on how university governance has changed within HEIs to meet the demands for performance and efficiency from the QA system.

Recent studies indicate that the quality assurance mechanisms became influential external forces on governance (Rosa and Teixeira, 2014). Bleiklie and Kogan (2007) point out that institutional governance arrangements are often shaped by states through legislation, funding systems and quality assurance mechanisms. In addition, an international comparative study the 'Changing Academic Profession' (Shin and Harman, 2009) indicates that the increased centralisation of institutional governance is a significant trend worldwide. The project covered 20 countries, and was a follow-up to a similar study carried out under the auspices of the US Carnegie Foundation in the early 1990s. The study distinguishes higher education governance ranges from the 'market model', through the 'profession-oriented model' to the 'state model' of the typology of Clark (1983). Performance-based indicators, performance-based funding and various external quality assurance mechanisms are examples of the new instruments of state control.

Taiwan's HEIs have had similar experiences under their QA system. Taiwan's QA system today is the central construct in the relationship between universities and the government. The QA system reflects the MOE's management over higher education. The MOE uses the QA system as a guardian of society's economic and social interests regarding higher education. For example, interviewee A, a current policymaker of the MOE, pointed out that by using the results of HEEACT evaluations as one of the criteria for competitive projects, HEIs could be nudged in a direction desired by the MOE: 'HEEACT evaluations could help HEIs check their accountability and implement classification of HEIs'.

(a) Ways in which the QA system influences university governance

Bleiklie and Kogan (2007) conclude that there are two main structural changes within universities related to university governance. The first change has been the creation of powerful managerial organisations concerned with marketing, quality assurance and internal connections. Secondly, this growth of managerialism has been the manifestation of quality assurance procedures which challenge the 'truthful' relationships between academics and their universities and replace trust in professionalism with the concept of transparency. For example, quantitative performance indicators and peer review by external bodies are used to assess the outcomes of research, teaching and learning. Based on the interviews in this study and the concept of Bleiklie and Kogan (2007) mentioned above, I identify four ways in which the QA system influences university governance: through new organisations within universities as they respond to the QA system, through performance indicators determined by HEEACT and MOE, through the MOE using the results of HEEACT evaluations for funding distribution, and through the MOE using the results of HEEACT evaluations for the Exit Mechanism.

(i) Through new organisations within universities as they respond to the QA system

As Temple (2012) identifies, university governance operates at a number of levels, from the governing body itself, through academic bodies taking responsibility for academic standards and processes and down to the faculty level. Traditionally, the governance of higher education institutions, including the selection of administrators, the preparation of the budget, and the determination of educational policies has been shared by faculty, administrators, and trustees. Senior professors and boards of trustees have been at the centre of academic governance (van Vught, 1994). Taiwan has a similar tradition of university governance. Faculties could control their own curriculum and the decisions taken by faculty were reviewed by academic committees, deans, and presidents. This tradition is termed 'shared governance' by the 'American Association of University Professors' (Lee and Land's definition, 2010).

However, this tradition has been challenged by external forces. Universities have had to respond to demands for greater accountability, increased competition between HEIs and decreased public funding, all at the same time. As will be mentioned in Chapter Six, new organisations, such as new offices, were created by universities to respond to the requirements of the QA system. In this way, university governance has also been influenced by the QA system through reshaped decision-making processes and management.

(ii) Through performance indicators determined by HEEACT and MOE

Using performance indicators to mould the development of HEIs through the QA system has been the main strategy for the government in Taiwan. The MOE decided to use the

performance indicators of HEEACT evaluations to supervise university accountability. Table 5.1 presents the details of the performance indicators of the 2011 Institutional Accreditation, which evaluated the management and governance of HEIs.

Table 5.1 Performance indicators of the 2011 Institutional Accreditation

The 2011 Institutional Accreditation	
Mission and goals	1-1 SWOT analysis 1-2 The plan of university development 1-3 The core abilities for students 1-4 The academic programmes 1-5 The goals of faculties 1-6 Identities of academics and students in terms of the university
Governance and management	2-1 The president's ideal of governance 2-2 The operation of the plan of university development 2-3 The organisations and committees 2-4 Management of human resources 2-5 The network and safety of information 2-6 The efficiency of administration system 2-7 Student participation in university governance 2-8 The supervision mechanism for board members of the incorporated private universities 2-10 The supervision mechanism for 'National University Fund System' 2-11 Strategies for internationalisation 2-12 Strategies for stakeholders
Teaching and learning resources	3-1 Regulations concerning employment 3-2 Strategies for awarding excellent performance on teaching and research 3-3 Faculty member evaluation 3-4 Curriculum mapping 3-5 Implementation of General Education 3-6 Environments and facilities 3-7 Special evaluations 3-8 Resources for academics 3-9 Technologies for academics and students 3-10 Strategies for protecting Intellectual Property Rights 3-11 Physical education 3-12 Management and maintenance of teaching and learning resources 3-13 Student support service 3-14 Tutor system 3-15 Career development plan for graduates
Accountability and social responsibility	4-1 Recruitment mechanism 4-2 Assessments core student abilities 4-3 Assessments of student learning 4-4 Assessment of excellent student outcomes 4-5 Evaluation of teaching by students 4-6 Strategies for improving teaching performance 4-7 Research performance 4-8 Academics' performance regarding service 4-9 Outcomes of competing for industry-university cooperation 4-10 Mechanisms for checking the university's reputation and accountability

The concept of quality was not defined or discussed in any detail by the government or universities in the system set up in 2005. In a rather vague way quality encompassed anything and everything excellent. In interviews, policymakers emphasized that the quality of HEIs could be ensured by using the quality criteria. Despite the expectation by MOE that HEEACT could enhance the quality of HEIs, interviews with policymakers revealed another perspective which held that universities should be responsible for themselves, and HEEACT and the QA system were just a way to supervise universities. The MOE and policymakers argued that the QA system and HEEACT have helped HEIs to identify their strengths and weakness. They thought that evaluations have created a systematic approach to ensure the quality and accountability of HEIs. The transparency of HEIs has also become more visible through public reports of evaluations.

‘I thought that the main positive outcome of HEEACT evaluations is the transparency of higher education. Reports of each HEI have been made public on the HEEACT website.’ (Interviewee M, expert in QA)

However, the evidence from the four case universities supports the argument of Neave (2008): a re-defining of the relationship between state and HEIs has been realised through powerful legislative and legal procedures, which are realised by the performance indicators. By setting performance indicators, the MOE can determine the development of HEIs. For example, interviewees in University Y complained that their ‘mission and goals’ were challenged by external reviewers and given a ‘denial’ evaluation at the beginning. After University Y raised an objection, the result was changed to ‘accredited’.

‘The mission of University Y is to promote Chinese culture. The mission is difficult to achieve, but that is what our mission is. External reviewers thought that we had no efficient methods to implement this broad mission but we thought otherwise. For example, the faculty of art focuses on traditional culture, such as the Departments of Chinese music and of Chinese drama. [...] But external reviewers thought these departments were out of fashion. [...] Fortunately, an objection system exists.’ (Interviewee D, a senior academic with managerial role in University Y)

However, one junior academic in University B had the opposite opinion of the influence of the criteria on the development of the universities’ mission:

‘I thought that criteria of the HEEACT evaluations were appropriate for my department. My department focuses on fine art and HEEACT did not require us to publish in any SSCI/SCI journals. HEEACT and the MOE understand the differences between art and science subjects. [...] I thought the criteria of HEEACT evaluations were fair enough.’ (Interviewee S, junior academic in University B)

Similarly interviewee J did not think that HEEACT's evaluation criteria influenced the development of University X directly.

'We (academics in University X) held committee meetings several times and decided against changing our general curriculum to fit the criteria from HEEACT evaluations. But of course, we endeavoured to improve some parts of our curriculum and teaching methods which would improve the results of our HEEACT evaluations. [...] Thus I did not think that the criteria of HEEACT evaluations mould the development of the university.' (Interviewee J, senior academic in University X)

Interviewee J also claimed that the development of University X was not influenced by HEEACT evaluations. Nonetheless, the president of University X held a different view:

'I thought that the government interfered in HEIs through HEEACT's evaluations. Universities have their own missions and considerations; however the government linked funding allocations of higher education with the results of HEEACT evaluations. [...] in my view, the criteria for the HEEACT evaluations were actually laid down by the government. [...] Nevertheless, I was confident that the missions and goals of University X would not be changed by HEEACT evaluations during my administration.' (Interviewee O, president of University X)

From the two quotes above, it can be seen that there were different views on the impact of the HEEACT evaluations on the development of the university. Interviewee J was looking at the influences of the HEEACT criteria from the perspective of teaching and the daily life of an academic and did not feel that the missions of the university were impacted. From a different viewpoint, the president felt pressure from external sources and tried to maintain the university's original mission.

Interviewee G provided another view regarding the impact of the QA exercise on University A's mission:

'The performance indicators of HEEACT evaluations were important for the university to compete for 'The programme for Aiming for the Top Universities'. [...] In order to establish good portfolios to compete with other universities, the university had to cooperate with the MOE and hold events required by the MOE. Recently, I thought that I should do something instead of complaining about why we had to listen to the MOE and HEEACT. So I gathered academics from all departments and held meeting to discuss how to use the MOE's resources.' (Interviewee G, a senior academic with managerial role in University A)

This is an example of how academics tried to be innovative while they had to respond to external pressure. Interviewee G pointed out that one approach of academics in University A was to redefine the relationship between the university and the government. Academics were not always passive; they could be active while operating within the confines of external requirements. The president of University A also supported G's opinion:

'One criterion of HEEACT's evaluations was to assess teaching performance. [...] Thus in order to assess teaching performance effectively, we (the president and academics) re-

designed our teaching goals and objectives. It has led to a reform of teaching and learning in University A.’ (Interviewee E, president of University A)

These quotes also indicated that re-defining the relationship between HEIs and the government does not have to be one-way, or negative, but that the new relationship could be positive for academics.

It is evident that performance indicators of HEEACT evaluations can affect the operation of universities, such as their goals and aims, the arrangement of curricula and so on. Although HEEACT emphasizes that universities can decide their own performance indicators and these indicators are not obligatory, universities are still affected by them.

(iii) Through the MOE using the results of HEEACT evaluations for funding distribution

The MOE used the distribution of funding to decide HEIs’ status and implement the Exit Mechanism (Interviewee A, a current policymaker in the MOE). Interviewee U pointed out that the MOE would like to merge several HEIs and categorise HEIs as either research or teaching universities. However, no university volunteered to be merged or to be classified as a teaching university. The MOE cannot force HEIs to follow its wishes because of regulations regarding university autonomy in the University Act. Thus the MOE sought other ways to achieve its aims.

The MOE takes the results of HEEACT evaluations into consideration for the ‘Programme for Promoting Teaching Excellence of Universities’ and ‘MOE’s Funding Programme for Private Universities and Colleges’ (Interviewee M, expert in QA).

These competitive projects have great influence over HEIs with regards to institutional policies and university governance (Lo, 2014). As for institutional policies, research performance has become the most important criterion in any evaluation of a university. As Chapter Six illustrates, the four universities have adopted a scoring system for publishing. For instance, in University Y, one paper in an SSCI/SCI journal was rewarded with £400 and the author would score 4 points towards future tenure promotion (Academic staff can only apply for tenure promotion when they score 10 points).

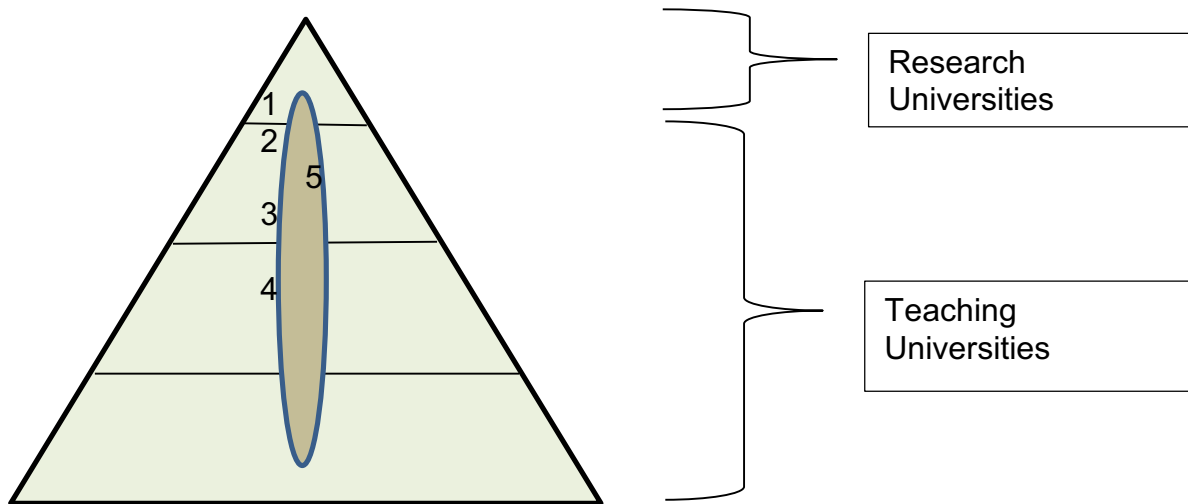


Figure 5.1 The differentiated academic system in Taiwan

1. Research-oriented institutions funded by the Programme for Aiming for Top University; 2. Teaching-oriented institutions funded by the Programme for Promoting Teaching Excellence in University; 3. Teaching-oriented institutions funded by the Programme for Nurturing Talented in Key Areas; 4. Teaching-oriented institutions without any special funding; 5. The Programme for Regional Teaching Resource Centre. (Source: Lo (2014, p. 29))

The QA system has sharpened the contrast between research and teaching-led universities in the competition for funding. According to Lo (2014), the MOE has set up a differentiated academic system by using different competitive projects (Figure 5.1), the most important two being the ‘Programme for Aiming for Top University’ and the ‘Programme for Promoting Teaching Excellence in University’. These two competitive projects are much more generously funded than others.

It has become commonplace that prestigious universities make an effort to be awarded the ‘Programme for Aiming for Top University’. In contrast, less prestigious universities turn to other competitive projects for funding, for example, the ‘Programme for Promoting Teaching Excellence in University’ (Lo, 2014). In this way, the MOE has achieved its aim of categorising universities into either research-led or teaching-led institutions. Interviewee U and interviewee M elaborated on this:

‘Currently the MOE distributes funding according to the performance of HEIs and competitive projects. I think that HEIs have gradually categorised themselves as research- or teaching-focused based on how much money they receive from the MOE.’ (Interviewee U, former leading policymaker for the QA system)

‘HEIs which were awarded ‘The Aim for the Top University Project’ were research universities, and those awarded the ‘Programme for Promoting Teaching Excellence of Universities’ were teaching universities.’ (Interviewee M, expert in QA).

By operating under the QA system and competitive projects for over ten years, Taiwan's universities have gradually categorised themselves as research-led or teaching-led universities. In order to win the competition against other universities and secure more funding, universities have had to choose one route or the other. This is because when they apply for competitive projects, they only can apply for either 'The Aim for the Top University Project' or 'Programme for Promoting Teaching Excellence of Universities'. This strategy makes HEEACT evaluations all the more influential over university governance.

(iv) Through the MOE using the results of HEEACT evaluations for the Exit Mechanism

Taiwan's higher education has undergone rapid expansion since the 1980s. In order to reduce the number of HEIs, in 2003 the MOE decided to implement the Exit Mechanism to close or merge HEIs.

The Programme Accreditations and the Institutional Accreditations were linked to Exit Mechanism (Interviewee M, expert in QA). If an HEI did not pass these two HEEACT evaluations, the number of new enrollees would be reduced by half every year until the HEI stopped recruitment. For example, the MOE used the Teacher Evaluation programme to close the teacher education centres run by several HEIs. The Teacher Education Evaluation was set up to evaluate training programmes for secondary and elementary teachers because of an oversupply of teachers. University X closed its teacher education centre in 2003 because it predicted there would be not enough students and resources to prepare for and pass the Teacher Evaluation.

In addition, HEIs merged or closed the departments or faculties which failed to pass the 2006 Programme Accreditation. For example, University Y merged several departments on the basis of the results of evaluations and an executive order from the MOE. For instance, the 'Graduate Institute of Mainland China Studies' failed to pass the 2006 Programme Accreditation and was merged with other department into the 'Graduate Institute of Mainland China Studies and Dr. Sun Yat-Sen's Thought'. In this way, HEEACT evaluation facilitated the practice of the Exit Mechanism.

However, other interviewees thought that HEEACT evaluations were not necessarily linked to the Exit Mechanism directly. Most failing HEIs conducted re-evaluations. The HEEACT evaluations may have driven a kind of natural exit mechanism by survival of the fittest. After the results of evaluations were published, parents would simply not choose poorly performing HEIs. It is the power of the market (Interviewee P, former executive director of HEEACT). For example, some universities changed their name to escape a bad reputation after HEEACT evaluations. Taiwan Shoufu University is a good example of this strategy (Interviewee U, former

leading policymaker for the QA system). In addition, interviewee P explained that instead of closing down HEIs directly, what actually happened was that first, academics faced redundancy, then, some departments or faculties would close and finally, the university itself would close.

Although the University Act authorises the MOE to reduce student enrolments based on the results of evaluations, the MOE did not actually implement this strategy until 2013 when the 'Principle of improving or closing private higher education institutions by the Ministry of Education' was enacted. Based on Article 2 of this principle, private HEIs that do not pass HEEACT evaluations have to undergo supervision by the MOE. If the private HEI does not improve, the MOE will reduce student numbers and subsidies. The Principle is comprised of four indicators and private HEIs which fit all four should be closed: first is that the private HEI has fewer than 3,000 students and new enrolment has fallen by more than 60% over two years; second, the private HEI does not pass the Institutional Accreditation or two-thirds of its departments do not pass the Programme Accreditation; third, the private HEI cannot pay salaries over a period of six months; fourth, the private HEI breaks the law.

In 2014, after the implementation of the 2013 'Principle of improving or closing private higher education institutions by the Ministry of Education', three private colleges were closed. Furthermore, the MOE announced that 11 private colleges would be closed and 72 departments of private HEIs would be merged or closed in 2015.

(b) What happened in the four case universities?

The ways the QA system influence university governance are discussed in the previous section. In addition, the extent to which the changes have actually taken place through the processes of the QA system at the four universities can be clarified from their organisational ideals. Bleiklie and Kogan (2007) point out that changes in a university's governance can be justified by its organisational ideals. The organisational ideals are embedded sets of values and may exist in policy documents or organisational plans. New goals such as efficiency, manageability, accountability and quality manifested themselves not only in institutional settings but also in reformed leadership behaviour.

Governance at all four universities was criticised during the 2011 Institutional Accreditation. Among the performance indicators, the 'mission and goals' and 'governance and management' were the most controversial criteria. Interviewees from University Y argued that the MOE should not judge the mission and goals of their university. They argued that If all HEIs were to follow the MOE's instructions to satisfy external reviewers and pass HEEACT's evaluations, then there would be only one university in Taiwan—the MOE University.

The president of University X thinks that autonomy should be sacrosanct and that the government should not interfere in university governance by using evaluations.

‘I will not change the original goals of my university to meet HEEACT evaluations. We (the university) have our distinct features and characteristics.’ (Interviewee O, president of University X)

However, it is important to remember that existing powerful national, cultural, and historical forces may result in different reactions from the four universities, from resistance to meaningful compliance. Marginson and Rhoades (2002) suggest that there are different patterns of local resistance to global agencies’ initiatives.

Each case university had a different attitude toward the impact of the QA system on university governance. The responses of the four universities to the QA policies ranged from ignoring them, or resisting them to complying with them. For example, University X regarded HEEACT evaluations and policies of the MOE as interference in its operations.

‘I was not satisfied with HEEACT evaluations. The MOE interfered in universities indeed [...] although I was confident about my university and even though we passed all evaluations and performed well, the HEEACT performance indicators influenced departments and faculties [...] for example, the MOE interfered in our approach to industry-academic cooperation. The MOE and HEEACT evaluations required the same criteria when judging ‘good’ industry-academic cooperation’ in public universities as private universities.’ (Interviewee O, president of University X)

‘Many good academics were headhunted by public universities. Public universities want to increase the numbers of publications and improve their rankings.’ (Interviewee O, president of University X)

At University A, confident of its reputation in every respect, the president thought HEEACT evaluations were just a basic requirement. The only influential policy of the MOE was the ‘The Aim for the Top University Project’ because of funding it promised. The QA system had no influence on the university’s governance. (Interviewee E, president of University A).

The attitudes at both Universities Y and B toward HEEACT evaluations and MOE policies were more positive than at either X or A.

‘We (the MOE) also received some positive feedback. For example, one president of a public university said he could finally ask some academics to change based on the requirements of HEEACT evaluations.’ (Interviewee A, a current policymaker in the MOE)

Although interviewee D thought that the 2011 Institutional Accreditation had had a negative influence on University Y’s developmental plan (Interviewee D, a senior academic with managerial role in University Y), others had positive comments on the QA system. Senior academic I of University Y pointed out that HEEACT evaluations forced the president and the

committee to provide more resources to students. Prior to the evaluations, the university had only spent the minimum on students.

University B is an interesting case because the president and academic staff did not see eye-to-eye on the MOE policies. The president of University B thought that the MOE and the QA system had seriously interfered with his governance.

‘I had thought that HEEACT evaluations were games of the MOE. I advocated that the president of a university should be like a philosophical king who ‘governs by doing nothing that is against nature’ (無為而治 wúwéi ér zhì). Thus I did not try to meet the requirements of HEEACT.’ (Interviewee R, president of University B)

‘I thought the basic problem was that we did not even try to meet the expectations of external reviewers.’ (Interviewee R, president of University B)

However, after failing the 2011 Institutional Accreditation, the attitude of the president changed from resistance to compliance. For University B, the damage from HEEACT evaluations was decreasing enrolments.

‘In order to pass the ‘follow-up’ evaluation, I reorganised the administration system. For example, we created a motto to satisfy one criterion of evaluation.’ (Interviewee R, president of University B)

However, all of the other interviewees from University B indicated that the QA system has helped to improve departments which were short of resources. They thought that the university governance in University B has become more transparent after conducting HEEACT evaluations.

3. Summary

First, I have clarified the changes in the relationships between the MOE, HEEACT and universities. HEEACT has played an important role in these changes. By using the QA system and a legally authorised QA agency (HEEACT), the MOE has been able to take a more interventionist approach with universities. Policymakers used various discourses such as globalisation, internationalisation and league tables to argue that the QA system was vital to drive higher education reforms. In this, Taiwan’s QA policies share similarities with European countries and the U.S.A. and are an example of policy borrowing. The development of QA policies not only show features of policy borrowing but also demonstrate the basic tension inherent in the system: HEEACT was originally supposed to be an independent QA agency but has been used by the government to spearhead their goals for higher education. Both intended and unintended consequences emerged after HEIs underwent HEEACT evaluations.

HEEACT has faced a variety of problems in its attempts to assess individual HEIs. Three issues were mentioned in Chapter Four: the first issue is ‘problems connected with the

difficulties of measuring the outcomes of the QA system'. It reveals the difficulties in separating cause and effect of the QA exercise and the outcomes. The second issue is 'the use of some unqualified external reviewers by HEEACT', and the third issue is 'problems associated with the criteria of the evaluations' set out by HEEACT. The criteria permit HEEACT to affect universities regarding faculty promotions, reappointments, tenure, dismissals, discontinuance and rewards. Academics and media have argued that these issues can be attributed to HEEACT and therefore HEEACT should take responsibility for ruining the traditional values of universities. However, from the interviews, I found that the third issue is manufactured issues, generated by the reactions of universities to the introduction of the QA system and not to the requirements of HEEACT.

It is clear that the QA system has influenced HEIs at the system level. The QA system has provided those in administration with the opportunity to centralise power over academics by determining who should do what and how to satisfy the demands of HEEACT. In addition, the evaluations forced universities to choose either to focus on research or teaching. The MOE has directed the development of HEIs through using performance indicators and the results of HEEACT evaluations. In this way, HEEACT has disturbed the existing distribution of authority in universities, especially governance structures. The QA exercise has had a significant effect on university governance in different ways depending on the university. For the universities with a good reputation, their methods of governance were reinforced by the good results they achieved in the QA exercise; on the other hand, universities with a poorer reputation had to change their methods of governance in order to meet the requirements of the QA exercise. This changing governance has caused various changes within universities, affecting teaching and research, which will be discussed further in Chapter Seven.

Chapter Six: How Universities Prepare for the QA Exercise

The aim of Chapter Six is to answer RQ2: How do university staff in the four universities, each with different features, prepare for and perceive the impact of the QA system undertaken by HEEACT? This chapter explores the impact of the QA system at the institutional level by examining how the four universities prepared for the QA system. The HEIs felt that in order to satisfy the requirements of the QA system, they needed to introduce new processes and structures, and these changes have had knock-on effects on the HEIs.

I present the different characteristics of public and private HEIs in four sections, dealing with: the contexts of the four universities, the preparation processes, the academics' perceptions of internal measures, and issues that emerged from the preparation processes. At the end of each section, there is cross-site analysis of the four universities. In the first section, I investigate the reasons why the four universities engaged in preparing for the QA exercise. Second, I identify how the staff at each university prepared for the QA system, and the internal measures introduced by the universities in their attempts to meet the requirements of QA. Third, the perceptions and reactions of university staff to the QA exercise are explored. Then, in the fourth section, the three main issues that arose from the preparation processes within HEIs are addressed. Finally, in the fifth section, there is a deeper discussion of the impact of the QA system at the institutional level.

1. The contexts of the four universities

I begin with an overview of the processes of adopting and implementing the QA system within each of the universities. Each university responded in different ways depending on their distinctive institutional circumstances and the perceived requirements of the external quality assurance agency.

University A

As one of the leading and most prestigious research universities in Taiwan, the research output of University A has traditionally been evaluated in publications, and by research contracts and prizes. From the time of the Japanese colonial administration, University A has led the development of higher education in Taiwan. It has successfully improved its international reputation through winning many competitive projects. It is the largest university in Taiwan with over 33,000 students in 2014. Interviewee E pointed out that it initiated its internal QA exercise in 1997, before the introduction of the HEEACT evaluations:

'We started our own evaluations in 1997. I was the Dean of Office of Academic Affairs. At that time, we joined the Comprehensive Evaluation conducted by the MOE in 1997. Then we decided to conduct our own evaluations annually. This year (2013) was the 16th year

and the third cycle of evaluations here. The evaluations of HEEACT began in 2005.’ (Interviewee E, president in University A)

After the introduction of evaluations by HEEACT, University A was aware of the need to maintain its reputation in the competitive higher education world. The president and academics with administrative roles suggested that the HEEACT evaluations were necessary to maintain the status of University A and allow it to compete for projects:

‘Taiwan’s universities have had to be ranked since 2003. One of the ranking systems was ‘Performance Ranking of Scientific Papers for World Universities’ conducted by HEEACT from 2007 to 2012. For University A, the Academic Ranking of World Universities by Shanghai-Jiao Tong University, Times Higher Education World University Rankings and the QS World University Rankings were important rankings. We did not like being ranked but had no choice but to compete for better rankings.’ (Interviewee E, president in University A)

Thus University A took the evaluations seriously and strove to meet HEEACT’s requirements and gain a higher HEEACT ranking. The need to compete for competitive projects is emphasized not only by the president but also by the academic staff:

‘We had to compete for ‘The Aim for the Top University Project’. If we, A, could not apply for this project, the operation of University A would face difficulties.’ (Interviewee G, a senior academic with managerial role in University A)

Interviewee E also pointed out that the QA system was not only an external assessment for University A but also to prove their reputation:

‘I thought the evaluations we introduced in 1997 were ‘quality’ evaluations essentially. The reports of evaluations were meant for improvement. No matter what the results were, good or bad, the reports had to be submitted to the President’s Office. In contrast, the evaluations by HEEACT were just a basic requirement for all universities. But if universities did not pass HEEACT evaluations, it would be embarrassing. Thus all universities had to hide their drawbacks and present good things. I thought evaluations of HEEACT were not for improvement but just the minimum requirements of operating a university.’ (Interviewee E, president in University A)

Interviewees in University A expressed concerns about the status and reputation of their institution facing pressure from globalisation and the demands of the MOE. In order to maintain its reputation and competence, University A introduced internal measures not only to meet the requirements of the QA system, but also to ensure its excellence in research.

The results of the evaluations of HEEACT:

- a. In the first-term Program Accreditation undertaken by HEEACT in 2009, only one department was ‘accredited conditionally’ out of 239 faculties and departments.
- b. University A passed the first-term Institutional Accreditation undertaken by HEEACT in 2011.

- c. University A will join the second-term Program accreditation undertaken by HEEACT in 2015.

University X

University X was established in 1956, and upgraded from a college to university in 1991. It has focused on media related disciplines and engaged in improving industry-academic cooperation. There were over 11,686 students enrolled in 2014.

It has experienced the changing relationship between higher education and the state since 1997. The interviews with academic staff in University X indicated that the only reason that they participated in the evaluations of HEEACT was that they were compulsory. As interviewee O explained, although academic staff were reluctant to prepare for the evaluations, they had no choice but to cooperate:

‘I thought the government seriously interfered with the operation of HEIs. The accreditation system should be conducted by professional groups without government interference. But the Taiwanese government linked funding allocations to the accreditation system. In addition, the Programme Accreditation and Institutional Accreditation did not work as designed, with powers of accreditation as in the U.S.A, [...] but we had to conduct these two evaluations. If we could not get good results in the evaluations, our funding would be reduced by the government.’ (Interviewee O, president in University)

The president pointed out the university has faced a shortage of funding and has to secure funding by striving to get as good as a score as possible in the HEEACT evaluations.

The results of evaluations of HEEACT:

- a. In the first-term Program Accreditation in 2008, two departments were ‘accredited conditionally’ out of 43 faculties and departments. All the other departments were accredited.
- b. University X passed the first-term Institutional Accreditation in 2011.
- c. University X passed the second-term Program accreditation in 2014.

University B

University B is a young public university established in 1996. In total there were 1,600 students in 2013. The whole university is difficult to evaluate in any meaningful way, especially because it is a university of the arts, focusing on music and architecture.

The university fulfilled its obligations according to the University Act and conducted HEEACT evaluations. In the 2006 Programme Accreditation, University B did not perform well. However, it did not engage in preparations for the QA system until after the university failed to

pass the 2011 Institutional Accreditation. One interviewee explained the damage that occurred after they failed to pass the 2011 Institution Accreditation.

‘The result of the 2011 Institutional Accreditation was a blow for us [...] the number of enrolments decreased in the following year [...] I thought that the biggest harm to our university was the damage to our reputation. Even my father asked me: Why did University B not pass the evaluations? Was B a bad university? Every newspaper published the results of evaluations [...] Thus we all engaged in preparing for the ‘following-up evaluations’ and ‘re-evaluation’. We had to pass the following year’s evaluations.’ (Interviewee S, a junior academic with managerial role in University B)

The damage to the university was not only to its reputation but also the impact on enrolments.

‘The bad result of the 2011 Institutional Accreditation decreased the number of enrolments by postgraduate students...but the enrolment of undergraduates was fine because at least University B is a public university. (Public universities remain attractive to many students because of reputation and lower tuition fees)’ (Interviewee V, senior academic, University B)

The bad results also influenced the funding allocation. One interviewee explained:

‘University B did not distribute funding to departments according to the results of the evaluations of HEEACT but based on student numbers. But B’s total funding allocation was influenced by the results of the HEEACT evaluations. I was not sure how much funding was reduced or rewarded, but we had to compete for competitive projects for more funding.’ (Interviewee V, senior academic in University B)

After the results of B’s failure to pass the Institutional Accreditation were published, the media reported that University B had to be merged with another university by the MOE. The MOE created a committee tasked with deciding which public universities should be merged. Another institution, University C, wanted University B to become one of its faculties.

‘In the beginning the two universities reached a consensus that University B would cooperate with University C instead of being merged. However, in order to decrease the number of universities, the MOE suggested that we should be merged into University C because the cooperation went well and we failed to pass the evaluation. That was the view of the bureaucracy.’ (Interviewee V, senior academic in University B)

A movement formed by academic staff and students in University B advocated against a merger. University B has not merged with University C as the media expected. However, the MOE enacted a law about mergers of public universities in 2013. The MOE now has the right to impose mergers without the agreement of the universities concerned. Nevertheless, interviewees did not think that the MOE would dare to merge University B retrospectively given that the Vice Minister of Education had been President of University B several years ago. (Junior academic S, senior academic V, President R, University B)

The results of the evaluations of HEEACT:

- (i) University B failed to be awarded funding from the 'Program for Promoting Teaching Excellence Universities' in 2008.
- (ii) Regulations for self-evaluations in 2010 of University B were enacted in response to a demand from HEEACT.
- (iii) In the first-cycle Program Accreditation in 2006, from a total of 17 faculties and departments, four departments were 'accredited conditionally' and two departments were issued with a 'denial' (the term used by HEEACT). In the re-evaluation, all departments that had been 'accredited conditionally' or given a 'denial' passed the re-evaluation.
- (iv) In the second-cycle Programme Accreditation in 2012, out of a total of 19 faculties and departments, two departments were 'accredited conditionally' and one department was issued with a 'denial'. The department that received the 'denial' also failed the re-evaluation and were not allowed to recruit new students in the 2012-2013 academic year.
- (v) University B was the only public university which did not pass the 2011 Institutional Accreditation. Three domains were 'accredited conditionally' (mission and goals, teaching and learning resources, accountability and social responsibility, and quality assurance mechanisms) and one domain accredited 'denial' (governance and management). (Overall there were five domains in Institutional Accreditation: mission and goals, governance and management, teaching and learning resources, accountability and social responsibility and quality assurance mechanisms).
- (vi) In the second-term Program Accreditation in 2012, of the 17 faculties and departments, two departments were 'accredited conditionally' and one department was given a 'denial'. The failed department was forced to stop recruitment from 2012.

University Y

University Y is a traditional private university, founded in 1962. It had 26,468 students in 2014. According to the results of the College Entrance Examination, the reputation of University Y is the lowest amongst traditional private universities.

As a traditional and relatively old university, University Y had not conducted any evaluations until 2005, when the QA system was introduced across Taiwan. University Y took the national QA system seriously and created internal measures but only after the evaluations of HEEACT in 2005. The reason for this decision was to do with the need to meet the requirements of HEEACT and increase student enrolment rates. Failing the HEEACT evaluations would mean falling student numbers and reduced funding from the MOE.

Both of senior academic staff C and D indicated that not only did HEEACT's evaluations impact on the 'MOE's Funding Program for Private Universities and Colleges' but were also a decisive factor in who was awarded 'Programme for Promoting Teaching Excellence of Universities'. Thus University Y engaged in preparing for the QA system and then it was awarded funding for 4 years of the 'Programme for promoting Teaching Excellence of Universities' from 2011.

The results of the evaluations of HEEACT:

- (i) In the first-term Program Accreditation in 2007, from a total of 104 faculties and departments, 22 departments were 'accredited conditionally' and two departments were given a 'denial'.
- (ii) One evaluative item (governance and management) was 'accredited conditionally' in the 2011 Institutional Accreditation, and the other four items were 'accredited' (Overall there were five evaluative items in Institutional Accreditation: mission and goals, governance and management, teaching and learning resources, accountability and social responsibility and quality assurance mechanisms).
- (iii) HEEACT conducted the 2013 Program Accreditation in University Y. The results of this evaluation were published in 2014.

Cross-site analysis: different contexts

According to the model of Brennan and Shah (2000), institutional contexts differ in terms of public or private characteristics, size, mission, and reputation. In addition, they also differ in their histories, traditions, and internal structures. These differences in institutional contexts influence universities' decision-making processes and internal cultures.

The greatest concern of the two public universities was to maintain their reputations. Reputational claims relate to links with industry and innovation and general academic excellence. A good reputation can attract funding, students and good academic staff. Moreover, most of the universities that enjoy a good reputation in Taiwan are public universities. They are located in major cities and may benefit from their association with such cities in terms of attracting students. But a reputation may be damaged by a critical QA exercise which has the potential to lower the university in the league tables and lower student numbers in a market-oriented higher education system.

Public perception of the reputation of higher education institutions is crucial and by publishing the results of its evaluation, HEEACT is seen to pose a threat to the maintenance of such a reputation. The media convert the results of evaluations into national league tables thereby heightening the potential impact of the QA system

Universities with good reputations are afraid of losing in the QA system while universities with a poorer reputation have more opportunities to improve. In Taiwan, private universities know their reputation is lower than public universities and therefore believe that evaluations and competitive projects provide opportunities to promote their status. Private universities which perform well on evaluations use the good results to attract students. However, private universities which do not pass evaluations not only face having their student numbers cut by the government but also earn a bad reputation in the league tables which compounds their struggles to enrol students.

2. The preparation processes

In the interviews, I found that four universities introduced common features to prepare for the QA system: the introduction of internal measures by changing organisational structures, the provision of rewards and the implementation of new staff evaluations. These features fit the three categories of the analytical framework: structures, rewards and policies. Based on the analytical framework, it can be seen that making an impact through structures, rewards and policies is likely to arise within HEIs because of the introduction of QA. However, there were distinctive differences between the four universities while they prepared for the QA exercise. Thus below I will use the three categories to discuss the preparation process for the QA system at the four universities.

(a) Structures

University A

Internal measures included the introduction of new offices responsible for the evaluations in response to HEEACT. In order to prepare for the QA system, University A created two new organisations to better allocate the extra work involved in evaluations. First, according to interviewee F, 'The Centre for Teaching and Learning Development' was created to enhance teaching quality and prepare for the evaluations related to teaching:

“The Centre for Teaching and Learning Development’ was established in 2006. Its aim was to promote new ideas for both teaching and evaluations.’ (Interviewee F, senior academic in University A)

Second, interviewee G pointed out that in order to improve the efficiency of the administrative system in conducting internal QA exercises and preparing for the evaluations of HEEACT, 'The Secretariat, Office of Academic Affairs of University A' was created by the university:

“The Secretariat, Office of Academic Affairs of University A’ was responsible for preparing the QA system. We always followed the regulations of HEEACT.’ (Interviewee G, a senior academic with managerial role in University A)

Interviewee G revealed that the preparation process was determined not by HEEACT but by the office. This new organisation also created a new system within University A, called 'manager of department', to encourage administrators to prepare for the Programme Accreditation. Under this 'manager of department' system, each department would have at least one manager to deal with the evaluations.

The key features of the preparation process under 'The Secretariat, Office of Academic Affairs of University A' was to prepare for the HEEACT visit by implementing a number of measures, which are explained below:

First, all departments had to conduct self-evaluations. Then they had to submit their reports to their faculties and 'The Secretariat, Office of Academic Affairs of University A'. In this process, departments only had to fill out the forms provided by the office and had a certain amount of freedom to prepare for the QA exercise.

'There were no fixed procedures provided by 'The Secretariat, Office of Academic Affairs of University A'. My department distributed the preparatory work to each academic and administrator equally. Each academic worked with one administrator together.'
(Interviewee G, a senior academic with managerial role in University A)

However, the forms provided by the office were regarded as burdensome on top of ordinary academic duties.

'We followed the requirements of our university. They had an overall schedule for whole faculties and departments. We filled out the forms provided by the administrators [...] each academic staff provided their reports and publications. I thought the paperwork wasted our time although there was no pressure really.' (Interviewee B, junior academic in University A)

In contrast, senior academic G thought that the strict demands from administrators made on academics were helpful in preparing for the QA system.

'I knew there were several kinds of evaluations at the same time. Thus I always tried to encourage administrators to engage in preparing for the QA system because the reports for evaluations of HEEACT can be used in other evaluations. In addition, departments can benefit from evaluations if academics and administrators take evaluations seriously.'
(Interviewee G, a senior academic with managerial role in University A)

Second, after collecting these reports of self-evaluation from each department, 'The Secretariat, Office of Academic Affairs of University A' submitted reports to HEEACT. Finally external reviewers from HEEACT conducted on-site visits for two or three days.

In addition, in order to respond to the requirements of the 2013 second-cycle Programme Accreditation, University A developed a new curriculum called 'capstone courses'. This new 'capstone courses' plan aimed to help improve not only the processes of preparing for evaluations but also the university's teaching performance.

‘The aim of the 2013 second-cycle Programme Accreditation was to check students’ learning outcomes. To be honest, it was not easy to achieve it. HEEACT did not provide specific criteria, but said that universities could decide their own criteria. In addition, they insisted that Programme Accreditation was not for university ranking but for self-improvement. Thus we planned to use a new idea ‘capstone courses’ to present our students’ learning outcomes.’ (Interviewee G, a senior academic with managerial role in University A)

‘We proposed a new plan named OCIA which involves ‘capstone courses’ to help all department to help students’ learning performance...I expected students’ learning performance in each department would be improved after implementing the new plan...I thought evaluations did not help improve efficiency of administration but should provide opportunities for us to reflect on teaching.’ (Interviewee F, senior academic in University A)

From the above interview, it is evident that although the decision to prepare for the QA system and adopt internal measures was made by central office administrators, (who are senior academics with administrative positions), the academic staff themselves started to consider how to make the most of the preparation process by changing the structure of the curriculum.

Another interviewee from University A indicated that the preparation processes for the QA system relied more on the administration system than on academics. Administrators played an important role in preparing the QA system at department level.

‘The pressure of preparing for the QA system was not too heavy for my department because the stress of doing research and teaching was normal for academic staff. Only our head of department and the administrators were overwhelmed by the QA system.’ (Interviewee B, junior academic in University A)

In fact, administrators were the key people tasked with preparing for the QA system in University A. However, the turnover rate of administrators was high and most of them did not actually engage in preparing evaluations. Thus University A underwent a series of structural changes, such as setting up new organisations to strengthen the function of administration and installing a new curriculum, to prepare for the QA system.

University X

The university had a well-established framework for its internal QA exercise before the introduction of the QA system. Information about academic staff and teaching was computerised even before HEEACT began to require evaluations.

The key feature of the preparation process at University X is that its institutional history shaped its different strategy for preparing for the QA system.

‘University X was a poly-tech college before 1991. Thus our focus is on practical skills. We emphasized these special features in the evaluations...I dare to say that our College of Journalism and Communications is the best one in its field in Taiwan.’ (Interviewee O, president in University X)

With this belief of the president, the 'Office of Research and Development' (ORD) was created and made responsible for preparing for the evaluations of HEEACT. One academic with a managerial role at University X pointed out that:

'The 'Office of Research and Development' was created to prepare for evaluations. [...] We had recognised the need to develop our own system before the QA was officially conducted in 2006.' (Interviewee N, an academic with managerial role in University X)

The preparation process for the QA system under the ORD is described below:

First, all departments conducted their own self-evaluations, which mainly involved completing forms. Second, departments submitted these reports to the 'Office of Research and Development'. Then the ORD collated them and submitted a report to HEEACT. Following this, external reviewers from HEEACT conducted an on-site visit (Interviewee L, administrator in University X). In addition, interviewee N elaborated on the special strategy for preparing for the HEEACT visit:

'Before the formal on-site visit from HEEACT, we conducted a mock evaluation. Each head of faculty presented their report to the president, senior administrators and external reviewers who were invited by the ORD.' (Interviewee N, a senior academic with managerial role in University X)

By introducing detailed regulations and conducting mock evaluations, University X prepared for the QA system carefully, and the preparatory processes started one year before the formal evaluations of HEEACT.

'We conducted HEEACT evaluations in April 2008. We had to finish the self-evaluation report and send it to HEEACT. Then external reviewers from HEEACT conducted an on-site visit. Thus my university started to prepare it from 2007, giving one year of preparation.' (Interviewee N, a senior academic with managerial role in University X)

Although University X emphasized the importance of the evaluations of HEEACT, departments and faculties had the freedom to decide the contents of their reports and how to distribute work to academic staff.

'There were no specific regulations about how to write reports. The ORD gave each department a flexible schedule, which stated when to submit reports and to whom. HEEACT said that universities could decide their own performance indicators so we wrote reports according to faculties' performance indicators. Then the head of department submitted reports to the faculty and the Office of Research and Development.' (Interviewee J, senior academic in University X)

Interviewee N described the preparation process within the department:

'There were several forms provided by HEEACT, regarding such things as the outcome of teaching, research publications and the level of student enrolment per academic year. The head of department distributed them to each academic. After completing the forms, academic staff submitted them to the head of department who summarised them and wrote reports. The head then submitted the reports to the faculty and the Office of

Research and Development.’ (Interviewee N, a senior academic with managerial role in University X)

However, there were some differences between preparing for the Programme Accreditation and the Institutional Accreditation. For University X, the Institutional Accreditation was a task not for departments but for the central administration system.

‘For departments, the more influential evaluation was Programme Accreditation. The reports of Institutional Accreditation were written by the Office of Research and Development so departments and faculties provided information to them. Departments and faculties also supported on-site visits when the office of Research and Development needed it. In sum, the Office of Research and Development was responsible for preparing for Institutional Accreditation.’ (Senior academic K, University X)

From the above interview, it is clear that academic staff were given more responsibility for the Programme Accreditation while the administrators took more responsibility for preparing for the Institutional Accreditation. Furthermore, when University X responded to the QA system, the structure of administration of the university was influenced by the creation of internal measures within the university.

University B

In University B, some departments and faculties were reconstructed because of the results of HEEACT evaluations.

‘My department passed the 2006 Programme Accreditation. However, the MOE asked my university to reconstruct and improve related departments because other departments failed to pass the 2006 Programme Accreditation and needed to be evaluated again. The initial committees decided to keep my department’s position, but after the summer vacation, my department was merged with other departments and no one admitted they made the decision [...].’ (Interviewee T, junior academic in University B)

Furthermore, University B encountered damage to its reputation after failing to pass the 2011 Institutional Accreditation. This shock drove B to start preparing for the QA system. University B has tried to initiate reviews by external reviewers of most aspects of the university, and started to take overall responsibility for the quality process. The implementation of internal measures at University B began at the level of the programme designers (or administrators), then it flowed through the central office, and ended with agreements between the presidents and head administrators on how many of the internal measures were to be implemented. In short, the implementation of internal measures was political. For example, in the beginning, the Secretariat was the main organisation that prepared for the evaluations conducted by HEEACT. Then in order to more fully engage in future evaluations, ‘The office of Research and Development, The Academic Affairs Division’ was established and became responsible for all

kinds of evaluations since 2013 (Interviewee S, a junior academic with managerial role in University B).

The preparation processes for the QA system under the 'The office of Research and Development, The Academic Affairs Division' are similar to those of University X. First, all departments in University B conducted self-evaluations, which mainly involved filling out forms provided by HEEACT, including assessments and curriculum details of each course and concerning the publications by academic staff. Second, all departments submitted their reports to 'The Office of Research and Development, The Academic Affairs Division', which then submitted a report to HEEACT for review. The university responded to the suggestions of external reviewers from HEEACT, who then conducted an on-site visit.

In the new regulations under 'The Office of Research and Development, The Academic Affairs Division', the preparation processes started one year before the formal evaluations.

'We knew that we would be evaluated the following April, so my department started to prepare for it thirteen months in advance.' (Interviewee S, a junior academic with managerial role in University B).

In addition, University B also started to conduct mock evaluations before the formal evaluations of HEEACT. However, unlike Universities A or X, the president of University B said that each department could decide whether to conduct a mock evaluation or not. Some departments conducted mock evaluations and got good feedback during the HEEACT visit (Interviewee S, a junior academic with managerial role in University B). However, other departments, which did not conduct mock evaluations, and were criticised by HEEACT, felt that the voluntary nature of the mock evaluations was misleading (Interviewee T, junior academic in University B).

'My department did not conduct mock evaluation because we thought we had prepared well. However, in the formal evaluation, external reviewers from HEEACT were not satisfied and asked us why my department did not conduct mock evaluation. I thought that evaluation was like an exam.' (Interviewee V, senior academic in University B)

Interviewee V pointed out that the mock evaluation seemed to be an essential criterion for HEEACT evaluations, although HEEACT claimed that HEIs could decide whether to conduct them and the president of University B took the claim at face value.

From the above interview, it is evident that University B has changed its administrative and academic structures according to the requirements of the QA system. In this regard, the QA system has had an influence on the structures of University B.

University Y

University Y has created internal measures in order to adjust to contextual changes as well as to prepare for the requirements of the QA system. In 2000 'The Office of Research and Development' was established as a separate unit from Academic Affairs Department. One interviewee pointed out that it was a special strategy to prepare for the evaluations of HEEACT (Interviewee D, a senior academic with managerial role in University Y). By making 'The Office of Research and Development' independent the university was emphasizing the importance of preparing for evaluations.

The preparation processes of University Y followed HEEACT's instructions with all departments conducting a self-evaluation and heads of departments allocating particular tasks to academic staff to write reports. At the beginning of the preparation processes, 'The Office of Research and Development' provided departments with a schedule. Departments had to submit reports according to the schedule. Then all departments submitted their reports to 'The Office of Research and Development' and 'President's Office'. 'The Office of Research and Development' conducted mock evaluations for all departments, which mainly involved practising their presentations to the president and senior administrators. Afterwards 'The Office of Research and Development' submitted reports to HEEACT. Then external reviewers from HEEACT conducted on-site visits in University Y.

However, interviewees said that they thought they had understood the requirements and procedures of the QA exercise and internal measures until they had actually attempted to put them into practice. It means that academic staff lacked understanding of the QA system in the beginning:

'No one knew how to prepare for the 2006 Program Accreditation at that time...it was really difficult to prepare and get help from departments...but all departments and academics engaged in preparing the second-cycle Programme Accreditation in 2013 because most academic staff have experience of preparing and the internal measures have improved compared to the previous time.' (Interviewee C, senior academic in University Y)

From the above interviews, it is clear that academic staff in University Y learned how to prepare for the QA system in the preparation process. Furthermore, the results of evaluations of HEEACT also influenced the structure of departments.

'[...] some departments which did not perform well on the Programme Accreditation were closed or merged with other departments.' (Interviewee D, a senior academic with managerial role in University Y)

Interviewee C also provided an example. The Centre of Teacher Education in University Y was an example of a structure impacted by evaluation (Interviewee C, senior academic in

University Y). Because the Centre of Teacher Education could not pass Teacher Education Evaluation, student numbers have been reduced several times, to the point where the Centre faces difficulty in operation.

The structures of departments were not only changed by the results of HEEACT evaluations, but also influenced by the responses of the university to the requirements of HEEACT. One interviewee explained that each department added 'curriculum mapping' and tutorials for students in order to meet the requirements of HEEACT (Interviewee D, a senior academic with managerial role in University Y).

From the above interviews, it can be seen that in University Y, the structural changes made in preparation for the QA system involved the creation of new organisations and the changing department structures.

(b) Rewards

University A

The central office administrators in University A led or strongly advocated the new internal measures. They tried to encourage academic staff to engage in the internal measures for the HEEACT exercise and made their offer more attractive by promising additional resources or rewards for departments or whole faculties.

'Our university had some rewards for good publications and great teaching...if a member of academic staff was rewarded for good teaching, then the person did not have to undergo the university faculty evaluation. But I thought that reward as an incentive for evaluations was weird.' (Interviewee B, junior academic in University A)

However, some academic staff thought that such rewards could not reflect what great teaching is. For them, the use of rewards to encourage academics' publications and teaching were just another form of evaluation.

University X

At University X, rewards for preparing for the QA system were fewer than at University A. However, as seen earlier rewards were not the most appealing incentive for academics.

'Every year there were rewards for research. Academic staff did research and published their work because of the regulations on promotion or for personal appraisal. The HEEACT evaluations were not their main consideration.' (Interviewee J, senior academic in University X)

Academic staff in University X revealed that their main motivation to publish is for personal appraisal. The rewards provided by the university are not the most influential factors encouraging them to publish.

University B

University B also began providing rewards to encourage publication as part of its preparation for the QA system. However, the rewards are not attractive to academic staff because University B is a university of the arts.

‘We are a university of the arts, so it would be difficult for academic staff to publish. University B has special rewards for publishing in SSCI/SCI journals. For academic staff who present their research outcomes in different forms, such as exhibitions or concerts, we have other rewards available. Thus the rewards for publishing in SSCI/SCI journals are not so important for academics here.’ (Interviewee S, a junior academic with managerial role in University B)

Interviewee S pointed out that most academic staff in University B engaged in exhibitions and other performances instead of publishing in journals. For academic staff in University B, publishing papers in SSCI/SCI journals was not necessary.

University Y

The internal measures of University Y also influenced academic staff through salary-linked incentive schemes at the individual level. University Y offered some rewards for research. Interviewee I stated that although University Y did not demand that academic staff publish in SSCI/SCI journals, they would be rewarded if they could achieve this. For example, one paper in an SSCI/SCI journal was rewarded with 400 pounds (Interviewee I, a senior academic with managerial role in University Y).

(c) Policies: Staff evaluations

Based on the University Act, each university should conduct its own staff evaluations from 2005. These formed an initial and integral part of the quality assurance process. The evaluations review the achievements in teaching, research, instruction and service to society of all academics.

University A

In University A, the staff evaluation was called ‘faculty member evaluation’. The results of this evaluation were important references for individual appraisals of academics.

However, one interviewee indicated that faculty member evaluation was unfair for academics and may actually harm the quality of teaching.

‘I thought faculty member evaluation here was unfair for academics who engaged in teaching and spent time on students. For example, one of my colleagues did not pass faculty member evaluation last year because he failed to publish enough journal articles. It was a shame that a hardworking teacher may have his contract terminated on those grounds, even though he was given a ‘Good Teaching Faculty’ award several years ago.’ (Interviewee B, junior academic in University A)

Another important method of faculty member evaluation was using student questionnaires to evaluate individual courses. University A conducted a 'Course Questionnaire' at the end of each term to evaluate the teaching performance of academic staff.

The questionnaires were anonymous and the results of the surveys were used as a tool to evaluate the teaching ability of academics. However, some academics thought that this way of measuring teaching efficiency was not appropriate because students may be biased against tough courses and give low marks to the teachers.

'It was easy to please students. Teachers could prepare fancy teaching material and easy exams [...] in order to get good marks on questionnaires. In the end, good education was sacrificed due to this policy...students had their opinions, and they could not always be objective and impartial. I thought there should be other methods to evaluate teaching performance, such as reviewing the assignments given students, examining teaching materials and video recording.' (Interviewee B, junior academic in University A)

From the above interview, it can be seen that academic staff complained about the student surveys because they did not believe that students were mature enough to evaluate teachers.

University X

Similar to University A, in 2006 University X enacted the 'Faculty Member Evaluation Policies' to evaluate academic staff according to the University Act. However, the emphasis of the evaluations was different from University A.

'Our faculty member evaluation focused on teaching, research and service in that order. Recently teaching performance has become more important than research. It is hard for private universities to compete on research performance with public universities. In addition, most of our departments and disciplines are applied social sciences. For University X, industry-university cooperation is more important than publications in SSCI/SCI journals.' (Interviewee J, senior academic in University X)

The issue of using student questionnaire surveys to evaluate individual courses also appeared in University X (Interviewee O, president in University X).

'University X was awarded funding from the 'Programme for Promoting Teaching Excellence of Universities' for 9 years. The university emphasized our teaching performance heavily in order to keep this award. I found that teachers got lower scores from students on teaching performance if they failed students. I thought student questionnaire surveys did not enhance the quality of teaching but made teachers passive.' (Interviewee N, a senior academic with managerial role in University X)

Academic staff in University X complained about the student surveys as their counterparts in University A did. They thought that it was inappropriate to use the surveys to judge the teaching performance of academics.

University B

The evaluation of faculty members was similar to University X. According to the University Act, University B enacted the 'Faculty Member Evaluation Policies' in 2006 to evaluate all academic staff according to the University Act. In University B, each faculty member is allowed to decide what percentage of their evaluation will be based on teaching, on research and on service. Furthermore, administrators and academic staff thought that the preparatory processes and the results of faculty member evaluations could also be used to prepare for the evaluations of HEEACT (Interviewee V, senior academic in University B).

The issue of using student questionnaire surveys to evaluate teachers was also evident in University B, as at other institutions.

'I have taught in University B for four years. [...] I found that some students intended to give teachers lower scores on teaching performance because they were against the teachers for personal reasons or even for no particular reason. The direct influence of student questionnaires on me is that I do not want to have too many students in my class. I hope that students who attend my class are interested in the class. [...] I think that the scores of student questionnaires will affect the results of the faculty member's evaluation and will have a negative influence on teachers.' (Interviewee S, a junior academic with managerial role in University B)

As interviewees from Universities A and X mentioned, academic staff S in University B also expressed the view that the opinions of students could harm or decrease the enthusiasm of teachers.

University Y

The 'Faculty Member Evaluation Policies' were introduced in 2007 to evaluate academic staff.

'The information about personal teaching and research was all presented in faculty member evaluations. Of course the faculty member evaluation was related to personal tenure and Programme Accreditation. The evaluative criteria were similar and the faculty evaluation reports can be used to prepare for Programme Accreditation.' (Interviewee C, senior academic in University Y)

From the above interview, it can be seen that faculty member evaluations are one kind of HEEACT evaluations and are treated seriously by academic staff because the results directly relate to personal appraisal.

Cross-site analysis: preparation processes

The common features of the quality assurance processes introduced or used in the four universities are: the institution-wide processes of internal review, of surveys and monitoring, of preparation and follow-up for external review, of the integration of internal and external review, and of multiple assessments for multiple purposes. The common approaches to quality

assurance in the four universities included: the development of institution-wide quality assurance systems (internal measures), the introduction of regular reviews of subject provision, the widespread use of student surveys and the creation of central units.

The preparation processes for the QA system are similar across the four universities. Moreover, the processes reflect the different levels of internal QA exercise identified by Brennan and Shah (2000). In the preparation processes, peer review remains the most important method of quality assurance and it is supported by student surveys and personal appraisal of each academic. The internal measures in the four universities also influence the recruitment and tenure of academic staff, which are mainly based on teaching performance, and research publication.

		Levels		
		Institution	Basic unit	Individual
Initiator	External	Legislation Funding QA agency/review	Reviews	Research reviews Incentive schemes
	Internal	'Total evaluations' Data collection and analysis	Reviews Student survey	Student admissions Staff promotions Staff appraisal Student survey

Figure 5.1 Levels and initiations of quality assurance (Brennan and Shah, 2000)

In addition, the internal preparation processes of the four universities provide evidence that the national QA system is not the only force driving institutional changes but other external considerations also play a role, for example applying for competitive projects. The majority of internal measures described in the four universities were mainly introduced to prepare for HEEACT and initiated by the universities themselves, rather than being forced on them by HEEACT.

In this way, the external QA system has become part of the institution's quality management processes. As Brennan and Shah (2000) indicate, institution-wide quality assurance systems can ensure the implementation of the external QA system and can also support departments in preparing for the external QA system.

The preparation processes varied by site. In Universities A and X, people moved from a first awareness of the importance of internal measures before the implementation of the QA exercise; while Universities B and Y created internal measures only after knowing the results of the QA exercise. In most cases, the decisions to implement the internal measures were made solely by a central office administrator, usually someone in a substantive role, such as a senior academic who also held an administrative position. At Universities B and Y that did not perform well on HEEACT evaluations, the head of the central office played a more important role in

making decisions than at other universities. During the formal decision-making process of preparing for the QA system, there were consultations before the decision to adopt internal measures was made. However, in University B, most of the consultations were conducted without individual-level approval, unless they ran into resistance.

Although two of the four cases, University B and University Y, were not successful in the implementation of the QA measures, implementing the QA system seems to have been noncontroversial in four cases. Either all of the academic staff were in favour, or those who objected had little power to criticise the action of creating the QA initiatives by their universities. Another possibility is that initial doubt or resistance was negotiated out of the way before implementation. Most faculty and department chairs were decision makers, and they played key roles in adoption decisions by building a consensus between the individual academic staff and the administrators in the central office.

Several difficulties were evident during the initial preparation process. First, there were many tasks to do in the limited time available. Academics reported that they were overloaded and complained of being exhausted, and not being able to keep up with the workload. Second, the interviewees said that they could not anticipate the immediate consequences of their actions. They tried different approaches and spent too much time preparing reports on individual's teaching and research performance. This outcome led to repeated cycles of trial and error to see whether the committees and new styles of management could collect all the necessary data for the evaluations efficiently. The third difficulty in preparing for the initial QA exercise involved a lack of understanding of the QA system itself.

However, an understanding of the QA system was reached. A working system emerged gradually from trying things out and making adjustments based on the results, rather than understanding coming before practice.

3. Perceptions of internal measures

University A

Internal measures were perceived as a tool to meet the requirements of HEEACT. However, some interviewees said that they did not see how internal measures really worked. These interviewees talked about having 'vague', 'global', 'confused' or 'fuzzy' understandings of how internal measures could be transformed from rules on paper to actual day-to-day activities. Interviewee B provided an example:

'I did not understand why we had to meet the standards of the HEEACT [...] most of the standards were not necessarily for our teaching and research.' (Interviewee B, junior academic in University A)

The initial attitudes of most academics with managerial roles were negative and they perceived the introduction of the quality exercise as a disruption, especially for this university that had performed well before the introduction of the QA system.

‘University A had created its own internal measures before the QA system was established [...] (so) preparing for the QA system was wasting time. I thought the current QA system was good for universities which did not perform well. But the QA system should be used to ensure HEIs’ quality, and not for leading the development of universities.’ (Interviewee E, president in University A)

However, the attitude of some senior academic staff changed from one of resistance to one of compliance after the implementation of internal measures, especially the ‘faculty member evaluation’. Interviewee F expressed the initial response to the QA system:

‘Of course, in the beginning we hated evaluations. There was so much extra paperwork and we had to achieve the requirements of internal measures. I thought evaluations did not improve the efficiency of the administration system but forced our academic staff to reflect on our teaching performance. For example, the university was not aware of the importance of financial aid for students before the introduction of the QA system.’ (Interviewee F, senior academic in University A)

After the implementation of the QA system, academic staff started to adapt to the QA system and internal measures. For example, interviewee G illustrated:

‘Although many requirements of HEEACT were vague and general, universities had to comply with these demands. For example, the MOE asked my university to hold an English camp for three months. It was part of a temporary project and the results of our evaluations could benefit from it. The aim of the English camp was to ensure every student was speaking fluent English after three months. It was an impossible ideal. But I wanted to actualise it instead of wasting time for the MOE. So after the projects ended, I sought other universities’ cooperation and have kept holding this English camp every year even though the MOE lost interest in it.’ (Interviewee G, a senior academic with managerial role in University A)

Academic staff realised that the internal measures had become part of their lives whether they liked them or not, and so they tried to make these activities meaningful for their academic work rather than just regard them as interferences.

University X

Some respondents made negative comments about internal measures, such as ‘constraints’ and ‘lack of money’. For example:

‘I did not think any university presidents were satisfied with the QA system...the evaluations were bound together with higher education expenditure, and the MOE demands all universities achieve performance indicators decided by the government.’ (Interviewee O, president in University X)

For those working in administration, the QA system was a vague concept. They gradually came to understand what the QA system was and how to prepare for it.

‘We did not know how to prepare for evaluations in the first-cycle Programme Accreditation in 2006. After we passed the evaluations and some of our academic staff were invited to be external reviewers by HEEACT or by other universities, we gradually developed a system for preparing for the QA system. We considered, for example, what evidence and information we should prepare for academic staff’s daily duties and how to present them to HEEACT.’ (Interviewee N, a senior academic with managerial role in University X)

However, after the implementation of the QA system, University X became more positive towards preparing for the second round of evaluations.

‘We examined our department’s teaching and research academics under the framework of internal measures. It helped us to find our drawbacks and our department could use this as an opportunity to apply for more resources.’ (Interviewee J, senior academic in University X)

From the above interview, it is clear that although the QA system created a heavy workload for academic staff, it also helped departments to use evaluations as an opportunity to apply for more resources from the university.

University B

Interviews showed that the aim of the internal QA exercise is to meet the requirements of HEEACT. Academics indicated that before there were not enough internal measures created for preparing for the QA system, and this was due to the passive attitude of the president towards the QA exercise.

‘Our president thinks that evaluations are not important. When we found out our faculty had not passed the first-circle Programme Accreditation, the dean of faculty tried to seek help from the president. However, the president said it would be fine if your faculty were closed down by the MOE...I have heard that those in managerial positions said so because they don’t want to overwork the academic staff in dealing with evaluations. However, academics would have to prepare more if they don’t pass evaluations...Thus we have to prepare evaluations by ourselves.’ (Interviewee S, a junior academic with managerial role in University B)

Even a senior academic attributed the failure on the 2011 Institutional Accreditation to the president:

‘I thought the reason why we did not pass the 2011 Institutional Accreditation was that the president made some mistake. In fact we had one opportunity to submit objections to HEEACT. But the president thought the reports were fine and did not submit objections.’ (Interviewee V, senior academic in University B)

Thus, some interviewees regarded the fact that the university failed to pass the 2011 Institutional Accreditation as, ultimately, not a bad thing for the university. First, after this, the president and administrators started to take the QA system seriously and gave more resources to departments. Senior academic V provided evidence that departments and faculties that were short of resources could benefit from the QA system.

‘After failing to pass the 2011 Institutional Accreditation, the president began taking a proactive approach to the re-evaluation [...]. Some departments failed to pass the evaluations because of a shortage of funding or facilities. If the department proposed plans for improvement for the next evaluation, the university supported the plans.’ (Interviewee V, senior academic in University B)

Second, one interviewee indicated that the evaluations helped him to ensure the transparency of management:

‘They (external reviewers) thought that the biggest problem of University B was the lack of transparency of all committees from departments to faculties [...] such as how to use our funding. There are no explicit plans for the future of our university.’ (Interviewee T, junior academic in University B)

From the above interviews, it is clear that in University B academic staff had a more positive attitude towards the QA system than did staff at other universities. Academic staff in University B thought that the QA system and the external reviewers had helped the development of the university. Most academics had more positive perceptions of internal measures after the implementation of the QA system.

University Y

Preparing for evaluations put pressure on administrators and junior academic staff. Administrators had to help junior academic staff with the huge volume of paperwork. Junior academic staff were responsible for writing reports for evaluations. However, junior academic staff also had to teach and do research to secure tenure at the same time. Thus the work of preparing for evaluations was extra pressure for them (Interviewee D, a senior academic with managerial role in University Y).

‘If the department passes Programme Accreditation, it will not have to conduct the next Programme Accreditation for four years. This spurred all departments to prepare for Programme Accreditation. Preparing for the evaluations of HEEACT was really annoying for academic staff.’ (Interviewee S, a junior academic with managerial role in University B)

However, junior academic H further clarified that the actual pressure on academic staff is not from the internal measures for HEEACT evaluations, but rather came from applying for personal tenure. Preparing for the evaluation of HEEACT interfered with academic staff’s teaching and research.

‘The main pressure was from applying for personal tenure. In fact, the requirements of HEEACT and the faculty member evaluation were not so onerous. However, I had to publish in SSCI/SCI journals for personal tenure. For the evaluations of HEEACT and faculty member evaluation, publishing in other journals or conferences was fine.’ (Interviewee H, junior academic in University Y)

Furthermore, some academic staff had positive attitudes towards the internal measures for preparing for the QA system. For example, senior academic staff C stated that some essential

facilities were improved as a result of this preparation. Another senior academic also pointed out that the university started to allocate more funding to improve the quality of facilities and teaching:

‘I thought the evaluations of HEEACT were essential to private universities. University Y had billions of New Taiwan dollars in the University Endowment Fund. However, the university spent the bare minimum on students. The suggestions of the external reviewers highlighted this problem. Thus in order to meet the requirements of HEEACT, the university has to provide more resources to students. It was good for students.’
(Interviewee I, a senior academic with managerial role in University Y)

From the above interview, it is evident that external evaluations resulted in a series of internal measures to prepare for the QA system. These led to improvements in facilities and helped departments obtain resources from the university.

Cross-site analysis: academic staff's perceptions of external and internal QA exercise

A number of factors appear to have influenced these different responses to the outcome of the QA system. As Brennan and Shah (2000) conclude, three main factors influence the responses of academic staff. First, for universities that had already had experience with a quality assurance system before the introduction of the QA system, HEEACT's evaluations felt familiar. The second factor that influenced the responses of academic staff was the approaches taken to the QA system by senior management in the universities. They decided what preparations should be made, who should be involved and the importance of the introduction of the QA system for their universities. Third, the existing reputation of particular universities also influences the attitudes of academic staff towards the QA system. Those with poorer reputations have more to lose if they fail the evaluation.

Forms of management

In the four universities, the internal measures were top-down directives from central management to individual academic staff. Academic staff had to learn and improve the initiatives. At most sites, pressure from managers was a dominant or a frequent response, and also one motive given for preparing for the QA system. With the exception of administrators, the academic staff from the four universities indicated that they had not expected the internal measures to solve chronic or severe issues at their institutions before the QA exercises took place.

Responses from academics with managerial roles also indicated that they were motivated to implement QA to improve teaching, by adding resources, enriching curricula and improving classroom facilities. Furthermore, they anticipated that the management of their universities would be examined by the QA system, especially at universities that were not performing well

before the QA exercise. However, there is little evidence that university staff felt a 'need' or were 'driven' to implement internal measures.

Size and scope of internal measures

Both universities A and X, which have been more successful at implementing internal measures, are characterised by having good organisations, allowing a wider latitude of change and choosing to implement realistic amounts of change. The differences between these two universities and the other two are primarily in terms of the scope and demands of internal measures.

At University X, the faculties and departments adjusted themselves to fit the internal measures. The internal measures were summarised and distributed to each faculty and department for academic staff to prepare. Academic staff have a degree of freedom to provide evidence of their teaching and research performance. For example, each faculty and department can decide their mission and curriculum. In fact, the explicit or implicit agreement between academic staff and administrators prior to implementation is that internal measures as designed would fit the academic staff requirements.

However, Universities B and Y had a difficult time in implementation. At department level, academic staff complained of vague plans, too much paperwork and having to sacrifice other core activities, such as preparing teaching material, interacting with students and doing research. Overall, the difficulties are related to the increased workload on academic staff, and the unpredictability of new internal measures which results from a lack of planning and understanding.

Feelings and concerns

Many of the initial concerns of academic staff were related to what happened to them. They were not familiar with and struggled to keep up with the new internal measures, which especially influenced their daily teaching and research work. Thus the academic staff expressed feelings of confusion, inadequacy, and exhaustion or discouragement. In the internal measures, more experienced academic staff played a more important role. But for academic staff, the concerns and emotions were similar at the same site. University A enjoyed more freedom in deciding and planning internal measures than University X where these concerns overlapped and fed on one another. For instance, the academic staff at University X often felt anxious about coping from day-to-day when they had little attention available for the problems of teaching and research. But the main object of their worries was themselves. When new internal measures were established, the academic staff needed to engage with new programmes, such as new curriculum standards, new teaching methods and more research publications. They talked less

about the effect on their teaching and research than about how the internal measures could get them into trouble.

From different interviewees in the four case study universities, three common areas of concern can be discerned. The first one is professional adequacy. Academic staff were worried about whether they were doing things right or not, and what others thought of them. The second category of concern is the flaws in institutional evaluative plans. Most of these internal measures were rushed into practice and, as a result, academic staff worried about mistakes or shortcomings causing failure or a reduction in effectiveness. The chief emotions related to this second concern were confusion about vague plans and anxiety that their promotion prospects or current welfare would be affected. The third category of concern related to the overwhelming workload of preparing for internal measures along with teaching and research. Most of the internal measures involved paperwork. The interviewees complained that they had to fill in hundreds of forms repeatedly. Later on, however, their feelings towards the QA system grew more positive.

4. Issues which emerged from the preparation processes

University A

Interviewees at University A identified two main issues with the external QA system. First, the qualifications of some external reviewers from HEEACT were an issue.

Although HEEACT provided training courses to external reviewers, some were not perceived as experts in their disciplines. Senior academic staff F provided an example.

‘One external reviewer insisted every university must have micro-teaching classrooms. It was ridiculous. The expenditure of University A was limited and there were many ways to achieve the same quality of teaching, such as using cameras to record student performance.’ (Interviewee F, senior academic in University A)

Some interviewees at University A pointed out that the evaluations of HEEACT could not help their university improve the quality of teaching or research. Senior academic G thought that it was difficult for HEEACT to conduct an adequate evaluation of the quality of teaching and research in University A. External reviewers from HEEACT could not review the university thoroughly because on-site visits were only two to three days.

‘University A passed all evaluations of HEEACT. But what else is there to do? We can predict the results of evaluations before conducting them...these suggestions by external reviewers were not useful.’ (Interviewee G, a senior academic with managerial role in University A)

Second, there were other different kinds of evaluations for universities. University A has to prepare for multi-track evaluations by HEEACT and the MOE. Junior academic staff B indicated

that academic staff in the Centre of Teacher Education had to meet various kinds of performance indicators of Programme Accreditation and teacher education evaluation at the same time. The preparatory processes were time-consuming.

University X

Some interviewees reported an issue with the performance indicators provided by HEEACT. In order to meet the performance indicators of HEEACT, universities have become an identikit 'MOE university'. The President explained:

'The worst thing about applying performance indicators was that the diversity of universities was diminished. HEEACT used the same criteria to evaluate all universities regardless of whether a university was public or private. Although HEEACT claimed that universities can decide their own performance indicators, universities were worried they would fail the evaluations if external reviewers insisted on following the performance indicators of HEEACT.' (Interviewee O, president in University X)

Other interviewees also suggested that the qualifications of some external reviewers sent from HEEACT was also an issue which emerged after the preparatory processes.

'Some of the judgements of external reviewers had ethical issues. External reviewers had confidential duties, however some universities received the results of evaluations before HEEACT published them. In addition, some academics claimed that HEEACT was biased for or against particular disciplines. For example, many departments of philosophy failed to pass evaluations because their perceptions were different from external reviewers.' (Interviewee K, senior academic in University X).

The interviewee K indicated that the suggestions of some external reviewers were not completely objective, and this did result in some HEIs failing HEEACT evaluations.

University B

Staff identified several difficulties when they prepared for re-evaluation. The main difficulty was the overwhelming paperwork. In addition, some departments were short of human resources, so the administrators had to do more work (Interviewee V, senior academic in University B). Another difficulty was related to the performance indicators provided by HEEACT. Academic staff argued that some performance indicators were not suitable for University B but they tried to find other ways to write reports, although these reports did not really reflect what academic staff were doing (Interviewee T, junior academic in University B).

'One performance indicator was about the employment rate of graduates. But this performance indicator was weird for us. University B is a university focusing on the arts. The ideal for students is to be an artist and to open their own studio.' (Interviewee V, senior academic in University B)

The qualification of external reviewers of HEEACT was also an issue for the staff of University B. External reviewers were influential in the results of evaluations. The results depended on their decisions during the on-site visits.

‘We had to respond to the suggestions of external reviewers because they would check whether these suggestions had been put into practice or not in the next evaluation.’ (Interviewee V, senior academic in University B)

Interviewee V indicated that some external reviewers’ suggestions were not appropriate for his department. However, the university had to follow these suggestions in order to pass HEEACT evaluations.

University Y

First, the qualification of some external reviewers was also perceived as an issue for University Y. One interviewee indicated that most external reviewers were from public universities and their suggestions were not appropriate for private universities. For example, one such reviewer suggested that University Y should increase the number of classrooms and administrators for students. However, University Y could not implement these suggestions because of a shortage of funding. The funding of private universities depends on tuition fees and the average spending per student in University Y was about 2,000 pounds, in contrast to 6,000 pounds in public universities (Interviewee D, a senior academic with managerial role in University Y).

Senior academic staff C also commented on the issue of unqualified external reviewers. Some external reviewers’ suggestions did not consider the characteristics of University Y and students.

‘Once, an external reviewer of HEEACT from a public university, talked to our students impolitely. He asked why they had chosen to study here...it was insulting to students. [...] However, the suggestions of external reviewers had to be followed strictly, otherwise the university would be disadvantaged in the next evaluation.’ (Interviewee C, senior academic in University Y)

Second, the performance indicators were not appropriate for some academic staff in University Y (Interviewee D, a senior academic with managerial role in University Y). For instance, one criterion of the evaluation required that all academic staff must have publications. However, foreign academic staff in the College of Foreign Languages, considered their job to be teaching rather than doing research.

Another example of an inappropriate performance indicator was related to the goal of University Y in the 2011 Institutional Accreditation. The goal of University Y is to develop Chinese culture. However, external reviewers thought that this goal was too vague to achieve.

In the draft of the on-site visit report University Y was accredited 'denial' in the domain of 'mission and goals'. University Y made an objection and HEEACT eventually changed the results of the evaluation (Senior academic D, University Y).

Private universities were expected by HEEACT to be comparable with public universities on HEEACT evaluations in spite of the fact that most private universities have fewer resources than public universities. In Taiwan, most funding of private universities is from tuition fees while public universities receive abundant funding from the government. However, HEEACT's requirements for private universities are the same as those for public universities. Private universities claimed that it is difficult to meet the requirements and satisfy HEEACT:

'All of the evaluation reports point out two things: a shortage of teaching academics and a lack of funding. External reviewers think that compared to public universities, University Y has everything to operate a university but not enough to operate a 'good' university.' (Senior academic staff D, University Y)

Interviewee H pointed out the gap between public universities and private universities:

'From my experience working at public universities, there were five or six administrators responsible for the evaluations. Nevertheless, University Y, where I now work, is making an effort to achieve the performance indicators.' (Junior academic H, University Y)

From the above interviews, it is evident that University Y faces challenges in preparing for the QA system, and these difficulties were mainly from its nature as a private institution.

Summary

The issues which emerged during the process of preparing for QA correspond to the three main issues mentioned in Chapter Four, which are: the difficulty of measuring the outcomes of the QA system, the use of some unqualified external reviewers by HEEACT and the problems related to the criteria of the evaluations.

Implementing new internal measures indicates that changing instructional and management practices involve confusion, self-doubt, new procedures for daily routine tasks, shifts in institutional influence, and other uncertainty aroused by the new practices. I found that the more successful outcomes entailed anticipating these changes and taking action to prevent and reduce possible tension, such as at Universities A and X.

The common strand is that virtually interviewees seem to be assessing the internal measures in the light of how easy or difficult they anticipate their implementation to be, that is, how well they feel and perceive they can cope with the internal measures. The interviewees with whom this was discussed said that they anticipated that the internal measures would be hard to carry out. Most of them saw the measures as complex and were unclear about their objectives, features and operations. This was especially true in cases where the internal

measures had already been adopted at the level of the central office. This provides an example to support the argument of Brennan and Shah (2000), that by establishing formal systems and procedures for the QA system, the management of quality in universities is becoming more centralised and regularised.

In addition, most interviewees thought that the internal measures had been adjusted and improved several times during implementation. The measures are not introduced into a vacuum. Each university has its own history and goals. University staff have built up relationships among themselves and with the institutions where they work. The combination of different elements in universities creates what appears to outsiders, including the government, society and various stakeholders, as a complex and tangled web of relationships.

5. Discussion: the impact of the QA system at the institutional level

This section explains the impact of the QA system on the four universities at the institutional level. The finding is that the establishment of institution-wide QA systems resulted in organisational changes at the four universities. First I explore how the QA system has influenced universities. The impact of the QA system occurred through rewards provided by universities to individual academics, through universities' quality policies and through changing organisational structures of university management. Following this, the forms of organisational changes and their relationship with the QA system are identified from the different perspectives of academics at the four universities.

(a) How the QA system has influenced universities at the institutional level

Higher education management may be affected in several ways, such as academic and administrative organisation, as well as the creation of new tasks, marketing problems and opportunities, and new tensions within the management processes (Temple, 2014).

The internal life of universities can intensify or shift when internal measures begin. As Temple (ibid) points out, quality issues have formed an important part of the environment for higher education management since the 1980s. Academic staff in the four case universities are under increasing pressure, such as pressure from the demands of new bureaucracies, from the expansion of the knowledge society, and from the need to offer new courses in new disciplines. In addition, with the internal measures often come added funding, possibilities for promotion, opportunities for professional growth and chances for institutional changes.

The impact of the QA system: through rewards provided by universities to individual academics

Quality assurance is seldom an entirely voluntary activity for those who undertake it. Brennan and Shah (2000) point out that if the QA system has no consequences, then universities will not take evaluations seriously. Pressure from the external QA agencies prompt universities to conduct evaluations. When the QA system is first introduced many academic staff only engage in it because they have to and they bring varying degrees of enthusiasm and commitment to it. In the case study, some academic staff questioned whether their work for the QA system was worthwhile, and wondered whether the time and resources devoted to the QA system could have been better used in other ways.

The direct impact on individual academics comes through rewards, which include reputation, status allocation and increased funding. Different rewards have different influences. Rewards occur at all levels of universities, from the salaries of individual academic staff to the status of a whole university.

A key question in considering the rewards of quality assurance is who is providing them. In the case of Taiwan, the answer is overwhelmingly the government rather than the market, which is the main source of funds in the U.S.A. with its accreditation system. Similar to central and eastern European countries, Taiwan's QA system has replaced the regulatory mechanisms of the government. By using the public results of the external QA systems, governments gain regulatory control over higher education. For example, the results of the evaluations can be used by the MOE to close down poor quality educational provision. Nevertheless, it should also be emphasized that such powers are seldom used.

Interviews in University B provided an example of how the status of the university was indirectly threatened as a result of the national evaluation process.

'University B is the only fine arts university in southern Taiwan and its aim is to maintain a balance on the distribution of resources for the arts. The issue of a merger with a bigger university existed before the 2011 Institutional Accreditation. But University B's status became harder due to poor performance on evaluations. There were some voices from outsiders such as the MOE and newspapers advocating that B should be merged with a bigger university to improve our quality of education. I thought the result of the evaluation provided an excuse for such a merger.' (Interviewee V, senior academic in University B)

Financial rewards take effect immediately on individual academic staff, while others, such as reputational rewards, would have an impact over the long term. Nevertheless, examples of the direct impact of the QA system on HEIs' income are very rare. Such impacts are more likely to occur indirectly with gains and losses in reputation impacting on levels of enrolment and this in turn having a financial impact. University X and University Y have initiated special

competitions for the funding of educational projects, with entrance to the competition being determined by good results in the evaluation.

‘Our performance in the Programme Accreditation and Institutional Accreditation affects whether we can enter the ‘Programme for promoting Teaching Excellence of Universities’. The MOE also uses the results of evaluations to distribute the ‘MOE’s funding Program for Private Universities and Colleges’...if the university cannot get good results in the evaluations, it will have difficulty proving its future performance would be better to the MOE.’ (Interviewee I, a senior academic with managerial role in University Y)

Van Vught and Westerheijden (1994) state that ‘no direct link to funding’ is the fifth element of a ‘general model’ for a complete QA system. However, financial consequences of the QA system bring rewards and punishment into the process. The linking of the QA system to funding is problematic. Education of low quality is unlikely to be improved by reductions in funding. In addition, most of the interviewees noted their expectation that success in the QA system should be financially rewarded, but in all four cases, these expectations were not met.

‘The MOE distributes funding to a whole university and then the university allocates this funding among faculties and departments. University X distributes funding not based on the evaluations but according to the student numbers in each department. My department does not get more funding when we get good results in the evaluations.’ (Interviewee J, senior academic in University X)

In addition, personal incentive and reward schemes with financial rewards for individual academics have been introduced in the four universities. When the outcomes have an impact on the academic staff being assessed, by use of performance indicators or other criteria, they are incentivised to achieve the desired outcome. The requirements in the four universities are different, but there is a common regulation that academic staff must publish in SCI/SSCI journals to get promoted. Academic staff actually dislike having to publish in SCI/SSCI journals and attribute this kind of performance indicator to the pressure of the external QA system.

Despite the fact that performance indicators are embedded in institutional-wide QA systems, some interviewees responded positively to such internal measures. According to the interviews in University Y, interviewees report that there have been significant increases in academic staff qualifications and more recognition for the quality of research work since the introduction of the QA system. These improvements result not only from the academic staff rewards schemes introduced by the universities, but also from the broader national evaluation system.

In many ways, the above example explains how quality assurance can lead to deserved rewards for academic staff. However, there is an inherent contradiction here in so far as when rewards and punishments are attached to the results of evaluation, then a ‘game’ of doing the minimum to comply may occur (Westerheijden, 1990).

The impact of the QA system: through universities' policies regarding quality

Policies exist at both institutional and basic unit levels and cover daily academic tasks. For example, to meet the requirements of the QA system, all four universities have enacted both guidelines regarding the evaluation of faculty and also regulations governing faculty promotion, which monitor the quality of teaching and research of academic staff.

According to Westerheijden and Maassen (1998), there are three uses of external quality assurance results by decision-makers in HEIs: active use, passive use and no use. The examples provided by interviewees in the four universities offer some support for this claim.

Active use is where decisions are made based on the evaluation outcomes. Interviewees at both Universities B and Y described how internal measures were initiated in response to the poor evaluations. In both cases, the universities accepted the need for change and the reasons behind the internal measures determined the nature of the changes. On the other hand University A is capable of identifying its own problems and solving them so improvements at the university were not driven by the results of the external QA system but by part of what Brennan and Shah (2000) term the 'internal recovery'.

Internal measures have another meaning for the other universities, X and Y. Some of the evaluation activities undertaken at X might accord with Westerheijden and Maassen's concept of 'passive use'. Passive use refers to decisions which are not linked directly to evaluation outcomes. These decisions are made in the evaluated organisation's decision-making processes. Internal measures undertaken to meet the requirements of external quality assurance agencies have a complex relationship to change within universities.

'Passive use' is not only a result of quality assurance but it is also becoming a factor to be deployed in the decision-making processes. For example, University X presents two examples of the impact of quality assurance on substantive policies. The creation of internal measures has resulted in changes to academic staff recruitment and tenure. In addition, University Y established new external advisory committees which have reshaped its academic governance. The committees and policies of universities ensure that evaluation outcomes are acted upon, but the autonomy of the basic departmental unit is weak. When academic staff at the basic departmental unit prepared for the QA system, they only followed the instructions created by the committees.

University-level policies aim to ensure that internal accountability is implemented and performance data is generated properly for evaluations. However, Brennan and Shah (2000) point out a fourth possible use of evaluation outcomes. The results of quality assurance within HEIs are used in favour of certain kinds of actions and to support the position of some interest

groups and the interviews support this finding. Their IMHE studies suggest that decisions are rarely taken entirely based on evaluation outcomes, but these outcomes contribute in part to the decisions. For example, University A is a university with a long tradition of faculty autonomy and has used the requirement to conduct evaluations to promote some reforms:

‘Our faculties and departments use evaluations to push University A to do something. The academics communicate with external reviewers and put their needs into reports, for example, external reviewers may tell the president which department needs more funding to improve their research or teaching.’ (Interviewee G, a senior academic with managerial role in University A)

Furthermore, in the examples of the four universities, it is evident that both ‘active use’ and ‘passive use’ can exist at the same time in one institution. The decision-making processes of management may include many factors. However, there are no examples at any of the four universities of the ‘no use’ of external quality assurance results. The QA system and internal institutional-wide QA system have influenced the four universities on various dimensions, from top-level decision-making to individual appraisal policies.

The impact of the QA system: through changing the organisational structures of university management

Becher and Kogan (1992) define institutional structure to include departments, research centres, faculties and institutes, and the institutional structure is organised by varying degrees of power of these different units. Traditionally, universities have been structured by academics elected by their colleagues, with a strong emphasis on academic freedom and decision-making based on principles of collegiality and meritocracy (Sahlin, 2012). However, since the introduction of the QA system, many universities have developed new organisational structures with these transformations, including strengthened management positions, expanded communication departments, and innovation and technology transfer units.

Organisational structures also change in various ways. Traditionally, changes have been gradual, from the bottom-up within the academic disciplines, together with the growth of new knowledge in higher education (Clark, 1983; Becher and Kogan, 1992). However, in the case studies, four universities created new organisations above the existing structures of administration to manage the introduction of the QA system. It has become top-down management. For example, University A created ‘The Centre for Teaching and Learning Development (CTLTD)’ and University B established ‘The Office of Research and Development, The Academic Affairs Division’ to prepare for the QA visits.

The changes in administrative structures in the case studies also provide examples for the phenomenon of ‘isomorphism’, a term used by DiMaggio and Powell (1983) to describe the

tendency of organisations, in a quest for efficiency, to become homogenous instead of remaining different from each other in a competitive environment.

There are three types of isomorphism: coercive, mimetic and normative. Each type of isomorphism can be found in the case study. Coercive isomorphism is the response of organisations to political influence and the problem of legitimacy. The four universities received external pressure and expectations from the national quality assurance agency, HEEACT, which resulted in changes in organisational structures. They created forms of quality activities based on the requirements of HEEACT, such as developing the use of mottos and giving students instructions about how to answer questions from external reviewers.

Mimetic isomorphism stems from an organisation's responses to uncertainty. Organisations may model themselves on others to reduce uncertainty. This results in imitation. University A has become the model for all universities in Taiwan and HEEACT tends to use University A as its benchmark, regardless of the differences between A and others. Interviewees from University B and University Y have pointed out that they were tired of being judged by the same performance indicators as other universities. For example, interviewees argued that University B is a university for learning fine arts and it is inappropriate to use numbers of publications to measure the research performance of academics there.

Normative isomorphism is associated with professionalism. This is particularly relevant in universities trying to comply with evaluations and accreditation processes. Changes in the conditions and methods of academic staff's work are also brought about by external forces. All four universities created internal quality assurance systems and new regulations for personal promotion because of the requirements of HEEACT. By using these performance indicators, the roles of academics and the concept of 'academic freedom' are challenged by outsiders. Thus these quality activities have influenced the daily life of academic staff and guided their research and teaching methods.

DiMaggio and Powell (1983) also recognise how different ways in which organisations react also contribute to structural changes. Some organisations respond to external pressure quickly. These organisations try to adapt to be successful and to secure their organisational existence. Others change only after a long period of resistance. This argument is supported by the case study. Private universities such as University X and University Y have taken the evaluations seriously and have tried hard to meet the standards of HEEACT. However, public universities used to regard the evaluations of HEEACT as a formality foisted on them by the MOE. They did not care much about possible punishment because they sensed that the government would never close down a public university. For example, University B displayed this attitude of resistance toward evaluations for a long time and did not start to change and

prepare for the evaluations seriously until they failed the 2011 Institutional Accreditation and realised that the MOE was indeed serious about merging them with another institution or closing them down.

In addition, the other significant structural change in higher education is through changing curriculum structures (Brennan and Shah, 2000). Curriculum structures can directly reflect the structure of units. For example, 'The Secretariat, Office of Academic Affairs of University A' has not only created new 'department managers' to encourage academics with managerial roles and administrators to prepare for the Programme Accreditation, but also developed a new way to respond to the requirements of the 2012 Programme Accreditation, by introducing 'capstone courses', which focus on student learning outcomes. Furthermore, HEEACT requires all universities to construct their own 'curriculum mapping' to help improve student learning. These evaluation criteria do help to improve the design of courses. However, it reduces variety because all have to fit the structure and requirements of 'curriculum mapping' approved by HEEACT. Thus the QA system can have more influence on the basic unit level through subject disciplines than through institutional centres.

Although institutional policies and structures can determine the activities of individual academic staff, the tradition of academic autonomy remains strong in the four universities. Authority and reputation in universities are key levers of power for academics with managerial roles with which to influence formal institutional policies and structures. The changes remind academic staff of the role which internal measures play in everyday activities in universities. However, most of the interviewees in this study worked in the institutional centres rather than in the basic units. Thus they are more likely to hold particular perspectives on the importance of institutional policies and structures. In recognising this potential bias in this study, it is necessary to be aware of the danger of overemphasizing the opinions of individual academics.

(b) Organisational Changes

Changes in structural, curriculum and governance levels within universities are related to many factors (Brennan and Shah, 2000). External pressures have encouraged greater institutional management in universities and provided opportunities for managers to introduce internal changes. The pressures for better performance are related to financial and resource allocation issues. Interviewee O in University X reported that global university rankings and international competition among higher education institutions have driven these changes of performance measurement and management activities, touching upon teaching, research, and the curriculum.

Structural changes include the creation of new, functionally separate units, and the creation of links between HEIs and the government. When new programmes come into competition with existing programmes, it can result in a more potentially conflict-laden structural change.

Frolich and Stensaker (2012) argue that in the process of institutionalisation of evaluation, evaluation is perceived by academic staff as a consequence of rules, laws and sanctions which are themselves related to the historical role and functions of universities. In the four case studies, interviewees were asked to recall how much change they had expected to result from the use of internal measures in their research and teaching. Academic staff have different attitudes towards organisational changes. Generally, most interviewees from the four universities seemed to be aware of these changes prior to implementation. As interviewees indicated, some of these changes were welcome, while others were regarded with foreboding. For example, academic staff in the four universities reported that teaching arrangements and the workload were changed. Although the regulations for teaching were more comprehensive than before, academic staff were required to do more work after the introduction of the QA system.

Management of the four case universities

Higher education is a complex social entity with many organisational layers of governance and decision-making processes. Various conflicting interests exist between teaching and research, and between different consumers and stakeholders.

There are different underlying assumptions on the nature and causes of changes in higher education. Saarinen and Valimaa (2012) argue that changes depend on whether they are caused by internal or external factors. Stensaker et al. (2012) also point out that changes may be caused by extrinsic and intrinsic factors, such as demography, technological breakthroughs, globalisation, developments in a given field or discipline and the knowledge society.

For example, in order to meet the expectations held for contemporary universities, evaluation is designed and implemented to provide evidence of the performance of universities to the government and society. Evaluation is often linked to some specific ideas in contemporary society, such as universities becoming 'entrepreneurial', 'market-oriented' and 'competitive'. In such an organisational context, quality assurance becomes the first priority for management in universities. Interviewees from four case universities reported that the QA system has become a powerful instrument for university administration and an integral part of their annual plan.

Universities are faced with a need to adopt new approaches to management in order to respond to the QA system. Brennan and Shah (2000) indicate that there is a need to change in order to comply for universities while facing external pressure. The four universities have been pushed to compete for resources by their funders, students and society, and focus on the introduction of performance and accountability assessment mechanisms. Universities feel that they need to differentiate themselves from others to climb the league tables. They realise that excellent universities have to be good both at research and at providing high quality teaching and thus, start to rethink their traditional forms of organisation, governance and management in order to respond to the consequent pressures and requirements. They have implemented new strategies on introducing effective control systems to improve organisational performance. The new forms of management embrace a market-driven enterprise culture (Stensaker, 2002). This changes relationships inside universities as well as relationships between universities and external stakeholders.

As the IMHE cases in the study of Brennan and Shah (2000) demonstrate, HEIs have undergone fundamental shifts in policy-making and organisational structures due to the introduction of QA mechanisms. The four universities in this study indicate that the impact of quality assurance activities on the policies and structures of universities is significant. The QA activities change the balance of power and organisational values, changes which Clark (1983) terms 'fundamental change(s)' within HEIs. For example, the central administration bodies at the four case universities have become more powerful since the introduction of the QA system because they can define the mission of, and identify the real problems at, their university. The managers are the heads of departments and they decide policies in response to both internal and external QA systems. In this regard, as Neave (2012) argues, quality assurance activities have more influence on the senior managers and committees of universities than on individual academic staff of departments and faculties, where academic field interests and values remain important.

6. Summary

This chapter explained the processes of preparing for the QA system in four universities. Each university has its own strategy to respond to the introduction of the QA exercise. The strategy common to the four universities was the creation of internal measures, which included new management at the institutional level and personal appraisals. However, the internal measures taken at the four universities are quite different. The universities with a better reputation only needed to make slight changes to meet the requirements of the QA exercise. In contrast, the lower ranked universities had to make greater changes within their existing institutions and set up new organisations and regulations to respond to the QA exercise. The

various internal measures resulted in changes of policies and organisational structures within universities. The new processes of quality assurance have made academics and university managers in Taiwan think more systematically and seriously about the curriculum and student experiences in the four case universities.

The next step is to explore the organisational changes which occurred as a result of the internal measures. From the insiders' perspectives in the four universities, the organisational changes were often presented as reforms of leadership, quality management, and policy decision-making processes. These internal measures also produced unanticipated organisational changes, especially a more centralised management at institutional level and extra administrative pressure on top of the daily duties of academic staff. Moreover, the professional life of academics, especially at the less prestigious universities, has been influenced by the internal measures implemented by universities, such as the use of specific performance indicators like SSCI/SCI. These kinds of internal measures are related to the culture of each university. Later, in chapter seven, I will explain further the influences of the concepts of bureaucracy and enterprise on the organisational culture of universities.

Chapter Seven: The Perceptions of University Staff of the Impact of the QA exercise

The aim of Chapter Seven is to answer RQ2: How do university staff in the four universities, each with different characteristics, prepare for and perceive the impact of the QA exercise undertaken by HEEACT? In this thesis, my argument is that the QA exercise impacts on HEIs at three levels: the institutional level, the system level, and the individual level. This chapter looks at the impact of the QA exercise at the individual level, and the way this manifests itself in terms of a reconstruction of academic work. I will use the analytical framework of this thesis, specifically the model of Brennan and Shah (2000), to analyse the perceptions of academic staff at the four universities with regard to the impact of the QA exercise, and to explain the changes within the HEIs. I categorise the changes under two themes: evolving attitudes towards teaching, and changing approaches to decision-making. After examining these two themes, I address the distinctive features of these perceptions with respect to academics at different types of HEIs. Then I discuss these two aforementioned changes which the academic profession have had to face by analysing those changes explored in previous sections, specifically, how academic staff have reshaped their values, attitudes, and professional practices in response to the QA exercise.

1. The perceptions of academic staff with regard of the QA exercise and its impact: analysis using Brennan and Shah's model

In previous chapters, I described how both the changing contexts and methods of quality assurance - such as the increasing diversity of HEIs, funding cuts by governments, and organisational restructuring - have reduced the freedoms of individual academics. I noted in Chapter Five that the quality assurance agency, HEEACT, is the link between the macro policies of government and the micro practices of academic staff in HEIs. As I showed in that chapter, the perception of academic staff was that, in order to prepare for the QA exercise at their university, they had to meet the criteria of the QA exercise, and, as a result, had less freedom to decide what and how to teach, as well as how to assess students. In this way, the QA exercise challenges academic cultures within HEIs.

In Chapter Six, I showed that the impact of the QA exercise had been shaped by the internal measures universities generated in response to the exercise. I found that such measures had contributed to the cultural impact of the QA exercise in the four case universities as indicated by the Brennan and Shah (2000) model.

Initially, internal measures had been introduced to improve productivity in the four case universities. However, such internal measures also embodied assumptions about values. For example, I found that the QA exercise strengthened authority at the institutional level by emphasizing internal measures and the mechanisms for accountability. Traditionally, the university president and heads of department and faculty decided on the overall mission of the university, while academic staff decided what and how to teach, as well as how to assess students. However, the perception of academic staff was that - under the current QA exercise conducted by HEEACT - the amount of leeway allowed to academic staff had been reduced.

However, the perceptions of academic staff and their responses to the QA exercise were not only determined by external factors. Instead, they were also influenced by the values and beliefs that they held so at this point, I shall first turn to discuss the typology of values of quality assurance (Brennan and Shah, 2000), which was mentioned in Chapter Two, and will then consider how participants' perceptions of the QA exercise relate to these typologies.

Type 1 Academic	Subject focus - knowledge and curricula Professional authority Quality values vary across institutions
Type 2 Managerial	Institutional focus - policies and procedures Managerial authority Quality values invariant across institutions
Type 3 Pedagogic	People focus - skills and competencies Staff developers/educationalist influence Quality values invariant across institutions
Type 4 Employment focus	Output focus - graduate standards/learning outcomes Employment/professional authority Quality values both variant and invariant across institutions

Figure 7.1 Values of quality (Brennan and Shah, 2000)

Brennan and Shah (2000) identify four main types of 'values of quality', as shown in Figure 7.1. Type 1 is based on traditional academic values, and related to academic hierarchy. There is an assumption in Type 2 that quality can be produced by good management, and that there may be relatively little direct focus in this type on academic matters. There is also an assumption that a QA exercise can strengthen authority at the institutional level by placing emphasis on accountability and requiring institution-wide policies for preparing for the QA exercise. In this, there are likely to be challenges to the basic cultural values of HEIs presented by the QA exercise, but such challenges also depend on the HEIs' circumstances and contexts. Type 3 focuses on teaching skills and classroom practice. The emphasis of Type 4 is on student outputs and learning outcomes. This last type typically regards students as customers.

As the documents analysis and interview data in Chapter Five indicated, at the very beginning, the official purpose of Taiwan's QA exercise was to ensure the accountability of

universities and nudge them to respond to the pressures of globalization. After the establishment of HEEACT in 2005, the government added more aims to the QA exercise by adding competitiveness in international university rankings, expressed the wish of the MOE to differentiate between research-led and teaching-led universities, and stated the need to reduce the number of universities in Taiwan. The government had its own reasons for introducing the QA exercise. For the government, the QA exercise functioned not only to improve the quality and accountability of HEIs, and force them to compete internationally, but also as a strategy to merge and close HEIs. In this regard, the QA exercise was seen as a vehicle for transmitting specific values and expectations from outside parties to HEIs.

Members of HEEACT understood these goals and regarded HEEACT as a new tool to control HEIs that would also ensure the quality of HEIs at the same time. However, the reasons given officially for the introduction of the QA exercise were the need to improve HEIs' response to globalisation and internationalisation, and these goals of the government became the goals of HEEACT.

As Chapter Two illustrated, the attitude of the government and HEEACT towards the QA exercise is 'quality as value for money' (Harvey and Green, 1993; Westerheijden, 2005). That is, the governments use QA exercises to measure academic productivity and to exert power over higher education indirectly. According to the features discussed above, the 'values of quality' embraced by the QA exercise can be identified as a mixture of approaches of Type 2 'managerial focus' and Type 4 'employment focus' from the Brennan and Shah model. While the 'values of quality' embraced by the QA exercise is similar across the four case universities generally, from the interview data, I found that there were gaps between the perceived value of QA to institutions and to individuals within those institutions.

I showed in Chapter Six that the four universities in the current study emphasized different 'values of quality'. There were also instances where these values changed as a result of the implementation of the QA exercise. Some of these changes might not necessarily have been caused by the QA exercise, but could have been reinforced by it. Although the balance between the types differs, the conception of quality in each university could involve several types of values in practice. Where new arrangements for quality assurance challenged existing values, academic staff were more likely to resist the arrangements. However, whether any such resistance was likely to be successful depended on the reactions and attitudes of those with power, namely, the presidents and senior administrators. Most activities undertaken by academic staff in response to the requirements of the QA exercise were usually, in part, a result of compliance, even if there were other directly beneficial consequences.

As Figure 7.1 above shows, the perception of academic staff at University A towards quality is of Type 1 with a preference for traditional professional authority and subject-focused knowledge and curricula. The leaders and managers, however, leaned more to Type 2. By stressing the need to prepare for the QA exercise, they engaged in promoting institutional policies with a view to maintaining their authority. However, controversies arose when academics, leaders and managers held different perceptions of the QA exercise, many of which influenced and challenged values held by the university.

As noted in Chapter Six, quality assurance is a tool which can be used to seek more resources from institutional management at University X. The QA exercise was used by both academic and subject groups to help protect or maintain their values and status. The case of University X reveals how notions of accountability, management, curriculum, teaching and quality assurance all come together to influence individual academic life. The university is no longer a place that pursues knowledge for its own sake but rather a place where only knowledge that has practical applications is valued.

In this university, the values held by academics and leaders and managers were closely aligned and they shared similar 'values of quality', Type 1. The emphasis on the subject focus-knowledge and curricula was clearly seen in the interviews. University X has tried to maintain the professional authority of academics while at the same time meeting the requirements of external evaluators. This strategy can be categorised as Type 4, which emphasizes learning outcomes and employment and is based on the historical background of University X.

The 'values of quality' held by academic staff, leaders and managers in University B are Type 1, which focus on traditional academic values and are related to hierarchy. However, the interviews revealed that academic staff expected the QA exercise to bring about changes to the management, which is categorised as Type 2 'values of quality'. University B provides a significant example of external power affecting or changing the values held by academics through performance indicators, review reports and external reviewers.

In my analysis of the interviews conducted at University Y, I found that the impact of the QA exercise has been hidden or routinized at the level of the departments and faculties. For example, the development of different curriculum structures has been significant. The leaders and managers focused on institutional policies and maintained their managerial authority in the processes of preparing for the QA exercise, which corresponds to Type 2 in Figure 7.1 shown above. In contrast, academic staff understood the status of University Y and lowered their expectations for the learning outcomes of students. For academic staff, the major pressure has not been about improving the quality of teaching but about trying to increase their research performance for the sake of tenure promotion.

In the next section, I will explore the attitudes regarding quality held by academic staff as will help us to analyse cultural changes within HEIs. As Brennan and Shah (2000) argue, different perceptions and responses of academic staff have influenced the formation of cultural changes within HEIs.

Based on their IMHE case study, Brennan and Shah (2000) identified four fundamental cultural changes within HEIs as a result of the introduction of QA exercises: increased productivity; new definitions of, and a collective approach to teaching; and a more rational, evidence based approach to decision-making. Along with exploring Brennan and Shah's model, I will revisit the four case universities and clarify which values academics in each university hold regarding QA. I will argue that the cultural changes at the four universities have taken the form of 'evolving attitudes towards teaching' and 'changing approaches to decision-making'.

Below, I shall look at academic staff's perceptions and interpretations of the impact of the QA exercise on the above two interrelated themes: evolving attitudes towards teaching, and changing approaches to decision-making.

2. Evolving attitudes towards teaching at the four universities

In interviews, different attitudes towards teaching have been found in the four case universities. Generally, academic staff in the four case universities have changed their attitudes towards, and expectations of, teaching in a more positive direction after the introduction of the QA exercise.

The evolving attitudes towards teaching represent an attempt by the four universities to prepare for the QA exercise but which had unintended effects on institutional culture. As with the audit experience in the UK (Henkel, 2000), the assessment of teaching and learning quality in Taiwan's QA exercise was also 'a dramatic intervention in the working lives of academics, dominating the semester or term in which it occurred, and the whole academic year for those with responsibility for organising it' (Henkel, 2000:96). The interviews provide evidence for this: in order to maintain their privileges and meet the requirements of QA, academic staff adapted to some degree. The degree varied with each academic's level of enthusiasm and support for the QA exercise. The length of service in higher education, other work experience, age, and career development plan are factors which influence the attitudes of academic staff towards teaching.

One point to note is that, in Taiwan, all academic staff are on a single salary scale. Their starting position on the salary scale is determined by their qualifications and experience at the time of their appointment. However, their motivation and performance regarding teaching and research could be affected by approaches to financial rewards, the culture of teaching in higher education, the diversity of staff experience and roles, personal autonomy, and organisational

structure (Rowley, 1996:11). Additional increments are awarded for special achievements in teaching at all four case universities. Not only the presidents emphasized the importance of teaching, but academic staff felt the same way. However, academic staff had to shorten the time spent on teaching to cope with an overload of other tasks. Academics may feel forced to comply with the QA exercise if the alternative is lower pay or no job at the university.

Along with these features of evolving attitudes towards teaching common to all four universities, below I discuss the features distinctive to each individual university.

University A

University A provides a good example of evolving attitudes towards teaching which has resulted from the introduction of the QA exercise. Before the introduction of the QA exercise, research was the most important thing for University A, however, there has been a growing emphasis put on teaching in order to pass the QA exercise. Although the focus of University A is still mainly on research, academics have started start to talk about teaching and improving their teaching methods.

Chapter Six showed that the establishment of various internal measures in University A, following the introduction of the QA exercise, has led to reviews of and improvements in the quality of teaching, particularly methods of teaching and learning. As shown in Chapter Two, researchers carrying out impact studies have found it difficult to link actual improvements to QA assessments of teaching and learning. In fact, there are other important factors impacting on the quality of teaching and learning, such as the design of the curriculum. One main factor relates to the internal measures introduced to prepare for the QA exercise. For example, interviewee F pointed out that University A would promote new teaching methods to prepare for the QA exercise:

‘I was in an administrative position so I know that the ‘Secretariat, Office of Academic Affairs of University A’ planned to promote a new model for teaching. It developed an OCIA model (outcome, curriculum, instruction, assessment) based on the concept of core competence for graduates [...] I thought the OCIA model represents a consensus formed regarding teaching here at A after the introduction of the QA exercise.’ (Senior academic F, University A)

However, the new OCIA teaching method was viewed by some interviewees, mainly junior academics, as wasteful, stressful, overly bureaucratic, and expensive. The overall impression of these interviewees was that extra requirements were not a challenge requiring intelligent reflection, but a chore to get through and a task consuming valuable research time, adding pressure to their lives, especially to the lives of junior academics. The view of Junior Academic B (University A) was typical:

‘The OCIA model is for preparing for the QA exercise. I did not think that the OCIA model helped the quality of teaching, but rather did harm, just as the QA exercise did. Academic staff have to spend more time on research and paperwork. If we spend too much time preparing for teaching and with students, we might fail the QA exercise because of poor assessments on research [...] under the faculty member evaluation, academics can pass the evaluation solely on research performance.’ (Junior academic B, University A)

From the discussion above, it can be clearly seen that senior academics and junior academics have different attitudes towards teaching and differ on how to prepare for the QA exercise. Junior academics complained that they had to shorten the time spent on teaching to cope with an overload of other tasks, in particular time had to be allocated to conduct research to gain tenure and/or promotion and also to do extra administration work. This pressure had influenced their attitudes towards teaching.

‘Junior academics have to teach, do research and have more responsibility for preparing for evaluations than senior academics and do all this without enough resources. For example, some of the criteria for applying for research projects of the National Science Council include previous publications and previous successful applications. Thus academics who are more senior would get more resources [...] Individual junior academics have to teach at least nine hours per week, one or two hours more than senior academics. At the same time, junior academics have to follow six-year contracts (if an assistant professor is not promoted to associate professor within six years, he or she will be fired). In University A, the pressure for tenure promotion becomes a greater pressure for junior academics.’ (Junior academic B, University A)

On the other hand, senior academic staff did not think that the issues that concerned junior academic staff were problems. For example, Senior Academic F argued that the requirements could be integrated and achieved easily:

‘I urged front-line academics to integrate the requirements of teaching, research and service despite limited resources and time. I thought that doing this would reduce the burden on junior academics; moreover, doing research can help them improve the quality of their teaching. Academics in universities have an obligation to do research and teach.’ (Senior academic F, University A)

Another factor influencing evolving attitudes towards teaching is the fact that University A has to be a research-oriented university. In several public speeches, the president of University A has stated that teaching is as important as research and the function of teaching is to manifest the social responsibility of ‘service’ However, according to interviews, University A actually emphasises research more than teaching.

‘The degree of emphasis on teaching and research [...] I thought that there has been no change even after the introduction of QA. University A has always emphasized research performance. The quality of teaching is a mere indicator for faculty member evaluation, not the key component for the regulations governing faculty promotion [...] so I think that the main emphasis of University A is still on research, even though academic staff who cannot meet the standard of teaching have to accept counselling.’ (Senior academic F, University A)

Within University A, the QA exercise is seen by academic staff as a tool for balancing universities' intrinsic and extrinsic functions, including teaching and research. Thus, academic staff have experienced a struggle between research and teaching, and in the end, they have to choose to be research-oriented in order to survive in University A.

'Although our president said that the first task of University A is teaching, both the QA exercise and internal measures focus on research performance. All systems give academics the impression that their aim should be to produce papers and research products even if they have to sacrifice time for preparation and for interaction with students.' (Junior academic B, University A)

For academic staff in University A, the QA exercise could not help to solve their dilemma—choosing between being a research or teaching-oriented academic:

'Once I brought the inappropriate performance indicators of our faculty member evaluation to the attention of external reviewers from HEEACT. The reviewers said that no matter how regrettable this was they could not change anything because universities have the right to run faculty member evaluations as they see fit. In the end, academic staff have to struggle to improve the quality of teaching and research at the same time.' (Junior academic B, University A)

However, academic staff seemed to develop a more positive attitude towards the QA exercise after its implementation, even as they complained about the endless paperwork and the fact that HEEACT could not help to improve the quality of teaching.

'The one positive aspect of the QA exercise is that each department can decide their own goals and evaluate whether they have achieved these goals themselves. It is good for academics to clarify their teaching methods and curriculum. In the beginning it may just be talk, but gradually academics have to do something to achieve these plans to prepare for evaluations.' (Junior academic B, University A)

Taken together, these various internal measures represent an attempt by the university's leaders to prepare for the QA exercise but which had unintended effects on institutional culture. A new attitude towards teaching is one example. Although in the beginning academic staff resisted implementing new teaching methods to prepare for the QA exercise, their attitudes about learning and instruction have gradually changed.

University X

According to interviews from University X, academic staff have accepted the requirements of the QA exercise and internal measures and have changed their teaching methods accordingly. Being a teaching-oriented university, the requirements of the QA exercise reinforced the emphasis of teaching in University Y. For example, there has been more co-operation between colleagues and better agreement on subjects, and efforts made to improve teaching, as well as to prepare better course syllabi and exam formats.

‘University X was a poly-tech college. When it became a university, there was huge pressure put on academics and all tenure promotions and personal appraisals became linked to research performance. The current QA exercise has helped the university return to an emphasis on teaching. There are two reasons for this. First, the university knows that students here are not as talented as those at the top universities. Thus the university has engaged in preparing for the QA exercise and tried to be awarded ‘Programme for Promoting Teaching Excellence of Universities’. Second, the university has noticed that research performance is an achievement for academics, not a direct benefit for students. Thus the university adjusted the regulations for promotion. The weight given to teaching when assessing promotion has been raised. I find that this policy has influenced individual academics’ performance. However, academics still emphasize their research. They have not reduced their enthusiasm for research but increased time for teaching.’ (Senior academic N with administration role, University X)

As in the case of University A, not only does the president emphasize the importance of teaching, but academic staff feel the same way.

‘Since the introduction of the QA exercise, the university has focused on teaching.’ (Senior academic J, University X)

In University X, the internal system of evaluating teaching has been completed:

‘Evaluations look at whether the courses fit the expertise of academics, whether academics are overloaded by teaching. Each academic member of staff has to prepare for these requirements. The student surveys are not the only criterion to evaluate the performance of academics.’ (Senior academic J, University X)

In addition, technological tools, such as computer-assisted systems, were used to improve the quality of teaching and learning.

‘In order to prepare for the QA exercise, my department decided to highlight our strong points. One is our technology facilities. Thus we bought a lot of geographic information systems (GIS) to support this claim and used them for courses.’ (Senior academic J, University X)

The completion of the internal system of evaluating teaching in University X is regarded as a positive impact of the QA exercise, according to interviewees in University X. However, interviewees also argue that evaluation outcomes have caused a loss of freedom over teaching regarding curriculum changes.

‘University X does not require research performance strictly, but it does emphasize the opinions of students because of being awarded ‘Programme for Promoting Teaching Excellence of Universities’. After students complete questionnaires, the university evaluates the teaching performance of individual academics. Overall, the quality of the curriculum has improved. However, I found that students’ opinions were not always fair to academic staff who worked hard. It is easy to please students. For example, academic staff could provide soft courses and give higher grades to students.’ (Senior academic N with administration role, University X)

From the above interviews, it is evident that since the introduction of the QA exercise, academic staff in University X have come to hold a positive view towards teaching and created

an internal system to evaluate teaching, though the student survey was an issue for academic staff.

University B

In general, interviewees at University B agreed that the QA exercise did not significantly change the quality of teaching. However, some interviewees argued that the introduction of QA exercise forced the university to update its requirements relevant to teaching. In contrast to University A and University X, a more negative account is presented at the department and faculty levels of University B. The interviewees noted that they have tried to improve to meet the requirements of the QA exercise despite a lack of support from the president and deans. For example, some members of senior management do not support the evaluation and have not installed or fostered internal measures for preparing for the QA exercise. The QA exercise was just more paperwork for them.

‘I thought that the pressure of the QA exercise on academic staff in the university was slight. B specialises in art. Most students are enthusiastic about their choices. There is less pressure on academics regarding teaching than research. Thus, evaluating their teaching does not affect academics’ attitudes towards teaching.’ (Junior academic S, University B)

Interviewee V provided the reason why the QA exercise has little influence on teaching in University B.

‘University B is different from traditional universities. Most academics in the university are artists or musicians [...] I thought the QA exercise increased bureaucracy and reduced the quality of teaching. For me, the QA exercise ended up a formality...For example, students and I kept working on our final exhibition overnight. I would not refuse to do overtime even if I did not get extra money. The point is to help my students.’ (Senior academic V, University B)

Although academic staff thought their style of teaching were not influenced by the QA exercise, the design of courses and curriculum has, in fact, been adjusted to prepare for the QA exercise. For example, some departments pursue goals determined or suggested by external assessors:

‘My department emphasizes practical skills and the mentoring system and this is exactly what our students want. However, external reviewers of HEEACT suggested that my department should provide more general courses for students. We faced a dilemma between specialised and general knowledge. But we still had to follow the suggestions of HEEACT and create some new courses to meet the criteria for evaluation.’ (Senior academic V, University B)

However, the interviews at University B were not all negative towards the QA exercise. As interviewees in University X also reported, the QA exercise has helped to improve the quality of

teaching due to the introduction of regulations to supervise the quality of both teaching and research.

‘It is hard for University B to provide concrete learning outcomes or good job opportunities for students because of being a fine arts university. However, I thought that being required to do more could be seen as a positive requirement. [...] I thought that what the external HEEACT reviewers suggested was right. Faculties and departments should set up regulations for the mentoring system [...] some academics only supervise one student over several years and yet can survive here. [...] Now all academic staff have to design their courses carefully because these courses will be examined by the QA exercise, something which I think is good for the quality of teaching. Before the implementation of the QA exercise, some academics used the same syllabus for years on end.’ (Junior academic T, University B)

In this regard, academic staff in University B thought that the QA exercise did not help to improve the quality of teaching significantly but provided regulations to supervise the university, and felt this was good for the development of University B.

University Y

As noted above, there may be pressures on academic staff regarding assessments of their research which have actually weakened the importance of teaching at University A. In contrast, University Y reported that the introduction of the QA exercise has focused greater attention on teaching at Y. The external QA exercise and internal measures have highlighted problems including the poor quality of teaching. Under pressure from the QA exercise, lectures and curricula have been generally improved to the benefit of students (Interviewee I, a senior academic with managerial role in University Y). However, the widespread introduction of student feedback questionnaires and internal measures was felt likely to weaken specialist disciplinary definitions of good teaching.

From interview data, it can be noted that University Y has been raising awareness of teaching and of staff development throughout the university. There was an extensive, institution-wide pedagogic strategy and effort to make teaching the focus of academic work. A positive picture emerged at the institutional level. For academic staff in University Y, faculty and departmental policies have been given more visibility and emphasis at university committees. For example, education-related criteria for the curriculum were given more consideration due to the external requirements.

‘Both the president and academics care about the results of evaluations. Thus we have tried to meet the criteria of HEEACT. For example, each department has its course map and tutoring system to improve the quality of teaching. Of course the number of research publications is also important to pass evaluations.’ (Junior academic D with administrative role, University Y)

These courses also have started to transfer knowledge to practical skill-related components of curricula in response to the teaching requirements of the QA exercise.

‘Facilities and technology were emphasized and renewed because of the requirements of the QA exercise. If the university had not improved these facilities, it would have failed the evaluations. This has been a positive outcome of the QA exercise.’ (Senior academic C, University Y)

However, interviewee H highlighted the heavy workload on junior academics due to the QA exercise and related internal measures, as the key factor for academics to survive in University Y is still their research performance.

‘It is really hard for junior academics to survive here. I have to prepare for teaching, the QA exercise and tenure promotion at the same time [...] although the university emphasizes the importance of teaching, research performance is still the first task for academics in University Y.’ (Junior academic H, University Y)

Another piece of evidence to support the argument of Junior Academic H has been the creation of the faculty member evaluation system. Among the internal measures, the faculty member evaluation was perceived to affect academic staff the most:

‘Faculty member evaluation has an instantaneous influence on academic staff. Research performance ranks higher than teaching and service in the evaluation and there is great pressure on academics in University Y to publish [...] especially for junior academics who have six-year contracts.’ (Senior academic C, University Y)

Interviewee I described the reasons why academic staff faced many difficulties in teaching:

‘Although there are regulations protecting junior academics, such as regulations regarding working hours, these are often overlooked due to the situation on the ground: a shortage of qualified teachers and insufficient resources [...] these situations were not written in the reports to HEEACT. Thus junior academics are overwhelmed.’ (Interviewee I, a senior academic with managerial role in University Y)

In this regard, junior academics at Y seemed under more pressure than senior academics. Junior staff were responsible for writing reports and had to prepare and conduct different teaching methods. Among the requirements from the university, mainly driven by HEEACT evaluations, the most challenging task for them, and source of most pressure, is to prepare for their tenure promotion. Although the university emphasized the importance of teaching, academic staff had to shorten the time spent on teaching to cope with an overload of other tasks.

Summary

Different universities have different views on teaching. The QA exercise has affected the four case universities to differing degrees depending on their circumstances. Generally, many academic staff in the four case universities resisted the implementation of quality assurance

processes in the beginning, and claimed that these measures prevented them from operating in the most effective way. Academic staff have traditionally had autonomy over their time management, working hours, teaching and research. However, under pressure to win rewards in evaluations, conflicts arise which can dilute their autonomy (Rowley, 1996). This is also associated with having pride in their work. Frustration arises if academic staff have to deal with poor timetabling, inadequate maintenance of educational equipment, or other distracting demands on their time.

However, most academics in the four universities agreed that the QA exercise helped to improve the quality of teaching by providing regulations to supervise the universities and using technological tools to improve teaching and learning, such as computer-assisted systems. They also felt this was good for the development of universities.

3. Changing approaches to decision-making at the four universities

Based on interview data, it is clear that there have been two main changes in the approaches to decision-making at the four universities. First, the introduction of the QA exercise has resulted in a movement away from collegiality to more managerial roles for positions such as deans and departmental heads, and second, a more pronounced hierarchy has appeared inside institutions.

In the four case universities, academic staff and administrators had to provide documentary evidence to the external QA exercise to prove their professionalism and competence. The four case universities' managers engaged in this task and tried various strategies to achieve it. For example, in University Y, leaders and managers reported that they felt more pressure than individual academic staff in preparing for the QA exercise. These pressures were perceived to have prompted leaders and managers to become more cautious and to centralise the decision-making processes of preparing for the QA exercise.

However, in the interviews, voices of discontent emerged about the gap between the expectations pertaining to the QA policies and their actual implementation in everyday academic life. This gap manifests itself within HEIs as a tension between management objectives and the practical operations of frontline academics (Newton, 2000). For administrators, quality means accountability for management objectives, whereas, at the operational level, quality is understood relative to how academic staff construct it.

Similar to the case study of Newton (2000), the four case universities' frontline academics became accustomed to the quality procedures demanded by senior management. On the one hand, they agreed that the QA exercise made managerial sense, but on the other hand, they did not embrace the QA exercise willingly. Frontline academic staff reported that the increased

internal quality monitoring has affected their work and motivation. However, in the interviews, policymakers and senior academics with administrative roles did not seem to take seriously the opinions of frontline academic staff. Rather, they labelled the resisters as 'lazy' and conservative.

In the four case universities, it was mostly front-line academics who felt overwhelmed by their regular academic work and being responsible for writing reports for the QA exercise. Frontline academics, occupying the lowest position in academies, do not have as many choices as senior academics. In particular, junior academics have to sign six-year contracts that offer no tenure. At this point, the introduction of the QA exercise has resulted in a more pronounced hierarchy inside institutions.

Having now identified the two main changed approaches to decision-making at the four universities, next I shall discuss each institution's distinctive approach to decision-making and what changes have occurred.

University A

The processes of decision-making in preparing for the QA exercise are affected by the power and influence of existing interest groups in University A. As noted in Chapter Six, interviewees at University A reported that the QA exercise has led to the imposition of internal measures derived from outside values that challenge the internal values of the university. For example, one of the challenges is to begin treating students as consumers, a mind-set from the world of business. This assumption was seen to affect the decision-making of leaders and distribution of resources for departments in University A.

'[...] the university takes students' opinions seriously and students can get resources more easily than academics. The university has become a market, serving consumers and I feared that evaluations would challenge the values embodied in universities by causing these changes.' (Interviewee B, junior academic in University A)

Academic staff also feel that the values transmitted by the QA exercise have influenced the management of University A and, consequently, their careers have been impacted as well areas such as their teaching plans, research work and promotion prospects.

'I think that the idea of a university as an enterprise is wrong. What higher education needs is not only accountability but also humanity. For example, the six-year contract is a good policy for managers. They can select more qualified and competitive academics. [...] However, I think that this style of management has destroyed the development of universities and academics.' (Interviewee B, junior academic in University A)

Interviewee B expressed a view that was supported by most junior academics during my interviews. Currently most HEIs in Taiwan have a six-year contract policy for hiring junior academics. For HEIs and senior academics with administration roles, they can select and

recruit new PhD students and staff easily. There are many more people who want to find jobs in universities than posts available. Interviewee B also argued that HEEACT evaluations to a certain extent reinforced the hierarchy between academics. He explained:

‘There were differences between senior and junior academics when they prepared for HEEACT evaluations. For example, academics who got more projects and grants from the National Science Council would have more chances to win new research projects and grants. That seems reasonable to me because senior academics were more experienced running research projects than junior academics. However, junior academics would get lower scores when they were evaluated by HEEACT and then get into trouble. [...] At the same time, junior academics had to cover most of the duties of senior colleagues, including administration work and teaching. Moreover, they had to prepare for promotion for tenure. [...] Junior academics were overwhelmed by too much work, both the HEEACT evaluations, and administration work.’ (Interviewee B, junior academic in University A)

Nevertheless, senior academic G held the opposite opinion from interviewee B.

‘I thought that the pressure on front-line academics was a fake issue. Academics have to teach and do research in universities. Although I have taught for 30 years, I keep writing and doing research. For example, I worked on one paper last night and submitted it today before the deadline. [...] Some academics argued that they did not have enough time to do research because of their teaching load and preparations for HEEACT evaluations. I thought these were excuses. In fact, University A’s regulations to help junior academics work quite well. Junior academics only have to teach 3 or 4 courses every week.’ (Interviewee G, a senior academic with an administration role in University A)

Similarly, senior academic G pointed out that the requirements of junior academics in University A were reasonable.

‘HEIs have their own regulations of tenure and promotion. University A is a research-oriented university so research is more important than teaching here. The requirements of teaching were mainly from HEEACT evaluations, not from University A. I thought these requirements of teaching were not difficult for junior academics. [...] In my opinion, academics should have at least one publication in SSCI/SCI journals every five years.’ (Interviewee G, a senior academic with an administration role in University A)

Another senior academic, F, supported interviewee G’s opinion. She thought that for her, the balance between teaching and research was similar to that before the introduction of HEEACT evaluations.

‘I thought that the performance of teaching and research of academics was similar to that before the HEEACT evaluations. Academics in University A focus on research because that is the key element for getting promoted and gaining tenure here. So I thought that it was unfair to attribute pressure to HEEACT’s evaluations. Most academics felt pressure from the university, and from meeting the requirements for tenure and promotion.’ (Interviewee F, senior academic in University A)

In contrast to the junior academic B’s view, both senior academics argued that the pressure on front-line academics was from the university and from the requirements of tenure and promotion, not from the HEEACT evaluations. In other words, they argued that front-line academics did not have an overload of administration work to prepare for HEEACT evaluations.

Junior academics should be responsible for themselves to prioritise time for research and teaching instead of blaming HEEACT evaluations. The opinion from senior academic F summarised the view of most senior academics:

‘It is true that academics’ time is limited, however, academics should prioritise their time to balance teaching and research. After all, one goal of the university is to teach.’
(Interviewee F, senior academic in University A)

From the above interviews, it is clear that academic staff in University A can feel the changing approaches to decision-making within and outside their university. The QA exercise is seen as an external mechanism influencing the university and academics.

University X

At University X, a different picture emerged at the department level. Interviewees indicated that the impact of the QA exercise was slight, seeing the impact of assessment as either negative or neutral. For them, the evaluations did not impact on their routine work within their departments (Senior academic J, University X). However, leaders and managers reported that they felt more pressure than individual academic staff in preparing for the QA exercise. These pressures were perceived to have prompted leaders and managers to become more cautious and to centralise the decision-making processes of preparing for the QA exercise.

‘Of course everyone felt stress while preparing for the QA exercise. The university also put pressure on us. If my department failed to pass evaluations, I had to take responsibility. The responsibility is on leaders and managers.’ (Interviewee N, a senior academic with an administration role, University X)

Interviews revealed that internal measures for preparing for the QA exercise have influenced junior academics in many universities, especially at public and research universities. This is another example of the conflict in the values between the external QA exercise and academics. In contrast to University A, University X has developed an approach to management based on its characteristics, which aims not at research performance but at improving the quality of its teaching. For example, University X has not implemented the six-year contract for junior academics strictly nor does it not use research performance as the sole criterion for the tenure promotion of junior academics. (interviewee K, vice-president in University X):

‘The aim of the six-year contract is to help junior academics get promoted. The university will not fire junior academics who fail to be promoted within six years. Junior academics will have more time and opportunities.’ (interviewee J, senior academic in University X)

Senior academic N pointed out the difficulties of cultivating a good academic and regarded the six-year contract as a constraint on the development of the university:

‘A few new junior academic staff have the six-year contract. However, University X does not use this contract unrestrainedly as public universities do. It is hard to train a great academic within six years. University X regards the six-year contract as a tool and does not necessarily follow the contract. For example, if junior academics cannot win promotion to associate professor within six years, the university will decide their tenures based on both teaching and research performance.’ (Interviewee N, a senior academic with administration role, University X)

From the above interviews, it can be seen that although leaders and managers tend to become more cautious and to centralise the decision-making processes of preparing for the QA exercise, they still take academics into consideration while implementing administrative regulations, rather than only focusing on the decisions of the central managers.

University B

As at University A, University B has been influenced by values transmitted by the QA exercise. On top of needing to ensure learning outcomes, students are now to be treated as consumers who will be empowered through the QA exercise by contributing their views through student questionnaires. Students’ opinions, garnered through such surveys, had an influence on those in positions of administration when it came to the arrangement of modules and courses and who should teach them. Junior Academic S pointed out when interviewed that:

‘Actually what influenced the distribution of teaching contracts and the design of courses was students’ questionnaires. [...] the university discontinued some courses because of students’ negative opinions. Sometimes the opinions of students did harm to teachers and the university could not measure whether students what said was correct or not. Some students opposed teachers just for the sake of it.’ (Junior academic S, University B)

However, some academics thought that the QA exercise had a beneficial impact on the management of the university. One interviewee indicated that the QA exercise actually helped improve the administrative system:

‘My faculty had many problems before the introduction of the QA exercise, such as vague goals, unqualified teachers and inappropriate curriculum [...] however, there were no leaders or deans who could solve these problems. They said it was a problem caused by bureaucracy [...] People at the management level made decisions without the approval of academics [...] Thus, I thought the management of the university was improved to some degree by the QA exercise.’ (Interviewee T, junior academic in University B)

From the above interviews, it can be seen that academic staff worried about the negative influences of the student surveys on teaching depending on how management reacts to the results. Academic staff thought that the student surveys disturbed their routine work. However, they cannot abolish this regulation because student surveys are an essential indicator of the QA exercise. In contrast, academic staff thought the regulations from the QA exercise were helpful to clarify and supervise the administrative system.

As for the issue of the impact of HEEACT evaluations on front-line academics, interviewee V pointed out that the chances that HEEACT evaluations could influence academics' work were lower for disciplines such as art. The reason is that the art works were highly personal work and were hard to measure by any qualitative and quantitative methods. (Interviewee V, senior academic in University B)

Furthermore, most interviewees in University B, including the president, clarified that unlike other HEIs, University B had not adopted the six-year contract.

'University B focuses on art. It is really hard to ask academics to publish in certain SSCI/SCI journals. In addition, few academics would apply for the National Science Council's research projects. [...] Generally, the pressure for promotion and tenure comes from the academics themselves. In University B, evaluations, tenure and promotion were not linked together. Also, University B did not use the six-year contract to regulate junior academics.' (Interviewee S, junior academic in University B)

Junior academic T also supported S's opinion.

'I did not think there was any negative impact on academics at University B from either the HEEACT evaluations or self-evaluations. Academics in University B were quite free. Actually I thought that academics in University B needed stricter regulations to supervise their teaching, tenure and promotion. The HEEACT evaluations to some extent provided supervision of academics' teaching and research.' (Interviewee T, junior academic in University B)

According to the interview data, it can be seen that the phenomenon of front-line academics becoming accustomed to the quality procedures demanded by senior management was not significant in University B.

University Y

Academic staff changed their opinions regarding the impact of the QA exercise on decision-making as they prepared for the exercise. For example, interviewee D believed that the efficiency of University Y's administrative system was already good before the introduction of the QA exercise:

'Our (University Y) administrative system was able to execute the administrative tasks it had. However, we (University Y) created a new office that was responsible solely for preparing for the QA exercise. [...] It was extra work for the administrative system and lowered the efficiency with which we dealt with other work.' (Interviewee D, a senior academic with managerial role in University Y)

However, in contrast to that senior academic staff's view, the administrative system became complete only after the introduction of the QA exercise:

'In order to prepare for the QA exercise, all offices in University Y engaged in establishing committees, and organising and publishing the records of those committees on the university's website.' (Interviewee H, junior academic in University Y)

From the interview of junior academic H, it is clear that implementing the QA exercise helped the transparency of decision-making processes and improved the administrative system in University Y.

Interviewee I, Dean of a department at the time of being interviewed, also pointed out that the QA exercise helped in the management of University Y. University Y even could not meet even the basic requirements for a university before the introduction of the QA exercise:

‘[...] It is necessary to supervise private universities. At least these private universities would then strive harder to meet the basic standards required of a university.’
(Interviewee I, a senior academic with managerial role in University Y)

From these interviews of University Y, it is evident that the QA exercise helped to inform university staff of the problems at the university, and promoted a management approach at the university by making the decision-making processes transparent.

Nevertheless, most interviewees in University Y reported that the front-line academics were overwhelmed by work caused indirectly by the QA exercise (interviewee I, a senior academic with an administrative role in University Y).

‘My department still focused on research performance. I am a professor so I do not have to strive for promotion anymore. I felt it was easy to arrange my time for teaching and research. I knew, however, that it was really hard for junior academics to manage their time. Junior academics here were given six-year contracts. If they could not be promoted and get tenure within the six years, they would be fired. This was great pressure on them, especially since they had to teach and do administrative work at the same time.’
(Interviewee C, a senior academic with an administration role in University Y)

Junior academic H described the pressure she faced:

‘I am a new and junior academic in University Y. This was the second year in my job. At first, the pressure of teaching was greater than doing research because I had to meet students’ expectations. Also I had to help with administrative work, especially preparing for HEEACT evaluations. Suddenly I found that two years had passed and it was time for me to think about getting tenure and being promoted. So I started to apply for National Science Council research projects and tried to publish in SSCI/SCI journals. At the same time, I had to to teach and do administration work. I felt overwhelmed by the workload.’
(Interviewee H, junior academic in University Y)

Senior academic D supported junior academic H’s view:

‘I agree that junior academics had much more pressure than senior academics in University Y. In fact, in University Y, junior academics were responsible for writing reports and preparing for HEEACT evaluations. On top of that, they had to teach and do research for their promotion at the same time.’ (Interviewee D, a senior academic with an administrative role in University Y)

Hence, in a low status private university like University Y, junior academics in University Y felt similar pressure experienced by those in a high status university like University A. They

were overwhelmed not only by their own teaching and research responsibilities, but also from having to do the administration work for preparing for HEEACT's evaluations.

Summary

There have been different responses to the introduction of the QA exercise on decision-making process. Both Universities A and X have established a complete administrations system. Some academics at the two universities felt that the QA exercise brought specific managerial benefits to their universities. A greater improvement in the decision-making process was seen at Universities B and Y indicating that these institutions were further behind to begin with in applying modern management techniques. A majority of interviewees at B and Y reported that the QA exercise improved the transparency of management.

The common features of how the decision-making process changed at all four case universities were that the process became more centralised and that a more pronounced hierarchy arose inside the institutions. Although the QA exercise has resulted in some problems for frontline academics, most interviewees agreed that the QA exercise has had a positive impact on the administrative system.

Furthermore, the changing approaches to decision-making in the four case universities support Henkel's argument regarding the management of higher education institutions (2012). As Henkel (2012) points out, the prospects of an institution are substantially shaped by economic and reputational competition with various forms of performance measurement and ranking. The interviews in Universities A and X suggested that academic staff continue to have strong involvement with and influence on HEIs' policies, even as they accommodate different management personnel and values. However, less academically prestigious HEIs with fewer resources are more likely to focus on teaching rather than research outputs. Universities B and Y were both aware of their relatively lower status in the higher education system, but there were mixed views about what it meant to be a 'proper university' (Henkel, 2012) in their situation.

4. How has the QA exercise impacted on academic culture, identities and professionalisation.

The examples of the four universities provide evidence to explain the influence of the QA exercise at the micro-level within HEIs. Trowler (1998) identifies types of responses to the QA exercise to explore the attitudes of academics within HEIs. These categories are: sinking, swimming, coping and reconstructing. Of these four types, reconstructing most appropriately describes the responses of my case participants. Academic staff were not victims in the policy process but reacted positively to it. They have become policy makers and shapers by adapting

to or resisting the QA exercise by developing their own local practices, or even by engaging in the QA exercise.

I identify three main impacts of the QA exercise at the micro-level within HEIs: the impact on academic culture, on academic identities and on professionalism. As mentioned in the previous section, the two themes, namely, evolving attitudes to teaching and changing approaches to decision-making, are evidence of cultural change within HEIs since the introduction of the QA exercise. It has become clear that academic staff have reshaped academic culture in response to the QA exercise, while the profession as a whole is confronted with the impact of the system on staff's values, attitudes and professional practices. At the individual level, the changes triggered by the QA exercise have influenced the nature of the academic profession and this, in turn, appears to have reshaped academic identities and professionalisation.

(a) The QA exercise and its impact on academic culture

Academic staff face stress from the need to change in preparation for the QA system. Each individual changes in their own way depending on their attitudes and values, which in turn may be influenced by the values or standards introduced by the QA system itself. In this way, the QA system contributes to changing how academic staff interact with their HEIs. How 'quality' is interpreted and delivered by academic staff may provide firmer evidence of the changes in the culture of HEIs. Below, I address the definition of academic culture first, and then I show how the QA exercise impacted on that culture as evidenced by the management actions taken by academics in response to the introduction of QA at the four case universities.

As mentioned in Chapter Two, the concept that an organisation has a culture which may be utilised to change the nature of an HEI has been embraced worldwide. In this concept, culture is seen as an instrument for improving the performance of higher education. The concept can be seen in interviews of policymakers and experts.

'I thought that the main difficulties related to HEEACT are not techniques and systematic aspects of the QA exercise but the actual concept of evaluations.' (Interviewee A, a current policymaker in the MOE)

Interviewee P also argued that the culture of Taiwan's HEIs is the main factor which has influenced the implementation of the QA exercise.

'The difficulty related to the implementation of the QA exercise was the culture of Taiwan's academics. Few people wished to accept criticism or to be evaluated by other academics. [...] The reason for this situation is that the 'Quality culture' has not been widely accepted by HEIs.' (Interviewee P, former executive director of HEEACT)

In this regard, the policymakers of the QA exercise thought that without it being made compulsory, HEIs would not have accepted evaluations. The most difficult part of implementing the QA exercise is to create an evaluative culture.

The four case universities present both views that management action determines culture and culture determines management action. This phenomenon is referred to as 'game playing' by Brennan *et al* (1997:38). For example, universities rehearsed how to act during the QA visit and individual academic staff revised their teaching materials in advance of a visit.

The first way that culture can be managed is by introducing internal measures which assess the performance of research and teaching. Interviewees from University A presented the view that management action influences the culture of the university, especially the balance between research and teaching.

'For academics in University A, the internal measures for the QA exercise and competitive projects reveal that the most important performance criterion for academics is research. By publishing papers, academic staff can meet the requirements of management efficiently. Academic staff are reluctant to waste time on teaching and students.'
(Interviewee B, junior academic staff in University A)

A similar view also appeared in University Y:

'This is my third year at University Y. I can identify that management has been influenced by the QA exercise, that is, the requirements of the market. The president and administrators have been engaged in preparing for the challenges of the QA exercise and market. The priority of academic work focuses on finding employment for graduates.'
(Interviewee H, junior academic staff in University Y)

By reweighting the balance between research and teaching, the QA exercise has influenced academics' daily life and the overall academic culture within HEIs. The second way to manage culture is by developing a strong culture of effective teaching, student learning and academic standards (Dill, 2012). For example, University A provides rewards such as 'Good Teaching Faculties' and training courses like 'Lectures in Teaching Excellence'. These activities raise the issue of what standards are appropriate for evaluating teaching performance. Just as it does with universities as a whole, the QA exercise guides academic behaviour and influences values at an individual level by placing emphasis on evaluative criteria. The MOE claims that the implementation of the QA exercise is the basic responsibility of academics, and by demanding 'excellence' in their higher education policies, such as in competitive projects, which will drive an improvement in the quality of teaching. However, teaching is a relationship between teachers and learners, which illuminates the kernel of teaching: not an action but a transaction; not an outcome but a process; not a performance but an emotional and intellectual connection (Trow, 1994: 26).

The objectives of the higher education policies that have been implemented by the MOE regarding 'excellence' are affecting the culture of teaching. For higher education, almost everything in a university depends on the inner motivation of teachers, such as their intellectual involvement with subjects and commitment to students or research. Governments have been able to reshape the behaviours of academics and HEIs by tinkering with the budgets for HEIs without directly influencing academics' level of motivation. This strategy sees individual academic staff as mere economic resources.

However, Bright and Cooper (1993) indicate that managing quality does not necessarily imply that cultures can be changed despite the fact that cultures do change. For example, Universities B and X are significant examples of where the culture of a university determines management action.

'I thought that University B was a university for arts. We have our own unique characteristics, so I did not create special measures to prepare for the QA exercise.' (Interviewee R, president of University B)

Similar to B, University X thought that the university should maintain its unique features:

'University X will not change its goal even though HEEACT has specific criteria to evaluate universities' goals. University X has its own history and characteristics. [...] I thought the MOE should not interfere the autonomy of universities.' (Interviewee O, president of University X)

The extent to which the QA exercise affects the culture of individual HEIs, and at what levels, has to be carefully examined. Organisations comprise a series of subcultures and interpretations. Bright and Cooper (1993) propose that rather than trying to find out the changes in the culture of HEIs, making an assessment of how the message 'this is quality' is interpreted and enacted by academic staff may provide firmer evidence. Academic staff face stress from the need to change when preparing for the QA exercise and their behavioural changes are driven by their attitudes and values. In this way, the QA exercise contributes to changing the relationships which academic staff have with their HEIs.

(b) The QA exercise and its effect on academic identities

As Chapter Two illustrates, recent studies have suggested that 'identity' can be utilised to explain cultural changes in higher education. In this section, the concept of academic identities is used to explore the link between academic behaviour and academic culture.

Academics' identities were challenged by the changing roles, which were necessitated by the introduction of the QA exercise. In interviews, academics pointed out that academic work includes research, teaching and administration, though the most important part of academic work is research. The emphasis on funding as well as the external QA exercise makes

academic relations more bureaucratised. This shift is experienced by everyone from researchers to teachers to administrators. Their control of their academic working environment has been circumscribed by external demands. Academic staff feel that their status is diminished and how they use their time is controlled. Academics in the four case universities have placed more emphasis on teaching since the implementation of the QA exercise. They recognise that their role is not only to do research but also to teach. For example, interviewee F argued that universities should be responsible for both research and teaching:

‘University A did not care about teaching before the introduction of the QA exercise. However, we have taken several internal measures and the president puts emphasis on teaching recently. Academics within universities are different from Academic Sinica. Academic Sinica is a national institute for research and academics who work there focus only on research. However, there are students in universities so we academics should provide a higher quality of teaching to them.’ (Interviewee F, senior academics in University A)

Junior academic staff in the four case universities thought of themselves primarily as researchers, while also responsible for teaching and administration. Becoming an administrator is recognised as a component of academic work. Most senior academics in the four case universities have had experience of being administrators. Although senior and junior academics reported that they enjoyed teaching, both regarded administration as an extra burden, which they felt should be excluded from academic work. Furthermore, junior academics realised that academics are not only researchers but also at the bottom of the ladder in academia. The most significant case is University A:

[...] However, junior academic staff have to sign the six-year contract. If they cannot gain tenure within six years, they will lose their jobs. Along the burden of the six-year contract, junior academic staff are responsible for teaching and extra work--administration. I felt that senior academic staff are enjoying the benefits of this regulation. For them, the fact that junior academic staff cannot be tenured and promoted is of little concern because of the substantial number of PhDs waiting for vacancies.’ (Junior academic staff in University A)

Furthermore, the QA exercise and related internal measures, which were created to respond to the QA exercise, have made academic work more open to scrutiny by external reviewers, including administrators and students. Henkel (2000) refers to this phenomenon as the ‘visualisation of work’, meaning that academic work is evaluated by people without knowledge or expertise.

However, Henkel (2000) also points out that whether staff identify themselves as researchers, teachers, administrators or any combination of these roles, their discipline, be it mathematics, economics, or history, is still the centre of their academic life. Academics’ perceptions of higher education are strongly linked with how their discipline views the value of

education. In Taiwan, in order to prepare for the QA exercise, the reputation and competitiveness of departments and faculties became priorities for management. In my interviews, some senior academic staff who had become academic administrators pointed out the importance of interconnecting their discipline with social needs as a way to maintain their academic life and research. This finding can be the basis for future research into this area.

In addition, academics within HEIs have to prioritize their goals whether they be research or teaching, while HEIs must decide to be research-led or teaching-led universities. Research is not only a concern of individual academics and their discipline but also a tool to compete for resources and funding for departments. Research-centred policies of HEIs have influenced the priorities of academic work. For example, the four case universities created several rewards for publication and they have a preference for certain sub-disciplines and research areas in order to increase the output of research. These research-funding strategies have strengthened research culture but created new hierarchies between those departments, good at garnering funds and those not so adept. Departmental managers are intolerant of 'unproductive' academics. For example, one interviewee indicated that some departments were categorised as 'having low ability of competing for funding' in University B:

'Actually, the pressure of publish is not so intense in University B. Each year the university summarises the research performance of departments, such as the numbers of publications. [...] Then the university provides rewards to these departments and individual academics. However, the list of rewards is nearly the same each year. Few academic staff have enough publication. Only academic staff who are not artists would engage in publishing.' (Interviewee T, junior academic staff in University B)

Facing pressure regarding research performance, departments have developed strategies to survive and sustain departmental interests by meeting the requirements of both the QA exercise and the universities, such as rearranging the curriculum and merging or opening departments to attract students.

Valimaa *et al* (2012) argue that the new practices of QA and academic identities are the key drivers for change in higher education. As noticed in Chapter Six, it can be seen that the managerial strategies and attitudes to the QA exercise have been assimilated gradually. However, it should be noticed that cultural characteristics embedded in higher education are not changed easily by external powers, such as the QA exercise.

The responses of academics to these challenges of the QA exercise were, however, not the same in the four case universities. The unique characteristics of each university have influenced the attitudes of academics. Academics make their own analyses of the challenges according to the suggestions of colleagues, departments, disciplines and institutions. Being at a less prestigious university, academics in University Y adopted more conservative strategies to

the challenges of the QA exercise. They were aware of the relatively weaker reputation of Y. Academics in University Y, especially junior academics, have had to develop a more flexible approach to teaching and tolerate lower standards of literacy and numeracy among their students. Interviewee D (a senior academic with managerial role in University Y) pointed out that they have to be more flexible and entrepreneurial in the planning of new curricula and individual research projects to prepare for the QA exercise as well as in improving student performance in learning.

(c) The QA exercise and the reshaping of professionalisation

Chapters Five and Six show that new structures created for the QA exercise have influenced governance and decision-making processes of higher education. However, universities have not simply accepted the challenges of the QA exercise passively. In the four case universities, another change of academic culture that can be clearly observed is the reshaping of professionalisation. By examining the interview data from the four case universities, and with reference to the definitions of professionalisation, I identify two ways in which the QA system has influenced professionalisation.

Definitions of professionalisation

Professionalisation is understood in different ways in higher education cultures. The profession has been described as consisting of academics and the actual position they hold in the field of higher education research (Slaughter and Leslie, 1997). Kehm (2015) argues that among younger academics the perception of professionalisation is often related to the possession of additional skills concerned with new forms of organisation, teaching and research. In his case studies, Kehm (2015) identifies two main changes in professionalisation related to external controls. One is the professionalisation of academic staff through job enrichment, and the other through specialisation among academic staff and among institutional management. DiMaggio and Powell (1991) also provide concepts of profession in organisations. The process of professionalisation is interpreted as 'the collective struggle of members of an occupation to define the conditions and methods of their work, to control the production of producers, and to establish a cognitive base and legitimisation of their occupational autonomy' (DiMaggio and Powell, 1991: 152). In addition, according to Morley (2005), de-professionalisation has two features: the removal of discretionary power over pedagogy; and the imposition of constraints on teaching practice by the bureaucratic criteria of the QA agencies.

According to Kehm (2015), the factors triggering professionalisation processes within HEIs are the emergence of knowledge societies, the diversification of HEIs' roles, and

internationalisation. The knowledge society is often intertwined with the increasing socioeconomic importance of universities and a growth in external controls. The new tasks and functions prevalent in HEIs, such as fund raising, marketing and branding, technology transfer, and recruitment of students, have accelerated the rate of change for academics (Kehm, 2015).

Two ways in which the QA system influences professionalisation

Subsequently, by examining the interview data from the four case universities based on the definitions mentioned above, I identify two ways in which the QA exercise influences professionalisation. First, academic staff have experienced a loss of career opportunities through the processes of preparing for the QA exercise. They have engaged in the process of their own professionalisation by trying to achieve a number of external requirements, such as acquiring new skills and tasks. Second, the requirements of the QA exercise and the increased administrative workload are viewed by academic staff as having a negative impact on professionalisation. These requirements were seen as a form of professionalisation imposed from outside traditional academic work, and have had deprofessionalising effects. This kind of process is similar to the concept of the loss of discretion referred to by Freidson (2001). For example, the six-year contract for junior academics was seen as placing a great pressure on their daily research and teaching work. In most interviews, academic staff reported that for them the additional requirements of the QA exercise and internal measures impacted negatively on the time available for teaching and research.

Being an external control mechanism on HEIs, the QA exercise represents the Taiwanese government's determination to ensure the accountability of teaching and research. As Trow (2014) points out, the extraordinary focus on quality in higher education is part of a government focus on the bottom line. To ensure its desired outcomes are reached the MOE makes use of the QA exercise and indicators by linking its assessments of teaching to the rewards it disburses. On the one hand, the QA exercise measures the amount and quality of research produced by academics; on the other hand it looks at the quality of teaching. In Programme Accreditations, more and more professional competencies are required, such as the ability to teach in English to meet the needs of internationalisation.

However, on the other hand the academic profession has been confronted with the onerous requirements of the QA exercise. Morley (2004) argues that these represent an area of danger in academe, namely that the purity of education is being contaminated with bureaucracy. Bringing in funding has now become essential to academic work as well as monitoring and maintaining research outputs and reputation. Rather than being intrinsically motivated by their work for its own sake, HEIs pursue a good reputation. Sarrico and Melo

(2012) indicate that this has shifted universities from the 'bureaucratic-professional' model to the 'consumer-managerial' one.

From governments' viewpoint, the way to ensure high quality higher education is to generate a competitive environment for academics and to this end they tie rewards to performance and subject academics' careers to more performative frameworks. By combining these competitive projects into its performance indicators, as Morley (2004) argues, the QA exercise becomes a socially constructed domain of power and imposes new power relations on HEIs. The MOE uses the power to mould and regulate institutions by imposing quality terms and discourses of performativity.

The danger also imperils academics' professional autonomy by depriving them of the power to control their time, priorities and objectives but instead pushes them to pursue market value. As discussed in the previous section, not only HEIs but also individual academics within HEIs have to prioritise their goals between either research or teaching. In the four universities, academic staff have found themselves working for institutions newly under pressure to orient themselves more internationally, with policies and organisational frameworks redesigned under pressure for the purpose of climbing international league tables and becoming world-class, as Henkel (2012) indicates. The QA policies aim to improve quality teaching at the same time as demanding effective research outputs. Because the results of research performance determine the allocation of funding to individual HEIs and to academic staff, there is considerable managerial pressure to make academics more active in research. The responses of academic staff to the QA exercise in the four universities also support the argument of Henkel (2012) if a university is designated as 'research inactive', the teaching and administrative loads of its academic staff are likely to be increased in order to release 'active' colleagues to another university to enhance research productivity.

The QA exercise has reinforced academic staff's determined efforts to repackage their research to meet funding bodies' criteria, while highlighting their compliance with policies. Interviewees in the four universities reported that departments and individual academic staff shape their research and teaching to match what counts in the QA exercise. Endless external and internal performance indicators in the assessment of teaching quality and research make academics feel as if they will never achieve closure in this process. Academic staff reported that they felt that time spent on developing their teaching was time away from research productivity. Thus they adopted compliance strategies, particularly in the packaging of research for funding applications and ensuring their tenure contracts; for junior academics in particular, the most important thing is the management of their own careers. They have more interest in promotion

and better pay in reward for better performance. For example, with a limited amount of time, academic staff H had to choose between research, teaching and other academic work:

‘I have to prepare for faculty promotion, teaching, and the QA exercise at the same time. The pressure of publishing becomes greater than other academic work when I face the upcoming deadline of applying for faculty promotion. [...] Thus I have no choice but to focus on research.’ (Interviewee H, junior academic staff in University Y)

Publishing in particular types of publication is advantageous to get awarded competitive projects. There is intensifying pressure on academics not only to produce research outputs to compete in league tables, but also to produce certain types of knowledge through certain publications, which reinforce particular values and hierarchies in academe. Taiwan’s competitive projects play a role similar to that of the Research Assessment Exercise (RAE)¹ in the UK, which, as Alldred and Miller (2007) have pointed out, drives the process of knowledge production. By emphasizing ‘world-leading’ and ‘international excellence’, the research outputs become the measure of universities. The way in which the performance indicators are used to wield power is by using them to rank HEIs and deciding whether research outputs, such as books, articles and reports, can be awarded the competitive projects.

As Taiwan’s academics have become more conscious of performance indicators, the methods of measuring research performance have become more prevalent (Cheng *et al*, 2014). At the beginning, the academics resisted the use of performance indicators. However, since the implementation of these mechanisms universities have embraced these performance indicators. One interviewee pointed out that the top hierarchy of the academy have used these mechanisms to secure their positions and compete against other institutions (Interviewee Q, senior academic in Academic Sinica).

Another example of the new power relations that have emerged due to the QA exercise is the peer review processes. The subject panels also become key factors in the assessment of research outputs and their behaviour influences the way institutional managers conceive of subject boundaries (Alldred and Miller, 2007). Research that does not fit into neat disciplinary boxes may rank lower on the citations indexes. In the end, research only produces ‘useful knowledge’ and ‘alienated knowledge’ (Stanley, 1990). However, Morley (2005) also indicates that the power relations in peer review remain largely untheorized. Yet evidence from the interview data presented in Chapter Six provides examples to suggest that peer review has taken shape in the form of a threat and a danger. Academics who are responsible for undertaking the QA exercise have to play multiple roles. They must deal with the differences

¹ The Research Assessment Exercise was replaced by Research Excellence Framework (REF) in 2014. REF is the new system for assessing the quality of research in UK higher education institutions.

between the 'moral' authority of peers and the 'bureaucratic' authority of quality bodies (Morley, 2005). Thus peer review mediates government policies and involves a complex interplay between insider and outsider.

In sum, these phenomena, which occurred in the four case universities, represent a major form of 'micro-political interference' (Morley, 2005: 89), which de-professionalises academics (Trow, 1994: 32). This process reshaping professionalism is an inevitable consequence of the withdrawal of trust in higher education, which flows from the creation of QA mechanisms by governments. Academic staff have to make themselves auditable for the QA mechanism. This is what Walker (2001) calls 'a new cultural logic' governing academic professionalism. No matter how much academics try to maintain their independence, they have to respond to the external pressures, such as the quantitative scores and QA exercises.

However, Morley (2004) also points out a positive aspect of quality assurance. Although the QA exercise has significant impact on academic work, academic staff in turn mediate and influence these external controls. They have adapted and coped with the pressures of the QA exercise. Although academic staff referred to these assessments as 'games' in interviews, they became involved in preparing reports infused with persuasive rhetoric. In addition, students and other stakeholders have more opportunities to be involved in organisational development and the maintenance of professional standards through the QA exercise. Although in the interviews there is a lot of criticism of the notion of the student as customer, academic work is becoming more transparent and focused on services and the learning environment for students. This provides new paradigms for thinking about academic work and higher education.

5. Summary

This chapter has looked at the impact of the QA exercise on academic culture. First, based on the concept of 'fundamental cultural changes' (Brennan and Shah, 2000) that occurred as a result of the introduction of the QA exercise, I analysed academic staff's perceptions of the impact of the QA exercise. By exploring how the daily working life of these staff has been changed by external QA requirements, I identify that the cultural changes of the four case universities have been increased productivity, evolving attitudes towards teaching, and changing approaches to decision-making.

The analysis of cultural changes within HEIs provides evidence that academic staff have reshaped their academic culture in response to the QA exercise. First, the measurement for research productivity created particular hierarchies in HEIs. Junior academic staff were responsible for more work than senior colleagues. Furthermore, junior academic staff had to prioritize either teaching or research due to an overload of responsibilities. Second, the cultural

changes have influenced the perceptions and attitudes of academics and led to the reconstruction of the academic profession, which has contributed to changes in academic identities and the reshaping of professionalisation.

Chapter Eight: Conclusion and reflections

This chapter serves three purposes: summarizing the research, discussing its contributions and identifying areas for future study. The summary is presented in accordance with the two research questions. Finally, the limitations of the research and implications for future research are identified.

I. Summary of main findings

A summary of the findings in the preceding chapters is presented here in order to address the two research questions:

- (c) How has the current QA system developed in Taiwan, and what are its features and characteristics?
- (d) How do university staff in four universities with different features prepare for and perceive the impact of the QA system undertaken by HEEACT?

The study focused on four universities with very different characteristics and experiences of the QA system. After reviewing impact studies of QA, the study conducted by Brennan and Shah (2000) is used as the main approach to the conceptual framework for this thesis. Following the pilot study, the approach from Morley's (2004) study which was incorporated to provide explanation for the micro politics of quality assurance in higher education, is used to support and improve the conceptual framework into a new analytical framework which fits and explains the specific Taiwanese context.

1. The features and characteristics of the current QA system in Taiwan

As is the case in many European and other East Asian countries, the introduction of Taiwan's QA system was a response to globalisation, internationalisation and issues caused by the expansion of higher education.

Four stages were identified in the development of the QA system in Taiwan, namely, direct control by the MOE from 1975 to 1990, deregulation and public participation from 1991 to 1994, the development of self-evaluation from 1995 to 2004, and finally, the establishment of an independent national agency, HEEACT, from 2005 to 2012. At the end of 2012, the MOE announced a new QA policy, which is having a large impact on HEEACT. From 2012 there are now two parallel systems: firstly the new 2012 policy, which only 34 selected universities are using. This group is being evaluated by the MOE directly. The second system is where HEEACT conducts evaluations for other HEIs. However, there is a concern that HEEACT will lose its legal position of conducting the QA system if some HEIs are evaluated by the MOE directly.

The key features of the first stage (1975~1990) were a focus on subject evaluations, and absence of a link between the QA system and the distribution of educational funding. Although the subject evaluation helped both universities and the government to understand the quality of higher education, it was not a long-term project, but merely an experiment test-bed by the government. The MOE was concerned with the low quality of higher education, and felt there needed to be greater accountability at the universities. At the same time, the MOE was urged by some academics and the pressure groups to take a more interventionist approach. The setting up of the initial experimental QA system symbolised the MOE's loss of trust in universities.

In the second stage from 1991 to 1994, the government started to entrust an organisation, the Research Centre for the Studies of Accreditation and Evaluation (RCSAE), to improve the QA system. The process of evaluation became more rigorous after adopting the advice of RCSAE. The MOE accelerated the professionalizing of the QA system in the third stage from 1995 to 2004. The University Act was enacted in 1994 and the evaluation process was entrusted to professional groups. The MOE was concerned with several issues, including globalisation and internationalisation, and the response of universities to these. The result was the creation of HEEACT and the beginning of a formal QA system in Taiwan.

The revised 2005 University Act and the establishment of HEEACT in the same year were the most important features of the fourth stage from 2005 to 2012. These two features symbolised that the QA system had come of age. It became compulsory for HEIs to conduct evaluations. In addition, the government began distributing expenditure on higher education according to the results of the QA system conducted by HEEACT. After HEEACT was set up, the considerations of the QA system changed to include competitiveness in international university ranking, differentiation between research-led and teaching-led universities, and the need to reduce the large number of universities.

During the four developmental stages of the QA system, the MOE has been an active borrower of Western educational policies. Taiwan's QA system is based on a mixture of the accreditation system of the U.S.A with 'a general model' (van Vught and Westerheijden, 1994) similar to that used in European countries. It has constructed a hybrid model of different approaches to QA with distinctive features, which are: (a) evaluating both teaching and research within one single assessment exercise; (b) its results are used to determine resource allocation in the higher education system; (c) it has also been used to merge and close HEIs by the government; and (d) some of the terminology used is ambiguous.

The first feature has been implemented by HEEACT since the QA system was first established. There are two main evaluations in Taiwan's QA system, which are the Programme

Accreditation and the Institutional Accreditation. In the Programme Accreditation, all programmes of departments and faculties are evaluated in one visit, while the Institutional Accreditation focuses on the management and governance of HEIs in another visit. However, both accreditations include assessments of research and teaching, and assess both areas at the same time.

The second and third features are related to the use of the results of the QA system. The MOE started a new funding programme in 1996. Based on this new programme, all universities have to find external funding resources, such as fund-raising and from co-operating with industry. One way to obtain funding is from the competitive projects introduced by the MOE. One of the criteria for applying for these projects is the result of the QA evaluation conducted by HEEACT. The abundant sums of money available for competitive projects attract universities to join the QA system and meet the criteria of evaluations. This intensive competition has widened the financial gap between public and private universities.

In order to respond to the low-birth rate and the concern with quality of higher education, the MOE has employed the Exit Mechanism to close universities which do not pass the QA evaluation process. The results of the QA system are used as references for the Exit Mechanism. For example, one programme under the Exit Mechanism, 'the 'Principle of improving or closing private higher education institutions' was enacted by the Ministry of Education in 2013. Four indicators are used as criteria and private HEIs that meet all four indicators must be closed by the MOE. The criterion which is directly related to the QA system states that a private HEI which does not pass the Institutional Accreditation or one in which two-thirds of the departments do not pass the Programme Accreditation must be closed. Three private colleges were closed under this law in 2014, with 11 more private colleges closing in 2015 and 72 departments of private HEIs merging or closing according to the MOE.

These three features help to distinguish Taiwan's QA system from the accreditation system of the U.S.A and 'a general model' (van Vught and Westerheijden, 1994) of European countries. First, the design of Taiwan's QA system is different from the accreditation system of the U.S.A. Although HEEACT members and policymakers claim that Taiwan's QA system is an accreditation system, the function of accrediting HEIs, including the power to shut down programmes, courses and institutions which fail accreditation, cannot be practised in Taiwan's QA system. In addition, only Taiwan's QA system evaluates both teaching and research within one single assessment exercise. Second, under 'a general model', QA mechanisms are not supposed to link to funding allocation for higher education. However, the MOE does directly link the results of the QA system to funding allocations.

The fourth feature is the ambiguity of the terminology of the QA system used in Taiwan. QA is a relatively new field for Taiwan's higher education, and different English to Chinese translations have caused inconsistencies in terminology. As Table 1.1 illustrates, although Taiwan's QA system uses the same terms as other QA approaches, such as evaluation and accreditation, the meaning of these terms is different to the accreditation system of the U.S.A. The ambiguity of QA terminology has caused confusion among academics regarding the QA system. For example, academic staff found it difficult to distinguish the differences between 'academic evaluation' (an evaluation for assessing the research performance which is conducted by Ministry of Science and Technology) and HEEACT evaluations (the Programme Accreditation and the Institutional Accreditation). Academic staff think that all 'evaluations' are conducted by HEEACT and belong to the QA system. Chapter Four highlights three main problems in the current QA scheme, namely, 'problems connected with the difficulties of measuring the outcomes of the QA system', 'the use of some unqualified external reviewers by HEEACT', and 'problems associated with the criteria of the evaluations'. Academic staff presumed HEEACT were responsible for all of these problems. However, I found that 'problems associated with the criteria of the evaluations' is not directly related to the requirements of HEEACT but rather to the MOE. In this regard, the problem is still real but unfairly attributed to HEEACT.

2. The impact of the QA system undertaken by HEEACT on HEIs

Based on the analytical framework, the overall impact of the QA system on HEIs can be categorised into three groups, which are the organisational changes at the institutional level, changing university governance at the system level, and the reshaping of the academic profession at the individual level. However, the perceptions and responses of the four universities to the QA system varied and are driven by different considerations such as their institutional purposes, missions and characteristics as public or private institutions.

(a) How do universities prepare for the QA exercise

As shown in Chapter Six, the preparation processes for the QA system are similar across the four universities. All four universities followed the instructions of HEEACT. First, all departments in the university conducted a self-evaluation and heads of departments allocated particular tasks, such as report writing, to academic staff. After all departments had submitted their reports to the university they were submitted to HEEACT. External reviewers from HEEACT then conducted on-site visits at the university. In preparing for the QA system all four universities introduced internal measures by providing rewards, implemented new staff evaluations and created new organisations.

However, each university had different approaches to the preparation process. The differences were based on institutional contexts, such as their status, mission, reputation and history. For example, various institutional contexts influenced the universities' decision-making processes. At universities which did not perform well on evaluations, it was found that the head of the central office tended to play a more important role in making decisions than at other universities. Universities with good reputations were afraid of losing in the QA system while universities with a poorer reputation had more opportunities to improve regardless of whether they were public or private universities.

In University A and University X, the faculties and departments tailored themselves to fit the requirements of the QA system. Both of them conducted mock evaluations prior to the formal HEEACT visit. In University A and University X, which got good evaluations, people moved from an initial awareness of the importance of internal measures before the implementation of the QA exercise. However, University B and University Y had a difficult time implementing such measures. Both of these institutions set up internal measures only after learning the results of the QA exercise and then tried to meet the criteria for the next QA exercise.

The effects of the QA system were also different on the four universities. University A and University X performed well on the QA system and regarded the QA as a normal exercise on the part of the government. However, both University B and University Y faced decreasing student numbers and University Y had to merge and close several departments to pass re-evaluation.

(b) How the academic staff perceive the impact of the QA system

Based on the analytical framework of this thesis, I identify the impact of the QA system on HEIs at three levels, which are the system level, the institutional level and the individual level.

(i) Impact at the system level: university governance

The MOE has used the results of the QA system to classify, merge or close universities. I identify four ways in which the QA system has influenced university governance, which are: through new organisations within universities as they respond to the QA system, through performance indicators determined by HEEACT and MOE, through the MOE using the results of HEEACT evaluations for funding distribution, and through the MOE using the results of HEEACT evaluations for the Exit Mechanism.

First, new internal organisations were created by the four universities in order to respond to the requirements of the QA system. Governance of the universities has been shared between different faculties and administrators. In this, university governance has also been influenced by

the QA system through the decision-making process and management. Second, the MOE does influence the development of HEIs by setting up performance indicators in the QA system. For example, HEIs had to prepare for and pass the 2011 Institutional Accreditation, which evaluated the management and governance of HEIs. One of those performance indicators is the mission and goals of the university which were reviewed and decided by external reviewers of HEEACT. For HEIs, university governance is deeply influenced by the QA system. Third, the MOE takes the results of HEEACT evaluations as a basis for funding allocation. This forces HEIs to take the performance indicators and results of HEEACT evaluation seriously. Finally, the MOE uses the result of HEEACT evaluations to implement the Exit Mechanism, which aims to close or merge HEIs. For example, the MOE demanded that University Y merged several departments which did not pass the Programme Accreditation. Furthermore, based on the 'Principle of improving or closing private higher education institutions by the Ministry of Education', private HEIs which do not pass HEEACT evaluations are subject to close supervision by the MOE. Thus, HEEACT evaluations also help the practice of the 'Exit Mechanism'.

Furthermore, HEIs have been forced by HEEACT evaluations to choose their routes either to become research-led or teaching-led universities (Chou (Ed), 2014). HEEACT evaluations assess both research and teaching performance at the same time. HEIs have to highlight their strengths in research or in teaching in order to be successfully accredited by HEEACT. All HEIs which did not pass evaluation had their number of student enrolments reduced by the MOE unless they passed the re-evaluation. In addition, failed HEIs faced the damage to their reputations and that, of course, influenced the number of student enrolments. For example, although University X performed well on the QA system, it felt had to choose between research and teaching. In order to ensure its success in HEEACT evaluations, University X highlighted the advantages of teaching and gradually became a teaching-focused university.

However, the emphasis on research productivity has widened the gap between Taiwan's public and private universities which could not compete at the same level, leading to a two-tier division between research-led and teaching-led universities. Most of the research-led universities are prestigious, public universities, whilst teaching-focused universities are tend to be less prestigious, private universities. Research performance is currently assessed by both competitive projects and HEEACT evaluations. The MOE forms a committee or panel of administrators and researchers from the disciplinary field to evaluate the applications for competitive projects. These competitive projects aim to maximise and reward research output. Being part of the mechanism for distributing funding, they function to stratify or rank research resources and universities.

To sum up, the QA system has influenced the governance within HEIs. HEEACT appears to be a driver of change in higher education as it has rearranged the existing distributions of authority within HEIs.

(ii) Impact at the institutional level: organisational changes

By analysing how the QA system was regarded and prepared for by academics, I identified the internal measures introduced by the universities and the impact of the QA system at the institutional level. The internal measures produced by the universities were to prepare for the QA exercise. Rather than being forced directly from above by HEEACT, the majority of internal measures, including rewards, staff evaluation and structures, were initiated by the universities themselves. However, these internal measures are in fact part of the performance indicators in HEEACT evaluations. So, in a sense, in order to pass the QA exercise, the universities have to implement internal measures as HEEACT expects. In this way, the QA system has been incorporated into the institutions' quality management processes by internal measures.

The establishment of internal QA measures resulted in organisational changes in the four universities. First, rewards were provided by universities to individual academics at the institutional level, such as funding allocations to faculties and departments, and financial rewards for those who published in specific publications. Second, the uses made of the QA results by decision-makers in HEIs meant that the QA system influenced HEIs' management in a number of ways ranging from the universities' aims to individual appraisal policies. Third, new organisations were created above existing administration structures to cope with the introduction of the QA system, which strengthened the position of management. The QA system has also influenced the institutional level through subject disciplines by providing performance criteria for the design of courses and new curricula.

Overall, these organisational changes created a new form of management embracing a market-driven enterprise culture. The interviews show that QA was welcomed by university executives and administrators as a new managerial tool. The QA policies were used by the MOE to improve institutions by preparing for the QA system, such as more financial incentives to the faculties and departments. In addition, university executives began to use international league tables as well as competitive projects to justify their institutional policies and internal measures. It has influenced the balance of power and academic culture within HEIs, which was explained in Chapter Seven.

(iii) Impact at the individual level: cultural changes

In contrast to the positive perspectives of QA held by senior academics at the managerial level, many academic staff tended to report that the requirements of QA, such as the extra

paperwork to quantify teaching and learning as well as publishing specific publications in a science database (SSCI and SCI), do not improve their academic work. Most interviewees in the four universities reported difficulties in preparing for the QA system, particularly complaining about excessive paperwork and a lack of understanding of what they considered an overly complex QA system. Academic staff argued that the QA system is a new tool for the government to control academic work and higher education by quantitative indicators. However, although academic staff regarded the QA system as an interference with their academic work, they did identify two positive aspects of the system. First, in order to pass HEEACT evaluations, HEIs have provided more resources such as new facilities and technology for students. Second, the transparency of HEIs has been improved by the QA exercise. For example, internal policy-making processes became more public and academics were monitored by the performance criteria of HEEACT.

In previous chapters, a number of practices have been analyzed ranging from new approaches to management to university governance. As such, the work of the QA system has been furthered by the internal measures universities generated in response to the QA system. What I found is that such practices contribute to the cultural impact of the QA system on the four case universities as Brennan and Shah (2000)'s IMHE case study indicated. The specific cultural changes within HEIs as a result of the introduction of the QA system are firstly, increased productivity, secondly, evolving attitudes towards teaching, and finally, changing approaches to decision-making. Whilst the QA system puts emphasis on research performance more than teaching in the view of academics. It demands HEIs have to meet basic minimum requirements relating to teaching. Academic staff admitted that these requirements helped to improve the quality of teaching.

Academics were critical at the beginning and resisted the introduction of the QA system. However, they eventually complied with it. In the four universities, the extent to which academic staff resisted or adapted to the QA system and internal measures differed according to institutional contexts. For example, these resistance patterns differ according to the institutional characteristics, the reputation of universities, academic positions, academic identities and the disciplinary backgrounds of academics. However, the perceptions of academic staff and their responses to the QA system are not only determined by these external factors but also mainly influenced by the values and beliefs held by the staff.

This contributed to reshaping academic culture while academic staff's values, attitudes and professional practices are confronted with the values of the QA system. For example, as discussed in Chapter Five, the governance of HEIs has been influenced by the QA system. Not only have HEIs been forced to decide to be research-led or teaching-led universities, but also

academics within HEIs have to prioritize their goals of research or teaching. They felt that they had to choose between focusing on their teaching expertise or research in response to the QA system. In addition, academics are experiencing increased workloads and a culture of long hours to meet the bureaucratic requirements. Academics have had to rearrange their schedules and prioritise their tasks to meet the new demands made of them. These situations have affected the behaviours and work of academics and led to the reconstruction of the academic profession, which in turn contributes to reshaping academic identities and professionalisation.

3. Reflection on the model of this study

(a) The conceptual and analytical frameworks

As described in Chapter Two, this study used Brennan and Shah’s model which is based on their study of the impact of quality assurance (QA) across various European countries, including 29 higher education institutions (HEIs) and agencies in 17 different higher education systems. It is the most recent and largest scale such study.

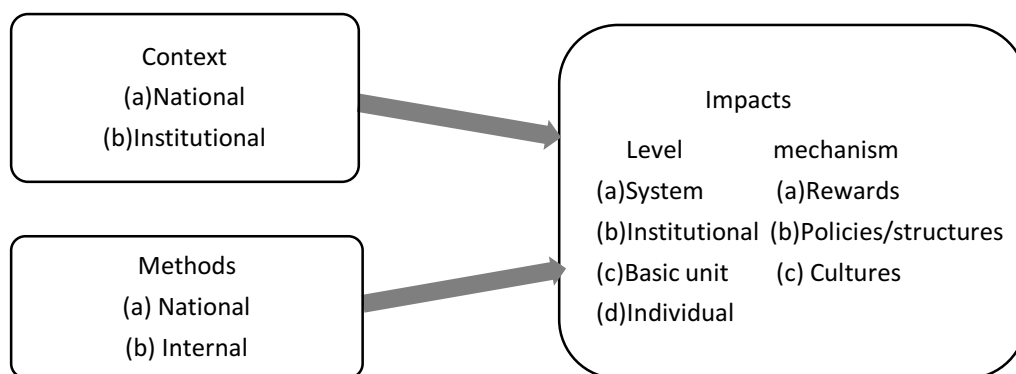


Figure 2.2 The model of impact of quality assurance on higher education (Brennan & Shah, 2000)

Brennan and Shah (2000) argue that, as shown in figure 2.2, (a) the impact of QA on HEIs can be seen at three levels within HEIs, at the system level, the institutional level and the individual level; and (b) the impact on the HEIs occurs through three mechanisms, viz. rewards, policies/structures and cultures. They also explain what has triggered the creation and growth of QA exercises across European countries, that is, these have been influenced by the national and institutional contexts of each country. When governments have faced the challenges of massification, diversity and the need to rein in budgets, they have responded in different ways, for example, by modifying their methods of state control, focusing on new ways of management, or establishing QA agencies.

Although the European countries in Brennan and Shah’s study faced similar challenges, they adopted different methods of QA in response. In other words, the features of QA exercises

vary according to national and internal methods of QA adopted by different countries. HEIs responded differently to the governments and QA exercises, according to the different characteristics and features of HEIs, such as whether public or private, traditional or modern, their reputation, mission, and size. Brennan and Shah (2000) found that the QA exercises impacted the HEIs at the three levels through a variety of mechanisms. These impacts included changes of institutional management processes, influences on funding and reputation, and cultural changes.

By using Brennan and Shah's model, along with considering the research questions of this study, I designed the interview protocols and conducted a pilot study. The pilot study used a qualitative method and a focus group to test the interview protocols. There were three interviewees from one university (not one of the four case universities), including the president, one senior academic with an administrative position, and one junior academic. From the focus group interview, new themes emerged. Some themes were not included in Brennan and Shah's impact study, and the others were mentioned by them but not fully explained.

First, I found that interviewees repeatedly mentioned terms relating to globalisation, terms such as the knowledge economy, markets, neo-liberalism, new managerialism and league tables. These themes were beyond the 'national context' in Brennan and Shah's model. Second, I found that both policies and structures were important mechanisms and should be discussed separately in the context of Taiwan. Third, from the pilot study, I found that individual academics had different opinions and interpretations of the QA exercise. Brennan and Shah (2000) point out that the impact of QA exercises on HEIs through changing culture relates to teaching and research in academic cultures and self-image, however, they pay less attention to individual academics' thinking, especially what front-line academics think about the impact of QA on their work. In this regard, I think professionalism is a key theme which should be added to Brennan and Shah's model. Fourth, when I tried to use the Brennan and Shah model to explain different responses of academics in Taiwan's context, I noticed that their model pays little attention to the reaction of HEIs to QA exercises. As shown in Chapter Two (page 53), Morley (2004) indicates how quality assurance becomes a powerful meta-narrative in higher education in her work 'Theorising quality in higher education' (2004). Morley points out that quality assurance is the nexus where three policy technologies meet, namely, the market, managerialism and performativity identified by Ball (2003). These policy technologies create norms such as performance indicators and regulatory mechanisms, which result in a re-formation of the academic profession. These provide a new analysis of how HEIs respond to QA exercises and how they have established new relations of power through QA exercises. Thus I turned to Morley's approach to theorising the influence of QA on higher education and

modified Brennan and Shah’s model accordingly (Figure 2.8, please see the whole explanation of this in Chapter Two, page 53).

The improved model for data analysis

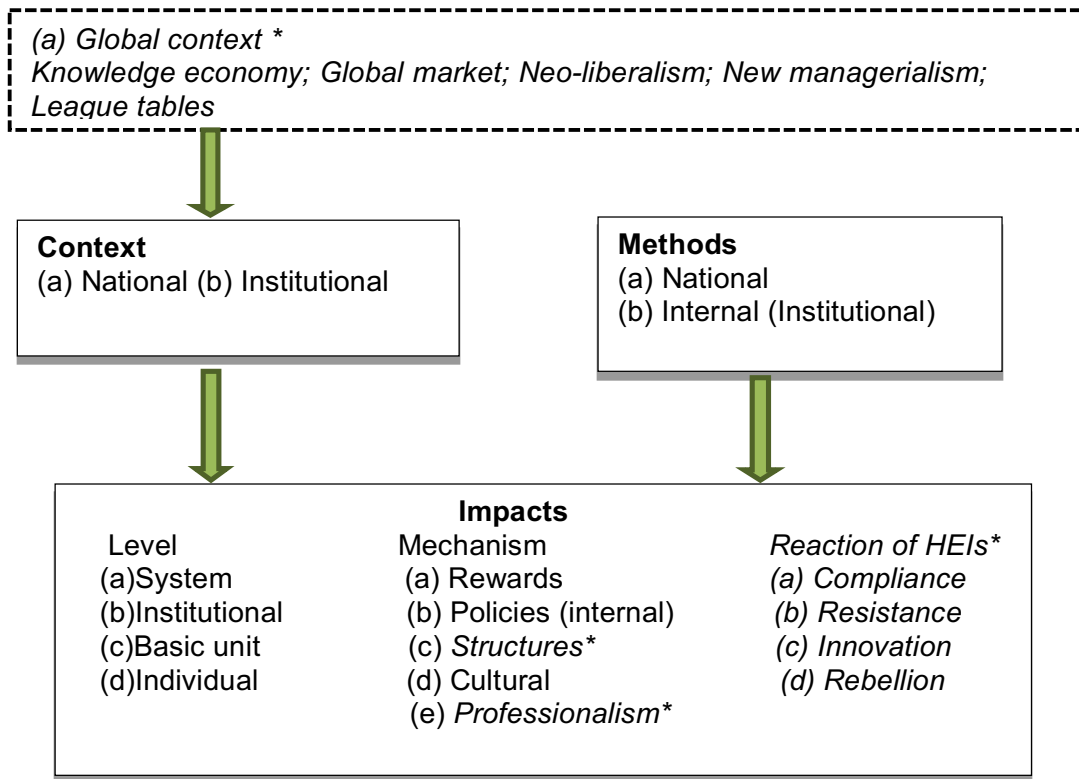


Figure 2.8 The analytical framework of this study (* Adapted from Morley (2004))

As described in Chapter Two (page 54), there were four new changes (marked as* in the diag. above) I added to the model. First, I added a column of ‘global contexts’. From the view of Morley, there are worldwide trends affecting both national and local contexts. These worldwide trends include manifestations such as the knowledge economy, global markets, neo-liberalism, new managerialism and league tables. Second, in order to explain the Taiwan context more specifically, I separated initial ‘policies and structures’ (Figure 2.2) into ‘policies’ and ‘structures’ (Figure 2.8), and added ‘professionalism’ to the impact of mechanism. Third, I added a new category, ‘reaction of HEIs’, based on Morley’s study to describe various reactions of HEIs to the QA system.

(b) Reflection

As stated in the previous section, the analytical framework employed in this study was modified from Brennan and Shah’s model and Morley’s approaches to QA. This combined analytical framework was then used to analyse the interview data.

In line with the findings of the impact study of Brennan and Shah (2000), the QA exercise in Taiwan tends to reflect the values, including entrepreneurial tendencies and concepts of

managerialism, which are common across the four universities. The analytical framework is useful to clarify the different impacts of the QA exercise on HEIs. In Chapters Four to Seven, I show similar patterns of impacts that happened in the four case universities in accordance with Brennan and Shah's impact study.

According to Brennan and Shah (2000), European countries faced issues of expansion, diversification and funding cuts in higher education. These national issues triggered the emergence of national QA agencies in European countries. The creation of QA in Taiwan was similar to European countries. In Chapter Four, I explored what global issues Taiwan's higher education faced, the national and institutional context surrounding the emergence of the QA exercise, and the methods of QA exercise adopted by the government and HEIs.

In Chapters Five, Six and Seven, I found that the impacts of the QA exercise were evident at three levels within HEIs, which are mentioned in Brennan and Shah's model. These are the system level, the institutional level and the individual level.

At the institutional level, the QA exercise impacted directly on institutional policies and structures, as well as having an impact indirectly on how disciplines were organised and curriculum structured through a system of rewards. However, there were different responses to institutional policies, structures and rewards across the four case universities. For example, in Chapter Six, it can be seen that Universities A and X, with their higher reputations, were more confident in their institutional policies than the other, less highly regarded universities. Individual academics in the four case universities also had a variety of opinions towards their institutional policies. For example, academics in University A had different views towards rewards. Some looked on rewards as a 'game' for senior academics, whilst others were proud of getting rewards.

The impact of the QA at the system level mentioned in the analytical framework was also evident in the four universities. In Chapter Five, when analysing the impact of the rewards mechanism on the four HEIs at the system level, I found that issues of governance had arisen. Brennan and Shah's model categorises the issue of governance alongside the function of rewards without making any clear distinction between the two. However, the issue of governance in the Taiwanese context is different from the European countries in Brennan and Shah's impact study. As mentioned in Chapter Four, Taiwan's HEIs are under a strong degree of control by the MOE, and they have to follow MOE's policies strictly. In my interviews, I found that presidents of the four case universities adopted various ways to cope with the national QA exercise. By using the results of HEEACT evaluations as one of the criteria for competitive projects, HEIs could be nudged in the direction desired by the MOE. Some interviewees argued that in this way the governance of their university was influenced.

In Chapter Seven, I identified the impact of the QA exercise on the culture of the organisation and professionalism at the individual level. As pointed out in Chapter Seven, the degree of professionalisation and academic culture have been reshaped by the QA exercise at the individual level. However, other new themes emerged from the interview data, which were not fully discussed in Morley's study. I found that the pressure on front-line academics and their anxieties about personal tenure and getting published in SSCI/SCI journals were aggravated by the QA exercise. In interviews, most academics mentioned this situation and claimed that they tried to respond to the situation, but in vain. They had to adopt the QA exercise into their daily lives as academics and rearrange the priorities of teaching and research. My findings on this phenomenon are discussed in Chapter Two. As illustrated in Chapter Seven, I argued that the concept of academic identity could be used to explore the link between the QA exercise and how it changes academic identity.

In the analytical framework, I added a new column to describe the 'Reactions of HEIs', which were categorised as: compliance, resistance, innovation and rebellion. I identified these reactions across the analytical chapters. In Chapter Six, most academics pointed out that they resisted the introduction of the QA exercise in the beginning; however, they thought their universities had benefited after the implementation of the QA exercise. Some academics admitted that they were compliant with the QA exercise simply because they had to obey their universities and the government's policies. There were a few academics who used the QA exercise to innovate and introduce new methods in their research or teaching. For example, two senior academics in University A developed new teaching methods and technology to prepare for the QA exercise. They thought the QA exercise was not a totally bad thing; as it had pushed academics to be more creative in the way they teach. Indeed, the emergence of the new QA policy introduced in 2012 (and mentioned in Chapter Four) can be seen as a response to the rebellion of academics against certain aspects of the QA system. This rebellion was widespread: sustained criticism came from universities and academics generally, not just the four case universities. The MOE's decision to launch a new QA policy of 'self-conducted external evaluations' in 2012 was an attempt to respond to the issues caused by the QA exercise and address criticisms from academics.

(c) A new model

As discussed in the previous section, I developed an analytical framework for this study which provided a powerful framework with which to analyse my interview data. The development of the model involved two distinct phases. First, it was initially adapted from a large-scale impact study by Brennan and Shah (2000). I chose to use their model as a basis for mine since their model is the most recent and the largest-scale research in QA impact studies.

Their model incorporates important QA theories, methods and issues, and explicitly explores the impact of QA exercises on higher education and was therefore the best choice for me.

Second, my model incorporates the most recent concepts from the impact study of Morley (2004). Her approach provides a deep understanding of the relations between QA, the state and HEIs. Furthermore, Morley's work reflects the shift of research focus in the QA field from conceptualising impact, measurement methods and outcomes to also dealing with the changes which impact on the academic profession as a consequence of the introduction of new QA systems. Thus I added professionalism and the reactions of academics to QA exercises to the model to capture these changes.

The model I developed provides a comprehensive framework in which to analyse the impact of the QA system on higher education institutions in Taiwan. However, although it was developed for analysing the impact of QA on universities in Taiwan, there is no reason to assume that the model is exclusive to Taiwan. As discussed in Chapter Two, many of the forces and phenomena associated with international trends that were evident in Taiwan's higher education can also be seen elsewhere. Universities in Hong Kong, Korea and Japan, for instance, are all feeling the impact of international league tables, and the attendant pressure to be 'world class' or to rise in the rankings (Marginson, 2007). Similar to Taiwan, their governments have also introduced systems of QA to respond to these external pressures. In this regard, the model that I developed for Taiwan, and which works well in analysing the impact of the Taiwanese QA system, may be applicable in examining the impact of QA exercises on higher education in other East Asian countries.

However, as shown in Chapter Four, Taiwan's QA system is a hybrid model and has distinctive features which may not exist in other East Asian countries, especially the feature of evaluating both teaching and research within one single assessment exercise. Hence, when applying the model, users should take into account that there are particular local characteristics in other countries and adapt the model to suit the specific national and institutional contexts.

II. Research contributions

There are three contributions which this research makes. First, the thesis has identified the distinctive features of the Taiwanese approach to QA. Although influenced by Western approaches to QA, it is, in effect, a hybrid of different approaches, and represents a distinctive QA model. Second, the thesis contributes to understanding the impact of QA systems on universities. By combining the perspectives from Morley (2004), the analytical framework of this thesis advances the model of Brennan and Shah (2000) in explaining the impact of the QA

exercise on HEIs in the context of East Asia. Finally, the thesis contributes to the QA literature by analysing the different impact of a QA system on four universities.

1. Contribution to Taiwan's QA approach

This study has clarified the elements of Taiwan's QA approach. HEEACT was designed as a public and independent organisation based on the concepts of the accreditation system of the U.S.A and 'the general European model'; however, it receives funding from the MOE and thus HEEACT has to follow the MOE's policies. Thus Taiwan has developed a very different model than that of 'a general model' (Van Vught and Westerheijden, 1994) and the accreditation system in the USA.

The main elements of Taiwan's QA system were presented through the historical and documentary analysis of Chapter Four. The rapid expansion of higher education presented a problem for Taiwan's higher education. The increasing concern that the quantitative expansion may result in lower quality and cause Taiwan to fall behind in global competitiveness, has been used to justify the need for the QA system (Chapter Five).

Van Vught and Westerheijden (1994) proposed a 'general model' of QA for European countries with five components: meta-level organisation, self-assessment, peer review/site visit, published reports and no direct link to funding. Taiwan's QA system also includes elements of 'this general model' except for the fifth component 'no direct link to funding'. Each HEI is required to write and submit a self-evaluation report to HEEACT before the site visit. Similar to international QA processes, external reviewers who conduct site visits are academic peers from other HEIs. After the site visit, reports for each HEI are published and the results link directly to funding allocations from the MOE and even to pressure to merge or close HEIs. Although HEEACT and the MOE claim that Taiwan's approach to QA is accreditation, the function of Taiwan's QA system does not include accrediting HEIs as it is understood in the international context.

2. Contribution to understanding the impact of QA systems on universities

The model of Brennan and Shah (2000) has helped this thesis to identify both the different responses of the four case universities to the QA system and also the key features in the impact of the QA system on universities, and this research has, in turn, contributed to understanding the model in the context of East Asia.

In Chapter Two, I found certain new themes emerging from the interviews, themes which Brennan and Shah's model could not fully explain, such as the reshaping of the academic profession in response to the QA exercise. In order to explain new forms of governance and professional behaviour prompted by the QA system in HEIs, the approach from Morley (2004)

was used to support and improve the impact model of Brennan and Shah into a new analytical framework.

Based on the analytical framework, I found that the responses of academic staff differed before and after the implementation of the QA system, and also differed across the four case universities. In the beginning, academic staff in the four universities were resistant to the introduction of the QA system; however, they became compliant with the requirements of the QA exercise gradually. The meanings that academic staff attach to the QA policies change their attitudes to academic work. In this regard, this thesis contributes a new aspect of exploring the impact of the QA system on universities by means of the analytical framework.

3. Contribution to theories of the QA literature by case study

One of the key insights found in the chapters of this thesis is that the impact of the QA system has opened up new practices and new power relations in the four case universities. Although there are differences across the four case universities, new practices can be found in relation to the internal organisations established to prepare for the QA system and in how decisions are taken regarding quality strategies or how information on performance is collected and used. New power relations have also appeared, influencing academics and the leadership of universities. As such, one can argue that the new practices and power relations found are the key impact of the QA system on HEIs. However, as also underlined in previous chapters, the result is that academic staff not only comply with the new top-down internal measures, but also rearranged their priorities in academic work in a bottom-up fashion and together these moves formed organisational changes.

While my empirical data cannot provide exhaustive answers to the question of what are the impacts of the QA system on higher education, they do indicate different explanations as to how to portray organisational changes within HEIs. The interviews do indicate that the changes undertaken are not free of conflict and tension. New practices influenced the structures and cultures of HEIs. At the same time, cultures, norms and traditions also influenced the new structures being implemented in higher education.

III. Research limitations and implication for further research

Previous chapters explored the relations of HEEACT and the state, governance and organisational change within HEIs, and the voice of academic staff. Each of these issues would have required different theoretical frameworks and literature. To include them in this limited space of the whole thesis would have diverted focus away from the issues of impact of the QA system on higher education.

Methodologically speaking, as Chapter Two indicates, there are methodological problems in measuring the impact of the QA system. Although this thesis uses a qualitative approach, this research would benefit from a quantitative analysis of the costs and benefits of the QA system.

Many important issues emerged from the empirical data and require further analysis. These include the following questions. What is the consequence of the impact of the QA system on different stakeholders? What are the differences between Taiwan's new QA policies and existing forms of QA? What is the role of HEEACT and what should the future role of HEEACT be? One could revisit the field and re-examine the issues from the perspective of other theories, such as organisation theories and the 'triple helix' of university-industry-government relations (Etzkowitz and Leydesdorff, 1997). In addition, there is a lack of research analysing how all dimensions of academic work and practices, including teaching, research and innovation, are influencing the QA mechanisms or being affected by QA exercises. Thus there is a need for more holistic in-depth research into academic work and academic practice.

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Appendix 1: Pilot Study

Time: 21/02/2013 20:30-21:30

Committee room in JAH

Research method: Focus group

Interviewees:

1. Dr. KSY. President of CY University
2. Dr. THC. Professor at TN University
3. Dr. IRC. Associate Professor at CN University

Interview questions

1. RQ1 Interview questions (experts)

- (1) Could you please tell me your general opinions of the QA system in Taiwan?
- (2) How do you define QA in higher education?
- (3) Do you think the QA system has achieved its aims in higher education?
- (4) In your opinion are there any things that need to be improved in the policy decision-making process and practices of the QA system?
- (5) Recently there have been different positions towards the QA system in Taiwan society. Could you please tell me what you think the key issues aroused by the QA system are, and what are the advantages and drawbacks of the QA system?
- (6) What are your expectations and suggestions for the QA system in the future?

2. RQ2 Dimensions of case study interview questions (case study – four universities)

This relates to the interviewees' views of what changed inside their institutions due to evaluation (such as finance, academic autonomy, academic culture, research and teaching)

- (1) Could tell me how your university/faculty prepared for higher education evaluations?
- (2) Do you think that higher education evaluations help your university/faculty improve?
- (3) Could you tell me what could be improved in regard to your university/faculty preparing for higher education evaluations in the future?
- (4) Do the results of evaluations influence your university/faculty?
- (5) Does the QA system influence the balance of teaching and research in your university/faculty?
- (6) Is there any additional pressure on teaching staff in your university/faculty?
- (7) Do you think the efficiency of administration has been improved due to the QA system?
- (8) Do you think the QA system has caused your university to clarify and/or re-define its mission?
- (9) Do you think the QA system has caused your university to develop special features? If so, what are these special features? How did this happen? If not, what were the difficulties in regard to generating this change?
- (10) Do you think the QA system has caused changes in the relationship between higher education institutions and various stakeholders, such as the government and Taiwanese society?
- (11) Do you have any other comments on the QA system?

Overall suggestions

1. The first and second questions in part 1 could be combined. There are too many questions. You should reduce this to about 10 questions because you only have 40 to 60 minutes to carry

out the interview. You can try to use the same question structure to interview academics, experts and administrators.

2. Some questions can be answered without conducting an interview, such as those relating to regulations and laws.

3. The topic of a “Quality assurance system” is too general. There are many evaluations which are conducted by different councils within the QA system, such as teacher education evaluation and medical evaluation. You should narrow down your topic and reconsider your aims in this research.

4. It is difficult to separate what is influenced by a specific evaluation. For example, when universities prepared for the 2011 Programme Evaluation most of them also combined “the University Faculty Evaluation System” of their universities to regulate academic staff (On December 28, 2005, the Taiwanese Ministry of Education re-instituted the Taiwan University Law to require all higher education institutions to compulsorily establish their own university faculty evaluation system for the purpose of decision-making on faculty promotion, reappointment, tenure, dismissal, and reward. In addition, a faculty evaluation system was first initiated by universities in the United States of America during the beginning of the 20th century). Therefore, you should think about how to deal with impacts.

Reflections

1. During this talk, some issues about QA were clarified.

2. Funding distributions are actually influenced by the programme accreditation but not influenced by the institutional accreditation.

3. Dr. Yang was the Deputy Minister of the Ministry of Education in Taiwan, and he had led the meta-evaluation of the QA system. He pointed out that the government did not accept all suggestions in their reports. All of the three interviewees thought that Taiwan’s universities should be categorised according to their features, such as research, teaching and art, and be evaluated separately and use different evaluative standards. However, most universities refuse to be categorised as teaching universities because research universities get more funding than teaching universities.

4. Taiwan’s QA system is still learning from the USA. Interviewees suggested that the QA system should change according to Taiwan’s context and the features of higher education in Taiwan. For example, it may be difficult to evaluate research and teaching separately because research and teaching are mixed in one university/faculty. (They said the UK is different, because the UK has independent research institutions without teaching. I’m not sure whether this is correct or not.)

5. They think the institution evaluation helps departments/faculties to improve their quality of teaching and research. Academic staff may feel stressed about preparing for evaluations, but for administrators and principals of departments/faculties the management of universities has become easier and more efficient. I think it may be an interesting aspect to discuss the impacts of QA. Maybe the front-line academic staff will have different answers from interviewees.

6. They think the HEEACT may reduce its staff because the Ministry of Education recently announced that self-evaluation for each university will be practised in the future. This means that HEEACT may not have to conduct the programme evaluation and the institution evaluation. (The government announced this news in February 2013 but I am not sure whether it will be put into practice or not. One of my interviewees is the current Deputy Minister of the Ministry of Education in Taiwan. I hope I can confirm this after interviewing her.)

7. I think I should consider narrowing my topic, or try to use terminology to set the boundaries in the beginning of my thesis, but I would like to think about this after I finish the interviews. Maybe I will get other views about the QA system that will help me to decide how to do this. After this pilot, I have found that there is some possible flexibility in my thesis, and I understand that the previous literature chapters and methodology may be changed after the field work.

Appendix 2: Interview Protocol

Interview questions

1. RQ1 Interview questions (experts)

Aim 1: Describe the development and features of the QA system in Taiwan

- (1) Could you please tell me how Taiwan's QA system began? Who proposed it and when did it become a policy?
- (2) How would you define QA in higher education?
- (3) Does anything need to be improved in the policy decision-making process and practices of the QA system, in your opinion?
- (4) In Taiwan society there have recently been different positions towards the QA system. Could you please tell me what you think the key issues raised by the QA system are, and what the advantages and drawbacks of the QA system are?
- (5) One issue of the QA system is the fact that the performance indicators which are used are not appropriate for evaluations. What is your opinion on this issue?

Aim 2: Understand how the QA system is interlinked with the social and political context in Taiwan

- (6) Do you think the QA system has achieved its aims in higher education?
- (7) The Ministry of Education has announced that the results of evaluations will be used for the "Exit mechanism". Do you think this will work? What is your opinion on this issue?
- (8) Do you think the QA system has caused changes in the relationship between higher education institutions and various stakeholders, such as the government and Taiwanese society?
- (9) The Ministry of Education has announced that a new policy – self-conducted external evaluation– will be implemented to replace the institutional and programme evaluation next year. What is your opinion of this change?
- (10) What do you think the role of HEEACT will be in the future?
- (11) What is your opinion of the Proposal of Higher Education and Science and Technology by Sinica?
- (12) There are various evaluations for universities: for example, institution accreditation, programme accreditation, teacher education evaluation and general education evaluation. Some universities feel these evaluations cost too much money and require too much energy. Do you think it is possible for them to be integrated into one evaluation?
- (13) Could you please tell me what your expectations and suggestions are for the QA system in the future?

2. RQ2 Dimensions of case study interview questions (case study – four universities)

The interviewees' views of what changed inside their institutions due to evaluations (such as finance, academic autonomy, academic culture, research and teaching)

Aim 3: Exploring the impacts of the QA system on higher education institutions and departments

- (1) Could tell me how your university/faculty prepared for higher education evaluations? Are there specific forms or processes that are designed for evaluations?
- (2) Do you think that higher education evaluation helps your university/faculty improved? For example, does evaluation help your university/faculty enhance administrative efficiency?
- (3) Could you tell me what could be improved in regard to your university/faculty preparing for higher education evaluation?
- (6) Does the QA system influence the balance of teaching and research in your university/faculty?

- (7) Does your university/faculty emphasise teaching more than research after an evaluation?
- (8) Is there any additional pressure on teaching staff in your university/faculty because of evaluations? Are they more engaged in teaching?
- (9) Do you think the QA system has caused your university to clarify and/or re-define its mission and development purposes?
- (10) Do you think the QA system has caused your university to develop special features? If so, what are these special features? How were these developed? If not, what were the difficulties of generating this change?

Aim 4: How do they perceive the effects of the QA system

- (4) Were you satisfied with the results of the evaluation this time? Do the results of evaluations influence your university/faculty? If they do, could you explain in what aspect?
- (11) There are various evaluations for universities – for example, institution accreditation, programme accreditation, teacher education evaluation and general education evaluation. Some universities feel these evaluations cost too much money and take too much energy. Do you think it is possible for them to be integrated into one evaluation?
- (12) Do you think it is possible to evaluate teaching and research separately?
- (13) Do you think the QA system has caused changes in the relationship between higher education institutions and various stakeholders, such as the government and Taiwanese society?
- (14) What are your suggestions for further preparation for evaluations in your university/faculty?
- (15) Do you have any other comments on the QA system?

Aim 5: The changes in funding allocation

- (5) Is your university/faculty's funding influenced by the results of evaluations? If it is, how does this work? If not, why not?

Appendix 3: Research Setting

RQ1 Interviewees list:

Sampling sources:

- HEEACT (executives, scholars)
- The Ministry of Education (Higher Education Department)
- HEEACT committees
- Project report from the Ministry of Education

Interviewees	Policy-makers	Academics	Administrators in HEEACT (People who are responsible for conducting evaluations)
Number	2	2	1
Name1	A	C	E
Name2	B	D	

RQ2 Case study of four universities:

This case study will be conducted in four traditional universities, two of which are prestigious institutions which have received generous funding since the introduction of the QA system, while the others are less prestigious institutions which have received less funding.

Sampling:

- Traditional universities: Two universities (public and private) which performed well, and two universities (public and private) which performed poorly, in institutional and programme evaluations (based on public evaluation reports from HEEACT—mainly for the 2011 institutional evaluation)
- Reputation in Taiwan (according to university entrance examination ranking/HEEACT ranking)
- Representative in QA system in higher education
- Access

University	Public and high reputation (A)	Public and low reputation (B)	Private and high reputation (X)	Private and low reputation (Y)
Number	1	1	1	1
Background/context/reasons	Excellent performance on teaching and learning. The top university in Taiwan	The only public university which did not pass the 2011 institutional evaluation and confronted the crisis of a higher education institutional merger	Passed all evaluations and awarded nine years of 'Programme for promoting Teaching Excellence in Universities'	Did not pass 2011 institutional evaluation

RQ2 Interviewees lists:

University A

Interviewees	Academics holding administrative positions	Academics	Administrators
Number	2	2	1
Name1	F	H	Refused (too busy and recommended other staff)
Name2	G	I	
Reasons/ representative	1. Professor and president 2. Professor and manager at university	1. Professor 2. Assistant Professor	

University B

Interviewees	Academics holding administrative positions	Academics	Administrators
Number	2	2	1
Name1	J	L	Refused (no responses)
Name2	K	M	
Reasons/ representative	1. Professor and president 2. Associate Professor and manager of university	1. Associate Professor 2. Assistant Professor	

University X

Interviewees	Academics holding administrative positions	Academics	Administrators
Number	2	2	1
Name1	N	P	R
Name2	O	Q	
Reasons/ representative	1. Professor and president 2. Professor and manager at university	1. Associate Professor 2. Associate Professor and chairman of department	Chief officer

University 4 Y

Interviewees	Academics holding administrative positions	Academics	Administrators
Number	2	2	1
Name1	S	U	Refuse(no responses)
Name2	T	V	
Reasons/ representative	1. Assistant Professor and manager at university 2. Professor and dean of college	1. Professor and chairman of department 2. Assistant Professor	

Appendix 4: Cases Descriptions

The history, vital features and characteristics of the four universities are briefly described below.

University A

Introduction

University A is the most prestigious and the best national university in Taiwan. With a long history and excellent achievements in various disciplines, such as medicine, politics, languages and business, the University of NH is the first choice for all students attending university and college entrance exams.

During the Japanese occupation the University consisted of two academic divisions: the Literature and Politics division and the Science and Agriculture division, with about 60 students enrolled each semester. The Medical division was added in 1936, followed by the Engineering division in 1943. Additionally, the University included the affiliated Agriculture and Forestry division, the affiliated Medical special division, a Tropical Medicine research institute and a preparatory school. Also, in 1943 the Southern Humanities research institute and the Southern Resource research institute were added. At that time, each division operated according to a lecture system, with a full-time professor in charge of a faculty of associate professors, lecturers, teaching assistants and staff. These divisions and institutes were financially independent and had their own libraries. By 1945 the university had expanded to five divisions, including Literature and Politics, Science, Agriculture, Medicine and Engineering, with a total enrolment of 382 students.

After restructuring in accordance with the ROC academic system in 1945, academic departments were established and the former divisions were renamed colleges. The Literature and Politics division was divided into the College of Liberal Arts and the College of Law. Additionally, colleges of Science, Medicine, Engineering and Agriculture were established. Initially, there were six colleges with 22 departments. In 1945, student enrolment numbered 585. In the following years the departments and colleges expanded in faculty and hardware, in step with growing budgets and rising social expectations. In 1960, the night school was initiated on a trial basis, and in 1967 a new night school was established. In 1987, the College of Management was established, followed by the College of Public Health in 1993 and the College of Electrical Engineering in 1997. The College of Electrical Engineering was later rechristened the College of Computer Science and Electrical Engineering. In 1999, the College of Law was renamed the College of Social Sciences, and the Night Division and the Centre for Continuing Education were combined to form the School for Professional and Continuing Studies. In 2002, the College of Agriculture was renamed the College of Bio-resources and Agriculture, and in 2002 a College of Life Sciences was added.

Now, the university has 11 colleges, with 54 departments and 103 graduate institutes, plus four university-level research centres: the Population and Gender Studies Centre, the Centre for Condensed Matter Sciences, the Centre for Biotechnology, and the Bio-diversity Research Centre. The total number of students, including those enrolled at the School of Professional and Continuing Studies, has grown to over 33,000, including over 17,000 university students and 15,000 graduate students. The number of graduate students at University A currently almost equals the number of university students, which indicates that University A has successfully been transformed into a research university.

Central internal measures

University A initiated internal measures before the demands of HEEACT, including setting standards for teacher evaluations and self-evaluations. The Secretariat of the Office of

Academic Affairs of University A is responsible for conducting self-evaluations and for preparing the HEEACT evaluations.

- ✓ 'Faculty Member Evaluation Policies' were enacted to evaluate academic staff in 1998.
- ✓ Regulations governing faculty promotion were brought into effect in 1999.
- ✓ From 2006 University A has been awarded the government's programme from the Ministry of Education (The Aim for the Top University Project) to develop top ranking universities and research centres.
- ✓ In 2009, University A entered the list of the top 100 universities in the world for the first time, ranked 95th by the Times Higher Education World University Rankings.
- ✓ University A underwent its first-term programme accreditation in 2009. Only one department was accredited as 'accredited conditionally' out of all 239 faculties and departments.
- ✓ University A passed the first-term institutional accreditation in 2011.
- ✓ University A will undergo the second-term programme accreditation in 2015.

University B

Introduction

University B is a young and professional art university which was established in 1996. There are only three professional art universities in Taiwan, two of them located in Taipei. University B was established to balance art resources in Taiwan. Its aim is built on the core values of "nourishing life with the arts, caring for the community, and benefiting all of mankind. The three major educational concepts of the University are "being locally and globally minded", "keeping within tradition while fostering innovation", and "pursuing creativity and real-world application", inspire creativity, and integrate art into lives in a superior learning environment.

University B has engaged in reconnecting the wisdom and beauty of cultural heritage of Taiwan to modern thinking by tackling art projects inspired by history, culture, and everyday life. Thus all faculties are focused on art and music. The faculties are as follows: College of Music (including the Music Department, the Chinese Music Department, the Graduate Institute of Ethnomusicology and the Graduate Institute of Collaborative Piano), the College of Visual Arts (including the Department of Material Arts and Design, the Graduate Institute of Plastic Arts, the Graduate Institute of Applied Arts, the Graduate Institute of Architecture and the Doctoral Programme in Art Creation and Theory), the College of Sound and Image Arts (including the Applied Music Department, the Graduate Institute of Studies in Documentary and Film Archiving, and the Graduate Institute of Animation and Film Art), the College of Letters and Cultural Heritage (including the Department of Art History, the MA Programme in Art History and Art Criticism, and the Graduate Institute of Conservation of Cultural Relics and Museology), and the Commission for General Education (including the General Education Centre, the Centre for Teacher Education, the Language Centre and the Physical Education Centre). There are now four faculties in University B. These include five departments and nine graduate programmes. Totally there were 1,600 students in University B in 2013.

Issue: Merger of universities

The Ministry of Education has promoted the merger of universities for several years and the Regulations for the Merger of National Universities was enacted in 2012. According to the Regulation for the Merger of National universities, the results of evaluations are used as references for deciding on the merger of universities. After the results of the institutional accreditation were published, newspapers and other media claimed that University B had to be merged with National Cheng Kung University by the government because University B failed to pass the institutional accreditation.

Central internal measures

The Secretariat was the main organisation preparing the evaluations conducted by the HHEACT. In order to carry out evaluations, the Academic Affairs Division of the Office of Research and Development was then established, being responsible for all kinds of evaluations.

- ✓ Regulations governing faculty promotion were brought into effect in 2004.
- ✓ Faculty Member Evaluation Policies were enacted to evaluate academic staff in 2006.
- ✓ University B failed to be awarded the Programme for Promoting Teaching Excellence Universities in 2008.
- ✓ Regulations for self-evaluation were enacted due to the demand of HEEACT in 2010.
- ✓ University B underwent the first-term programme accreditation in 2006. Four departments were accredited as 'accredited conditionally' and two departments were accredited as 'denial' in 17 faculties and departments.
- ✓ The only public university which did not pass the 2011 institutional accreditation. Three evaluative items were accredited as 'accredited conditionally' and one evaluative item was accredited as 'denial'. (Overall there were five evaluative items in institutional accreditation).
- ✓ University B underwent the second-term programme accreditation in 2012. Two departments were accredited as 'accredited conditionally' and one department was accredited as 'denial' in 17 faculties and departments. The 'denial' department was forced to stop recruitment from 2012 onwards.

University X

Introduction

University X was established in 1956, It was upgraded from a college to a university in 1991. University X is a traditional private university with a high reputation. It has focused on the media discipline and on social activities, and has engaged in improving industry–academic cooperation.

The University has an undergraduate day programme, an undergraduate night programme, and master's and doctoral programmes. To meet the needs of people who are already working but wish to continue their education, the University offers continuing education programmes leading to bachelor's, master's, and doctoral degrees, along with a special undergraduate programme for graduates of three-year vocational colleges. The University's colleges and departments are as follows: the College of Journalism and Communications, the College of Management, the College of Humanities and Social Sciences, and the School of Law.

In order to cultivate a broad worldview and up-to-date skills in students, the University is working hard to develop cooperative arrangements and exchanges with international academic and research institutions. It has already established sister school relationships with more than 10 schools in Europe, the United States, Japan, Southeast Asia, and China. Academic cooperation and student exchanges with these institutions are ongoing. To encourage and help students in pursuing their education, the University provides a number of academic and need-based scholarships for students.

Internal measures

The Office of Research and Development is responsible for all kinds of evaluations. University X passed the 2011 institutional accreditation.

- ✓ Regulations governing faculty promotion were brought into effect in 1998.

- ✓ Faculty Member Evaluation Policies were enacted to evaluate academic staff in 2006.
- ✓ University X has been awarded nine years of the Programme for Promoting Teaching Excellence of Universities.
- ✓ University X underwent the first-term programme accreditation in 2008. Two departments were accredited as 'accredited conditionally'.
- ✓ University X passed the first-term institutional accreditation in 2011.
- ✓ University X will undergo the second-term programme accreditation in 2014.

University Y

Introduction

University Y is a traditional private university which was founded in 1962. It enjoyed a good reputation before the expansion of universities took place in the 1980s. The departments of traditional Chinese arts and physical education were the earliest departments established. Such pioneering departments as Chinese Opera, Chinese Music, and Dance continue to enjoy nationwide fame as they are staffed by a faculty of specialists who are known as masters in their fields of expertise. The University Museum, the only one in Taiwan, houses a wide array of artistic works, including calligraphy and paintings. Its periodic exhibitions and workshops help to promote art education.

University Y established one of the largest foreign language departments (covering English, German, French, Russian, Japanese, and Korean) in Taiwan. Each year the university supplies well-trained manpower fluent in Russian and Korean for the Ministry of Foreign Affairs. Ever since the breakup of the Soviet Union, the demand for Russian has become more urgent, so much so that a Master's programme in Russian Language and Literature was added in 1991. University Y also established the Architecture and Urban Design Department, followed by the Urban Administration and Landscape Departments, which originally belonged to different colleges. Since 1993 these three departments comprise the College of Environmental Design, the coming together of which has led to reaping of maximum educational benefits. University Y has experienced vigorous growth during the last four decades. From 2003 onwards there have been 12 Colleges in place, with 57 undergraduate programmes, 39 master's programmes and 10 doctorate programmes. The School of Continuing Education numbers 10 departments and runs 11 graduate programmes.

By 2008 the University Y had 82 sister-university relationships, with various foreign universities: 26 universities in South Korea, 16 in Japan, 16 in the US, three in the UK, three in Russia, two in Ukraine, six in France, two in Germany, and one each in Outer Mongolia, Thailand, Liberia, Belgium, Holland, Austria and Dominican Republic. The exchange programmes cover faculty and student exchanges, publications, the hosting of international conferences and exhibitions, cooperative research projects, and mutual visitations of sports teams.

Internal measures

The Office of Research and Development is responsible for all kinds of evaluations. The University Y did not pass the 2011 institutional accreditation.

- ✓ Regulations governing faculty promotion were brought into effect in 2002.
- ✓ Faculty Member Evaluation Policies were enacted to evaluate academic staff in 2007.

- ✓ University Y has been awarded four years of Programme for promoting Teaching Excellence of Universities.
- ✓ University Y underwent the first-term programme accreditation in 2007. There were 22 departments accredited as 'accredited conditionally' and two departments accredited as 'denial' out of 104 faculties and departments.
- ✓ There was one evaluative item accredited as 'accredited conditionally' in the 2011 institutional accreditation. (Overall there were five evaluative items in institutional accreditation).
- ✓ University Y underwent the second-term programme accreditation in 2013. The results of the evaluation will be published in 2014.

Appendix 5: Consent Forms



Leading education
and social research
Institute of Education
University of London

IOE suggested consent form for researchers to adapt May 2007

IOE and other letter heads address contact details

Consent form

Name of Project
Start and end dates

I have read the information leaflet about the research. (please tick)

I will allow the researchers to observe me/my child (please tick)

I agree to be interviewed (please tick)

[Add any other involvement] (please tick)

Name _____

Signed _____ date _____

[Space for child's name for optional signing]

Researcher's name _____

Signed _____ date _____

Appendix 6 Impact studies

Aspects	Study	Purposes	Methods	Findings
Conceptualising impact				
	Rasmussen, P. (1997) A Danish Approach to Quality in Higher Education, The Case of Aalborg University, in Brennan, J. de Vries, P. and Williams, R. (eds.) Standards and Quality in Higher Education, Higher Education Policy Series, Vol. 37, Jessica Kingsley	This article's framework for analysis is to (a) locate changes which have probably been caused by external quality assessment, and (b) to classify these changes into different types.	Case study (qualitative)	A structural table of impact categories: (a) Influence through participation and consensus; influence through policy intervention; influence through status allocation (b) The number of categories: changes in decision-making and governance; changes in the study structure, curriculum or resources of studies; changes in study and teaching culture.
	Harvey, L. (2002) The end of quality?, Quality in Higher Education, 8:1, 5-22.	External quality monitoring (EQM) has been one of the most characteristic trends in higher education. This paper will discuss some of the consequences of the introduction of EQM in higher Education.	Documentary analysis.	Impact Studies of EQM in Higher Education: (a) Measurement Problems; (b) EQM and the Impact on Teaching and Learning; (c) EQM and the Impact on Organisation and Academic Leadership.
	Morley, L. (2004) <i>Theorising quality in higher education.</i> Institute of Education. University of London.	Using a sociological framework, the author examines how regimes of power are experienced micropolitically in the academy. The author subjects key concepts, including accountability, autonomy and continuous	Documentary analysis.	The book explores the political and psychic economy of quality assurance in higher education and interrogates the discourse and practices associated with the audit culture in Britain. It raises important questions about the political pre-conditions that have enabled quality assurance to

		improvement, to critical scrutiny.		develop to such a powerful extent.
	Harvey, L. (2006) Impact of Quality Assurance: Overview of a discussion between representatives of external quality assurance agencies, <i>Quality in Higher Education</i> , 12:3, 287-290.	This paper explores the effects of external quality processes on institutions and programmes, and illuminates the varied impacts that quality processes have from the point of the agencies themselves.	Documentary analysis.	The main impacts identified include changes evident from one review to the next; improvements in performance indicators; adoption of formal internal quality processes by institutions; student feedback indicating positive changes and employer perceptions about the improvement in graduate abilities.
	Westerheijden, D. F., Hulpiau, V. & Waeytens, K. (2006) 'Lines of change in the discourse of quality assurance. An over view of some studies into what impacts improvements', paper presented to the 28 th <i>Annual EAIR Forum</i> , Rome, 30 August-1 September.	The article critically analyses a number of studies on the topic: which factors influence follow-up activities and what is their relation to improvement of education?	Documentary analysis.	Attention shifted in recent years from design and implementation to use and usefulness of quality assurance. Scientific studies focus increasingly on quality assurance's impact on curricula and individual teachers. Current studies have had difficulty in identifying the causal links between national quality assurance systems and intended outcomes in teaching and learning.
	Kettunen, J. (2008) A conceptual framework to help evaluate the quality of institutional performance, <i>Quality Assurance in Higher</i>	This study aims to present a general conceptual framework which can be used to evaluate quality and institutional performance in higher education.	Documentary analysis.	The concepts of quality and strategy maps (which origin from OECD study) provide the tools that can be used to describe the conceptual framework to describe the quality assurance system

	Education, 16:4, 322-332.			and institutional performance.
	Stensaker, B. (2008) Outcomes of quality assurance a discussion of knowledge, methodology and validity, Quality in Higher education, 14(1), 3-13.	The aim of the paper is to discuss the relevance of these assumptions in the light of more recent insights from organisational theory. The author has briefly summed up some of the main trends in these and related studies, which can be described under the following four headings: <i>power, professionalization, public relations, and permeability.</i>	Documentary analysis.	The whole field of quality assurance will benefit from the creation of a more realistic picture of how organisational change takes place in that this may provide: A more nuanced view on expected outcomes of quality assurance; More refined quality assurance schemes.
Measurement problems				
	Hackman, R. J. & Wageman, R. (1995) Total quality management: Empirical, conceptual and practical issues. Administrative Science Quarterly, 40, 309-342.	How do we know that a certain external initiative is causing experienced internal effects?	Documentary analysis	The article identifies a number of gaps in what is known about TQM processes and outcomes and explore the congruence between TQM practices and behavioural science knowledge about motivation, learning, and change in social systems. The commentary concludes with a prognosis about the future of TQM- including some speculations about what will be needed if TQM is to take root and prosper in the years to come.
	Askling, B. (1997) Quality monitoring as an institutional enterprise,	Using this university as a case, it is argued that the impact, so far, is indirect and	Case study	The improvement-oriented approach to external monitoring launched by the National Agency has

	Quality in Higher Education, 17-26.	must be seen in relation to other substantial changes which recently have affected the institutions.		encouraged the institutions to increase their concern for their own strategic management as an important means for coping with new demands and expectations, and thus also for enhancing quality.
	Zbaracki, M. J. (1998) The rhetoric and reality of total quality management, <i>Administrative Science Quarterly</i> , 43, 602-636.	An empirical study of organisations adopting Total Quality Management systems, which claims that due to managers and other stakeholders; interest in developing a successful image of their own efforts, the impact of EQA systems is often measured overly optimistically.	Survey	The potential political and economic gains of being a 'good implementer' of external quality assurance (EQA) systems.
Impact on outcomes (research, teaching and learning)				
	Frederiks, M., Westerheijden, D. F. & Weusthof, P. (1994) Effects of quality assessment in Dutch higher education, <i>European Journal of Education</i> , 29, 181-199.	This study has tried, on the basis of an organisational and political point of view, to develop a theoretical framework in which several factors are related to a successful evaluation.	Case study (qualitative)	A model of impact: from context, feedback, input to the output of assessment. After empirical testing of some hypothesis on follow-up of assessments conducted in the Netherlands, that is was difficult to find a specific factor leading to follow-up of external assessments. And increased attention towards the quality

				of teaching as a result of the external assessments could be identified.
	Dill, D. D. (2000) Designing academic audit lessons learned in Europe and Asia, <i>Quality in Higher Education</i> , 6, 187-207.	Study of the outcomes of academic audit procedures in the UK, New Zealand, Hong Kong and Sweden.	Documentary analysis.	Effects of these procedures: increased institutional attention towards teaching and learning more active discussions and co-operation within academic units, a more clarified responsibility for improving teaching and student learning and provision of better information on best practice. Some audit procedures in Europe and in Asia are developed through practical experience and by active consultation between different stakeholders. These systems are in other words created during implementation.
	Hamilton, E. & Meade, P. (2005) Is it possible? Investigating the influence of excellence of external quality audit on university performance, <i>Quality in Higher Education</i> , 11:3, 195-211.	This paper explores whether it is possible to isolate independent effects of external quality audit (EQA) and concludes that effectiveness evaluations have a stronger foundation when the combined effects of university governance and management initiatives and government initiatives are examined together with EQA.	Case study (both qualitative and quantitative).	The authors have created a model to assist in identifying and describing the different variables at play. This model is utilised to facilitate a discussion on the roles of external and internal influences on university performance within the New Zealand context.

	Minelli et al. (2006) The impact of research and teaching evaluation at universities: Comparing an Italian and a Dutch case. <i>Quality in Higher Education</i> , 12(2), 109-124.	This article focuses on the impact of research and education evaluation on two universities: Trento State University (Italy) and the University of Amsterdam (The Netherlands). The article adopts a system approach to evaluation and proposes a model to describe and analyse evaluation systems.	Case studies (in-depth interviews with key decision-makers involved in the two universities).	The analysis shows that many of the differences in impact can be linked to the different 'evaluation stages' the universities are currently in; the Italian university experiencing a number of novel effects, with the Dutch university reaping the benefits (and experiencing some problems) of having institutionalized evaluation practices.
	Gamage, D. T., Suwanabroma, J., Ueyama, T., Hada S. and Sekikawa, E. (2008) The impact of quality assurance measures on student services at the Japanese and Thai private universities, <i>Quality assurance in Higher Education</i> , 16:2, 181-198.	The purpose of the paper is to ascertain students' perceptions on quality of services provided by private universities in Thailand and Japan and how these affected decisions selecting a university.	Empirical surveys of 1,900 Thai students from 9 private universities and 703 Japanese students from 2 private colleges.	In selecting a university campus the university's reputation, academic staff, quality of the programs and job-placement were the most important factors that influenced student decisions.
Funding and resource allocation				
	Harvey, L. (1995) Beyond TQM, <i>Quality in Higher Education</i> , 1, 123-146.	The article aims to examine 'generic' problems of TQM which are relate it to higher education.	Documentary analysis	The analysis is not intended to merely demolish a fragile model of TQM but to show that there are aspects of TQM that are portable to a collegiate setting while illustrating the inapplicability of a TQM approach in higher education.

				Collegialism is reassessed in the light of the 'lessons' of TQM and a new collegiate model is outlined.
	Henkel, M. (2000) <i>Academic identities and policy change in higher education</i> . London: Jessica Kingsley.	The purpose of the book is to clarify and analyse the changes of academic identity.	Using both quantitative and qualitative research methods.	Some external assessment exercises in the UK have been found to establish an institutional compliance culture to these requirements. Little evidence of change in basic educational values.
	Kogan, M., Bauer, M., Bleilie, I. & Henkel, M. (2000) <i>Transforming higher education. A comparative study</i> . London: Jessica Kingsley.	A large comparative study of change processes in higher education in the UK, Sweden and Norway during the 1990s.		External quality assurance systems have had major effects on the lives of English academics. EQA systems are important contributors to increased bureaucratisation.
Impact on organisation and academic leadership				
	Saarinen, T. (1995) Systematic higher education assessment and departmental impact: translating the effort to meet the need, <i>Quality in Higher Education</i> , 1:3, 223-234.	Answers to the questions 'Assessment should have an impact on' and 'How significant changes have been made at your department with reference to assessment'.	Interviews and questionnaire.	The aspects of 'impact' of assessment.
	Välilmaa, J., Aittola, T., & Konttinen, R. (1997)	This report assumes that the social contexts at Jyväskylä	Case study (qualitative)	A simple model of Impacts of quality assessment at a university, which

	Jyväskylä University, Finland. Impacts of quality assessment (OECD report)	University should be taken into account in the analysis, because many external and internal factors may have influenced the changes implemented after the total evaluation. It focuses on the topics of teaching, research, and institutional decision-making.		include direct impacts and indirect impact, functional and structural changes within university.
	Brennan, J. & Shah, T. (2000) <i>Managing quality in higher education. An international perspective on institutional assessment and change.</i> Buckingham: OECD/SRHE/Open university Press.	An OECD study investigating impacts of quality assessment procedures in institutional governance and management structures.	Case studies (qualitative)	They conclude a simple model to illustrate the national contexts for the emergence of quality management and assessment. The impact of quality assessment model distinguishes between the institutional level and the mechanism of impact.
	Askling, B. & Stensaker, B. (2002) Academic leadership: prescriptions, practices and paradoxes. <i>Tertiary Education and Management</i> , 8(2): 113–125.	By showing some of the challenges facing academic leaders in Sweden and Norway, this article questions the wisdom of employing new public management ideas on leadership during change processes in higher education.	Comparative study.	The institutional leadership in HEIs to act as ‘balancers’ of the many claims, demands and expectations related to HE. This role should not be interpreted as a cry for strong leadership in the New Public Management understanding of the term.
	Stensaker, B. (2003) Trance, Transparency and Transformation: The impact of external quality monitoring on higher	The paper discusses the impact of external quality monitoring (EQM) on HE and identifies areas in HE where changes have taken place		The lack of effects directly related to quality improvement should not be conceived as an EQM design error alone but as a misconception of how organisational

	education, Quality in Higher Education, 9:2, 151-159.	as a result of such external initiatives. Special interest is the question whether quality improvement actually is the result of the many EQM systems implemented.		change actually take place. The paper claims that a more dynamic view on how organisations change, highlighting the responsibility of the institutional leadership as 'translators of meaning' may contribute to a more useful process.
	Rosa, M. J., Tavares, D. & Amaral, A. (2006) Institutional Consequences of Quality Assessment, Quality in Higher Education, 12:2, 145-159.	This paper analyses the opinions of Portuguese university rectors and academics on the quality assessment system and its consequences at the institutional level.	Questionnaire	The results obtained show that university staff (rectors and academics, with more of the former than the latter) held optimistic views of the positive consequences of quality assessment for institutions. However, while rectors paid more attention to the results, coordinators were more centred on processes. Moreover, the institutional leadership paid more attention to internal procedures and services, strategic management and institutional management structures than to actual improvements in the student learning experience.
	Quality Culture in European Universities: A Bottom-Up Approach: report on the three rounds of	Part 1 – Quality Assurance Processes in Higher Education Institutions. Part II: Processes and Tools –	Qualitative and quantitative approach.	EQC contributes to further develop QA processes within universities and raise awareness among HEIs on the importance of quality

	<p>the quality culture project, 2002-2006.</p> <p>Examining quality culture in higher education institutions (project of European University Association, funded by the European Commission from 2009-2011)</p>	<p>Participation, Ownership and Bureaucracy. Part III: From self-reflection to enhancement.</p>		<p>and of processes sustaining it at institutional level.</p>
	<p>Kleijnen, J., Dolmans, D., Muijtjens, A., Willems, J. & Van Hout, J. (2009) Organisational Values in Higher Education: Perceptions and Preferences of Staff, Quality in Higher Education, 15:3, 233-249.</p>	<p>In this paper, staff members' perceptions about the organisational culture are measured. The questions addressed are: what are their opinions about the current and preferred organisational culture? Are there differences between the current and preferred situation? Do the perceptions differ per department?</p>	<p>Survey (The Organisational Culture Assessment Instrument was sent to staff involved in 18 different departments within Dutch universities of applied science).</p>	<p>The results demonstrated that both a flexibility- and control-oriented culture were moderately experienced in practice. In addition, significant differences were found between the current and preferred situation as well as a significant variation over departments for the current situation. Staff members in general, prefer a flexibility oriented culture to a control-oriented culture. These findings imply that the organisational culture in many departments is not yet fully in line with the staff members' preferences.</p>
	<p>Haapakorpi, A. (2011) Quality assurance processes in Finnish universities: direct and</p>	<p>This study aims to explore the impacts of the audit process in Finnish universities. In Finland, quality assurance related</p>	<p>Interviews and documents analysis (reports of audit processes, minutes, strategy memos,</p>	<p>The main result of the study is that organisational structures, management and disciplinary cultures affect</p>

	indirect outcomes and organisational conditions, Quality in Higher Education, 17:1, 69-81.	to the Bologna process has been adapted to existing systems of higher education at the national level and a form of implementation is also recognised at the level of the higher education institution.	handbooks of quality systems).	implementation and impacts of external quality assurance in universities.
	Stensaker, B., Langfeldt, L., Harvey, L., Huisman, J. and Westerheijden, D. (2011), "An in-depth study on the impact of external quality assurance", Assessment and Evaluation in Higher Education, Vol. 36 No. 4, pp. 465-78.	Following an external evaluation of NOKUT – the Norwegian quality assurance agency, this article studies the impact of external quality assurance in detail by analysing quantitative and qualitative feedback from those exposed to evaluations conducted by this agency.	Survey and questionnaire.	The study provides information on the impact of various methods used, how impact is perceived by students, staff and management within universities and colleges, and finally in what areas impact may be identified. A major finding is that impacts are perceived as quite similar regardless of the evaluation method.
	Rowlands, J. (2012) Accountability, quality assurance and performativity: the changing role of the academic board, Quality in Higher Education, 18:1, 97-110.	This article undertakes a review of Australian and international literature and higher education policy in response to the changing nature of university academic boards (also known as academic senates or faculty senates).	Documentary analysis.	Governance has become an issue for both the state and for universities and that within this context risk management and accountability mechanisms such as academic quality assurance are taking an increasingly prominent role. The article concludes by suggesting that as part of a broader quality assurance framework there is also an opportunity for academic boards to have a central role in the

				development of academic standards that focus on enhancing learning outcomes rather than on compliance.
	Shah, M. (2012) Ten years of external quality audit in Australia: evaluating its effectiveness and success, <i>Assessment & Evaluation in Higher Education</i> , 37:6, 761-772.	This study analyses the extent to which external audits in Australia have improved quality assurance in universities over the past 10 years.	The analysis is based on discussions with 40 participants in a workshop on the effectiveness of audits and the review of 60 external quality audit reports between 2001 and December 2010.	The research found that while external audits have led to an improvement in systems and processes in Australian universities, they have not necessarily improved the student experience. This lack of impact on the student experience in Australia is similar to other countries, according to the literature review.
	Stensaker, B. et al. (2012) <i>Managing reform in universities. The dynamics of culture, identity and organisational change.</i> Palgrave macmillan.	The book examines the dynamics of reform attempts, culture and identity in organisational change.	Both qualitative and quantitative methods.	The book explores how universities are coping with range of reforms and leadership, quality management, strategic thinking, collegiality and academic work, and presenting the perspectives of different agents within higher education, including students, academics and management.
	Shah, M. (2013) The effectiveness of external quality audits: a study of Australian universities, <i>Quality in Higher Education</i> , 19:3, 358-375.	This article is based on research on 30 Australian universities to assess the extent to which audits by the Australian Universities Quality Agency (AUQA) have improved quality assurance in the core and	Survey and questionnaire.	The study finds that the audit process used by AUQA in Australia is satisfactory due to its enhancement-led reviews. The findings indicate that external quality audits alone cannot be credited for improving quality assurance in

		support areas of the universities.		universities. While external audits have led to an improvement in systems and processes in Australian universities, this study finds that they have not improved education outcomes and the student experience.
	Cardoso, S., Rosa, M. J. and Santos, C. S. (2013) Different academics' characteristics, different perceptions on quality assessment?, Quality Assurance in Education, 21:1, 96-117.	The purpose of this paper is to explore Portuguese academics' perceptions on higher education quality assessment objectives and purposes and on the recently implemented system for higher education quality assessment and accreditation.	An online questionnaire with Likert-type answer scales was distributed to the Portuguese academic population (n ¼ 36,215).	Portuguese academics tend to support the majority of goals and purposes quality assessment may have, as well as the main features of the newly designed quality assessment and accreditation system.

Appendix 7 Impact studies of QA system in Taiwan

Aspects	Study	Purposes	Methods	findings
Constructing the QA system				
	Su, J. L. (1995) <i>Research of the effect of Programme Accreditation plan</i> . Taipei: Shi-da shu yuan.	The main purpose of this study was to investigate the effects of the effect of Programme Accreditation plan.	observation, focus group, questionnaires, survey and documentary analysis	Essential aspects of evaluation include: peer review, meta-evaluation, performance indicators and independent evaluative agency.
	Su, J. L. (1997) <i>Higher education evaluation: Theory and Practice</i> . Taipei: Wu-Nan.	The evaluation systems of the US and the UK.	Documentary analysis	The QA systems of the US and the UK could be referred to establish QA system for higher education in Taiwan.
	Su, J. L. et al (2001) <i>The Effects of the Trial Implementation of the 1997-1998 University Evaluation Project in Taiwan</i>	The main purpose of this study was to investigate the effects of the trial implementation of the 1997-1998 university evaluation project in Taiwan.	observation, focus group, questionnaires, survey and documentary analysis	The quality of peer review is the key element of evaluation.
	Wang, P. J. (2003) <i>Gui hua cheng lid a xue ping jian shi wu zhi cai tuan far en zhuan ze bao gao</i> . (The report of planning setting up HEEACT) Taipei: Ministry of Education.	The study aims to provide suggestions to establish the HEEACT for the government.	Documentary analysis, focus group, questionnaires, and survey	The HEEACT should be an independent agency which is both sponsored by HEIs and the government. The future function of the HEEACT and implementation are described in the report.
	Wu, C. S. & Wang, H. L. (2004) <i>The conception and development of educational evaluation</i> . <i>Journal of</i>	The study aims to provide structure for the evaluations and clarify the concepts of higher education evaluation.	Documentary analysis	Suggestions: the government should establish the evaluation agency immediately; all HEIs should join national evaluation programmes.

	<i>Educational resources and research</i> , 29, 1-25.			
	Chen, W. C. (2007) A Comparative Study on the Higher Education Evaluation & Accreditation Council of Taiwan and Quality Assurance Agency for Higher Education in the UK. Unpublished MA dissertation, National Taipei Educational University, Taiwan.	The purpose of the study is to analyse and compare the Higher Education Evaluation & Accreditation Council of Taiwan and Quality Assurance Agency for Higher Education in the UK.	Comparative research method developed by G. Z. F. Bereday	There are not directly power of reward and punishment to higher education institutions for QAA and HEEACT. But governments cite and consult their reports directly.
	Wang, L. Y. and Wu, C. S. (2010) An inquiry on quality assurance system of higher education in Taiwan. <i>Bulletin of National Institute of Education Resources and Research</i> , 48, 1-18.	The main purpose of this paper is to explore the impetus for the QA system.	Documentary analysis	Suggestions: to diffuse information of quality assurance positively, and to enhance staff's professional competencies of it et al.
	Wang, R. J., Yang, Y., & Liu, H. H. (2012) Taiwan gao deng jiao yu ping jian de hui gu y u zhan wang (Review of Taiwan Higher Education Evaluation), Taiwan Education	The article aims to review the implementation of evaluations form 1980 to 2011.	Documentary analysis	The evaluations should not be linked to the funding allocation; HEIs should establish their own self-evaluation mechanisms.

	Review, 4, 20-24.			
	Chin, M. C. and Chen, Z. S. (2012) Examining and Reconstructing Higher Education Evaluation Programs in Taiwan. Journal of Educational Resources and Research, 106, 105-142.	The purpose of the article is to review the structure and development of the HEEACT evaluations.	Documentary analysis	Although Taiwan's higher education programmes follow the accreditation system of the US, these evaluations do not fully correspond to the core spirit of self-improvement of accreditation.
	Wu, C. S. et al (2012) The development and practice of higher education in Taiwan. Taipei: HEEACT.	The book aims to provide solutions to the problems of higher education evaluation in Taiwan.	Documentary analysis	Chapters include: the development of evaluations, the problems of evaluators, the ethics of evaluation, academic evaluation, the outcome of student learning and international quality assurance.
	Yang, Y. et al (2013) Report of meta-evaluation of 2011 Program Accreditation. Taipei: HEEACT.	The aim of the research project is to conduct meta-evaluation for the 2011 Program Accreditation.	Documentary analysis, survey and questionnaire, interviews and focus group.	Suggestions: most HEIs are positive toward the HEEACT evaluations; the performance indicators are needed to revise to suit different disciplines; and the evaluators should enhance their professional competency.
Comparative studies				
	Yang, W. H. (2014) Ri ben da xue fa zhan 'xiao wu yan jiu' zuo wei jiao xue gai shan zhi yan jiu. (Research of	The purpose of the article is to introduce 'Institutional Research' in Japan to improve teaching	Documentary analysis	Suggestions: The methods of benchmark and open information of evaluation in japan could be used in Taiwan's evaluations.

	Institutional Research in Japan) Evaluation Bimonthly, 47(1).	evaluation in Taiwan.		
	Yang, Y. (2010) <i>Liang an si di gao deng jiao yu ping jian zhi du</i> (Higher education evaluation system of China, Hong Kong, Macau and Taiwan). Taipei: Gao deng jiao yu.	The purpose of the book is to compare the difference of evaluation systems in Taiwan, Hong Kong, Macau and China.	Documentary analysis	Suggestions: The structure of QA system of Hong Kong should take into consideration for future development of evaluations in Taiwan.
	Zang, L. C. & Wang B. J. (2009) The review of the higher education evaluation system in the Netherlands. <i>Journal of Educational Administration and Evaluation</i> , 7, 71-96.	This article discusses the Dutch higher education evaluation system and how it works.	Documentary analysis	The findings are as follows: the selectivity of market orientation, respect to the programme uniqueness, the internationality of cross-bound evaluation system, students as one of the panels, and the completeness quality assessment protocol.
	Fang, C. J. (2006) A Comparative Study on the Evaluation Mechanism of Higher Education between Nordic Countries and Taiwan. Unpublished MA dissertation, Taipei City Educational University, Taiwan.	The purpose of the study is to compare the evaluation mechanism of higher education between Nordic countries and Taiwan, and this study will be the reference resources of establishing Taiwan's higher education evaluation mechanism in the future.	Comparative research method developed by G. Z. F. Bereday	European countries and Taiwan should develop individual quality insurance mechanism to be suitable for individual higher education.

	Tzu, Y. Y. (2006) A Comparative Study on Teacher Assessment Mechanism of Compulsory Education between Taiwan and USA. Unpublished MA dissertation, National Chi Nan University, Taiwan.	The purpose of the study is to compare teacher assessment mechanism of compulsory education between Taiwan and USA.	comparative research method developed by G. Z. F. Bereday	At present, the teacher assessment in Taiwan is still under the stage of initiation while it gets maturely in USA. Taiwan lacks a complete and related set of teacher assessment.
	Liao H. Y. (2001) A Comparative Study on the Evaluation System of Higher Education between Taiwan and United Kingdom. Unpublished MA dissertation, National Chi Nan University, Taiwan.	This study mainly aims to compare the evaluation system of higher education between Taiwan and the UK.	comparative research method developed by G. Z. F. Bereday	The advantages of the system of quality assurance in the U.K. should be adopted in Taiwan. Especially the assessments of teaching and research in higher education should be carried out separately in the future.
Learning and teaching				
	Chen, C. Y. & Su, J. L. (2013) A Study on the Teaching Professional Development Strategies for the University Faculty. Journal of Educational Research and Development, 9(4), 149-176.	The purpose of this study was to explore the theory and practice of teaching professional development strategies of universities around the world.	Documentary analysis and case study.	When comparing with other universities around the world, the teaching research grant and teaching development certification programs were not sufficient for Taiwanese universities, but more Taiwanese universities adopted teaching development group as the teaching development strategies than the

				ones in other countries.
	Huang T. Y. (2012) A study on the system of teaching assessment in universities in Taiwan. Unpublished MA dissertation, Tamkang University, Taiwan.	The main purpose of this study is to investigate the start and development of the establishment of education evaluation systems in general universities in the countries.	Interviews and case study	Methods of implementing education evaluation are not the same in all four universities. Ways for increasing completion of education evaluation of all four universities are not the same. Assistance measures provided to teachers who are evaluated as not that satisfactory are not the same in all four universities.
	Hou, C. H. (2008) A study of teaching evaluation in higher education to raise teacher's teaching quality: with educational program evaluation on 2006 as an example. Unpublished MA dissertation, Tamkang University, Taiwan.	This study mainly aims to explore to inquire the method of raising the university teacher's teaching quality in the educational program evaluation on 2006.	Questionnaire	It can improve teacher's teaching quality. The encouragement to teachers immediately which is helpful to improve teacher's teaching quality. The Center for Teaching and Development not only realize the teaching plight of teachers but also promote the teacher's teaching skills and knowledge. The training of Teaching Assistant facilitates students' learning and raise teacher's teaching effectiveness.
	Chen, C. Y. (2007) Da xue jiao xue ping jian de xin tu jing (A new method to University Teaching	The purpose of the article is to analyse the problems of University Teaching	Documentary analysis	Suggestions: Using both peer review and student opinion could avoid bias on teaching assessment.

	Teaching Assessment—peer review), Evaluation Bimonthly, 9(9).	Assessment, such as student questionnaire, and provide a new method for assessment.		
	Wang, R. J. (2006) Cong jiao xue ping jianzhi biao xi lun wo guo da xue ping jian zhi gai jin (Exploring the improvement of higher education evaluation from the view of teaching assessment indicators). Journal of Education Research, 142, 5-8 .	The article explores the teaching assessment performance indicators and suggests that the indicators could improve the quality of higher education evaluations.	Documentary analysis, and questionnaires.	Suggestions: The article provides 7 teaching assessment performance indicators to higher education evaluations.
	Wang, L. Y. (2004) Da xue jiao shi jiao xue zhuan ye fa zhan li lun yu shi wu (The theory and practice of the teaching professional development for the university faculty). Journal of Education Research, 126, 60-72 .	The purpose of the article is to clarify the teaching professional development for the university faculty, and explores the elements of successful teaching.	Documentary analysis	Suggestions: (1) Bothe research and teaching are important for improving the teaching professional development for the university faculty. (2) Universities should develop teacher evaluation systems.
	Chuang, H. W. (2000) Research of the indicators of teaching evaluation. Unpublished MA dissertation, National Taipei Educational University, Taiwan.	This study is primarily to construct the indicators of teaching evaluation, expect to have some implications for the implementation of teaching evaluation.	Survey	The indicators of teaching evaluation are composed of three major areas: input, process, and output, and divided into nine phases: teaching preparing, teaching content, instruction method, instruction evaluation, teaching attitude, teaching

				communication, teaching responsibility, instruction effect, and overall performance.
Research— performance indicators				
	Wang, R. J. (2011) Reflections on the quality of university teachers and academic evaluation policies in Taiwan. <i>Journal of Educational Resources and Research</i> , 102, 91-110.	This paper is to analyse teacher quality as a whole from the perspective of teachers.	Documentary analysis	Findings: The growth in the teacher-to –student ratio, and the number of university teachers with doctoral degrees and higher positions; and academic journal should be only one part of measurements of research.
	Wang, M. L. (2005) University Research Assessment and Citation Analysis. <i>Journal of Library & Information Science</i> , 31(1), 5-13.	The article mainly discusses how to evaluate research quality of universities and colleges in Taiwan.	Documentary analysis	Conclusions: that it is necessary to develop the research assessment of universities and college in Taiwan with expert peer review, besides, SCI, SSCI and citation counting data can be used as metric information for reference.
	Critical Reflections committee (2005) Globalisation and knowledge production— critical reflections on the practices of academic evaluation. Taiwan: A Radical Quarterly in	The purpose of the book is to criticise the problems caused by using T/SSCI as performance indicators in evaluations.	Document analysis, survey and case studies.	Suggestions: T/SSCI are just one kind of performance indicators, and other measurements should take into consideration in academic evaluations.

	Social Studies, Forum Series-04.			
Funding and resources allocation				
	Hsiu-Hsi Liu (2013) An Analysis of Policy Instruments for Higher Education: The Connection between the Results of University Evaluation and the Allocation of Funding. <i>Journal of Educational Research and Development</i> , 9(3), 31-58.	This study analyses the connection between the results of university evaluation in Taiwan and some major western European countries and the allocation of their educational funding.	Focus group and interviews	Findings: The evaluation policies and competing funding programmes are tools of the governments.
Organisational change and HEIs				
	Chen, B. Z. (2005) 'The Reflection of Taiwan's Institution Evaluation in the view of Academic Capitalism' in Chen & Ge (Ed.) (2005) <i>Higher Education Policies and Administration. Taipei: Higher Education</i> . pp. 559-588.	The article aims to explore the impact of Academic Capitalism and academic evaluations on higher education in Taiwan.	Documentary analysis	Suggestions: In Taiwan the logic of academic capitalism is presented as T/SSCI academic evaluations. Universities should be aware of the possible bias of academic evaluations.
	Lan, W. H. (2007) A study of the effect of higher education evaluation on academic. Unpublished MA dissertation, National Taiwan	The purposes of this research are finds out about the current academic's view on the academic freedom in Taiwan, exploring the	Questionnaire survey and interview	Teacher's view on the academic freedom of Taiwan, focus on three aspects: freedom to teaching, freedom to research, and freedom to

	Normal University of Education, Taiwan.	influence of the evaluation of the higher education on the academic freedom in Taiwan, and understanding the practice problems in current higher education evaluation mechanism.		institution operation. Department directors suffer more pressure than normal teachers when facing the evaluation of the higher education.
	Tang, Y. (2011) The impact of the evaluation system to the Taiwan higher education. <i>Journal of Educational Resources and Research, 103</i> , 27-40.	This article discusses the context, development and implementation of the evaluation system in Taiwan.	Documentary analysis	Suggestions: the evaluations may affect university autonomy when HEIs have to take into account the regulations from education authorities to compete for resources.
	Chou, P. (2011) The discourse and counter-discourse formation of the University Evaluation in documents since 1975. <i>Formosan Education and Society, 23</i> , 79-125.	The purpose of the article is to review the development of evaluations from different discourse.	Discourse analysis	Finding: Taiwan's QA system has generated new power relationships between HEIs and the government, and leading the resources allocation of higher education.