An evaluation of the quality assurance of Teaching and Learning in Hong Kong Higher Education Institutions

by

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Declaration

The thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968.

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Signed by candidate KH Chan
Dated:
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An evaluation of the quality assurance of Teaching and Learning in Hong Kong Higher Education Institutions
Abstract

The central aim of this research is to evaluate the effectiveness of quality assurance systems used to enhance teaching and learning quality in Hong Kong Higher Education Institutions (HEIs). Further to this, the H.K. Government adopted a system “Teaching and Learning Quality Process Reviews (TLQPRs)” to ensure and enhance teaching and learning quality by conducting various peer reviews to some pre-selected departments of the 8 HEIs. Reports of such reviews done during 1995-1997 and 2001-2003 have been published, whilst no critical appraisal of this system is performed. An initial review of the current literature reveals that there are gaps for further research on this topic, which include little published research on (i) revisiting the quality problems that may have happened in the higher education of Hong Kong; (ii) investigating the alignment issues of quality management in higher education of Hong Kong; and (iii) scrutinising how and to what extent Hong Kong Government’s review mechanism is effective upon all the government-funded HEIs of Hong Kong. In this regard, qualitative research methodology; by means of triangle analysis through case studies with documents, archival records, in-depth face to face interviews and focus groups are adopted to analyse the quality management of all the government-funded HEIs in Hong Kong.
Chapter I  Introduction

1.1 Research Background and the Problems of Quality Management

In recent decades, Quality Management (QM) has received increasing attention not only in industrial, but also academic research respects. The concept of QM with its origins resting in industrial settings has become a single common terminology when discussing quality issues in higher education. Central to this study is the desire to examine quality problems, quality assurance (QA), and its effectiveness in the higher education in Hong Kong (H.K.). This study first provides the general framework of QM and then subsequently discusses the principles of QM and their implications in higher education of H.K. in the sphere of: 1) adaptability of QM; and 2) adoption of Teaching and Learning Quality Process Reviews (TLQPRs) as demanded by the H.K. Government to further determine the effectiveness of the quality approaches and systems in the higher education institutions (HEIs) of H.K.

The overall result from implementing quality systems in the HEIs is positively perceived. QM can be adapted for the input and output processes in the HEIs, such as the design of curriculum, resource management, student support services, and
connections with other organisations. In this research, emphasis has been placed on
the importance of customer needs, processes, and persistent quality improvement in
higher education. Staff member participation in these quality processes is crucial to
success. HEIs who want to move toward the development of a quality culture will
require commitment from educational leaders in order to lead the way and cultivate
positive changes. Today it is necessary for educational systems to perform
self-assessment actively on an ongoing basis so as to ensure that continuous quality
improvement is put in place and stays in place.

Quality is an old concept, and long been inculcating in various aspects over past
decades. With a presumption that it is possible to impart QM and continuous
improvement into higher education and advance educational activities through
collaboration, it is believed that stakeholder requirements (from students, parents,
faculty, employers, and the community at large) can be better addressed. There has
been a drastic change of socio-cultural and economic structure in Hong Kong, and a
series of reforms in higher education in recent years (Kerry, 2011; Sutherland, 2002;
Jaffee, 2012) Sutherland (2002) summarizes these major changes in Table 1.1 below:
<table>
<thead>
<tr>
<th>Major changes per Sutherland</th>
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<tbody>
<tr>
<td>● Hong Kong has changed from a manufacturing-oriented economy to a knowledge-based economy</td>
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<tr>
<td>● Rapid economic development and standard of living are both rising</td>
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<tr>
<td>● Changes in the demand for competencies in the workforce</td>
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<tr>
<td>● The need for a diversified and flexible higher education system</td>
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H.K. is an international financial and service hub that is teaching and learning quality in higher education and thus playing an integral role in enhancing competitiveness.

With increasing input from parents, employers, accrediting agencies, and other bodies of the community since the end of 1990, there is a strongly call for reform in the educational system to cope with the new challenges posed by the globalised economies. The new education system must be conducive to all-round development of the human capital in the new generation in Hong Kong and nurture a talented labour force that possesses knowledge, creativity, and adaptability as well as communicating a global vision (Cheng, 2009; Tam, 2000a).

A set of directions and recommendations was introduced by the Education Commission in 2000 for breaking through the educational system in Hong Kong. The Reform Proposal explicitly reviews and examines the importance of education for Hong Kong’s future economic and socio-cultural development and does so on various
levels. Sutherland (2002) further suggests that the recommendations in the Reform Proposal are in line with the major discussion themes found in much of the prior international and human resource management literature on higher education (see Table 1.2 below).

**Table 1.2 Recommendations of the Reform Proposal per Sunderland**

<table>
<thead>
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<th>Recommendations of the Reform Proposal</th>
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<tr>
<td>• Accentuation of students’ achievement and capability by equipping them through lifelong learning to obtain practical knowledge and skills of various academic disciplines.</td>
</tr>
<tr>
<td>• Development of knowledge and skills in a valuable and suitable socio-cultural framework.</td>
</tr>
<tr>
<td>• Applying substantive educational technologies and cultures to pursue a paradigmatic shift from teaching to learning.</td>
</tr>
<tr>
<td>• Accreditation is conducive to student attainment in educational learning.</td>
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</table>

These aspects run along the lines of the need for nurturing a more competency-based workforce for Hong Kong (Tam, 2000a). The above discussion is influential for the foreseeable future development of H.K. higher education, in particular, the enhancement of educational technologies and the use of quality systems in the teaching and learning processes. As for the concern regarding the quality in higher education as discussed at the outset, a number of educational institutions attempting to demonstrate their course programmes acquired a certain level of educational standard and includes both university and non-university degree programmes (OECD, 2007). From this perspective, educational systems must be able to review and improve both
teaching effort and learning quality. To achieve this goal, it is necessary to understand the changes in the demand for competencies in the labour force in the future and develop a quality system that will ensure that the most desirable outcomes can be met.

QM, process management, and continuous improvement have become common terminologies when discussing the quality problems present in higher education in Hong Kong. Despite some of the principles and approaches of QM and improvement adopted in industries that go beyond the educational setting, they are compatible with higher education. The discussion of quality improvement is definitely beneficial in higher education. Quality issues in higher education are unique and to some extent different from those in industry. As indicated by Pang (2000), examining their similarities and dissimilarities is valuable to provide a better understanding of how QM and assurance can both be achieved.

1.2 Research Question and Study Objectives

This research investigates the following research question:

Can QM strategies be applicable and effective in higher education? If yes, will Teaching and Learning Quality Process Reviews (TLQPRs) as required by the Hong Kong Government be effective in the government-funded HEIs in Hong Kong?
The following main objectives of the study will help explore the above question and fulfil the aim of the work:

- Provide a general framework for understanding QM in higher education.
- Examine the use of different quality approaches and systems in H.K. higher education.
- Discuss the QM and improvement of H.K. HEIs through in-depth qualitative studies.

1.3 Research Scope, Limitations and Significance

Bogdan and Biklen (2003) deduce the following characteristics of qualitative research apply to educational projects (see Table 1.3):

**Table 1.3 Characteristics of qualitative research on education**

<table>
<thead>
<tr>
<th>Characteristics of qualitative research on education</th>
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<tr>
<td>• “Natural situation” is the direct source of data collection. The research is the primary research instrument.</td>
</tr>
<tr>
<td>• Descriptive data is often referenced.</td>
</tr>
<tr>
<td>• The research process is emphasized, rather than only the end result.</td>
</tr>
<tr>
<td>• Interpretation of the meaning of the data analysis is the focus.</td>
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</tbody>
</table>
The methodology adopted herein is a qualitative research approach, using case studies with documents, archival records, in-depth interviews and focus group studies (triangle analysis). In order to achieve integrity and raise both effectiveness and reliability, this research uses both multiple data and a triangle analysis to will produce more reliable results as advocated by Yin (2011). In fact, there are several advantages (see Table 1.4 below) of using multiple approaches for a research (Simovska & Carlsson, 2012).

Table 1.4 Advantages of using multiple approaches for research

<table>
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<tr>
<th>Advantages of using multiple approaches for research</th>
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<tbody>
<tr>
<td>• Obtain a variety of data and information on the same research topic;</td>
</tr>
<tr>
<td>• Make use of the strengths of every approach;</td>
</tr>
<tr>
<td>• Reduce the effects and limitations of a single approach; and</td>
</tr>
<tr>
<td>• Achieve a higher level of reliability and validity of the results.</td>
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Cavana et al. (2001) classify research as positivist, interpretivist or critical research. Positivist is associated with quantitative research; while interpretivist is associated more with qualitative or exploratory study that identifies what is meaningful to the individual being investigated; critical research (also known as critical science by Kim, 2003) goes beyond mere surface illusions to findings that can act as a catalyst for transformation (Cavana et al., 2001; Carson, Gilmore, Perry & Gronhaug, 2001;
positivists adopt deductive approach to reasoning (Baker, 2001) to find reality in a rational and quantifiable world and discover universal laws to predict human activity; the interpretivist perceives multiple realities in a world that is always open to individual interpretation to discover universal laws that can help predict human activity (Sarantakos 1996).

Positivism aims to relate to social phenomena and explain casual relationships by means of objective facts (Carson et al., 2001). The positivist paradigm contends that strategies of inquiry are meant to test theories comprised of variables to prove whether the generalizations are true or not and develop a conceptual framework to discover how humans construct meanings in their contextual settings (Lee et al., 2001; Flamboltz, 2000). Importantly, generalisations are inductive here and comprised of nomothetic or legislative statements (Lawson & Fisher, 2011; Salvatore & Valsiner, 2010). Quantitative methodology is based on the positivist philosophy with the researcher’s role being rather passive and clearly separated from the role of the subject (Postholm & Madsen, 2006). Such methodology is argued as being objective, relying on solid sensations and encouraging value-free inquiry; it sticks to rigid rules and adopts quantitative or mathematical data collection procedures (Robinson et al., 2011). This approach is more appropriate for conventional benchmarks of rigour,
internal and external validity, reliability and objectivity. It can also achieve replicability by following a rigorously controlled and systematic procedure, generalisable to a larger sample size (Baker, 2001; Yin, 2009).

In addition, Kumar (2007) suggests adopting qualitative approaches and inductively and holistically understand human experience in context-specific situations. Small samples are adopted to understand a particular phenomenon rather than to uncover a causal relationship (Leonard & McAdam, 2004). One advantage is the offering of a deeper understanding of a complex social phenomenon (Yin, 2009). The criticisms are subjective, focused on local and micro-level events, and difficult in terms of replicating findings. Descriptive study ascertains and describes the characteristics of the variables of interest in a unique situation (Cavana et al., 2001). At the qualitative stage of this study, the work attempts to explore the significance of QM on teaching and learning in higher education today through a review of in-depth case studies on government-funded universities in H.K.

It is noted also that some terminologies used in QM cannot be clearly defined. However, that issue is not considered a major problem. An understanding of quality and other related concepts rely on the context to be examined. It is hence, as long as
clear descriptions and circumscriptions are made, that this uncertainty does not appear to be a significant practical problem since organisations can still improve quality based on QM practices insofar as theoretical limitations are recognized. QM is often considered as an “approach”, “strategy” or “practice”, but it has never been regarded as a “theory”. This view may indicate that QM does not receive sufficient attention in the academic world and in society at large. It may also imply that at least for academics, it is difficult to conduct empirical studies on every industry, as QM refers to the totality of efforts that do involve substantial measuring variables. The variables in one organisation may not be directly comparable to another, since they can vary in terms of organisational structure and management commitment. Further discussion of these research limitations is covered in the last chapter of this research.

Nevertheless, this study is expected to generate a number of new insights from an academic research aspect. In essence, education takes on an imperative societal role in any country and is supposed to possess a significant political stand or viewpoint for economic development and employment. Thus, an effective educational system is of considerable importance and must adapt to changing societal needs in order to fulfill them.
1.4 Structure of the Research

This study comprises five chapters:

- Chapter I provides the general background and the problems and the objectives as well as the main scope, limitations, and significance of the study.

- Chapters II delivers the underlying framework of quality management and higher education, and illustrates the use of QM and TLQPRs in higher education through literature review.

- Chapter III describes the research methodologies for adopting document, archival records, case studies and focus groups in scrutinising TLQPRs’ approaches and effectiveness in government-funded HEIs.

- Chapter IV discusses the findings of the study and data analysis.

- Chapter V concludes the research with discussion, limitations and the future directions for further research.
Chapter II  Literature Review: Quality Management and Higher Education

In recent decades, QM has received increasing attention in both industrial and academic research terms. The concepts of “QM” and “continuous improvement” and their origins in an industrial setting synthesise the basic terminologies for the discussion of QM in higher education. Many countries have accentuated and delineated the issues of quality in higher education. This chapter provides a framework for understanding QM from a general perspective and subsequently discusses its application to higher education as offered in the later chapters.

2.1  Background of QM

Decades ago, the concept and importance of “quality control” emerged, and in the most recent two decades, the concept further evolved into an approach or strategy of “total quality”, which has significantly increased the adaptability of QM in various respects. Since the 1980s, the concepts of total quality and QM have been substantially examined worldwide. Some organisations have attained major improvement through QM. However, as Samson and Terziovski (1999)
argue, after 20 years’ practice with adopting QM, it is evident that the effectiveness of quality improvement is still unclear. They further state that for each successful implementation of QM, there are many which have not been able to translate their efforts into operational or business improvement. QM failures have been reported by many authors including Soltani, Lai and Phillips (2008) and Hussien (2010).

2.2 Development of QM in the Industrial Setting

Currently, customers’ demand for a higher quality of products and services is ever increasing. The concept of quality originated in industry and has become one of the most widely accepted and adopted approaches in the manufacturing industry, construction industry, food industry, and many more, as evident from the many Japanese companies that produce a range of good quality products at competitive prices. In the past, many industries in Western countries had been working on systems for mass production by specialising, by checking out non-conformances, sorting and scrapping, and screening goods with little consideration given to customer interests. However, such operations resulted in costly and ineffective outcomes because they required a large amount of resources to weed out complex products, and
processes were often not reported accurately. In some situations, products that did not conform to the requirements still passed the screening process, while other flawless products were categorised as defective (Powar, 2002a).

In today’s complex world, satisfying customer needs is no longer at all easy. It is far more than offering good quality products at competitive prices. There are also the timeliness of delivery, reliability of products and availability of services to consider. To achieve these performances, it requires a collaborative effort within the whole organisation. Shilubane (2002) affirms that it is increasingly important for organisations to integrate different work units to produce faultless products and stabilise all production systems.

2.3 Terminology

A number of concepts discussed in this study are derived from QM in an industrial setting. These may not seem to fit well into higher education. Nonetheless, when they are inclusively interpreted, most of the concepts can be defined in a way that an become expressive in higher education. Among the relevant concepts for this research, great emphasis is given to the terms “customer” and “quality”.

2.3.1 How to define a “Customer”

At some point in any discussion of quality, the concept of customer takes on a high importance. With reference to the term “customer”, it usually denotes a “purchaser” or “tone that buys a product or service”. Hides, Davies and Jackson (2004) believe that the term “customer” is more one of commercial stance, and it may not directly correspond to education or the health sector. In other words, the concept of “customer” in higher education may be an obstacle when it is not interpreted in a commercial setting. In general, the concept of “customer” is often cited as a recipient of a supplier’s product, but it could also be considered as a final consumer, a beneficiary, user, purchaser and also regarded as either internal or external to a company. “Product” is the result of processes or activities, also inclusive of processed materials, hardware, software, service, or combinations of them. These two concepts determine the importance of the customer-supplier relationship rather than simply signifying a customer purchasing a product from a supplier. Further, it is also possible to define customer as “the one who is being served”, notwithstanding whether any transaction is involved with an exchange of good or service for money. In light of this perspective, customer is a rather inappropriate term in higher education, and
therefore, there has been an attempt to delimit its concept to “stakeholders” or “clients” therein. This interpretation would then be considered under only a given condition, and yet the term “customer” is still be used herein, with more discussion following in Chapter III.

2.3.2 The Principle of “Quality”

The concept of quality is commonly used to define a measure of excellence. In its simplest sense, quality is meant to identify the difference between “good” and “bad” (Reid, 2006). Suganthi and Samuel (2004) interpret quality as targeting so as to fulfil the needs of customers at present and in the future. Crosby (1996) supposes these definitions may circumscribe the interpretation of quality. Further, in Section 2.3.1, it is not only necessary to determine who the customers are, but also what the customers need. The reason for pointing out this distinction is to give an indication to the suppliers for how to achieve a balance between needs as expressed by customers and then perceived by the suppliers (Stone, 2012). This perspective is echoed by W.E. Deming who opines that there are already too many discussions on meeting customer expectations, but in essence, customers only expect what an individual organisation has led them to expect (Deming, 1994).
With respect to quality in education, Rahman (2008) opines to distinguish educational setting from industry and mainly relate the difference between the production of goods and the provision of services. However, while many authors intend to differentiate the underlying distinction between quality of products and services (Abed & Majid, 2011), this consideration rests on the assumption that there should be more similarities between products and services than dissimilarities. Therefore, overemphasis on such a dichotomy would impede further understanding of the fundamental elements of quality and its uses.

### 2.3.3 The Relationship of Effectiveness, Efficiency, and Change

When serving customers, their particular individual needs must be considered to achieve the ultimate purpose of the organisation. Some possible organisation purposes as suggested by Conti (2010) include the improvement of profits, maintenance of long-term goodwill, and satisfying the public. The above ideas regarding purpose may not be exactly true because considerations of people for the short-term issues may be quite varied from those for the long term. This issue suggests that perspectives, under certain circumstances, may lead to unsuitable explanations Conti (2010). For example,
pollution in the short term could be economically acceptable, but in the long term, it is costly and cause detrimental effects to humans and animals. Thus, the priority should be placed on the long-term effects. No matter which perspective outlines the stand of our discussion in a particular situation, it is interesting to note that most people behave in a way that offers good traits to someone.

Although sometimes that outcome may not satisfy the specific requirements of the norm, there are still perhaps certain standards that have been met. For instance, an indolent worker does a job that is not well received, but he may think his performance is satisfactory for him. Kull and Narasimhan (2010) point out that a person who believes in bureaucracy describes or defines good performance according to the rules and standards stated by that bureaucracy. But then, who can judge an action as either good or bad? Maybe a more standardised mechanism would provide an answer. That thinking also produces another question, namely, what constitutes a good job performance? Kull & Narasimhan (2010) further explain this conundrum by bringing forth two important elements, that of effectiveness and efficiency. They suggest that certain questions can be asked to facilitate the definition or implications of what is good performance on a job, such as how do you say you are doing the right job in a smart way? How do you measure how you are serving the organisation who has
minimum resources? How efficient do you think you are? Despite the fact that
effectiveness and efficiency are essential elements an organisation should strive for,
there is another consideration that is often missed when discussing good
performance – the change in environments. The world is dynamic and ever-changing;
organisations do have to adapt to changes in the surrounding environments to survive.
The above-mentioned situations will be discussed and to suggest that changes should
be mastered. In most cases, an organisation believes the initiative to change in any
way is better than being forced to change. Resnick (2010) sets this view and then
applies it to the development of higher educational contexts. With further reference to
Sutherland (2002), personal competence is reflected by both the ability and the
behaviour of an individual. Any self-reflection based on learning and experience gains
from the past and is the fundamental element for an individual who wants both
personal growth and future development.

Barnett and Coate (2005) request that institutions participate in self-reflection so as to
better the ever-diminishing quality in the higher education sector as part of that
institution’s competence. Such a view is also supported by Malkki and
Lindblom-Ylanne (2012). He argues that knowledge forces praxis as well as self-
reflection above praxis, as both create enhancement of praxis. Besides, he points out
that in fact there is a close connection between praxis and reflection. His model is proven to be applicable to both organisations and individuals, including educational institutions as mentioned. However, the measurement of how both praxis and reflection interact with each other has not been discussed further. The issue becomes insignificant, if reflection does not consist of measurements. In summary, taking the change (of environments) into consideration, together with effectiveness and efficiency, raises an interesting set of questions on the point that the measurement of quality does matter.

2.3.4 Constructs and Use of Definitions or Circumscriptions

The terms “quality” and “customers” are used in many discussion papers, and many other theoretical constructs are also derived from the same terms. Mergen, Gran, and Widrick (2000) indicate that quality is the central theme of theory, and when quality has not been fully defined, then those concepts with respect to quality cannot be established as well. However, the outline of the definition of quality is not that difficult since QM has been widely discussed throughout the decades, and various other combinations of concepts related to QM, such as QM implementation, QM strategy, and QM approach, have also been developed and used in numerous
theoretical studies.

This research is not going to describe the concepts of quality and customers in an inclusive manner. On the contrary, it offers an open-ended description, leaving room for the reader’s own interpretations. For example, quality is expressed as “what makes customers in love with your product is the quality” (Tulsi, 2001). However, when describing quality with love, that focus can make the concept of quality easier for readers to understand. Tulsi also explains quality in education as “what makes learning enjoyable is the quality in education. However, the use of indefinable concept may have its drawbacks. Tulsi uses “enjoyable” to describe learning, which may lead to a negative perception for some readers that education actually is harsh, not enjoyable. The purpose behind learning is to acquire knowledge and to cohere with the concept of self-reflection, as discussed above; it thus helps to cultivate future development for an individual. It directs the need for circumscriptions instead of applying definitions to indefinable concepts.

2.3.5 Summary

As discussed in Chapter I, concepts that have not been probably defined may confuse
some readers. Yet in fact, many concepts are somehow quite vague, such that it is not easy to interpret them without using circumscription. There is no problem using a definition to describe a particular concept; however, some readers may have different interpretations of that concept and in a way that it becomes difficult to define which is right or better. Take the example stated by Mergen et al. (2000), when market-driven mechanisms are introduced in the higher education sector and the term customers use to argue support of such an introduction, then the whole definition in a sense becomes too commercialised. Yet, there is still no one who can claim this concept is wrong even though there may be some other definitions that use a more general scope. To cope with any problem of vagueness, these terms should be associated with the concepts being used as well as linked with the intentions of this study.

To conclude, many concepts cannot necessarily be interpreted in a definite manner. For example when discussing the concept of customer-supplier chains, the definition of customer may be redundant, even if there is no customer buying the product from the supplier; the customer-supplier chain concept still remains a valid term to use to discuss the relevance of the connected inter-relationship between suppliers and customers.
2.4 Quality Management

It is believed that the relationship between supplier and customer is universal in nature where a supplier provides a customer with an entity. The existence of this relationship is meant to satisfy customer need. If this need does not exist, there may be no customer and no supplier. Both supplier and customer must interact with each other for their continuation. Moreover, their relationships are mutually significant to each other. If an entity is not present, the belief in universal nature of both suppliers and customers turns out to be meaningless, and this scenario could occur – if there is no customer, then there is no supplier.

Achieving these underlying concepts regarding the relationship between supplier and customer is easier said than done. Although some may argue that there is such a possibility that a supplier with no particular meditation has satisfied a customer’s need who is actually unaware of that need, Tam (2000a) points out that a relationship that begins with coincidence could presumably not last for long. Generally speaking, to start a good relationship with a customer and supplier requires mutual understanding of need and the supplier’s capacity to deliver the product or service that satisfies that need. However, such steps usually are not evident until formal meetings are set up. In
reality, one will go to the local shops and keep searching for the product or service that meets his/her need. As a result, fulfillment of customers’ needs can be achieved merely by the continuous process involved in addressing these underlying concepts, as they do relate to the fundamentals of quality (Tam, 2000a).

This relationship between supplier and customer has, as its assumption, one of a universal nature which seldom is included in the modern discussions on quality issues. Yet, quality has become dominant in the management school of thought in recent years. Quality is created through QM, but there are other approaches, including Continuous Quality Improvement (CQI), Company Wide Quality Control (CWQC), just to name a few. Some differences do exist between these approaches, but they will not be further discussed in this venue.

2.4.1 Important Constituents of QM

With the aim to achieve efficiency and effectiveness and the interests of customers and suppliers in customer-supplier chains, one common question can be asked: What can be done to make it happen? QM can shed light on this question. According to the International Organization for Standardization (2005), QM is interpreted as all
activities of the overall management function that determine the quality policy, objectives and responsibilities, and implement them by means such as quality planning, quality control, quality assurance and quality improvement within the quality system. QM encompasses the management philosophy of an organisation, focused on quality, relying on its employees’ full participation while targeting long-range success via satisfying customers, and providing benefits to its staff and society. Although some QM descriptions stress different perspectives, still many intrinsic issues rest on the similar ground, for instance, those of Sugan thi and Samuel (2004) and Venkatraman (2007). When outlining the importance of QM strategies, Lundquist (1996) asserts that the following elements are key (see Table 2.1):

<table>
<thead>
<tr>
<th>Key elements of QM strategies</th>
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</thead>
<tbody>
<tr>
<td>• customer satisfaction;</td>
</tr>
<tr>
<td>• processes;</td>
</tr>
<tr>
<td>• continuous quality improvement;</td>
</tr>
<tr>
<td>• employee involvement;</td>
</tr>
<tr>
<td>• management commitment; and</td>
</tr>
<tr>
<td>• fact-based management.</td>
</tr>
</tbody>
</table>

Some scholars use strategy, a paradigm, or philosophy to describe QM. No matter what it represents, QM in this research effort will respond to some of the fundamental questions and deal with problems caused by external contexts and formulate a
particular framework for improving quality. Watson (2012) points out that by understanding how QM emphasises the effectiveness, efficiency, and change may offer a perception through which quality studies can be more meaningful. Such fundamental questions or reasons have been widely deliberated from different perspectives. Below are some of the relevant features addressed in this study:

- When the level of sophistication of the production system is not that high, quality will not be easily improved. Also while quantity is a more important matter to be able to satisfy customer demand at the production level, quality will not be a question to stress here. Due to the continuing development of production technology, more perspectives on the relationship between customers and suppliers can now be addressed. In the interconnection of customer-supplier relations, the level of quality of most products could then possibly become higher.

- The focus on quality in many industries is attributable to the success of Japanese companies. In the past, Western industries were based on large scale production to produce the same products. Moreover, these production systems were comprised of a differentiation of incompatibility, re-work and final scrapping. However, this kind of operation cannot be compared with today’s
To achieve the underlying aspects of quality, there is a need for the integration of knowledge and technology at a more advanced level. Yet expertise in production processes is still not enough, since both the production system and society at large are becoming more multi-faceted today. The aim for producing effective and efficient products has become increasingly a reliance on the individual’s competency and having the knowledge to integrate various areas to accomplish teamwork more effectively. Thus, this complexity suggests that it is necessary to address the importance of effectiveness, efficiency, and applicability to achieve change continuously in the customer-supplier chains. QM can then be classified as a reaction to the fundamental concepts of quality. In spite of the differences in the descriptions related to QM constitutes, such descriptions are still presumed to be similar and also indicative of the same basic problems.

2.4.2 Values and Critiques of QM

As indicated by Pang (2000), QM is regarded as a management philosophy that emphasises process management with continual improvement. With successful QM in
Japan’s manufacturing industry, Deming’s 14 principles for management are the basis for application to all forms of industries and are now widely adopted. Noronha (2002) annotates Deming’s famous 14 principles as powerful and universal axioms hooked upon the presumptions that individuals desire to perform the best and it’s management that needs to assist them to fulfil this by persistently improving the system. His 14 principles have inspired and contributed to significant business effectiveness. QM has come into the organisational management school of thoughts and induced different criticisms. Whipple and Roh (2010) assert that QM is similar to a “fad”, and also claims that QM as only a combination of already known theories and approaches. Still, there are some conflicts between the elements in QM and its different approaches.

The construct of “zero defects” is one example. Matias and Coelho (2011) advocate the concept of “zero defects” while Harris (1995) and Deming (1994) repudiate its effectiveness. Harris claims that the use of this concept in QM will be very costly and calls for a requirement for defect prevention. Deming criticises this approach as defects should be defined by specifications. An entity in compliance when it is measurable within specifications while it is non-conforming when it falls below those limits. This approach, along with Deming, does not allow for intrinsic deviation in systems.
2.5 Different Constituents of Higher Education

Education has long been the prevalent discussion topic in various studies. There are only a few educational institutions, such as primary and secondary schools, with a longer history in society than the higher education sector, even though the education system overall has experienced several major changes. Education plays a crucial role in the society, and it affects and is influenced by society greatly. This chapter offers a framework of these possible characteristics in higher education sector. Yet this framework is not trying to identify the extensive aspects of higher education nor a definition of it. The intention is to discuss the perspectives that correlate with QM in the higher education sector in the subsequent sections. In addition, there is discussion of the contemporary patterns and trends in higher education, and then an examination of the general approaches that relate to quality aspects.

OECD (2007) defines higher education as “university tertiary level of education” that encompasses the programmes designed for students who have competed successfully at the senior secondary level, as well as those who keep on receiving education toward a first degree in a university. This statement clearly classifies education at different levels – its progression from one level to another that is higher. However,
this definition seems imperfect, since it does not include the unique functions and activities of higher education that take place in the territory. Instead of defining higher education in this simple way, Barnett and Coate (2005) suggest another approach to use to describe the purpose for instituting higher education (see Table 2.2 below).

Table 2.2 Purpose of instituting higher education

<table>
<thead>
<tr>
<th>Purpose of instituting higher education</th>
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</thead>
<tbody>
<tr>
<td>• Nurture qualified manpower;</td>
</tr>
<tr>
<td>• Provide training for research as a career;</td>
</tr>
<tr>
<td>• Provide efficient management of teaching; and</td>
</tr>
<tr>
<td>• Extend life chances.</td>
</tr>
</tbody>
</table>

In spite of this approach, other researchers, such as, Deem (2004), Gumport (2007) and Ballantine and Hammack (2011), argue that there should be a great deal of significance between education and its relationship with society, which is called a “sociology of higher education”. They also included the following sociological perspectives of a university (see Table 2.3):

Table 2.3 Sociological perspectives of a university

<table>
<thead>
<tr>
<th>Sociological perspectives of a university</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide training for both blue-collar and white-collar professions;</td>
</tr>
<tr>
<td>• Certify qualified individuals and provide some form of indicators, such as expert skill for employers as a filter to screen less qualified applications;</td>
</tr>
<tr>
<td>• Provide selection and sorting as such a process is required in a society with</td>
</tr>
</tbody>
</table>
stratification; and

- Transmit knowledge, values, and attitudes, in which such values and attitudes constitute the importance of socialisation.

The arguments between sociologists on the justification for a higher education sector are still subject to discussion; however, what level of achievement is within the education system and its relationship with the environment are not relevant to be studied further in this current research.

2.5.1 A Place for Learning

Although higher education is described as satisfying a set of purposes and functions, one fundamental result that students pursue in higher education is a learning opportunity through teaching. One definition of learning is suggested by Resnick (2010), who contends that learning is achieved through acquisition and integration of a formalized process of instructing or organising experience within ranging forms of skills, knowledge and understanding which the learner would adopt later. Needless to say, teaching and learning provided in higher education are not the same. Referring to OECD (2007) again, education is defined as organising and sustaining communication planned to render learning while teaching is interpreted as any modification in information, behaviour, attitudes, knowledge, skills, capabilities or
understanding that are restored and not subject to physical development of embedded
behaviour patterns of the learner.

Learning is a result of teaching (i.e. education) designed to bring about learning and
where people acquire knowledge and skill on particular subjects and use such learned
knowledge in different conditions as implied by the above definitions. Barnett and
Coate (2005) combine the components of learning and argue that genuine higher
education has to be launched. Students in courses of higher education should gain the
acquisition of high-level concepts where thus critical appraisal can be performed. As a
consequence, the development of intellectual capability to render a viewpoint, and
then alter it upon receiving counter-evidence implies a higher tier of intellectual
capabilities and combining higher tier thinking and cognitive capabilities to assist
students in attaining intellectual autonomy that connects with the goals of a truly
higher education. Barnett & Coate’s (2005) statement is trustworthy indeed and
provides a great deal of inspiration to many people. It is also noteworthy for
government officials, academics, socialists, and the public in general to reconsider
whether this inspiration still applies to today’s education system. Minnella (2011)
offers a description of learning from a surface approach where students would not
recollect the things after study, application becomes difficult in reality to resolve
problems, and enjoying in learning seems remote.

2.5.2 Students

Further to the above discussion on higher education, it can be seen from a macro perspective which emphasises its purposes and functions as well as its organisational structure. Yet, a student’s thought may be regarded from a micro level perspective, which perhaps contributes to the success of higher education. But how exactly a student can benefit from the educational experience? This question is at high priority for school academics as well as for government officials. However, it is always not easy to draw a conclusion. The matter of students’ education motives and their competence is quite complex; some students may only be interested in passing course and consider the possibility for intellectual development less important. As Beecroft and Guikema (2004) states, it is possible that student motives may constantly change over a period of time. For example, at the start of a school term, a student may be more motivated to do better during that term; while near the end of the term, that same student may become less enthused and only find a way to get a pass. This problem is a matter of motivation and not related to the competence of a student. It also corresponds to the issue of customer needs and that complexity.
2.5.3 Summary

The perspectives with respect to learning, organisational structure and students are discussed and tried inclusively to describe contemporary higher education. At least, they have pointed out some of the relevant issues, particularly in this study on any deliberation of quality in the higher education sector. Implementing quality in higher education without understanding the purpose of learning is of limited help. Higher education has great resemblance to organisational structure, which implies the significance of applying quality to higher education. On the student perspective, students primarily are supposed to learn; in fact, they should be categorised as target customers in a higher education system.

2.6 Current situation in Hong Kong

Here, certain general perspectives of contemporary higher education in H.K. are discussed. This study will explore the implications for the HEIs so as to improve their quality. As pointed out by Pang (2000), some countries aim to undertake similar quality development in their higher education sector; still, this idea is mostly put on
paper instead of having a substantiated plan.

2.6.1 University Grants Committee

Higher education has ever increasing importance in terms of its roles and functions in Hong Kong. One obvious indication is that the proportion of students going into HEIs over the last two decades has increased significantly. Since the 1980s (see Table 2.4), Hong Kong has undergone major education reform and a marked and massive scale of expansion of degree education. There were only 3-4% of the age group entered in degree education in 1980s; but by the end of 2000, that figure has increased to about 18% (Tam, 2000b). The following table reveals the level of that expansion.

Table 2.4 Number of Full-time Equivalent Degree Students

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>2,579 full-time equivalent (fte) degree students</td>
</tr>
<tr>
<td>1990</td>
<td>8,571 fte degree students</td>
</tr>
<tr>
<td>2000</td>
<td>14,443 fte degree students</td>
</tr>
</tbody>
</table>

Source: University Grants Committee, 2006

During the same period, research postgraduate students increased to 1,674 (fte). As of 2005, the total enrolment in higher education was the following (see Table 2.5).
Table 2.5 Number of Graduate Students as of 2005

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>~47,000</td>
</tr>
<tr>
<td>Teach postgraduate</td>
<td>~6,000</td>
</tr>
<tr>
<td>Research postgraduate</td>
<td>~4,000</td>
</tr>
<tr>
<td>Sub-degree (higher diploma)</td>
<td>~11,000</td>
</tr>
<tr>
<td>Total enrolment</td>
<td>~69,000 (fte)</td>
</tr>
</tbody>
</table>

Source: University Grants Committee, 2006

The University Grants Committee (UGC, 2005) is a non-governmental statutory body.

It is an important advisory body for the Government on higher education, as well as on the development and management of funding requirements of the Hong Kong tertiary establishments. The UGC is served by a Secretariat, responsible for managing the expense of the UGC, inclusive of the grants distributed to HEIs. In 2007-08, the approved Government budget for higher education totalled HK$15 billion, which counted for 28% of total expenditures in education and 5% of total government expenditures as a whole (Office of Chief Executive, HKSAR, 2008). Currently, the following HEIs are publicly funded by the UGC (see Table 2.6).

Table 2.6 HEIs publicly funded

<table>
<thead>
<tr>
<th>HEIs publicly funded</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The Chinese University of H.K. (CUHK)</td>
</tr>
<tr>
<td>• The University of H.K. (HKU)</td>
</tr>
</tbody>
</table>
The above institutions will continue to maintain their autonomy in providing education services in Hong Kong with their own Governing Council and Ordinance. They control their internal and educational affairs under Hong Kong laws (UGC, 2004). Since all these institutions are at large supported by public funding and have great importance in terms of affecting social and economic development, they have a legitimate public interest to the Government and society to make sure a high standard of education is provided in a cost-effective way. Also, the UGC continues to provide advice to the Hong Kong Government on the development, improvement, and financing of these establishments.

HEIs are diversified in nature, but they all offer significant contributions to the educational, economic and cultural development of H.K. both now and then. Their differentiated roles and responsibilities have addressed the evolving and dynamic requirements of Hong Kong for rapid development. At present, HKU, CUHK, and HKUST play a leading role in delivering good quality of post-secondary education,
highlighting both advanced research and scholarship. PolyU and CityU organise a wider spectrum of postgraduate courses and diploma programmes, specialising in vocational and professional education; and HKBU and LU offering broader generic education degree-awarding programmes instead of emphasising only professional training.

The complementary roles of the HEIs go well with the interests of the community, providing a wider range of higher education that suits community needs. The UGC oversees the whole higher education system and works to pull the aspirations of individual HEIs together to meet society's requirements. It aims to develop a system that strives for a balance between education programmes and courses at various levels and specialisations, and the HEIs contribute to the society by providing qualified teaching manpower and collaborating with research and consultancy efforts to increase academic exchange (UGC, 2005). Moreover, UGC intends to avoid the unnecessary over-concentration and/or under-concentration of education in particular areas to benefit the whole community. However, this policy could not fulfil all the academic aspirations of the educational institutions. Nonetheless, the Committee considers the provision of quality education to be the common objective of all the institutions and emphasises the importance of the academic health of the scholarly
activities and researches contributed to by the HEIs.

Hong Kong continues to develop from a skill-based to a knowledge-based economy so as to improve its competitive edge. The Administration announced in its 2000 Policy the objective to continue to upgrade the quality of the workforce, so that 60% secondary school leavers received higher education in the 2010/11 academic year (UGC, 2004). To ensure that this 2000 policy objective was delivered, the Administration introduced several measures to support the expansion of self-financed post-secondary education in H.K. This development plan is ambitious and allows all the HEIs to raise the stipulation of degree intakes, at the bachelor or above level significantly. It implies that not only additional students and courses be engaged, but also that more academics are employed to fulfil these educational needs. Furthermore, postgraduate studies as well as instructed and research degrees have also been pursued and substantially expanded in the recent decade. In such circumstances, the academic standards and teaching standards have become the major challenge for the UGC, particularly in the current environment that is under a budgetary constraint. The UGC emphasises the importance of effective procedures to monitor teaching and learning quality and their cost-effectiveness in the provision of education. It considers that a general application of QA to all HEIs would not be possible and prefers that different
QA methods be adopted for particular situations. However, it also requires a broad engagement by external academic advisors, examiners, or assessors in the sense that they provide effective impact and control over the system. The 2000 policy objective for the expansion of the H.K. higher education system cannot be achieved without effective professional and intellectual development of faculty staff to cope with all the academic challenges. For individual academics in various institutions, professional training like consultancy work, editorial work, advanced scholarship, involvement in professional associations, and research and publication can be provided in different ways. These activities are also varied between study fields and specialisations. For instance, an academic teaching Architecture will be more focused in creative design, artistic works and qualitative appraisal; while the one teaching Chemistry will be more inclined to scientific judgement, experiments, and quantitative analysis.

2.6.2 Role and Accountability

The mass development of the higher education sector has destined that there be a move away from the more classical “elite” systems, although the aim of this shift should not be focused on merely the training and upgrading of a qualified workforce. Instead, it is believed there should be more focus on social skills as expected for the
social “elite”. Powar (2002a) states that during the 19th century, the development of science and the universities in England was resisted because it was deemed as utilitarian education. As a result, many famous universities in England, such as Cambridge and Oxford, did not take on research studies in natural sciences throughout the 19th century. In the past decades, higher education was primarily provided to civil servants in the public sector, and now there has been a shift toward substantially meeting the demands made by the private sector (Jackson, 1995). It seems that higher education may be a possible remedy for unhealthy economies. Such a belief appears to be prevalent in many countries; the population that proliferates the educational level on average seems to be one that declares that new businesses and products can be established based on capability of innovation and research.

The demand for accountability appears to be another current issue in most countries now. For example, McPherson and Shulenburger (2010) state that this issue often appears in relation to the increase in costs, since both the Government and the community pursue a reasonable price for higher education. A general comment made by Leveille (2006) asserts that the demand for accountability is a result of the norms of individuals and organisations and their beliefs, and he argues that such norms could be established, and frequently re-established, upon interacting between abstract
structures and actual situations. Kehm (2010) adds further that higher education possesses not any longer the luxury of adopting confined definitions of quality. This tendency also takes changes into account on the relationship between government officials who regulate the higher education system and the system itself. A tendency toward a reduced amount of regulation exists in many countries from those external agencies, while the autonomy on price increases by the HEIs has raised the pressures for increased accountability as claimed by Leveille (2006). Such demands probably appear reasonable, and while acknowledged by Seymour (1993), the external agencies stressing accountability cannot be presumed to be driven by selflessness, instead, basing quality upon self-interest, whether it is personal frustration, politics, self-aggrandisement or well-meaning oversight.

2.6.3 Privatisation

In the recent decade, the Hong Kong Government has devoted much effort to increase the education level and strengthen the society’s human capital. The Government has given heavy funding to operate a variety of continuing education programmes (Murray, 2000). Currently, 82% of undergraduate tuition is subsidised every year (Graham & Plumptre, 2000). However, the current funding system may not be
sustainable for future higher education development. There is a proposal now to cooperate with the private sector using private donations, financial support for tuition fees, or joint research work with private sectors in order to lower funding expenditures. With these external third-party payments, more resources can be allocated to popular courses to attract more students. The change will produce the quantity demanded for the courses and eventually lower the cost for tertiary students in accordance with the theory of the Law of Demand. As a consequence, Steane and Carroll (2000) affirm that privatisation in a way can enhance operation efficiency in higher education. Due to the current rising trend toward globalisation, there are ever-changing needs and ever-increasing demand for human capital in higher education, but another question still arises, namely how much will be the third-party payments and will they be enough to satisfy the needs of higher education? It is believed that ongoing study and research by both government officials and academics are necessary to solve these complicated economics questions effectively.

2.6.4 Information Technology

The objectives for the provision of higher education are fairly universal and will not be influenced by the impact of technological advancement and the increase of
availability of Internet global connections. Dempsey (2003) states that intellectual production appears as social work within a social institution. The Internet system can improve the university community as well as speed up knowledge discovery, and the Internet could displace personal human interaction. Such an idea facilitates the prospect already underpinned in the development of higher education. The Internet and other telecommunications innovations offer the opportunity of replacing the need to go to virtual campuses on the universities for education. A good example are the current award-bearing distance learning programmes. This technology development allows students to have Internet access and locate the best research in the world. For instance, a supporter stated recently in the Globewide Network Academy (via web GNA, http://www.gnacademy.org) that there are “much reasons for engaging GNA rests in believing the classical university structures is approaching to the final usefulness, whilst new structures would be demanded for educating the rising student numbers at reduced resources” (Heeks, 2003: 33).

This transformation in communication and thus education can be regarded as both an opportunity and a threat to the HEIs in Hong Kong. Hong Kong has its own excellent telecommunications infrastructure which provides opportunity for its universities and other educational institutions to take a leading role in developing on-line courses,
widening the campus’s physical boundaries, and overcoming Hong Kong’s territorial borders. In view of this opportunity, the UGC is committed to investing about HK$18,000,000 in the next three years to promote its academic as well as its research network, while also expanding the HEI individual library and communications networks, altogether formalizing and expanding telecommunications linkages lying outside Hong Kong’s boundaries, especially to Mainland China and America (Information Technology and Broadcasting Bureau, 2002).

A potential opportunity exists to render access to both institutions and students from Mainland China. However, a legitimate concern arises on whether these institutions might put more resources toward acquiring new students beyond Hong Kong and thus affect the quality education that is being provided to local students. It is believed that this concern would not actually happen. Such developments may bring on positive spin-offs for the experience of Hong Kong students too. In addition, the social and personal inter-connections among academic staff and students in a traditional built environment would not be superseded entirely by these electronic technologies. Thus local students would always benefit.

Nevertheless, many famous institutions in Western countries, such as the U.S. and UK
have long established distance education around the world. Can the institutions in Hong Kong then compete with these well-known institutions in the West? The answer may be ‘yes’, but doing so will require more resources to be invested in areas of excellence as they emerge in the HEIs in conjunction with development of flexibility and market awareness. Thus, when these opportunities arise, the institutions should respond quickly. However, the pace of progression of the Hong Kong education system is still lagging behind many countries in the West.

In fact, the QA mechanism of part-time programmes as well as short-term courses operated using non-traditional methods has created some concern for the public. Massy and French (1997) claim that where this teaching is provided by respected HEIs, the assurance level is secured for students. Yet such programmes could be increasingly offered by overseas institutions in Hong Kong via private local service providers, and their reputations and quality are uncertain. The Hong Kong Government has introduced Bills on Non-Local Higher and Professional Education (Regulation) where some measures of control are put in place over these activities. Nonetheless, given the limitations on controlling entities outside Hong Kong’s constitutional boundary, students should take all these factors into consideration when applying to such programmes and taking courses with all overseas institutions.
(Information Technology and Broadcasting Bureau, 2002). At present, there are various course offerings in H.K. The H.K. Council of Academic Accreditation does provide advisory services to help all prospective students determine the suitability of their choice of programmes.

On the other hand, the problems created by these “virtual campuses” are likely to be great and especially if they are established on an international level, the impact can be much greater as pointed out by Davis, Sauber and Edwards (2011). If a campus turns out to be an electronic metaphor that is housed in multiple institutions, important problems appear, such as who sets the standards? What kind of degree to offer? Who grants the degree? These can become very difficult to resolve. As indicated by Shilubane (2002), network access and electronic storage of library resources are important areas all educational institutions should focus on, particularly in terms of technological improvement. Moreover, the possibilities of leveraging costly academic time via the adoption of innovative technologies in teaching as well as learning would likely not be neglected.

Widespread expectations exist in all organisations, not merely in higher education sector. The arrival of sophisticated computing systems in education can probably
enhance production, productivity, and cost mitigation. As identified by Misnikov (2003), this change has yet happened in reality though. While the discussion of the paperless office is mainly a fantasy, so is the paperless classroom as well as the full virtual library. Moreover, to achieve the most effectiveness when applying information technology in HEIs, these changes require extensive input of resources, both initially and continuously, including manpower, time and effort.

### 2.7 Quality Approaches in Higher Education

Some approaches are used to ensure that the system of higher education performs at a satisfactory level. However, during these years, the QA of higher education has received considerable attention from various stakeholders with the outcome that substantial amounts of resources have already been spent on activities related to quality. In this study, three aspects of these activities have been elaborated on, i.e., QA, the system for assessment, and QM. These key terminologies are also often used to examine activities in business or industry. This discussion is based on taking the terms commonly utilized in business and transforming them to fit into the higher education sector.
2.7.1 Quality Assurance and An Assessment System

With the discussion of accountability as previously mentioned, QA is becoming an important activity related to the quality of the higher educational system. Lundquist (1996) affirms that the mechanisms that ensure the quality delivered in higher education are an inherent part of the system since their infancy. Although there are differentiations between the higher education systems internationally, there must be certain mechanisms and approaches for monitoring how quality can be assured and certifications issued, as well as other procedures that secure and support undertaking the system. One of the many problems to identify is the perspective of QA in that it contains multiple meanings. Frazer (1994) advocates using the following components of QA (see Table 2.7).

Table 2.7 QA components advocated by Frazer

<table>
<thead>
<tr>
<th>QA components from Frazer</th>
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<tbody>
<tr>
<td>• Each one in the organisation is responsible for sustaining the product or service quality.</td>
</tr>
<tr>
<td>• Each one in the organisation is also responsible for improving the product or service quality.</td>
</tr>
<tr>
<td>• Each one in the organisation understands, operates, and feels the “system ownership” the quality of which they try to sustain and improve.</td>
</tr>
<tr>
<td>• Management (and sometimes customers) checks the reliability and validity of the system regularly to ensure quality.</td>
</tr>
</tbody>
</table>

Due to the increased stress on accountability, a number of systems for assessing such
goals have been designed, including peer review, performance indicators, and internal
and external assessments, according to Freeman (1993), Pang (2000) and Noronha
(2002). These systems seem justifiable and measure the effectiveness within
organisations, although it is presumed that any educational institution should operate
in accordance with these standards in an efficient manner. There are also some
government agencies, mainly in Europe, that are responsible for monitoring these
assessments. Some of these examples are the Association of Universities in the
Netherlands, the Agency for Higher Education of Sweden, the Higher Education
Quality Council from the U.K. and the Higher Education Funding Council for
England. Mergen et al. (2000) indicate that the development of assessments with
greater emphasis place on them than before is because the “supervisory layers” of
demand rest outside higher education. Such development would obviously be
unfavourable in the higher education sector.

Assessment is highly associated with QA. The majority of the QA approaches are
based on certain mechanisms or measurements of some activities in the institutions
designated for assessment. Mukhopadhyay (2005) indicates that assessments should
comprise the following intentions (see Table 2.8):
Table 2.8 Assessment intentions from Mukhopadhyay

<table>
<thead>
<tr>
<th>Assessment intentions from Mukhopadhyay</th>
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<tbody>
<tr>
<td>• Check to see whether the specified requirements are fulfilled;</td>
</tr>
<tr>
<td>• Assess the system for the provision of products and services and confirm whether it is trustable; and</td>
</tr>
<tr>
<td>• Assess the characteristics of products or services and obtain</td>
</tr>
<tr>
<td>- a threshold for prioritisation of alternatives for improvement;</td>
</tr>
<tr>
<td>- a threshold for results evaluation pursuant to implementing the improvements.</td>
</tr>
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</table>

These intentions aim at assessing an institution’s activities from different aspects. Checking the requirements of the system may be the purpose of external interests, whereas performing assessment to find improvement potentials may be more of an internal motivation of the HEI. Thus, evaluation is based on certain requirements as defined by someone. Notice that “entity” in its comprehensive term as stated by Suganthi and Samuel (2004) is that which could be described and considered individually. For that reason, a common concept of entity can include products, activities, and organisations and thus would not bar an evaluation of just an internal or external investigation.

Other than assessment and quality evaluation, another measurement activity is the “quality audit”, which is systematic investigation in determining if quality activities and associated findings cope with pre-arrangements that executed effectively and appropriate for achieving objectives. This activity focuses on the alignment between
pre-arranged measures versus actual fulfillment of the plans. Moreover, it further concentrates on the procedures instead of actual results and is not that much concerned with the product requirements. Remarkably, the perception of “quality control” is worth more elaboration. As indicated by Costa (2010), quality control can simply imply product checking according to established standards. Thus, far more than “operational skills and activities adopted to satisfy quality requirements” is involved as previously discussed. The aim of this comparison should not contend that the definition used in higher education as suggested by Costa (2010) is incorrect. It is clear that Frazer’s definition could be used in a more general manner or at least be applied other than to just higher education.

2.7.2 Quality Assurance vs. An Assessment System

When designing the assessment systems, the fundamental perspectives of quality need to be identified, such as what should be assessed, by whom, and how. Another question can be, for example, whether the chosen assessment is recognised by an external or internal motive. Even if some critics emphasises that the aim of such activities of assessment is improvement, there appear to become potential differences between external- and internal-motivated assessments. In terms of an external motive,
assessment is often alleged as not being helpful to educational institutions.

Improvement may more likely occur subsequent to an assessment if the internal motive for it is clear. The concept of using assessment to find possible areas for improvement is comparable to the perspective of self-reflective assessment as suggested by Ash, Clayton and Atkinson (2005). However, external-motivated assessments may not be able to suggest that perspective as easy. One particular outcome is often the difficulties of association along with assessments and resources allocation. When the assessed results are to be adopted to make decisions on resources allocation, then presumably there can be a tendency to modify the criteria for assessment and the share of resources allocated will be maximised. The more important these assessment results are, then the less candour would be allowed. This approach may create distortion in the initial designated purpose of allocation and create a problem for the allocation of resources and also contrast with the internal motive of “self-reflection”.

Another common problem with the system of resources allocation is the type of feedback gathered. It is limited. One of the more workable approaches is to link “positive” feedback with good results to obtain a reward, and to the contrary, linking
bad results to no reward. Chapleo, Durán, and Díaz (2011) note that this process may help differentiate the good institutions from the less good ones, as the good ones can be associated with advantages and the other institutions with less good advantages. While “negative” feedback may imply that those resources can better be assigned to help develop and improve less good institutions, the author disagrees that doing so. It may lead to a situation of motivating mediocrity instead of excellence because an incentive for being good does not exist. Those assessments are questionable that are internal-motivated since the possibility of having these assessments may be perceived as irrelevant by many external agencies. Assessments based on internal motives may make any comparison between institutions more difficult.

In addition to the issues between external and internal motives, the question remains whether the measurement mode should rely on an external or an internal perspective. Bezuidenhout (2007) claims that it is becoming more common to adopt “peer review” as a measurement tool. This focus means that an institution may be assessed generally by peers, who have the capacity to measure the important activities of an institution. This ability may be determined based on a particular background, both from a related field of the institution or outside the institution. The most apparent merit of this tactic is the ability of an outsider to do an examination, as that may be able to reveal certain
aspects difficult to find using only internal perspectives. Since peers seem to be competent, these findings may be deemed to be more trustworthy if carried out by external agencies. A more difficult issue is the problem of subjectivity in any peer’s assessment. This aspect is acknowledged by Van der Vleuten et al. (2012), who believes that external investigations can be, to a larger extent, classified as dependent on the judgment of that peer.

To conclude, notwithstanding how such identified obstacles would be resolved, it is still not that clear what precisely should be gauged or measured in institutions. This problem is attributable to the difficulty in ascertaining what actually constitutes quality. Even if some aspects of measurement may be accepted as valid in general; for example, the best institution receives the best students (i.e. an input measurement), will the institution still nurture the top graduates (one output measurement), and train students with the greatest competencies. This question can be answered by referring to the deliberation of the Quality Award in higher education in the U.S as suggested by Seymour (1993). This method places more focus on the advantage of lining up processes with results instead of only the resources available. A probable outcome is evidenced by the “Inner City Technical College” which outscors the fully-funded and reputable institutions in the U.S.
To answer which institution is the best largely depends on what measurement criteria is set, and it is not easy to define a generally accepted set of criteria. The characteristics for process and control are obviously crucial (Harris & Sansom, 2001). They are, in fact, independent of one another. Below are related questions on how control and process link to assessments:

- How can the assessment process control best be weighed equally between academics and administrators?
- What type of process does it take to do assessments?
- Should the process of assessment be hooked to professional values or merely be a “bureaucratic exercise”?

Such questions on the aspects of assessment could be combined in a number of ways. In fact, for any assessment controlled by faculty, the net results would be retained by them instead of by the administrative staff; however, such an aspect is still able to achieve the “bureaucratic exercise”.

In summary, this chapter gives a framework in exploring the different constituents, current situation and quality approaches in the higher education of H.K. However,
this framework has no attempt to examine all its aspects, but rather to explore the
preliminary background of QM in the higher education sector. The implications from
Information Technology, privatisation, QA, assessment system, UGC and students
within the higher education have been discussed.

2.8 QM and TLQPRs in Higher Education

This section examines the principles of the quality movement (QM) and explores their
implications in higher education in the areas of administration and faculty
management in order to strengthen QM in higher education in the 21st century. The
analysis is based on the roles and responsibilities as well as the rules and regulations
of HEIs. Each aspect studied is focused on the positive and upward movement of
quality. It describes the implications not only for university administration and faculty
management, but also on their educational leadership practices. Moreover, it outlines
the fundamentals of quality in higher education that should serve as an ideological
framework for examining educational theory and education practices. The approaches
of QA and assessment, have been extensively adapted so as to examine the quality
present in the higher education sector. Nonetheless, they are also criticised for their
inappropriateness in these institutions. Tsinidou, Gerogiannis and Fitsilis (2010)
contend that institutions possess nothing to be scare of respective to quality evaluation systems except the skeptical reason being devised with extensive knowledge, such arrangements would seldom apply to them.

The advocates of the QM approach offer another critique against QA. These critics acknowledge QM as a measure for improvements, yet QM is still not coping with the current advocacy of quality assessment and assurance. Freeman and Kochan (2012) state that assessing methodology is a practice solely meant for education and evolved in the early 1980s to promote the accountability movement of schools in the US. It has been applied to colleagues and universities under a legislative mandate. However, there may be a serious weakness in the current applications of QA in these institutions. They recapitulate that unless such assessment can lead to summative design as well as improvement of principal academic processes, it is in genuine danger of leading to a decline in education. Becket and Brookes (2008) further assert that any assurance of quality only solicits short-term improvement for institutions and eventually truly endangers their quality.
QA and quality improvement have been widely interpreted by many scholars. Such overlapping does not appear to be very appropriate, however. In any organisation, assuring that a production system is trusted depends on its capacity to fulfil requirements as instructed, but for assurance sake, the system must necessarily also have the ability to defend flaws. In cases when a production system is described as trusted, improvements may be easier to achieve and there will not be as much confusion between the concepts. One should ask, when QA and assessment are not satisfactory in higher education, how can improvements be attained? Various proposed approaches for quality improvements have been described in the previous sections, for example, *Total Quality* (Boudjemaa, 2011; Jabbarifar, 2009); *Total Quality Care* (Barnett & Coate, 2005); as well as *Strategic Quality Management* and *Continuous Quality Improvement* (Rosa, Saraiva & Diz, 2005).

On the other hand, other academics have criticised QM as unfit and flawed to use to implement improvements or change in higher education and suggested alternative ways to gain improvements. For instance, Harvey (1995) advocates that QM has no new issues in higher education, the issue is about established procedures and responsibilities and suggests that the new approach should be to encourage a self-reflective collegialism and its development instead of importing bureaucratic,
expensive, alienating managerialist, and unwieldy approaches from industry (Harvey, 1995:88). Holmes and McElwee (1995) also agree that the criteria for QM only favours managerialism and is not appropriate for higher education; it also confines and restricts the productive activity of an individual. They recommend using “soft” rather than “hard” human resources management in conjunction with QM to achieve better cost effectiveness and more market-oriented goals. Nevertheless, the advocates of QM do try to use this concept and introduce the new “managerialist approaches”.

In fact, QM is an approach with sufficiently broad applicability for different measurements; this quality makes QM able to avoid the above-mentioned criticisms.

### 2.9 Roles of QM in Higher Education

If QM is a means to use to address improvement potential for organisations, as discussed previously, then what may one expect this approach to achieve in higher education? The common use of QM is (1) Teaching QM as a course in the curriculum; (2) using QM to improve teaching and research; and (3) using QM as a measure for developing a stronger organisation. QM can be introduced in the university curriculum and help promote the use of QM and its proven value in business. This
concept is also believed to be beneficial for both students and organisations. Students who become employees in organisations can deploy knowledge of QM in that business and eventually benefit these organisations (Evans, 1996). In fact, according to Dellana, Bass and Hebert (1998), QM is included in the curricula of many institutions and business schools. Administration faculties in general have a particular interest in sourcing out the waste that pervades individual and organisational work processes, including that teaching and research. They point out three probable instances where QM has been adopted to improve the teaching and learning quality:

a) It could help reduce the non-productive resources and time consumed by lecturers, and enable them to focus on teaching and research activities more efficiently, also see Tulsi (2001) and Moynihan et al. (2001);

b) Teaching effectiveness would be raised by concentrating more effort on the issues, such as student needs; and

c) QM’s core characteristic in teaching seeks to develop students with a self-reflective attitude – since that attitude is a fundamental element to achieve continuous improvements.
The primary administrative duties in higher education appear more or less similar to those in businesses or even the public sectors. Hence, some scholars, including Sahney, Karunes and Banwet (2010); Bell, Warwick and Kennedy (2009); as well as Becket and Brookes (2008) have used QM as a framework for examining the improvement potential in administrative areas.

2.10 Conceptual Framework for QM in Higher Education

Venkatraman (2007) opines that all organisations are comprehensively designed to pursue defined results. To obtain better results, system design has to be improved. As the fundamental principle of teaching and research is to equip most professions and disciplines, even mandatory educational systems, models, universities design, and leadership strategies, they all must optimise the resources entrusted to them. Thus, it is incumbent to meet their students’ needs as well as other public needs. To this end, HEI administration faculties are required to rework their roles, rules, and responsibilities. While there are many attempts to enhance HEI accountability through various measures such as productivity indicators and performance standards, numerous initiatives are performed more simplistically as functional components. Deming (1994) advocates that the aim of a system is key. Therefore, that aim must be
derived from the educational system, which is in agreement with the system’s mission.

An educational framework, on the one hand, could be interpreted as a university at large or a departmental entity; yet it would be defined operationally at other levels according to the actual conditions. In any case, the parameters of a system must be set clearly so as to concur a common understanding of all its components and achieve a better result. Educational leaders bring this objective in as the basic criterion, setting priorities and addressing critical processes for controlling the constituents of the system. System managers then consistently work on the interactive components that interrelate to each other to facilitate a common result. Hence, to have an efficient system, decisions regarding individual components cannot be made separately, and decisions can be different if the main purpose is to optimise all the individual parts.

2.10.1 Systems Thinking

To understand what systems thinking underlies, Mingers and White (2010) perceive system thinking as the basis for creating a healthy organisation as people in an organisation proactively react to problems. In recognising the importance of educational leaders for changing rules, roles, and responsibilities when managing
systems in their respective institutions, Mukhopadhyay (2005) identifies the following considerations for better management of educational systems (see Table 2.9).

**Table 2.9 Considerations from Mukhopadhyay**

<table>
<thead>
<tr>
<th>Considerations from Mukhopadhyay</th>
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<tbody>
<tr>
<td>● The inter-relationship between the components of a system has a greater influence than the parts working individually.</td>
</tr>
<tr>
<td>● Improving only a small part of the system without taking the whole system into account can produce disastrous results.</td>
</tr>
<tr>
<td>● Details that revert to the system can affect how that system performs.</td>
</tr>
<tr>
<td>● A system resists any component changes.</td>
</tr>
<tr>
<td>● The way a system responds to its problems hinges on that system’s initial design.</td>
</tr>
</tbody>
</table>

### 2.10.2 Rethinking of rules

The classical governing rules of leadership and learning restrict flexibility in terms of improving the effectiveness of learning, teaching, administration, and support systems. These rules bind most of the activities in higher education and have long been regarded as the standard to be followed by the HEIs. As Noronha (2002) points out, the values of QM signify the importance of change. Thus, if no one is going to change the rules, such as redesigning the educational systems and the processes, we all could expect the ongoing systems to persist and deliver similar performance and achievement in higher education. The underlying importance is to shift the traditional
thought from historical test results and other indicators to processes that can lead the way to achieve continuous improvement. As urged by Robert (1995), if an institution cannot be assessed, results can hardly change. If one disregards the significance of the processes, those determining results simply have the ability to motivate students or employees. Thus, no one should assume that the design of a system is simple; it requires a lot of interactions between the individuals and the system. Consequently, the primary methodology for improvement to happen is designing and redesigning educational systems and processes as stressed by Sutherland (2002). That continuous improvement of techniques and tools are the subsequent approaches to use to analyse educational processes in the system for further improvement.

The QM philosophy offers an all-round framework that fosters continuing quality improvement in the organisation. The principal distinction between QM and the classical methods for improvement again relates to capacity for designing the system. Tam (2000a) states that improvement strategies and efforts under the traditional rules just seem to be offering a cafeteria-style education to HEIs. These individual educationalists only pick and choose what they believe to be appropriate to satisfy educational hungers. However, in fact, these educational hungers are just satisfied temporarily. In many cases, they come back and demand more since the cafeteria
offerings are not a balanced meal, but was rooted in the system’s perception of nutritional needs (i.e. the students hunger). The majority attempts addressing improvement efforts adhere to traditional theories and rules, which only focus on the symptoms of the problem. In consequence, the root causes that hide in the system do not appear and do not foster further process improvement. There is the need for understanding the difference between general and special causations in each system or process. General and special causes, as mentioned, are a result of variation in the process or system. Lemke and Sabelli (2008) identify two types of variation in the process:

(1) A variation caused by the system

For instance, there is outdated information for policies and budgets or an unfit organisational structure and long standing practices. Other examples such as the design of curriculum, requirements and procedures, both externally and internally, have not been updated to meet current needs.

(2) A variation generated by special causes

Such causes are normally created beyond the control of the system itself. For example, there can be a student’s own health condition or psychological reason for failure or having difficulty.
From a somewhat related, but different, perspective, Dempsey (2003) proposes either generic or unique types of decision-making as an approach. Generic decisions refer to the application of practices based on the routine policies and procedures and normally involves fewer risks. However, that does not mean generic decisions are unimportant; in fact they can provide a measurement for administrators to use to allocate appropriate time and resources when making decisions. Alternatively, unique decisions involve thinking and action well behind the established framework and often involve a substantial amount of risk. In the case of unique decision-making, administrators are required to exercise their judgement by taking possible alternatives into account and evaluating the potential implications, results, and costs of those alternatives.

Evans (1996) stresses that in reality a completely unique event is uncommon. However, it is important to distinguish between whether there is a routine problem or a unique problem in the decision-making process and points out two common errors that administrators have to avoid: (1) tackling a normal situation assuming it to be a set of unique events; and (2) applying old procedures apply to a new event assuming it is another old problem” (p.323)
The above two circumstances shed further light on the educational leaders if they fail to identify the difference between general and specific causes. Inevitably, when a special cause is mistakenly handled as a common cause that is believed to be part of the system’s production, then the decisions relied upon for such an error worsen the situation. Through more awareness of the cause of the problems stemming from system design (e.g., administrative, educational, or other supporting system), correct measures can then be put in place to reduce unnecessary stress on accountability for the system error among educators and administrators. In this way, stakeholders, such as educators, administrators and students, who are involved in the decision-making in the design of the system can be held accountable subsequently for the quality processes that they do control.

Generally, the traditional rules of educational leadership emphasise the number of errors or problems that occur in the educational process and find ways to trim possible problems in the future. However, these were ended without any direct or genuine causality. Traditionally, educational leaders engaged in the teaching processes or higher education management hardly ever recognise all variables of a problem and its
associated results. It is also impossible for them to consider the interdependent relationship between all the variables. Just like a researcher, that person may engage in relevant scientific methodology within laboratory conditions for studies; and yet when out of the lab, little attention is given to the same data-driven mechanics by which these data can have great impact on management and their own/established teaching practices.

Moreover, classical educational leaders often do not differentiate well between general and special cause variants. Through understanding the problems that do lie in between and the fully capability of the educational process, both academics and students can then develop a sense of control for the relationship between the system, individual responsibility, and the results. From there, faculty, administrators, and students do not need to worry about accountability for something seen as outside their control (Lunquist, 1997). In addition, it can help them to understand special the precautions that should be taken when designing the systems and processes because uncertainties would affect individual performance in the system. By understanding how the behaviour of the system relates to its improvement would affirm an appreciation of accountability, and it is not there when one cannot control improvement. This concept, as applied by educational leaders, academic and
administrative staff, deems revisiting the fundamentals based on: 1) how educational leaders accomplish their roles and responsibilities, 2) how academics value their respective students, and 3) in what way should individuals design and manage their systems. The administration and faculty of HEIs must recognise these variations in conjunction with the use of statistical analysis and then incorporate the findings and true causality into their particular management, learning, and teaching systems and their education and administration curricula.

With an understanding of the importance of cause variants in systems in process design, educational leaders began to realize that the implementation of QM in higher education is meaningful because assessment is relying on cooperative development with mutual awareness of established criteria (Power, 2002a). To a large extent, standardised testing procedures and result-oriented assessments dominate and play an efficient role to see how a system is performing. It performs better when the rule is adjusted to use results as the indicator rather than only measure the good or bad of the individual employee or student. Ideally, these tested results will then be used to improve administrative, educational, and other supporting processes. However, as pointed out by Powar (2002b), the results used in ways that related to the existing rules for faculty, administration, and students only focus on the performance and
remedies of the individuals rather than being used to improve and understand the system. Venkatraman (2007) found that 80% of the problems can attribute to failure of system management, while just 20% are caused by human error in the control process. There is a crucial correlation between individual performance and the design process. Individual performance can be either enhanced or restricted according to the design of the process. To an extent, when administrators, academics, and students are actively involved in the design of related educational processes, it is believed that such processes will maximise the potential for individuals to do well. To another extent, where the design of processes do not involve the full participation of staff and students, then the processes are likely to be poorly designed, and individual performance will be sub-optimised even though efforts have been undertaken.

Leaders and managers at any level in higher education are required to understand and employ new ways to optimise the utilisation of data and options when making decisions. This process includes the causes of variations and statistical controls, as previously discussed. However, Sutherland (2002) argues that while traditional educational leadership relies mainly on the norm-based statistical findings and student assessments, such as tests graded on a curve and standardised achievement tests, for decision-making, QM also relies on the proper interpretation of these statistics to
analyse the system. Such statistical results must be accurately understood to maximise efficiency. Moreover, by understanding the system and redesigning as well as improving the processes, it is believed that institutional performance and student achievement can be enhanced and thus attributable to improved processes.

Alternatively, Tam (2000b) highlights another aspect in higher education that also requires rethinking, forced competition. Nowadays, competition within the learning environment is fierce; by understanding the changes and effects of forced competition, HEIs can recognise how these concepts can contribute to future improvements. Kohn (1992: 1999) claims that coerced competition produces two situations - win or lose for organisations and individuals, but it does not optimise performance achievement of an organisation or an individual. In fact, it is possible to berate students and redo the test; however, the “winner and loser” problem still remains. Those students below the median are regarded as failures. Forced competition in a competitive learning environment with similar scenarios in education carries empty positive value. Instead, it renders individuals away from involvement in system design and even destroys self-esteem. To achieve optimisation in educational systems requires all components of the system to cooperate together rather than being competitive to each other. Thus, HEIs must redirect the strategies of management, for teaching as well as learning, to lessen
the adverse effect of forced competition and lay greater emphasis on collaboration and cooperation between HEIs.

Tam (2000a) asserts that cooperative learning creates positive impact on self-esteem.

Similar to Sims and Sims (1995) and the literature review of their report on comparing the cooperative and competitive methodologies on self-esteem, 81 studies have showed improvement in self-esteem in cooperative environments, whereas only one study showed improvement in a competitive environment. Shoval and Shulruf (2011) and Kumar (2009) further reveal that cooperative learning benefits children when getting along with other folks favourably and that helps create friendship among children with cross-cultural backgrounds. In addition, it enhances acceptance and sympathy for students with disabilities and greater reception of different opinions. The authors further state that “collaboration appears to advance better relationships upon absence of inter-group competition.” (p.22).

According to research conducted by Seymour (1993) from 369 meta-analysis researches of 1989 that examined the possibility of task achievement in competitive, cooperative, or independent situations, 87% of the studies confirmed the situation where cooperation produced better results than competition, or as he says “work
together in pursuing a common target generates greater attainment and productivity than work separately would be so well affirmed by substantial research one strong rationale of organizational and social psychology.” (p.40). The above implication clearly convinced educational leaders of the importance of collaborative management as well as cooperative teaching and learning techniques. Moreover, the result tells them which methodologies to adopt for instructional programmes throughout institutions. Lundquist (1997) presumes that intellectual growth is primarily connected to “inter-personal activities with fellow students or faculty members, built around substantive academic work.” (p.64-65). In his studies, which interviewed 570 undergraduates, the findings showed that many students who were not taking science classes did not just because of the workload; it was the fear of grade competition. Lundquist (1997) recommends the formation of study groups to help solve these problems. It again notifies the leaders and managers that they should take this fact into consideration when designing learning systems and improve learning experiences to uplift student achievements and the self-esteem to achieve.

To create a quality institution, a large effort should be put on the ability of leaders to provide a learning environment associated with intrinsic motivation. The recognition of achievement in the traditional educational system is based on short-term goals and
rewards, which do not create a sense of commitment to improving quality. Kaech (2008) suggests that the use of extrinsic motivators, such as grades, would be more powerful, as “extrinsic inducements all the time work more promptly with greater power than intrinsic ones. Students would be motivated to learn anything in lost cases if given an adequate external reward... In contrast, intrinsic interests are less effective to motivate new behaviour, yet they are always more lasting when they take hold” (p. 138).

Further, Sitkin et al. (1994) in their research particularly focus on students, and their results reveal that competition is an external motivation outside a person’s control. Together with the reduction of self-esteem, Sitkin et al. (1994) assert that such a locus of control comes from outside to inhibit performance. Moreover, they assume that students normally will “make meaning” of the context provided in their learning experience; however, conflict between interpretations requires help for students when understanding the learning process and a way to “make learning” experienced and shared in the classroom and spread throughout the institution. A number of studies have validated students and able to “make meaning” as well, for example, Becket and Brookes (2008). Students could “make meaning” with greater achievement once learning experiences stimulated the embedded curiosity in challenge, while not
relying on extrinsic motivators. Hence, there is a significant connection to the learning environments, intrinsic motivation, and the ability to implement these strategies effectively to foster both student development and achievement.

2.10.3 Rethinking of Roles

Subsequent to the change in rules, a drastic change in the roles of faculty, administrators, and other staff will take place. As explained by Gelders et al. (1995), the primary change for faculty and administrators is the move from traditionally “managing individuals” to managing educational systems along with their processes – to enable every individual to be responsible for individual professional development and coping with his knowledge, experience, and skills. To achieve this goal, great effort has to be put on the rethinking of rules as discussed in Section 4.3.2. It includes an understanding of systems, identifying variations, establishing a cooperative, not competitive, learning environment and creating an environment that can foster intrinsic motivation from students rather than discourage them with only short-term rewards and goals.
Managing individuals suggests the control of environment and the action of others who are opposed to developing intrinsic motivation. It does not understand the ability of educational systems nor the way they can enhance or limit one’s performance, thus ignoring the importance of differentiating between common and special causes (Reid, 2006). Managing individuals also proposes the creation of a competitive win-lose situation that is results oriented and disregards the implication of a cooperative working environment when designing the processes. On the other hand, managing systems helps create an educational environment where students can actively participate in planning and engage in the learning processes. Students in this environment will develop their own sense of responsibility and commitment to their own learning. Managing systems also suggests there is an understanding of the interdependence between all parts of the educational system and using such understanding to manage cause variants.

In an educational environment having quality, the roles of a faculty and administrators is to manage their own systems – be they educational, administrative, departmental or supportive – and constantly improve the systems to enable faculty to administer its own respective systems as facilitators in the learning process (Heeks, 2003). The student role is to develop and become self-directed learners – be responsible for their
own learning. Such learning processes will increase enjoyment and develop achievement since students have created their own commitment through their intrinsic motivation. They also have the opportunity to cooperate and work together in an environment that is challenging, but also meaningful.

In revisiting these roles, the study realises that faculty, administrators, and students working individually cannot cope with the challenges and cannot achieve quality without relying on teamwork. According to Franz (2008), the challenges that HEIs are facing, such as technological changes, demographic changes, limited resources, environmental forces and complex constituent needs, all demand a type of creativity and responsiveness as well as integration of services and disciplines. Quality is created through the coordination of all individual performances. Thus, working in teams can help bridge gaps effectively. Kull and Narasimhan (2010) assert that teams often perform better than individuals do, more than ever whenever performance requires multiple skills and judgment.

Awareness of management and the dynamics of human relations that create collaboration and trust in classrooms, departments, and institutions are one of the significant leadership roles for educational leaders as well as faculty and
administrators. This change of roles in management and leadership styles and skills will become a model for students who want to showcase them after graduation. The development of leadership qualities does not happen without learning and understanding. Hence, faculty administrations need to provide opportunities and options for student, so they can experience and learn these critical skills for continuous improvement. In fact, educational leaders must develop and become effective system thinkers since their fundamental roles are to manage and design systems that are accountable in terms of meeting the genuine needs of their constituents. In a quality educational system, educational leaders apply their understanding of quality system to redesign the institutional processes and relationships to let students and faculty experience the role of leaders. In this way, such a system toward a collaborative developed aim creates a truly trusted system.

Franz (2008) concludes that working with the systems as a whole rather than its individual parts requires significant change in the roles of all staff at different levels when designing the approaches and processes to achieve quality in higher education.

2.10.4 Rethinking of Responsibilities
The environment sanctions all organisations where they exist. If an organisation does not fit into that environment, it cannot survive. Educational leaders should take on the responsibility to align HEIs with their particular environments as well as the environments where their graduates will work later. Moreover, educational leaders and management at all levels should also establish close relationships with their customers or other constituents to understand their needs and their expectations. If they do not know what the customer needs, no quality can be provided. They also face different customers and constituents, and hence it is crucial for leaders to improve and evaluate all processes effectively based on a shared understanding with their “customers” at any given stage of the process (Taylor & Wilding, 2009).

To define client needs is not easy, and targeted customers have to be established specifically, and their particular requirements must be understood clearly throughout the context of the improvement processes. Accordingly, academic programmes must reflect all these environmental concerns and equip students with appropriate knowledge and skills to interact with different environments and continue striving for development. In fact, this concern is well addressed toward the principle of QM, which aims to achieve the satisfaction of customers and other constituents on one level. On the higher level, this concern points out the issue of complexity in this
ever-changing world and thus heavily requests HEIs for building knowledge of the changes and sensitivity to the environments in academic as well as student development programmes. In this new 21st century, designing systems and processes to address client and constituent needs must remain as the only and most efficient way for HEIs to achieve QM. System design is no longer applicable in conjunction with faculty preferences or institutional and programmatic decisions that educational leaders should be understand.

Revisiting the responsibilities of mission concentrates on the question – whether the HEI mission should prepare students to adapt to the current systems or equip students to manage, design, and redesign these same systems effectively in the future. Horine and Hailey (1995) already assert that the latter purpose will bring challenges to the HEIs with further questions on the fundamental values of an educational institution, the design of curricula, and the academic programmes and teaching and learning methods found in HEIs for decades. Also, it is true that now, many issues are still under discussion or simply left unknown. For most HEIs, current curricula are a collection of constituents. In most cases, students can integrate these constituents effectively and express them in a meaningful way. It may be possible, however, only when curricula are designed and courses and experiences are taught individually, or
where faculty departments have not developed systems for curriculum development.

Confronting these complex issues in educational environments, increasing expectations and limited resources nowadays, educational leaders, faculty, and administrators must face the challenges ahead and grasp opportunities rather than simply utilize the past data and experience to have effective learning and processes take place. In summary, to achieve the best future development, it is important to rely on collaboration and understanding throughout these institutions at every level so as to move from traditions to rethinking the rules, roles, and responsibilities of each constituent.

2.11 Tools and Methods for QM

There are many tools and methods commonly adopted for designing quality improvement. However, a number of them developed were not intended quality matters. Since their extensive use is on quality improvement, they are always termed to be “quality tools” or “QM tools”. Various methods have been justified as effective for data collection and analysis, formulating problems, and evaluating solutions. Massy and French’s (1997) “7 Quality Control tools” have been repeatedly used by
many authors. These tools are particularly useful when dealing with certain well-defined problems and concentrating on numerical techniques. Another set of tools that originated in Japan is called “7 Management tools” as labelled by Mergen, et al. (2000). They are intended to tackle less structured problems relying on verbal information. These tool boxes are widely accepted by various scholars, but the tools may differ, for example, those of Suganthi and Samuel (2004).

With reference to the criteria for quality awards, one method aimed at motivating self-reflection directly is self-assessment. Self-assessment is an instrument for an organisation to assess and evaluate its capability to develop in both a continuous and a systematic manner. There are many renowned quality awards globally, for instance, the European Quality Award (Conti, 2007; Ascigil, 2010), the Swedish Quality Award (Palmberg & Rickard, 2006; Lagrosen & Lagrosen, 2005), and the National Quality Award in America (Lee, Zuckweiler & Trimi, 2006; Godfrey, 2012). Quality costing appears common in many industries and businesses, while also recognised as another assessment tool. In general, higher quality brings on higher costs. Capaldi and Abbey (2011); Daniel, Kanwar and Uvalic-Trumbic (2009) as well as Shah (2009) have used such costing exercises in higher education. Cost measurements are based on models that can be identified as financial measures and certain process measures.
A detailed deliberation of these models and their application in higher education is provided in their researches.

Tierney (2006) defines the methodical study of learning and teaching as “classroom research”. The teachers in the classroom through observation, design of experiments, and collection of feedback, can understand how students learn and respond to specific teaching approaches. In fact, feedback from students is the primary principle of such classroom research. Traditional classroom feedback tools, such as examinations, quizzes and papers, would hardly meet this criterion. However, these traditional devices can be more QM look-a-likes if they are well managed per the quality principles. A principal finding from the Harvard Assessment Seminars as observed by Box (1997) on the key characteristics of highly respected programmes illustrates the main principles of QM regarding traditional feedback devices. The formation of quality teams allows students to meet with teachers regularly. A university-wide circle at Petra Christian University in Indonesia (PCU) is the “Teaching Excellence Circle”. As noted by Dempsey (2003), this circle focuses on a bigger model for the teaching and learning processes. It initially was a two-day seminar for new lecturers, but later became a week or more seminar and workshop. While the biggest seminar is held in February, other seminars and workshops are held four times a year and continually.
Some scholars state that total quality has been replaced by reengineering, which is a limited, incremental, and continuous improvement of the existing processes. This idea claims to be one of the most efficient approaches to cope with dramatic changes in today’s world. However, Mukhopadhyay (2005) has remarked that reengineering actually is nothing but innovation, in addition to continuous improvement, used as a way to maintain and achieve total quality. Therefore, total quality and reengineering are two concepts of the same approach – reengineering refers to the method, and total quality is the objective.

2.12 Prevalence of QM

Some studies have applied the QM approach to higher education, e.g. O’Mahony and Garavan (2012), Harvey and Williams (2010) and Redmond et al. (2008). One of the typical researches was conducted by Cornesky et al. (2002) who examined 22 colleges and universities in the US on their adoption of QM approaches. From the study, they indicated that the leading institutions in this research demonstrate plenty
healthful benefits which have been evolved through a QM approach. Cornesky et al. (2002) also point out that:

- Only a few cases in which whole universities have taken QM approaches. Among these, it is more common in smaller schools.
- QM has been normally used to improve quality in sub-units, such as support functions in administration, libraries, or similar entities.
- The most prevalent use of QM in the academic area occurs in business studies, engineering, and furthering education.

While the development of QM has an established long history, less attention has been placed on higher education in other countries. Quality improvement comprises change, and changes are rarely simple and smooth. As a result, during the process of adopting QM, problems and obstacles are expected. Although the benefits that derive from QM approach have been widely recognised, difficulties are still reported by some organisations. Seymour (1993) reports on “hurdles” and “hurdle-clearing strategies” and different level of hurdles. His findings show that most of the hurdles expected are believed to exist in many similar organisation types, such as low commitment from leaders, time constraints, scepticism, and indefinite results. Some other hurdles are found in particular non-business organisations, for example, the difficulties in
maintaining consensus and acceptance of the same language within whole
organisations. Other QM problems are perceived in higher education too. In Horine
and Hailey’s study (1995), the following problematic aspects were found (see Table
2.10):

**Table 2.10 Problematic aspects from Horine and Hailey**

<table>
<thead>
<tr>
<th>Problematic aspects from Horine and Hailey</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Organisational culture – often entrenched with long established characteristics and an aversion to change, also scepticism on the requirements for QM.</td>
</tr>
<tr>
<td>• Low- level commitment from senior leaders.</td>
</tr>
<tr>
<td>• Low- level faculty support, such as resistance, apathy, and scepticism.</td>
</tr>
<tr>
<td>• Insufficient devotion of time – staff members have experienced high workloads.</td>
</tr>
<tr>
<td>• Lack of training – implementation of QM requires substantial training and education for all levels of employees.</td>
</tr>
</tbody>
</table>

To recap, QM emphasises the importance of identifying customer needs; one query
thus arises from the definition of the student’s role: Is a student a customer?

- **Yes, a student is a customer.**

A customer is generally defined as a purchaser or user of a product (or a service). A student attends lectures, lives in a dormitory, consumes meals, and uses many
facilities and library services as he/she pays tuition and other fees. In this sense, a student surely fits the definition of a customer. A student pays tuition for a professor’s lecture and can expect something of value for that money in return, such as expertise, relevant content, a reasonable learning environment, accessibility, and fairness of evaluation (Powar, 2002a). An “external” customer also has the right to choose a supplier or a service provider. However, that is not the case for an “internal” customer in education because there is not always such a choice of options. The lack of competition in higher education often creates aversion toward internal customers (Powar, 2002a).

- No, a student is a product.

The perception of the student as a customer conflicts with the paternalistic belief that has prevailed for too long. According to Cross (1996), professors consider themselves as the only ones capable of judging what valuable knowledge is suitable for students in due course, and students seldom know what they actually need. Academics refuse to use the term “customer” to describe the student’s role in higher education, as they suppose that it signals their agreement on the belief in the business setting that the
“customer is always right”. Thus, when discussing quality that focuses on customer satisfaction – fulfilment of personal wants – under this ambiguity, universities are unable to offer a learning environment that can foster both student development and achievement. Thus, academics prefer to define a student as a product, not a customer.

- The Student is a customer as well as a co-producer

If a student is a customer; then teachers’ customers are students. Since students not only pay for their education as customers do; they also take on an important role to participate in classes. Thus, they are also the “co-producers” of the learning environment. To review this point carefully, it is evident that students should not be a product. The real product in higher education should be the “learning of students” (Doherty, 1993). Thus, it is also true to say that the outcome of education is that same learning. Learning is always a team effort between professors and students. They jointly produce a product – the student learning. They jointly participate in a process to produce a product. Broadly speaking, many constituencies, such as students, parents, faculty, and the community as a whole, jointly participate in this process to produce a product called higher education for students.
A professor, as the producer of education, with both expertise and experience, develops the learning plan of a course; whereas the student, as a customer and co-producer, focuses on the learning process. An interesting assumption made by the author is when faculty members regard students as customers, they normally will be more willing to improve the learning process, be more friendly and more accessible to the students. And if professors view students as co-producers, they normally will place a high demand for academic quality given to students to ensure the learning excellence of the students and create a favourable learning environment for them.

According to Pang (2000), students in education institutions should become the focus, learning effectiveness should become the concern, and assessment should become the measure for educators at every level to gain feedback on what is need and how it can be improved. By adapting continuous QM, a university or college will seek ways to improve the quality for what it delivers. The ultimate target is to increase learning effectiveness in classrooms for greater student development (Pang, 2000).

Taylor and Wilding (2009) found three common threads of the experience when adopting QM in six U.S. institutions. They were continuous quality improvement,
combined active learning, and teaming. All six institutions addressed classroom assessment as a major consideration. This focus becomes ever more important as students in a classroom vary in backgrounds, experiences, and career objectives. Merely checking the finished product cannot prevent defects that may exist. The cost of defects in education is not retrievable. This situation is parallel to what happened during industrialization in the pre-Shewhart days. At that time, quality was maintained by sampling. Products that pass the inspection are graded acceptable, and those that cannot pass are rejected totally. In businesses or a society, no one can afford such a wasteful model (Ramsden, 1994). Thus, the concepts of assessment and accountability must move from business processes to educational processes and data collected in each process must be used for making management decisions more accurately (Taylor & Wilding, 2009).

2.13 Adaptability of QM strategy to Higher Education

As described in Chapter II, various authors have formulated a variety of QM frameworks. They believe these frameworks are not only suitable for industrial contexts, but also substantial for the development of organisations of a different
nature. It matters “to what extent the contemporary managerial practice can exhibit the success of QM strategy?” To provide grounds for good deliberation, the characteristics of a QM strategy as identified in Section 2.3 are applied below and concentrate on a focus on customers, processes and continuous quality improvement. These elements are considered the fundamentals of QM because they seem to exist in most organised activities. Although there is a possibility where employees carrying out a particular activity do not address the needs of customers well enough, the activity itself does not organise well as a process, and there may be no concern for improvement at all. Focus on customers, processes, and continuous improvements are in essence the key drivers for “change” of an organisation. They collaborate as a way to manage “change” in its entirety. These elements also have explicit impacts and repercussions for teaching and learning in higher education.

2.13.1 Focus On Customers

Customers in education are not clearly defined, and this inherent difficulty seems to be generally accepted. However, a customer is interpreted as the “recipient of a product offered by the supplier”, and in this sense, customers do exist in higher education, at least students do. One possible reason for the lack of agreement on the
concept of a customer is because that concept highly relates to the commercial sense. However, the relationship between a teacher and student is far more than a business relationship; it involves caring, motivation, support, and guidance. All these characteristics are the fundamental elements for quality as well as continuous quality improvement. In respect of customer needs, they are always necessary to be founded on some perception of how customers are truly perceived. Students are obviously customers; however, alumni, future employers, or in a broader perspective, the whole community could also be customers of the HEIs. In this way, teachers are the ones who satisfy expectations from a unique group of customers.

As Powar (2002a) urges, it is rather a question of identifying what customers really need, reconciling those needs that have conflicts, and considering how they can be addressed. These questions are indeed not easy to tackle. A similar view was espoused by Chan, Chan & Ip (2006), who highlight the need for linking customer needs when designing course programmes. For instance, the design of a curriculum is based on the needs of future employers in production or operations management by using the Quality Function Deployment (QFD) approach – a method of transforming user requirements into the design of a quality curriculum. On the other hand, it is also possible in some situations where teachers are regarded as customers. For example,
when students submit written essays to teachers, those who want to higher marks are required to fulfil specific requirements as specified by the teachers. Thus, from this perspective, defining a customer in higher education rests on the need that one is fulfilling with that education. Furthermore, Noronha (2002) stresses that care should be taken when considering needs that one is receiving because doing so may end in reducing delays and corrections that may help reduce costs and save time.

In fact, customer needs have a great influence in the educational setting. In most cases, they affect the design of curriculum and programme for desired outcomes, student achievements and resource allocations, such as a teaching force, facilities, and other support services. Thus, the main distinction in deploying QM in education is its ability to transform customer needs into effective delivery systems by integrating all curriculum activities in an organised manner.

2.13.2 Focus on Processes

When individuals focus on processes, they recognise the importance of the customer-supplier relationships and the movement of elements or activities in the process overall. In general, it is believed that higher education does not much focus on
processes. For example, in educational activities, a student studies several courses in a single semester; these courses are based on the design of the programme and each student has freedom of choice regarding those courses. Regardless of who decides the number of choices for courses in the programme and their sequence of study, the course itself normally has no indication for the educational process. The number of credits given to courses is independent for each course. Although higher education advocates a degree of independence between institutions and faculties, the result seems to a large extent to support the integration of learning and knowledge development which also requires the integration of educational activities into the actual learning processes (Barber, 2012; Jackson et al., 2009).

Educational process is a cluster of activities and resources that are interrelated and convert inputs into outputs (Pang, 2000). To illustrate, “input” is a student’s competence, together with learning “activities”, such as teaching and course assessment, as well as “resources”, which include consultation and library services provided. The “output” results in the enhancement of the student’s competence. These processes usually involve the design of a curriculum. The individual courses that make up a programme are often interrelated and total study time is substantial. The desired outcomes, including student achievements and effectiveness, are important
elements in the educational processes and require considerable attention in particular from the QM perspective.

In industries, the purpose of enhancing processes of an organisation in most cases is to achieve efficiency in terms of both costs and time. As further asserted by Roberts (1995), QM processes in education can root out unwanted waste in teaching and research. Such waste include process faults and factual errors that block the potential benefits gained from total quality. There is also a direct association between the needs of customers and the orientation of processes. As discussed, the customer-supplier relationship is fundamental to any process. It is thus necessary to encourage students to embrace that very relationship. An attempt to motivate students to participate actively in the process is crucial since student competences and achievements are always the desirable outcomes of the educational process in higher education.

2.13.3 **Focus On Continuous Quality Improvement**

Establishment of the educational system has gone through a number of decisions and considerations, and thus it cannot be changed easily and many inherent characteristics do remain. Such stability may be regarded as an obstacle that hinders any feasibility
to gain further improvement. This rigidity exists at different levels that range from addressing individuals to organisational structure. To this end, Matthews (2011) opines that tremendous critical thinking is needed to learn about evaluating objective evidences, and yet minimal attention is given to creative thinking when developing intuition capacity and liberating creative thought to investigate the not-yet-known.

The world is ever changing, and so are customer needs. However, there seem to be organisations that cannot adapt to these changes easily or respond to them quickly. Many simply surrender to the changes.

The concept of QM assumes that changes should be managed rather than solved.

There must be ways to address these needs more efficiently – and that goal has become an integral constituent of QM, which always emphasises continuous improvements. In addition, Franz (2008) indicates if improvement is carried out in a systematic way, it can bring a new cycle of planning (i.e. strategic planning), acting (i.e. execution of the strategic plan), observing (i.e. appraisal of the action) and reflecting (i.e. results of the appraisal) and improvement in an ongoing basis. Among these four activities, learning appears to be an essential at all stages, especially the planning and reflection stages. This view echoes Box (1997) who explains the implication of the relationship between learning and improvement. The author
suggests that quality practitioners can accomplish never-ending improvement as long as democratisation and institutionalisation are adopted into the system, and learning plays a significant role throughout all processes. Box’s statement also underscores the fundamental factor that facilitates continuous improvement – commitment. QM aims to make changes happen from everyday activities rather than simply resolve changes being caused. Emphasis of continuous quality improvement is of great importance to many organisations, and evidently encompasses higher education.

The engagement of QM in higher education may bring on favourable effects on teaching quality and organisational development. There also is a direct linkage to the cycle of improvement associated with learning. On the other hand, self- reflection is an essential element for creating “professional competence” of students. As explained by Dickie and Jay (2010), an explicit attempt at continuous improvement, for example in learning, may be achieved by students’ active participation in classrooms and having them discuss their efforts openly. Such discussions should not be measured by grades; self-reflection should be encouraged in place of any study efforts to gain future benefits. This approach to improvement may be one way to motivate students to achieve desirable self- reflective outcomes.
2.13.4 Focus on the Holistic Approach

To involve everyone in an organisation and commit to a mission is easier said than done, due to differences in background, beliefs, and agenda. However, generally speaking, commitment seems not to be a problematic issue in higher education because individuals who actively participate in research or teaching often devote a large amount of time and effort to their work. Nevertheless, Venkatraman (2007) points out those individuals are loyal to their own specialty, but neither to the organisation nor its goals. Seymour (1993), an advocate of strategic QM, asserts that the issue to address then appears to keep the strengths of a loose system while moving toward ways or methodologies to ameliorate the difficulties found in coordination and innovation. Mergen et al. (2000) highlight the complexity of power diffusion in higher education. Various parties are involved in the different levels of decision-making, and even though they are based on facts, divergences in perspectives make decisions that are not likely to achieve consensus. This perspective is evidently connected to the focus on process. Creating a holistic view when designing systems is of great importance. Yet again, to create such a holistic view on a system in higher education is never easy because of the inflexible organisational structure and ambiguous mission that exist within the basic educational school of thought.
2.13.5 Summary

Today there is still no prevailing view in higher education that says to adopt QM for quality improvement when compared to the response in business organisations. Such institutions always claim to encounter different levels of difficulties, some rather general which can be solved via communications and training, while others are more dependent on collaboration. QM offers insight into the entire organisational change that varies with other practices; nevertheless, QM must not be excluded from questions. This view does not imply that QM is irrelevant or inappropriate for higher education. As Shilubane (2002) asserts, there are cases reported in higher education that range from support activities, courses, and projects to whole institutions where QM has been adopted and shown positive results. Even though QM cannot be proven to be relevant in all situations, it still arouses in organisations the need for change and continuous improvement in education.

The common approach of work systems on quality generally emphasise QA or assessment instead of quality improvement. One may ask is quality improvement
more difficult to work with than QA or assessment? One possible answer from Roberts (1995) is that assurance and assessment can indeed be administered – a programme can be designed to administer an assessment system. However, quality improvement is something that cannot be administered in the same manner as assurance and assessment. Referencing Sutherland (2002), since quality improvement heavily relies on the intrinsic perception of necessity, achieving specific results requires a large effort of participants and their self-reflection. Although such reflection may be created using a programme, changes in willingness and self-reflection do not necessarily address the use of these programmes. Thus, improvement cannot easily result. As Tam (2000a) affirms, these obstacles are common in other organisations in a business context, but they are more evident in higher education. The very rigid organisational structure and diffusion of leadership do not constitute all of these insuperable difficulties, and if the consideration of one of these aspects is ignored, benefits can hardly be achieved.

2.14 Quality System Execution in Higher Education

A critical factor in attaining quality in education is the development of quality systems. Many HEIs in Hong Kong have implemented quality systems to some extent.
This study seek a more in-depth awareness on the execution of quality systems by institutions by examining the following questions:

- In what areas have quality systems been implemented in your institution?
- Why is there a need for implementation of quality systems?
- How is this implementation achieved? How have the challenges been overcome?
- What experiences and learning are gained from these implementation processes?

QM of organisational structure, processes, resources, and procedures will be achieved through a quality system (ISO, 2010). A quality system does not have an explicit relationship with the outputs of an organisation. The term also does not provide how outputs can be met within these systems; instead it only refers to the QM system required for implementing activities’ pertaining to the quality of an organisation. The underlying concept of “standard” is also difficult to understand when discussing it for the quality of higher education. Boom (2001) explains that a product specification requires following certain standards. The quality level is measured per its compatibility with the specification. In this sense, quality control relates to the testing of a product and to examine if it fulfils the standards and then rejects those that do not fulfil it. Thus, using the word “standard” in higher education may cause confusion since the term usually refers to a high standard or the meaning of excellence.
Another concept to be aware of is how a standard can be “standardised”. That usually means that the same set of standards is complied with in several situations. One common example is the use of measurement systems that provide operational and quantifiable definitions of these standards. Quality systems with a set of standards are similar to such measurement systems, as the latter provide a structure and rules that govern the quality systems (ISO, 2010). Such a structure and rules do not necessarily bring excellence because the value of a standard is whether it helps at reaching a common operational goal rather than solving more elusive concepts. Some other concepts that relate to quality do create confusion easily, for example, QA, quality audit, quality inspection, and quality evaluation. The mechanism of “quality assurance” ensures that pre-planned activities can fulfil the quality requirements of an entity. The action called a “quality audit” is an independent and systematic verification to investigate whether the activities do adhere to the pre-planned arrangements and whether these activities are executed effectively (ISO, 2010). Such an audit is commonly applied to quality systems, processes, or even entities.

Another term that is easily confused with quality audit is “quality inspection”. Quality inspection is using different forms of activity to examine, measure, gauge or test one
or many specifications of an element and then crosscheck the outcomes with specific requirements to see if uniformity is attained for every specification (ISO, 2010). Thus, inspection can be understood as an action comprised of specific standards since a level of quality is something that is required, expected, or accepted thereof. Moreover, “quality assessment” is another term often used in higher education. It is analogous to “quality evaluation” and refers to the systematic examination of an entity to see whether it is capable of meeting specific requirements. The results from this assessment or evaluation are applied to registration, accreditation, qualification, or certification purposes.

Another aspect that must be noted is the decision whether the existing structure or standard in the organisation was the one to be taken. Although implementation may be achieved by adapting the standard in the organisation, when a management-motivated approach is preferred, it may be better to use the existing structure and its activities as well as develop a quality system that covers these elements (Cheng, Lin & Lyu, 2001). Subsequent to the second strategy, the resulting structure may not be totally up to the appropriate standards. In general, this action will not create bigger problems, as it is possible to adapt the current system using some desired elements from the standards. To many organisations, it appears imperative to
evaluate the effectiveness of a quality system regularly. For a meaningful evaluation, the following fundamental questions should be addressed:

- Have the processes been accurately established and the operational procedures properly documented?
- Have the actual processes been completely implemented and deployed as documented?
- Have the actual processes effectively provided the expected consequences?

Some HEIs have implemented quality systems. Some universities have even developed these systems on their own to fit their particular internal needs, for example, the Belgium Katholieke Universiteit as noted by Gelders et al. (1995), the University of LaVerne, USA as noted by Cook (1996) and the EPC Model (Jiang & Hsiao, 2007). Yet no system has been evaluated in recent years on its applicability for effective use in higher education. At LaVerne University, Cook (1996) describes a “heuristic” quality system developed particularly for off-campus degree programmes. The system defines the quality constituents in the programme or course, as well as the elements for monitoring and evaluation. Despite such criteria mainly focused on off-campus performances and activities, this quality control has required more attention, and the system structure itself may possibly be easier to use in other settings.
The EPC model, developed by some UK Engineering Professors in the UK, is a possible alternative.

### 2.15 Quality Process Review in H.K. Higher Education

Turning to a local situation, this part discusses the Teaching and Learning Quality Process Reviews (TLQPRs) initiated by the University Grants Committee (UGC, 2005) as background information for the upcoming case studies. TLQPR focuses on a quality audit, which is a model derived from the United Kingdom, and emphasises quality improvement, not QA or assessment. Nevertheless, TLQPRs are still based on certain measurements derived from quality assessment with the following major objectives:

- To continue focusing on the value of teaching and learning as the fundamental mission of education.
- To offer a framework for institutions for improving quality of teaching and learning through their own efforts.
- To help both the UGC and HEIs release their responsibilities for the quality of teaching and learning.
A Review Panel made up of eight members from each of the UGC-funded institutions and two overseas experts carried out the TLQPRs. The Review Panel participated in site visits to eight institutions and a report of the findings was presented to each institution. The institutions then produced reports with their own responses to the public. Afterwards, with recommendations suggested by the Consultative Committee from eight institutions, the UGC appointed a Centre for Higher Education Policy Studies, University of Twente of Netherlands (CHEPS) to conduct an interdependent evaluation of the TLQPRs in Hong Kong’s tertiary institutions (UGC, 2005). CHEPS’ report affirmed that TLQPRs is the right instrument for HEIs in Hong Kong and agrees that it is the right time to implement quality measures in higher education. Subsequent to these evaluations and recommendations, the UGC recognises that campaigns for quality must be continued and an ongoing review by external professionals must also be undertaken. The second round report on TLQPRs recommends four principal values of Hong Kong’s tertiary institutions (UGC, 2006):

- The primary functions of higher education are teaching and learning. The aim of setting up a second round of TLQPRs by UGC was to reinstate the focus of teaching and learning for HEIs. However, it does not imply that all academic staff must focus on teaching nor emphasises that staff in different roles with regard to research and other educational functions must see this goal as an
overall primary focus. The intrinsic implication is that any activities that enhance the effectiveness of teaching and learning must be valued just the same as any highly respected researches.

- The enhancement of quality in teaching and learning must be a continuous effort within the institution. This value focuses on educational quality work. It has two levels: institutional and individual. At the institutional (or unit) level, systematic procedures are needed to challenge the existing teaching and learning practices for persistent improvement. At the individual level, teaching staff and students must have collaborative responsibilities and be self-critical, reflective and exposed to feedback and open to change in the collegial environment.

- Teaching is a specialised and skilled profession for academics. There are two main professional practices. First, staff must be trained and supported appropriately; second, research and literature must be appropriately conducted to ensure continuous development of further outstanding teaching and effective learning.

- Graduate competences and desirable attitudes must be linked to learning to acquire knowledge, skills, and proper attitudes pertinent to study in HEIs. They must be competent enough to enable graduates to work and live in local and international communities effectively.
These four values are discussed further as they reference the good institutional practices of the HEIs in Hong Kong. A detailed conceptual framework is developed pertaining to the positioning of these values.

2.15.1 Primary Functions of Higher Education Are Teaching and Learning

The first value clearly states that the primary functions of HEIs in Hong Kong focus on teaching and learning. The possible institutional practices are listed below (see Table 2.11).

Table 2.11 Institutional practices of teaching and learning

<table>
<thead>
<tr>
<th>Institutional practices of teaching and learning</th>
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<tbody>
<tr>
<td>• Public statements made by institutional leaders in conjunction with statements published in the official university press, materials, or on websites.</td>
</tr>
<tr>
<td>• Appropriate resource and reward allocations to improve and assure teaching and learning quality, budget allocation (at the institutional level) and career advancement (at the individual level).</td>
</tr>
<tr>
<td>• Teaching excellence awards for teachers offering outstanding teaching examples.</td>
</tr>
<tr>
<td>• Another form of internal awards, such as teaching development grants to support innovative teaching initiatives, together with appropriate arrangements to ensure effective resource allocation across campuses.</td>
</tr>
<tr>
<td>• Strategic planning for continuous monitoring and assurances to enhance teaching and learning quality. Practical arrangements include working committees, periodic departmental assessments, and reviews of quality educational work at the faculty or institutional level.</td>
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</tbody>
</table>
2.15.2 Enhancement of Quality in Teaching and Learning Must Be a Continuous Effort Within an Institution

The second value is the continual effort to develop teaching and learning quality throughout an institution. In essence, this value involves ongoing evaluations of the quality of teaching and learning, such as collecting feedback and evidence, analysing data, and implementing changes based on the data. The table below provides an overview of evaluation processes that do exist in institutions. Despite the fact that some of the processes are imposed by external activities, all can be adopted by institutions to improve the quality of teaching and learning. Two principles are particularly important when applying evaluation tools to institutions: 1) Coherency and consistency; and 2) Efficiency and effectiveness. Coherent and consistent imply that procedures must be mutually reinforced. Efficient and effective applies to the law of diminishing returns and requires a minimum set of procedures to assure an optimum level of quality. The law also implies that too many procedures do not necessarily enhance the desired level of quality because marginal returns will fall when they exceed the optimum. The following evaluation tools and processes can be used (see Table 2.12 and Table 2.13):
<table>
<thead>
<tr>
<th>Evaluation tools</th>
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</thead>
<tbody>
<tr>
<td>● Collect feedback in systematic ways, analyse data, and take appropriate actions based on the analysis. Feedback can be collected from current students, graduates, external examiners and employers.</td>
</tr>
<tr>
<td>● Benchmark the practices and results with other sources, such as governmental and academic publications, and then implement relevant decisions.</td>
</tr>
<tr>
<td>● Good practice sharing, such as peer review, and promote good practices among critical friends.</td>
</tr>
<tr>
<td>● Measure and analyse student learning outcomes for both teaching and programme development.</td>
</tr>
</tbody>
</table>
Table 2.13 Overview of evaluation processes to assess the quality of teaching and learning

<table>
<thead>
<tr>
<th>FOCUS</th>
<th>INTENTIONS</th>
<th>PROCESSES</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>• Appoint</td>
<td>• Appraisal</td>
<td>• Practices changed</td>
</tr>
<tr>
<td></td>
<td>• Dismiss</td>
<td>• Formative evaluation</td>
<td>• Rewards (e.g. appointment)</td>
</tr>
<tr>
<td></td>
<td>• Enhance competence</td>
<td>• Summative evaluation</td>
<td>• Sanctions (e.g. dismissal)</td>
</tr>
<tr>
<td></td>
<td>• Give an award / Grant tenure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Promote</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject / Module / Paper</td>
<td>• Accredit</td>
<td>• Accreditation</td>
<td>• Curriculum (process/content) changed</td>
</tr>
<tr>
<td></td>
<td>• Continue or not continue</td>
<td>• Quality assessment</td>
<td>• Existing subject continued</td>
</tr>
<tr>
<td></td>
<td>• Rate</td>
<td>• Subject evaluation</td>
<td>• New subject proposed</td>
</tr>
<tr>
<td></td>
<td>• Improve</td>
<td>• Validation</td>
<td>• Subject accredited</td>
</tr>
<tr>
<td></td>
<td>• Implement new</td>
<td></td>
<td>• Subject labelled / benchmarked</td>
</tr>
<tr>
<td>Programme / Course</td>
<td>• Accredit</td>
<td>• Accreditation</td>
<td>• Course accredited</td>
</tr>
<tr>
<td></td>
<td>• Continue or not continue</td>
<td>• Programme / course evaluation</td>
<td>• Course labelled / benchmarked</td>
</tr>
<tr>
<td></td>
<td>• Rate</td>
<td>• Quality assessment</td>
<td>• Curriculum (process/content) changed</td>
</tr>
<tr>
<td></td>
<td>• Improve</td>
<td>• Quality review</td>
<td>• Existing course continued</td>
</tr>
<tr>
<td></td>
<td>• Implement new</td>
<td>• Validation</td>
<td>• New course proposed</td>
</tr>
<tr>
<td>Department</td>
<td>• Accredit</td>
<td>• Accreditation</td>
<td>• Departmental practices changed</td>
</tr>
<tr>
<td></td>
<td>• Modify resource allocation</td>
<td>• Departmental assessment</td>
<td>• Department accredited</td>
</tr>
<tr>
<td></td>
<td>• Rate</td>
<td>• Departmental review</td>
<td>• Department labelled / benchmarked</td>
</tr>
<tr>
<td></td>
<td>• Improve</td>
<td>• Quality assessment</td>
<td>• Resources increased / decreased</td>
</tr>
<tr>
<td>Institution</td>
<td>• Accredit</td>
<td>• Quality assessment</td>
<td>• Institution changed</td>
</tr>
<tr>
<td></td>
<td>• Modify resource allocation</td>
<td>• Quality audit</td>
<td>• Institution accredited</td>
</tr>
<tr>
<td></td>
<td>• Rate</td>
<td>• Quality review</td>
<td>• Institution labelled / benchmarked</td>
</tr>
<tr>
<td></td>
<td>• Improve</td>
<td></td>
<td>• Practices changed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Resources increased / decreased</td>
</tr>
</tbody>
</table>
### 2.15.3 Teaching - Specialised and Skilled Profession for Academics

The third value shows the importance of teaching as a professional activity for academics. A number of teaching practices are derived from this value, such as training, staff development, and support. To continue improving teaching quality, institutional arrangements are listed below (Table 2.14):

<table>
<thead>
<tr>
<th>Improvements in teaching quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Ongoing training and staff development of those with teaching responsibilities, especially newly appointed or inexperienced teaching staff and postgraduate students who work as teaching assistants.</td>
</tr>
<tr>
<td>● Continuous development into research on the aspects of teaching and learning; particular focus placed on how students learn best, for example, when actively involved during classes, when engaged in deciding teaching and learning practices or when they see learning related to their future careers.</td>
</tr>
<tr>
<td>● Adoption of appropriate teaching and learning approaches, such as peer teaching, problem-based learning, broad-based projects, internships, or placement and web-based support systems.</td>
</tr>
<tr>
<td>● Provision of resourced units on university campuses and professional development activities related to teaching.</td>
</tr>
<tr>
<td>● Assessment of student learning outcomes, aligned with intended results, teaching and learning arrangements, and methods of assessment.</td>
</tr>
</tbody>
</table>

### 2.15.4 Graduate Competences and Desirable Attitudes
The fourth value concerns university graduate competences and attitudes pertinent to knowledge and skills commonly acquired in higher education. Such competences and desirable attitudes should enable students to live and work in local and international communities effectively. These good practices include:

- Curriculum development in mandatory general education and assessment of the curricula associated with learning outcomes and the desired competences, using alumni tracer studies or graduate exit surveys to evaluate the extent of achievements.
- Development of extra-curricular student activities and recording their accomplishments.

2.16 Concluding remarks on adoption of QM and TLQPRs in higher education

QM emphasises the point that the “customer determines the quality”. In this research, it is agreed that student is identified as a customer in higher education. To be precise, a student is a customer and also a co-producer in the role of education, as learning is a co-effort between teacher and student, and jointly they produce “learning” as a product. In its broader sense, learning is a combination of the efforts of students, faculty, parents, and the society as a whole. Students are only one group of customers
in the HEIs, but all relevant stakeholders should also be classified as customers.

Below is a summary of the classification of key stakeholders in higher education (see Table 2.15):

Table 2.15 Classification of Key Stakeholders in Higher Education

<table>
<thead>
<tr>
<th>Internal customers</th>
<th>External customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>Alumni</td>
</tr>
<tr>
<td>Faculty</td>
<td>Universities</td>
</tr>
<tr>
<td>Administrative staff</td>
<td>Employers</td>
</tr>
<tr>
<td>Board of Directors</td>
<td>Accrediting agencies</td>
</tr>
<tr>
<td>Donors</td>
<td>Society</td>
</tr>
</tbody>
</table>

HEIs classify different group of stakeholders as customers, but internal customers seem to play a more critical role in affecting the quality of education. External customers, alternatively, have a freedom of choice concerning suppliers based on their provision of quality education. Tulsi (2001) has identified eight steps for HEIs to take to achieve QM (see Table 2.16):

Table 2.16 Steps to achieve QM from Tulsi

<table>
<thead>
<tr>
<th>8 Steps to achieve QM from Tulsi</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Identify the needs of different groups of customers</td>
</tr>
<tr>
<td>● Specify quality standards</td>
</tr>
<tr>
<td>● Benchmark to other institutions</td>
</tr>
<tr>
<td>● Identify gaps in the current systems</td>
</tr>
<tr>
<td>● Plan for continuous improvement</td>
</tr>
</tbody>
</table>
Another major step to take to perform QM is to establish “quality circles”. Central to QM in HEIs is improving teaching and learning processes. Commitment from “top-down” and “bottom-up” levels throughout the institution is inevitable to facilitate the achievement of QM. Below are the processes for quality improvement to take at the outset (Table 2.17):

Table 2.17 Processes to take for quality improvement

<table>
<thead>
<tr>
<th>Processes for quality improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Undertake teacher performance appraisal conducted by students</td>
</tr>
<tr>
<td>• Schedule regular department meetings</td>
</tr>
<tr>
<td>• Establish a quality circle – e.g. student-faculty forums</td>
</tr>
<tr>
<td>• Establish faculty administrative forums</td>
</tr>
<tr>
<td>• Establish alumni of graduates</td>
</tr>
<tr>
<td>• Set timetable for lectures, seminars and exams</td>
</tr>
<tr>
<td>• Set up classroom feedback services – e.g. exams, quizzes, and seminars</td>
</tr>
<tr>
<td>• Set up student support services – e.g. cells-ports, library, and counselling</td>
</tr>
<tr>
<td>• Set up a social audit team – e.g. inspection of performance and learning documents semi-annually</td>
</tr>
</tbody>
</table>

Depending on the nature, type, and level of HEIs, an appropriate approach of quality improvement should be adopted. In applying quality systems, all procedures must be well documented. It helps refine the methodology further and enhance the systems.
Under the effects of globalisation and the mobility of students, there is an increasing
trend of education to become multi-nationalised. However, providing quality in
teaching and learning is in doubt, QA becomes more and more intricate to include in
education. Moreover, a further step to achieve QM as suggested by Powar (2002b) is
to set up an “Internal Quality Assurance Cell” in the HEIs. The previously suggested
cafeteria-based system is practicable, and the concept has now been transformed into
a credit-based system which permits students to select their subjects according to their
interests and strengths. A quality system in industries is transforming from the
monitoring of non-conformances in the past to re-designing flawless processes.
Despite the fact that such development does not seem to fit in higher education, the
idea of re-designing processes is indeed applicable to higher education. The
concluding remarks here is that there is a need for higher education to make changes
for quality improvement. With the fact that three fundamental concepts – customer
focus, process focus, and continuous quality improvement - in QM seem to be valid
in higher education, it is believed that more emphasis on the three elements can bring
substantial improvement to teaching and learning quality in the higher education
sector.
Chapter III  Methodology

Logie-MacIver, Piacentini and Eadie (2012) as well as Hallberg (2008) propose engaging qualitative approaches to understand human experience holistically and inductively in context-specific environments. Few samples are employed to learn more of a special phenomenon rather than unveiling an ordinary relationship (Leonard & McAdam, 2004). One merit of qualitative research is to aid in the deeper know-how of a complicated social phenomenon. A qualitative research approach is more suitable for finding a main theme and more focused on validity, subjectivity, and holistic analysis; while the quantitative approach is relied more on reliability, objectivity, and component analysis (Yin, 2009). This approach is also applied to problems of “human experience and its meaning”; the quantitative approach is inclined toward demographic distribution and structural problems and their associated factors. Quantitative approach researchers are “independent observers”, inclined toward fact collection and the understanding of society phenomena. The qualitative approach would include interaction with those being researched, aiming at obtaining reasoning through interpretation. Yin (2009) contends that the selection of a research method is based on three criteria: (1) type of research question; (2) degree of actual control by researchers; and (3) extent of focus on contemporary phenomena and
historic events. Also, there are five strategies for the qualitative approach:

Experimentation, investigatory research, analysis of records, historic research, and case studies (see Table 3.1).

### Table 3.1 Selection of research method

<table>
<thead>
<tr>
<th>Method</th>
<th>Format of research question</th>
<th>Need for behavioural control? (Y/N)</th>
<th>Reliance on incidents at time of investigation? (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>Why, How</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Investigation research</td>
<td>What, Who, How much, Where</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Analysis of records</td>
<td>What, Who, How much, Where</td>
<td>N</td>
<td>Y/N</td>
</tr>
<tr>
<td>Historic research</td>
<td>Why, How</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Case studies</td>
<td>Why, How</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

Kaplan, Lichtinger and Margulis (2011) advocate research by triangulate findings from the multiple data sources to construct a dynamic and situated flow of purpose of engagement and strategies; with qualitative case study and mixed-methods that include traces in written products, micro processes observations, stimulated-recall interviews, and general interviews. The triangulation of data from these various sources prove that individual and contextual characteristics interact/result in a dynamic flow of situated purpose-strategies actions aligning the participants’ engagement.
Generally speaking, when research focuses on real life events, case studies are often adopted (Yin, 2009). This dissertation primarily aims at investigating “why and how” the QM system is effectively implemented in the HEIs. Thus, it is closely related to the spirit of case studies. In case studies, the researchers and those being researched focus on the naturalistic generalization of specific experience and the tacit knowledge of interaction (Onwuegbuzie & Leech, 2010). Further, Yin (2009) opines that case studies are more applicable when handling special situations where varying factors exist more than available data does. The following characteristics for data collection in case studies are advocated (see Table 3.2):

Table 3.2 Characteristics of data collection

<table>
<thead>
<tr>
<th>Characteristics of data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pinpoint few events and situations, encompass individual integrity and depth.</td>
</tr>
<tr>
<td>• When compared to statistical analysis, time element cases are easily incorporated in case studies to grasp complex changes/dynamics and small details.</td>
</tr>
<tr>
<td>• Integrate the personal experience of the researchers to demonstrate more specific research results.</td>
</tr>
<tr>
<td>• Owing to experience embedded in real situations, it is easier to govern the interactions between researchers and those being researched.</td>
</tr>
<tr>
<td>• Provide more room for self-development and interpretation; while applying self-reasoning in case studies to offer general concepts.</td>
</tr>
</tbody>
</table>
Case studies are more applicable for analysing organisations and practical problems (Yin, 2009). During data collection, potential theory-related research direction and main themes appear (Poon & Rowley, 2010). Based on Yin (2009), there are 6 sources to use for collecting data in case studies: Documents, archival records, in-depth interviews, direct observation, participation in observations, and physical artefacts. The merits and demerits of these sources are display below (see Table 5.3):

**Table 3.3 Merits and demerits of data collection sources**

<table>
<thead>
<tr>
<th>Sources</th>
<th>Merits</th>
<th>Demerits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents</td>
<td>● Reliable, can be investigated repeatedly</td>
<td>● If data is collected from unascertained sources, biased selection may result</td>
</tr>
<tr>
<td></td>
<td>● Definite; includes names, references, details of events</td>
<td>● Right of use may be limited</td>
</tr>
<tr>
<td></td>
<td>● Wide scope, plenty of information</td>
<td>● Biased comments may be reflected from biased reporting</td>
</tr>
<tr>
<td></td>
<td>● May not be the result of case studies</td>
<td></td>
</tr>
<tr>
<td>Archival Records</td>
<td>● Ditto</td>
<td>● Ditto</td>
</tr>
<tr>
<td></td>
<td>● Precise, quantifiable</td>
<td>● May not be reachable due to privacy of data</td>
</tr>
<tr>
<td>In-depth Interviews</td>
<td>● On purpose, direct and complying with the main aim of research</td>
<td>● Interview questions may not be properly set, interviewee answers may be biased</td>
</tr>
<tr>
<td></td>
<td>● Interpretation to find depth, offer cause and effect reasoning</td>
<td>● Uncertain comments due to inability of memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Reflection may occur, interviewee answers may be influenced by interviewers</td>
</tr>
<tr>
<td>Direct Observation</td>
<td>● High reliability</td>
<td>● Plentiful time consumed</td>
</tr>
<tr>
<td></td>
<td>● Real-time events</td>
<td>● Events selected</td>
</tr>
<tr>
<td></td>
<td>Hands-on experience in events</td>
<td>Reflection may occur, different development may result</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Participant Observation</strong></td>
<td>Ditto</td>
<td>Ditto</td>
</tr>
<tr>
<td></td>
<td>Better understanding of interaction of human behaviour and motives</td>
<td>Events selected</td>
</tr>
<tr>
<td><strong>Physical Artefacts</strong></td>
<td>In-depth understanding of culture</td>
<td>In-depth understanding of technical operation</td>
</tr>
</tbody>
</table>

To achieve integrity, raise effectiveness and reliability; this research adopts a multiple data and “triangle analysis” through documents, archival records, in-depth interviews, and focus groups, which will bring more reliable results as illustrated below (see Fig. 3.1). Similarly, Perry and Calhoun-Butts (2012), Lambert, Skinner and Friedlander (2012); Timmins (2012); as well as Keser, Akar and Yildirim (2011) advocate the merits and usages of triangulation analysis, with mixed methods in their respective research designs.
Based on Eisahardt (1989), the research design and procedure for this study is proposed and illustrated below:
Figure 3.2 - Research design and research procedure
Copley et al. (2012) reinforce that qualitative interviewing and focus groups permit interviewees to freely express their respective individual ideas in their own terms within a social context, projecting foresight into phenomena that the researcher would not observe directly. “Audit trail” is adopted to document decisions, choices and insights for each interview/focus group; which will further strengthen the rigor and trustworthiness of the data being collected.

3.1 Documents and Archival Records

For case studies, documents not only help provide details, but they also establish and reaffirm the reliability of other collection sources. Documents help analyse the phenomenon being studied (Corti, 2011). This data collection method is compatible with and less expensive than in-depth interviews, social surveys, or participant observation (Mogalakwe, 2006). Payne and Payne (2004) contend that this documentary method can investigate, categorise, identify, and interpret the limits of physical sources and established documents available in the public domain or through private channels. It is a useful, under-utilised approach and a scientific method that also demands vigorous adherence to research protocol.
A document is a written text and artefact having an inscribed text with its core feature (Corti, 2011) produced by individuals and groups during their everyday practices and geared exclusively to their practical needs. The investigator must be conversant with the origin, aim, and audience of these documents (Grix, 2001). Documents are not produced purposely for any subsequent research, and yet naturally are happening objects with a solid or semi-solid existence that give indirect information (Payne & Payne 2004). A document, different from speech, can exist independently beyond the writer and the original context of its first production (Corti, 2011).

Primary documents refer to witnessed accounts given by those experiencing the particular event; while secondary documents are created by those not present at the spot or event, but instead receive witnessed accounts for compilation or have read the witnessed accounts (Moore, 2007). Documentary sources offer immediate access, as opposed to proximate access (Bishop, 2007). Mediated or non-direct access turns out to be necessary if previous behaviour would be inferred from fundamental traces and original records. This view contradicts proximate or direct access whereby the investigator and his or her sources are contemporary or co-exist and witnessed directly the incidents or activities (Moore, 2007). Documents can be obtained from
public, private, or personal sources. Public documents can encompass publications from government, e.g., census reports, policy statements, statistical bulletins, ministerial or departmental annual reports, reports of commissions of inquiry, consultancy reports, and more. Private documents are gathered principally from civil organisations, e.g., trade unions, private sector businesses, and NGOs; which can include Board resolutions, minutes of meetings, advertisements, training manuals, interdepartmental memos, personnel records, and other annual reports and more.

These data collections must be treated scientifically, although every source demands a varied approach. Macdonald and Tipton (1993) have established certain quality control criteria for treating document sources, i.e., credibility, representativeness, authenticity, and meaning. *Credibility* means whether the evidence is of a typical nature, *representativeness* refers to whether the records gathered can represent the whole picture, *authenticity* means whether the documents are trustworthy and come from reliable sources, and *meaning* refers to whether the details are comprehensible. Having established the authenticity of a document, its authorship must be authenticated. The literal meaning of a document only evolves its surface value, whereby its genuine implications are regenerated.
In this study, documents will be attained from HEI administration documents like QM proposals, policy statements, planning proposals, monitoring of reports, meeting agendas, notices and minutes, internal documents, and related media references gained through the public domain and/or private means. Archival records are collected in a similar manner and primarily recorded in computer format, such as organisational structure records, and associated investigation record files.

3.2 In-depth Interviews with HEIs

An in-depth interview is a crucial type of resource gathering composed of: (1) the pre-interview – where structured interview questions are preset to respond to related theories/backgrounds and coordinated well in advance with all interviewees before formal interviews; (2) during each interview – tape record the interview with the interviewees’ prior agreement for subsequent analysis; and (3) the post interview – if evidence is found to be insufficient later, a subsequent interview with interviewees may be scheduled again. The administration of instruments or procedures recommended by Yin’s (2009) suggestions on the protocols of interviews is followed, so that the research is reliable. Proper interview records are maintained. The entire
information gathered will be strictly treated as confidential and results are presented in an aggregated manner.

By referencing web site information of local HEIs in H.K., potential participants are located. A request letter will be dispatched to senior staff responsible for quality management in each HEI, subsequently followed by a reminder telephone call after a week. Should a HEI representative be identified as a participant, that representative will be given an information statement and a participant consent form to indicate consent. All participants will be asked to be competent in English, and the freedom to join or not join is emphasised. Once written consent is obtained, an interview can be arranged. There are totally 8-16 interviewees composed of 1-2 senior staff responsible for Quality Management (at a rank of Professor/Vice-President, chair/vice-chair of QM Committee) from each of the above 8 government-funded HEIs (see Table 3.4). The selection criteria are designed to obtain an appropriate mix of senior staff of each HEI with precise/hands-on experience in overall quality management of HEIs.

Table 3.4 HEI Interview Record

<table>
<thead>
<tr>
<th>Interviewees</th>
<th>Position</th>
<th>Interview date</th>
<th>Meeting time</th>
<th>Number of meeting times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor/VP XXX from HEI A</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
<tr>
<td>Name of Interviewer</td>
<td>Title of Interviewer in HEI</td>
<td>Date of Interview</td>
<td>Duration of Interview</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------</td>
<td>-------------------</td>
<td>-----------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Professor/VP XXX from HEI B</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
<tr>
<td>Professor/VP XXX from HEI C</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
<tr>
<td>Professor/VP XXX from HEI D</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
<tr>
<td>Professor/VP XXX from HEI E</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
<tr>
<td>Professor/VP XXX from HEI F</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
<tr>
<td>Professor/VP XXX from HEI G</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
<tr>
<td>Professor/VP XXX from HEI H</td>
<td>Professor/VP</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1-2</td>
</tr>
</tbody>
</table>

#Names are anonymous for privacy data protection.

Participants are required to read the participant information sheet. The research instrument then follows the interview schedule designed. A total of 8 structured face-to-face interviews (each 1 hour) will be conducted at participants’ respective offices, looking for responses to preset structured questions (see Appendix 1). The feedback will govern the subsequent questions in trying to gain further details. The same interview protocol will be adopted for all HEI interviews and focus group sessions. In case an interviewee cannot join the scheduled interview, and there is no replacement, a telephone recorded interview can be an option (for more precise data analysis subsequently). Respective written and taped oral consents will be solicited beforehand.
With a request from the universities for permission to use the data, names are kept anonymous by labelling them as University A, B, C, D and so on. Primary data collected are valuable to the researcher to learn the current practices of TLQPRs in the universities. Secondary data are also collected through reviewing TLQPRs reports, university websites and publications on quality management at their universities. The structured interview protocol and the Education Quality Work (EQW) framework will be sent to the interviewees 14 days before the interview (see Appendix 1). The EQW refers to the procedures and activities that will ensure that quality of education is assured and has improved. The framework interplays between the 3 aspects of education delivery and the 3 aspects of procedures and activities as shown below (see Fig. 3.3):

**Figure 5.3 Framework of EQW**

![Diagram of EQW Framework](image-url)
The delivery of education is classified into three key areas: Curriculum, Teaching and Learning, and Assessment. There are three facets of EQW procedures and activities, i.e., Design, Resources, and Allocation Implementation. In each area of education delivery, quality assurance (QA) and quality improvement (QI) will be examined for the three aspects of process and activities. All six elements interact to develop five domains to create the framework for EQW. Further, an interview protocol (see Table 3.5) will be developed to ask the following questions under the TLQPRs as a measure of quality standards and achievements that are attained by government-funded institutions:

### Table 3.5 HEI Interview Protocol

<table>
<thead>
<tr>
<th><strong>HEI interview protocol</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Please comment on promoting the view that the primary functions of university are teaching and learning.</td>
</tr>
<tr>
<td>• What is your general view of the framework for Education Quality Work? How is this framework implemented with respect to:</td>
</tr>
<tr>
<td>:</td>
</tr>
<tr>
<td>:</td>
</tr>
<tr>
<td>:</td>
</tr>
<tr>
<td>• Please comment on the TLQPR with respect to the economy and efficiency of effort, campus-wide commitment, devolution and ownership, and coherence and consistency.</td>
</tr>
<tr>
<td>• Please comment on the management infrastructure for Quality Assurance &amp; Implementation</td>
</tr>
</tbody>
</table>
(QA&I), such as diverse formalised structural elements, focus on student learning outcomes, working groups for specific purposes, and innovation of a “think tank”.

- Please comment on how to determine the constituents of good teaching.
- Please comment on how to distinguish good teaching from excellent teaching.
- Please comment on the rewards and resource allocations used in motivating teaching staff.
- Please comment on the rewards given to teaching units.
- Please comment on the rewards given to individuals.
- Please comment on teaching excellence awards.
- Please comment on the distribution of teaching development grants (TDGs).
- Please comment on the strategic assurance and improvement of teaching and learning quality.

### 3.3 Focus Group Studies

A focus group is a skill that engages in-depth interviews with group participants while they are purposive and focused on that selected topic to contribute valid comments (Adams & Cox, 2008; Shoaf & Shoaf, 2006). They normally have similar age and socio-characteristics and comfortably express views of all participants (Richardson & Rabiee, 2001; Tong, Sainsbury & Craig, 2007). This tactic connects with “applicability” and respondent knowledge and background. Owing to the style and mixed range of data attained via a group’s dynamics and social interaction, more in-depth information will be rendered than in one-to-one interviews (Morgan, 2010; Suzuki et al., 2009).
Focus groups can offer massive data within a short duration of time, while such findings could contribute to quantitative analysis, if required. These data can be tabulated in a simple manner using layman terminology and respondent quotations. Krueger and Casey (2000) also point out the advantages of focus group in detail. A focus group is distinct in offering data based on the group’s synergy and interaction (Green & Thorogood, 2004). Krueger and Casey (2000) state that for some participants, self-disclosure is comfortable and natural; to the contrary, some demand effort and trust. Therefore, homogenous group members (e.g. gender, age sector, ethnic, social status) have to be selected with care and thought to render a truly fruitful data collection.

Respondents are asked not to know one another, and thus more sincere, spontaneous expression and extensive responses can be obtained during these group discussions. It also avoids preset behaviours with regard to pre-existing connections and leadership patterns (Thomas et al. 1995). Alternatively, Kitzinger (1994) agrees to engage with pre-existing groups, for acquaintances may collate one another’s opinions with challenge. It is advantageous also in exploring personal and sensitive matters, as the group members’ trust will promote new expression. This factor is crucial when there are minimal details on the topic being investigated; while these empirical data are
gathered for any future larger scale research. Group moderator responsibility must not be undermined for both pre-existing or new groups (Krueger, 1994; Burrows & Kendall, 1997). A tactful moderator can tackle participants’ existing relationships, render a relaxed environment, and promote and exchange feelings/views. It is necessary to note any non-verbal interactions, group dynamics, view exchanges, and particular statements by individuals to supplement any deficiencies in the oral text for further data analysis (Kitzinger, 1995).

Brod, Tesler and Christensen (2009) contend that adopting running focus groups shows a precise pattern propping up while subsequent groups generate merely repetitious details (theoretical saturation). Burrows and Kendall (1997) also propose that 3 - 4 focus groups are valid for each simple research question. Each group’s desired participant number may vary. Krueger and Casey (2000) propose 6 - 8 participants, because smaller groups imply a higher potential. A manageable figure is 6 - 10; which can encompass different perspectives while not becoming fragmented or out of order. It’s challenging when recruiting appropriate participants, especially for minority ethnic or low-income sectors, which possess low self-esteem that keep them from free expression. Non-attendees can also be problematic, which may be overcome by employing an additional 10 –25% participants, setting a scheduled
meeting date in advance, and sending gentle reminders a few days beforehand. Every
group interview usually lasts for about 1 - 2 hours, dependent on the extent of topic
complexity, questions and respondent numbers. Participants should be well informed
about the potential overall time required.

Massive data will be generated from even a 1-hour interview, and it may require 5 - 6
hours to transcribe that 1 hour adequately and result in 30 – 40 transcript pages. Yin
(2011) opines that data analysis includes categorizing, scrutinising, tabulating, and
restructuring the evidence to tackle the fundamental study topic and the study goal.

Krueger and Casey (2000) trust that this analysis commences by returning to the study
intention, which keeps the study consistent and focused. Therefore, it is important to
address data management, reasoning, monitoring, and eliminating obsolete/irrelevant
details when screening massive/complicated collected data. Krueger and Casey (2000)
acknowledge that a potential participant should be competent in English, be given an
information statement and consent form before an interview. A candidate’s decision
to participate or not is one of free will. Once written consents are obtained, focus
group interviews can be precisely arranged.
Finally, focus group studies are organised in this research as one of the multiple data sources to cross-examine the findings with other sources and strengthen research reliability. Focus groups (each group of 6 participants from major stakeholders (current undergraduate students, current teaching/academic/faculty staff, graduates, alumni) from each HEI are organised to solicit their respective comments on the QM of the HEIs (see Table 3.6). Being the major stakeholder and beneficiary in teaching and learning, their comments are significant for understanding and verifying the findings obtained from all the interviews with HEIs. The same interview questions as those for HEIs are dispatched to the focus groups two weeks in advance for prior preparation. The focus group process will be recorded as follows (see Table 3.6):

**Table 3.6 Focus Group Record**

<table>
<thead>
<tr>
<th>Members</th>
<th>Position</th>
<th>Interview date</th>
<th>Meeting time</th>
<th>Number of meeting times</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 participants from HEI A</td>
<td>Major stakeholder</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1</td>
</tr>
<tr>
<td>6 participants from HEI B</td>
<td>Major stakeholder</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1</td>
</tr>
<tr>
<td>6 participants from HEI C</td>
<td>Major stakeholder</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1</td>
</tr>
<tr>
<td>6 participants from HEI D</td>
<td>Major stakeholder</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1</td>
</tr>
<tr>
<td>6 participants from HEI E</td>
<td>Major stakeholder</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1</td>
</tr>
<tr>
<td>6 participants from HEI F</td>
<td>Major stakeholder</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1</td>
</tr>
<tr>
<td>6 participants from HEI G</td>
<td>Major stakeholder</td>
<td>6/2012-8/2012</td>
<td>1-2 hours</td>
<td>1</td>
</tr>
</tbody>
</table>
There are a total of 48 focus group participants, each composed of 6 participants from each of the HEI and recruited through invitation by each President of the HEIs as requested by the researchers. The selection criteria designates gathering major stakeholders/beneficiaries in HEI quality management for delivering teaching and learning. Participants are required to read the participant information sheet. The interview schedule will be the research instrument, and a total of 8 focus group sessions will be conducted. Each interview will last about one hour, conducted at the participants’ respective HEIs. Interviewees will be asked to preset structured questions.

### 3.4 Method of Analysis

After obtaining the data, the following analysis processes will be adopted:

- Synthesise the data collected from documents, archival records, interviews and focus group studies.
• Read and review the synthesised data, associated documents and records; and during each process, highlight key words/phrases corresponding to the main theme of this research.

• Organise, consolidate, classify, and deduce highlighted key words/phrases from the above data and compare the findings with the theories/background obtained from the literature review.

• Try to arrive at a conclusion for the research. Should there be any deviations from the theories/literature review, revamp and re-analyse the collected data again to determine an enhanced conclusion.

Strauss and Corbin (1998) define analysis as the interaction between data and those researchers who select and interpret data subjectively. Researcher subjectivity in data collection commences with questionnaire design, which may prequalify certain answers and thus affect reliability. To mitigate any possible bias, Krueger and Casey (2000) opine that effective analysis has to be sequential, systematic, continuous, and verifiable. In so doing, it will increase the degree of consistency, dependability, quality and conformability of the collected data (Secker et al. 1995). A trail of evidence begins with a definite process for data analysis which is precisely understood and carefully documented. The researcher can verify data findings, work
against possible selective perception, and enhance the vigour of the full research.

Even though the principal data source comes from the taped verbal communications; reflection, settings and non-verbal dialogue also help construct and analyse the collected data. The moderator should ensure that both reflective diaries and observational notes be kept for each interview session.

Green and Thorogood (2004) suggest that researchers adopt multiple approaches in qualitative research. Rabiee (2004) advocates framework analysis for focus groups and individual interviews. Stokes and Bergin (2006) state that its advantages are delivering a precise series of stages that will assist inexperienced researchers in tackling comfortably the massive/tedious nature of qualitative data. Further, focus group analysis happens simultaneously to the collecting of that data. Krueger (1994) adopts an analysis continuum that moves from raw data accumulation to its interpretation. Analysis itself does not occur in a linear format while each stage overlaps one another. Wood et al. (2011) further contend that analysis must encompass various distinct and connected stages; i.e. thematic framework identification, familiarization, charting, mapping, indexing, and interpretation. It also must allow for developing of themes from research questions and participant narratives.
As discussed, data analysis commences upon collecting that data. The next step is to familiarise oneself with tape listening, repeated reading of transcripts and notes of observations, and grasp the whole picture prior to splitting data for tiny analysis. Major themes will commence and evolve at this stage. The next step is to establish a thematic framework, through scribbling short phrases or concepts in the text margins to extend relevant categories. Descriptions will be evolved, and data analysis will be executed under the questioning mode. Indexing is composed of data sifting, differentiating quotes, and comparing between and within cases. Charting consists of lifting the quotes from previous contexts and rephrasing them under the new thematic content. Charting and indexing will also be seen as data management. Data mitigation will be attained by contrasting the data, cutting and pasting relevant quotes collectively. Krueger and Casey (2000) engage in a lengthened bench or an IT system for cut/paste, sorting, and reshuffling data via contrasting the details. Though use of distinct software, i.e., QSR NUT*IST is available, analysing the transcripts via Microsoft Word is still applicable. The “lengthened bench” process demands ample space. The following should be noted prior to any transcript cutting (see Table 3.7):
Table 3.7 Notes completed prior to transcript cutting

<table>
<thead>
<tr>
<th>Notes completed prior to transcript cutting</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Insert number for each line of transcript.</td>
</tr>
<tr>
<td>• Prepare 2 photocopies of each transcript; one for cutting, one staying uncut.</td>
</tr>
<tr>
<td>• Photocopy transcripts with varied coloured paper, e.g. “students of HEI A” green, “students of HEI B” blue, “students of HEI C” yellow, “students of HEI D” pink, etc.</td>
</tr>
<tr>
<td>• Order the working transcripts, i.e., date of interviews, participant categories: institutes; age, gender, graduation year, etc.</td>
</tr>
<tr>
<td>• Prepare sufficient newsprint or flipcharts. Put these pages on the bench, wall, or floor.</td>
</tr>
</tbody>
</table>

Scribble on every page a question to be analysed, and separate the flipchart or newsprint pages to stand for different participant groups. Krueger and Casey (2000) contend that every quote needs to be read and the following questions answered (see Table 3.8):

Table 3.8 Questions from Krueger and Casey

<table>
<thead>
<tr>
<th>Questions from Krueger and Casey</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Has the participant replied to the question? If yes, skip to Question 3; if no, skip to Question 2; if no idea, put aside and revisit later.</td>
</tr>
<tr>
<td>• Would such opinion correspond to another question in the focus group? If yes, transfer to the right question; if no, skip to Question 3.</td>
</tr>
<tr>
<td>• Would such opinion cast anything important on the topic? If yes, insert it beneath the right question; if no, deal with it later.</td>
</tr>
<tr>
<td>• Has there been anything said previously? If yes, commence to the group-like quotes collectively; if no, commence another pile.</td>
</tr>
</tbody>
</table>
After such a systematic process, the newsprint papers will be full of appropriate quotes. Isolate the “less relevant” quotes put aside, which can be referred to later. The sorted data are ready for mapping and interpreting, i.e., making sense of individual quotes with an analytical mind to judge the quote’s relationship and data links fully. The moderator questions and other comments obtained in the group will affect the context. Frequency corresponds to how often an idea is given, while projecting adequate insight is “spotting a gem”. The term “extensive” corresponds to participant number when expressing a certain view. One has to consider the degree of feelings, participants’ opinion changes or positioning, and bigger trends’ evolving from evidence accumulation. Krueger (1994) also proposes temporarily halting for a few days so as to revisit the big picture.

Krueger and Casey (2000) advocate the criteria for framework development as:

Emotions, specificity, extensiveness, frequency, and the big picture. The major variance is that context, internal consistency, and words are expunged from frequency, extensiveness and interpretation. Big ideas and intensity of comments are readjusted as emotions, while a big picture is incorporated. Students and inexperienced researchers acknowledge that encompassing the expunged criteria is not difficult to follow, and richer interpretations can be produced. Modifying the latest criteria is
suggested which also incorporates the ideas of context, internal consistency, and words (see Table 3.9).

### Table 3.9 Headings to help interpret data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Words</td>
<td>Words</td>
<td>Words</td>
<td></td>
</tr>
<tr>
<td>Context</td>
<td>Context</td>
<td>Context</td>
<td></td>
</tr>
<tr>
<td>Internal consistency</td>
<td>Internal consistency</td>
<td>Internal consistency</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Frequency and extensiveness</td>
<td>Frequency</td>
<td></td>
</tr>
<tr>
<td>Motion</td>
<td>Intensity of comments</td>
<td>Intensity of comments</td>
<td></td>
</tr>
<tr>
<td>Specificity of responses</td>
<td>Specificity of responses</td>
<td>Specificity of responses</td>
<td>Extensiveness</td>
</tr>
<tr>
<td>Extensiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big picture</td>
<td>Big ideas</td>
<td>Big picture</td>
<td></td>
</tr>
</tbody>
</table>

The data/notes that are recorded will be organised, categorised, and transcribed. All data are source coded to establish origin, while the original data is safely kept. These collected data are revisited repeatedly for themes classification and mapping as follows:

1. **Compile data for analysis**

Transcribe the interviews details to text and rearrange them, so that the margin is engaged to establish separate pieces of data. Line numbers can be incorporated for counter or cross referencing.
2. Go through the text and highlight interesting items

(i) Preliminary text reading

Thematic analysis permits themes to evolve from the data, instead of hunting for pre-defined themes. Upon initial reading, note major issues when they pop into mind so as to acquire some sense of their embedded meaning.

(ii) Re-visit text, insert ideas at margins

Evaluate text precisely to analyse in a micro way. Open coding can help establish new details by de-contextualising pieces of data underlying the preliminary material.

3. Shuffle interest items to proto-themes

Themes commence to evolve by shuffling items that connect similar topics with categories. Information Technology can assist to cut/paste these line references collectively. Categories can be altered, developed, and evolved into new ones. Themes are maintained simply to aid flexibility in classification where category reshuffling can assist in re-defining the preliminary themes.

4. Evaluate proto-themes, attempt preliminary definitions

Revisiting the data will help evaluate the ways that information is allocated to every proto-theme to assess its meaning. An initial name and provisional definition will be established for every evolving theme.
5. Re-evaluate text precisely for appropriate incidents for every proto-theme

This axial coding process encompasses re-contextualisation where data is perceived by categories extended via this analysis. Considering every theme singly and re-evaluating the original data for details connected to that theme is a crucial process, as mankind perception is randomised and careless in terms of overlooking data relevance. In addition, pieces of data allocated previously to a theme can be contradictory.

6. Establish final form of every theme

The definition, name, and supporting data are re-evaluated to finally establish every theme to all related materials. This re-contextualisation concentrates more closely on the embedded meaning of every theme.

7. Report every theme

Conclude with the name of every theme, drop down to its description and explain it with quotes from the original text to provide better communication to the readers.

3.5 Remarks

No tests or procedures are to be derived from the University’s HREC Register. Please find the above proposed interview protocol and interview schedules/records for case
studies and focus group studies, following the procedures suggested by Yin (2011).

There will not be any payment, reimbursement, or reward for participating in this research. All interviewees and focus group participants will have agreed to join voluntarily, and are fully informed of their option to accept or decline the interviews.

The collected data will be analysed, tabulated, and reported in an anonymous/generic format, whereby the findings will become part of the student researcher’s DBA thesis. A collection of the findings will be dispatched to every participant as acknowledgment of gratitude, upon thesis approval by the University. The summary is general in nature, and expected to cast some light on enhancing QM for HEIs. All data are kept by the student for five years. Hard copy data will be locked in a safe area, and soft copies will be accessible only with a password. Data will only be reachable by the supervisor and student. After five years, all hard copies will be shredded by machine and soft copy files will be permanently deleted.

Chapter IV Data Analysis
The findings and data analysis are presented below. The plan of actions, flow charts, summary tables and figures will be adopted to facilitate effective analysis and presentation (Miles & Huberman, 2002).

**Part A. In-depth Interview with HEIs**

During the process, four out of the eight universities (50%) responded. Their responses on the key features of TLQPRs are tabulated in Table 4.1 below. The institutional practices are also discussed previously for the primary functions in Hong Kong’s higher education are teaching and learning. It is evident that these practices are to some extent overlapping each other, and thus it is difficult to draw a clear boundary between them. These results address the consistency of these practices and will be addressed as such.

**Table 4.1 Comparison of institutional practices under TLQPRs by four universities in H.K.**

<table>
<thead>
<tr>
<th>Institutional practices under TLQPRs</th>
<th>Case studies of four universities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1 Promote the view that the primary functions of a university are teaching and learning</td>
<td>✓</td>
</tr>
<tr>
<td>2 Provision of rewards to units</td>
<td>✓</td>
</tr>
<tr>
<td>3 Provision of rewards to individuals</td>
<td>✓</td>
</tr>
<tr>
<td>4 Provision of excellence awards to teaching staff</td>
<td>✓</td>
</tr>
</tbody>
</table>
4.1. **Promote the view that the primary functions of university are teaching and learning**

According to the responses from four universities, all agree and promote the view that the primary functions of higher education are teaching and learning. Essentially, there are three key elements expressed in the institutional mission statement of every university, and they all stress the importance of teaching and learning, research, and serving the community. This same view is also expressed in their long-term strategic plans.

A number of HEIs (including the four in this case study) in Hong Kong have extensively published materials that purport the view of teaching and learning quality. In order to understand what exemplary teaching and learning should include and investigate how they can be transformed into strategic development in higher education, two important questions are further examined before placing them in a conceptual context.
• How does one determine the constituents of good teaching?

• How does one distinguish good teaching and excellent teaching?

4.2 How to determine the constituents of good teaching?

One approach is to examine different teaching methods and link them with student learning outcomes. Examination results are normally used to determine students’ learning outcomes. However, attempts made by scholars failed to establish a conclusive linkage between teaching methods and student learning. Below are some of the reasons why such attempts were so difficult to achieve (see Table 4.2):

Table 4.2 Reasons for failure for teaching methods and student learning

<table>
<thead>
<tr>
<th>Reasons for failure for teaching methods and student learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Very complicated to measure and define factors in the multifaceted activity of teaching.</td>
</tr>
<tr>
<td>• Difficult to quantify and describe factors that determine a successful teacher.</td>
</tr>
<tr>
<td>• Not easy to quantify what exactly students have learned; although examination results are a very common measurement.</td>
</tr>
<tr>
<td>• Impossible to institute a scientific approach for comparison; i.e. Economics 101 students using teaching method X and Economics 102 students using teaching method Y cannot be compared.</td>
</tr>
</tbody>
</table>

Another approach is to gather opinions from stakeholders like students and academic staff by adopting a spectrum of consultations to obtain and consolidate the most
representative views. This approach is widely accepted in many universities in Hong Kong.

A third approach suggested is to examine the winners of teaching excellence awards, and understand the distinctive characteristics of these teachers and their teaching methods. This approach is essentially similar to the one above because these award winners are elected usually by using criteria derived from the above approach.

4.3 How to distinguish good teaching from excellent teaching?

To answer this question, if one does not distinguish between the two, then excellent teaching and good teaching are more or less the same. Conversely, if one does, then the question becomes what distinguishes a good teacher from an excellent teacher?

There are different stances among the universities in Hong Kong on this issue as concluded from examining their teaching practices and associated publications. For instance, University A and University B below recognise the differences between good and excellent teaching, whereas University C and University D seem to accept the fairly similar viewpoint.
According to the publications of four universities, they share the same view of good teaching and consider that it is distinguishable by performance as follows (see Table 4.3):

Table 4.3 Good teaching performance

<table>
<thead>
<tr>
<th>Good teaching performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Organisation and preparation for teaching;</td>
</tr>
<tr>
<td>• Use of a wide range of teaching approaches to match particular objectives and contexts;</td>
</tr>
<tr>
<td>• Ability to organise a teaching approach that emphasises the interaction between students and teachers;</td>
</tr>
<tr>
<td>• Competence to make appropriate assessments and provide feedback to students;</td>
</tr>
<tr>
<td>• Application of key concepts rather than only details;</td>
</tr>
<tr>
<td>• Skill to motivate students; and</td>
</tr>
<tr>
<td>• Continuous teaching development.</td>
</tr>
</tbody>
</table>

University A and University B indicate that excellent teaching can be differentiated from good teaching because it involves:

• Development of environments that create effective learning; and

• Understanding of leadership roles for influencing institutional and departmental policies and practices that create suitable learning environments.

The purpose of summarising these notions for good and excellent teaching at four universities is not to challenge who is right or wrong; instead, it is meant to understand how HEIs have carried out their commitment to ensure teaching and
learning are their primary functions. The following section looks at what particular
approaches have been adopted by these four universities for maintaining this
fundamental mission in the higher education of H.K.

*University A*

Pursuant to the documentation of University A, a Statement on Quality Teaching is
developed through a consultative process with extensive input from academic staff
and students. It was first endorsed by the University Committee and followed by the
Senate. It is an official document of the university and is printed in a pamphlet and
displayed on university website. It is noteworthy because it describes the expectations
clearly for becoming effective teachers and also illustrates how these expectations can
be surpassed by excellent teachers and inspires them to win excellence teaching
awards and other recognitions.

In the publication, there are key elements that describe the commitment to be effective
teachers; essentially, an effective teacher prepares and organises well before lessons,
plans a variety of teaching approaches and assessments to fit the context, and
communicates effectively. Excellent teaching emphasises student-centred learning. It
also constructs a desirable learning environment for students that motivates their interest and enthusiasm in learning.

*University B*

University B adopts the conceptualised approach to describe the different degree of teaching achievements. There are two separate documents that correspond to teaching and learning. The first is called the University’s Philosophy on Teaching and Learning, which was formulated via wide consultation process by the Teaching and Leaching Committee and subsequently approved by the Senate. In essence, this document underscores the five principles that steer the practices of desired teaching and learning outcomes (see Table 4.4):

**Table 4.4 Principles of desired outcomes**

<table>
<thead>
<tr>
<th>5 Principles of desired outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Comprehensive development of students across a broader context, including professional, economic, political and cultural environments;</td>
</tr>
<tr>
<td>• Student-centred focus and a motivational learning environment;</td>
</tr>
<tr>
<td>• Good quality teaching;</td>
</tr>
<tr>
<td>• Use of technology to strengthen teaching and learning practices; and</td>
</tr>
<tr>
<td>• Partnership with the community and other professionals.</td>
</tr>
</tbody>
</table>
Elaborations are also provided in the document, indicating where these five principles are applicable to practical life. For instance, for the fifth principle, professionals can be invited as guest lecturers to provide practical training for students. Moreover, the provision of internship opportunities by organisations is another learning experience for students, together with solicitation of feedback from employers for future curriculum development.

Another document at University B, developed a while ago and updated recently is the Criteria For Different Levels of Teaching. It states that teaching consists of four key basics (see Table 4.5):

<table>
<thead>
<tr>
<th>Table 4.5 Key basics of teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Key basics of teaching</td>
</tr>
<tr>
<td>● Preparation for teaching:</td>
</tr>
<tr>
<td>● Interaction with students:</td>
</tr>
<tr>
<td>● Assessment of students and provision of feedback; and</td>
</tr>
<tr>
<td>● Other development activities, e.g. professional development.</td>
</tr>
</tbody>
</table>

This document also classifies the quality of teaching into three levels: Basic teaching, good teaching, and excellent teaching. It is noted that the descriptions of good teaching that are defined in University B are largely consistent with those in University A pertaining to effective teachers. Beyond this parameter, the descriptions
of excellent teaching are more focused on the aspects of promoting innovative practices in order to enhance and motivate student learning.

*University C*

The senior management of University C developed a special task force to heighten teaching and learning quality in 2000. After these inclusive consultation processes were contributed by the teaching staff, a year later, the first publication on the Quality of Teaching and Learning was announced. This document is a practical one and has to a great extent articulated clearly the mission of teaching and learning at an educational institution. It also describes the values, practices, and strategies in detail that aims to improve teaching and learning continuously. The document emphasises the best practices that a university should retain to facilitate good teaching (see Table 4.6):

**Table 4.6 Best practices of good teaching**

<table>
<thead>
<tr>
<th>Best practices of good teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Frequent interaction between students;</td>
</tr>
<tr>
<td>• Regular interaction between faculty and students;</td>
</tr>
<tr>
<td>• Diversification of teaching and learning practices;</td>
</tr>
<tr>
<td>• Development of an interdisciplinary curriculum;</td>
</tr>
<tr>
<td>• Assessment of student research; and</td>
</tr>
<tr>
<td>• Provision of student-centred support services.</td>
</tr>
</tbody>
</table>
The above emphases are somewhat different for University A and University B. This structure is a consequence of the specific mission and cultural characteristics of University C. Still, these are broadly consistent with the above two universities.

*University D*

University D stresses the significance of teaching and learning in the course of institutional statement – to provide students with the best education in general education and other specialist subjects. In recent times, there has been a move from routinely offering subjects and programmes to promoting particular teaching activities and creating innovative learning environments for students. Similar to the other universities, as discussed, University D carries out an excellence teaching award scheme; a research project was conducted long ago and a survey on the awardees through interviews. Finally a set of “excellent teaching principles” was derived and then practise throughout the university.

4.4 Rewards and Resource Allocations
To heighten teaching and learning quality, rewards and resource allocations are believed to be one of the significant practices that maintain motivation among staff and faculty. As discussed previously, rewards can be given at 2 levels: 1) the unit level and 2) the individual level. According to this study, examples at both levels were found in the universities.

4.4.1 Rewards to Units

Across the universities interviewed, the decision of budget allocation on rewards to units is proportionate to the student headcount rather than an arrangement of teaching and learning efficacy. However, therein invites an argument that if universities acknowledge the importance of good and excellent teaching, why are rewards not issued to units according to the most efficacious arrangements for teaching and learning? In fact, the panel of TLQPRs shares the same view and makes a recommendation to the universities that a thin slice of the budget should be allocated to reward units based on their efforts to improve and assure teaching and learning practices. Three out of four universities studied indicated how they implement their rewards system and allocate resources. They have adopted different systems, and their individual advantages are shown.
University A and University B use a system wherein their determination of funding for all units is based on performance. The performance is analogous to salary of an individual, and it benefits all units directly. University C adopts another system where only a small number of units with particularly high performance are rewarded. It is analogous to individuals with teaching excellence rewards.

*University A*

To complement the weakness of resource allocation that is proportionate to the number of students, University A has implemented a new funding system recently. The old model is being challenged as not being conducive to heighten teaching and education quality due to lack of room for new initiative development. The new funding methodology aims to provide a greater extent of flexibility for academic development and strategic planning. Every year, 5% of the annual budget will be shifted toward the central pool of performance-based funding. Faculty may apply for extra funds from the pool for excellent performance and continuous strategic development priorities. All funding in the pool will only be used for the faculty
development purposes. The allocation of performance-based funding to faculty is based on four considerations (see Table 4.7):

<table>
<thead>
<tr>
<th>Considerations for performance-based funding</th>
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</thead>
<tbody>
<tr>
<td>• Effective use of resources;</td>
</tr>
<tr>
<td>• Academic development;</td>
</tr>
<tr>
<td>• Research development; and</td>
</tr>
<tr>
<td>• Professional and community interactions.</td>
</tr>
</tbody>
</table>

*University B*

University B has adopted a system that is conceptually similar to University A, but the framework and implementation are fairly different. Similar to University A, 5% of the total budget is reserved every year. It allocates funding to the faculty in accordance with the review results for the programmes. Every programme is subject to an external review at great length. Such reviews are carried out once every six years, and annual progress reports are submitted in alternate years. The allocation of 5% of the available funding is based on their performance. The reviews measure different elements and outcomes of each programme (see Table 4.8):

<table>
<thead>
<tr>
<th>Different elements and outcomes of a programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Effective use of resources;</td>
</tr>
<tr>
<td>• Academic development;</td>
</tr>
<tr>
<td>• Research development; and</td>
</tr>
<tr>
<td>• Professional and community interactions.</td>
</tr>
</tbody>
</table>

160
Different elements and outcomes of a programme

- Course content;
- Student learning outcomes;
- Student learning activities;
- Assessment scheme;
- Training and development for teachers;
- Summary of areas for improvement undertaken since last review; and
- Action plans for 1-6 in the coming years.

Although the framework for performance judgments is rather different from University A, the philosophy is still the same.

*University C*

University C has adopted another approach which focuses on cooperative efforts to maximize and strengthen student learning. Reviews are carried out by a selection panel, and awards are given to faculty who has implemented efforts based on the below evidence categories (see Table 4.9):

**Table 4.9 Categories of evidence for funding**

<table>
<thead>
<tr>
<th>Categories of evidence for funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>- High teaching quality, e.g. teaching evaluations, activities to motivate student interest in learning, peer review, and participation in teaching professional development courses and workshops.</td>
</tr>
<tr>
<td>- All-rounded curriculum design, e.g. flexibility of study choices for students, opportunities for problem-based learning, participation in professional development, and assessment strategy for students</td>
</tr>
</tbody>
</table>

161
Student and teaching staff interaction, e.g. mentor programme for junior students, teaching staff participation in student extra-curricular activities, departmental initiated community work and services and gathering feedback from students and graduates

Out-of-class experiences, e.g. provision of research and work opportunities in the faculty, matriculation of students with non-academic (i.e. sports and music) talents for the university and support of student society by all faculty.

4.4.2 Rewards for Individuals

The common rewards given to academic staff include promotions, reappointments, contract renewals, and substantiation. Since teaching is the primary function of HEIs in Hong Kong, any personnel decision must therefore be associated with an individual’s teaching competence and performance. Further, this teaching competence should also be linked to the mission of the institution, namely, to provide the best teaching.

Every HEI has clearly defined three areas of good teaching competence by its academic staff in regard to personnel decisions: 1) teaching quality; 2) research quality; and 3) contributions to the institution and the community. These personnel decisions imply that teaching competence is judged by criteria based on each university’s philosophy. It is thus important for educational leaders to communicate improvement and quality assessment activities clearly to their teachers and ensure that
they have received the most accurate messages so as to deliver the desired teaching quality to students.

Conceptually, four universities provided examples on this aspect of coherence and that issue is addressed explicitly by rewards and regular appraisals of individual performance. For an effective staff appraisal, the following key features should be noted (see Table 4.10):

Table 4.10 Key features of effective staff appraisal

<table>
<thead>
<tr>
<th>Key features of effective staff appraisal</th>
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</thead>
<tbody>
<tr>
<td>• Appraisal should be an integral part of personnel decisions by linking it with institutional philosophy;</td>
</tr>
<tr>
<td>• Staff review should be undertaken by a Departmental Review Committee;</td>
</tr>
<tr>
<td>• Appraisal should be primarily summative, and normally follow a cycle of three years; and</td>
</tr>
<tr>
<td>• No staff will work longer than three years without a regular staff appraisal.</td>
</tr>
</tbody>
</table>

Every teacher knows the most important domain to assess is teaching. Teaching staff produce their teaching portfolios in the following areas (see Table 4.11):

Table 4.11 Teaching portfolio essentials

<table>
<thead>
<tr>
<th>Teaching portfolio essentials</th>
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</thead>
<tbody>
<tr>
<td>• Innovations in teaching;</td>
</tr>
<tr>
<td>• Student supervision;</td>
</tr>
<tr>
<td>• Student evaluation;</td>
</tr>
<tr>
<td>• Continued scholarship of teaching;</td>
</tr>
<tr>
<td>• Student professional development; and</td>
</tr>
<tr>
<td>• Ongoing course evaluation.</td>
</tr>
</tbody>
</table>
In summary, all four universities studied here utilise similar approaches to reward units and individuals. Considerations are also taken to arrive at positive personnel decisions. The system that University A uses seems to be a more transparent methodology with criteria specified clearly. In addition, this model generates an indicator to evaluate the strength of an individual.

4.5 Awards for Teaching Excellence

In Hong Kong, all universities have put procedures in place for appraising the performance of teaching staff regularly. This process represents those universities who have carried out their institutional responsibility to ensure that their staff is at an appropriate level of professionalism and competence for teaching. Besides, staff appraisal results can be served as a point of reference to improve teaching further.

In principle, staff appraisals can also be used to determine such financial rewards as performance-based remuneration. Some universities in H.K. now have set up teaching excellence awards; outstanding teachers are selected through a standardised set of procedures. Although the basic function of this reward scheme is the same for most
institutions, the selection procedures and criteria do vary to some extent from one university to another.

It is noteworthy that the implication of giving teaching excellence awards is the advantage of internal motivation for quality improvement. Some improvement may take place, such as award winners acting as role models of good teaching, award winners promoting excellent teaching in a university as a post-award responsibility, and teaching excellence awards as ongoing performance goals for other teachers to attain.

Despite performance appraisals being widely used in the universities in Hong Kong, the implication of teaching excellence awards – internal motivation for quality improvement – has not yet been utilised fully. The below example shows that University B is beginning to address the matter systematically. The next section summarises the common issues that some universities have had to tackle when developing their award procedures. Although their systems may not necessarily be the best model that all institutions should follow, the systems have undergone considerable evaluation and modifications that are of great help for future improvement.
University A

The teaching excellence award system has been in place for 10+ years in University A. Details of their award-winning mechanism are summarised as follows:

Administration of the awards

The awards are centrally administered by a Quality Assurance Committee and conferred by the university. Each award has a money prize of HK$15,000. Awards are presented to winners at the Degrees Congregation annually and the names are put on a register then displayed permanently to recognise their contributions to excellent teaching. More than one award is presented every year, and the awards are indistinctive with no ranking.

To ascertain excellence, the Selection Panel identifies those outstanding teaching practitioners who have evidenced their performance as meeting the below selection criteria. A teacher with a high level of teaching competence should have the following skills (see Table 4.12):
Table 4.12 Skills for high teaching competence

<table>
<thead>
<tr>
<th>Skills for high teaching competence</th>
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<tbody>
<tr>
<td>• Facilitate and motivate student learning, including the skills of applying strategies effectively which encourages student’s independent learning ability and stimulating student interest in learning;</td>
</tr>
<tr>
<td>• Make constructive contributions to the teaching culture of the university by demonstrating involvement in promoting the scholarship of teaching and participation in designing curriculum and its development;</td>
</tr>
<tr>
<td>• Provide students with updated knowledge and develop expertise in the skills of linking scholarly and research activities to teaching, connecting with professional bodies and involving community activities in teaching; and</td>
</tr>
<tr>
<td>• Continuously improve teaching and establish innovations in teaching by demonstrating a self-reflective attitude toward teaching, an eagerness to respond to feedback on their teaching and learning processes from stakeholders, and relate their professional development activities to further teaching and learning.</td>
</tr>
</tbody>
</table>

University B

The teaching excellence award system is also in place in University B and for many years, basically a similar circumstance to other universities in Hong Kong. However, in a recent discussion document, some adaptations to the scheme were suggested related to matters of administration and the selection criteria. Moreover, post-award practices were also suggested to utilise the potentials of the award winners for designing activities that promoted quality improvement in teaching.
In fact, the above suggestions only revolved around the recognition of the award winners. Practically, these award winners as the models for teaching fellows and should help promote teaching scholarship within the university. They should also act for the university to collaborate on educational development. Essentially, the awards should be viewed as the first stage of ongoing development instead of merely prizes for achievement.

*University C*

University C has in place a similar system of teaching excellence award as University A and University B, but they take the form of Teaching Innovation Awards. These awards are designed to promote innovative approaches on teaching and assessment, but not necessarily only related to individuals or excellent teaching as defined previously. To differentiate, one example may help. Let’s imagine the awards at the famous Oscar Annual Academy Award. The teaching excellence award is similar to one for Oscar’s best actor, where teaching innovation award is the best film. The award selection procedures as described in university documentation are summarised below.
To be qualified to receive the award, innovation must be applied in teaching or contributions made to scholarly activities outside the university. Teaching innovations can include (see Table 4.13):

Table 4.13 Teaching innovations

<table>
<thead>
<tr>
<th>Teaching innovations</th>
</tr>
</thead>
<tbody>
<tr>
<td>● a new framework for course structure.</td>
</tr>
<tr>
<td>● Use of a variety of course materials or cases designed by the teacher.</td>
</tr>
<tr>
<td>● Use of Action Research to enhance student learning systematically.</td>
</tr>
<tr>
<td>● Use of innovation problem-solving and group learning.</td>
</tr>
<tr>
<td>● An innovative technology to enhance the quality of teaching.</td>
</tr>
<tr>
<td>● An innovative teaching technique or methodology.</td>
</tr>
</tbody>
</table>

The last teaching innovation is vital because teachers are unavoidably constrained by inherent cultural contexts and expectations from the public. However, the quality of student learning can be enhanced by changing these constraints, and innovative teaching techniques and methodologies can be revolutionized by the learning environment. It is better to make changes and move beyond such constraints rather than finding ways to improve teaching within the conventional contexts.

4.6 Distribution of Teaching Development Grants (TDGs)
The establishment of TDGs by the UGC has produced considerable impact on the development of new initiatives in teaching and learning. Most institutions have set up their internal TDGs alongside their block grants. This focus is not only important for the credibility of the institutional mission in terms of the primacy of teaching, but also to gain more institutional support for their teaching initiatives. The amount of TDGs available at each institution varies. At a large university, it can reach HK$5 million annually. HEIs with different missions concentrate their internal administrative practices on monitoring and allocating TDGs, which can vary. It is not easy to prescribe the specific best practice of the TDGs; thus, some questions remains for institutions to address. Below are good examples of funding that both University A and University B undertake:

*University A*

One good example for University A is the scope of funding mechanisms provided.

There are three categories of TDGs (see Table 4.14):

*Table 4.14 Categories of TDG funding*

<table>
<thead>
<tr>
<th>3 Categories of TDG funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A share of these grants is allocated to faculties and the funds are then redistributed to their departments or units for initiatives judged by Faculty Deans, to be effective strategically;</td>
</tr>
<tr>
<td>• Another share is distributed for competitive bids that of a collaborative nature between faculties;</td>
</tr>
</tbody>
</table>
The remaining share is given to support university-wide projects of strategical significance.

University B

University B distributes TDGs with the below considerations (see Table 4.15):

<table>
<thead>
<tr>
<th>Considerations for distributing TDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The key principle for funding is the projects must demonstrate direct and instructive benefits for teaching and learning. The proposal, for instance, should identify the possible benefits to the university, support the university’s missions for education, and show how the benefits can be maximised within the university and beyond it, if possible.</td>
</tr>
<tr>
<td>• The feasibility of the project can be achieved in terms of budget, timeline, and other resources.</td>
</tr>
<tr>
<td>• There is involvement of innovative methodology or ideas, such as the innovation student learning approach and assessment.</td>
</tr>
</tbody>
</table>

Partial funding is allocated to large group projects, and collaboration with faculties is encouraged with a higher funding amount possible.

4.7 Assurance and Improvement of Strategic Teaching and Learning Quality

To foster teaching and learning quality, efforts must be paid. Given that teaching and learning are the primary functions of HEIs, management infrastructure to ensure quality assurance and its improvement is an integral part of the success of the HEIs.
This infrastructure may be constructed through a number of foundations and include working parties and committees, regular departmental reviews and assessment, and education quality work (EQW) reviews at both the institutional and faculty level.

As discussed in previous chapters, distinguishing between quality assurance (QA) and quality improvement (QI) is not easy; in fact, there are many areas that overlap. In brief, QA focuses on the fulfilment of minimum levels of quality related to, for example, academic programmes, academic standards, and graduate competence, while QI emphasises ongoing development for further achievement. Thus, the processes of QA can be modified periodically according to their particular requirements, whereas QI requires a constant set of practices and a strong belief in continuous attainment.

One central concept that guides TLQPRs is EQW. It closely relates to QI. EQW is not merely focused on day-to-day practices; it indicates that a set of practices can heighten the quality of routine practices for teaching and learning. For instance, classroom teaching refers to a certain set of practices, such as lecturing, questioning, student discussion, and small group work effort, that is judged based on preset criteria and standards. When EQW is applied to classroom teaching, that means that a set of practices is implemented to enhance the effectiveness of classroom teaching, for
example, response to student feedback, peer review of practices, literature review of practices and reflective practices.

To ensure that both QA and QI are taking place, effectual management of teaching and learning is inevitable. The processes of QA and QI should be viewed as “business as usual” for teaching and learning. They should not be deemed as simply add-on administrative and bureaucratic procedures. It is especially true in the case where QI activities are associated with EQW. Preferably, it is good to advocate EQW as an element of the institutional culture that leaves teaching and learning together and with EQW becoming the primary function of the HEIs.

The integral concept of the recent report by TLQPRs suggests a cluster of principles for management infrastructures that can lead to the development of quality assurance and improvement (QA&I) in the HEIs. These principles are highlighted in brief below:

*Economy and efficiency of effort*
In essence, if the system of quality assurance is not proficiently managed, it is possible that the implementation of QA&I activities will result in leaving less time for both teaching and learning. In terms of formalising QA&I activities, the basic principle is to forecast a minimum sufficiency of resources needed for achieving the desired outcomes and validate their effectiveness against the desired and also the actual state of affairs.

*Campus-wide commitment*

TLQPRs emphasise the importance of collaboration between academic faculties in order to engage with EQW and its association of institutional culture for continuous improvement. Thus, TLQPRs call for a campus-wide commitment from units, departments, and faculties to have educational leaders work on the management infrastructures for QA&I.

*Devolution and ownership*

Campus-wide commitment to a great extent implies that meta-practices are actually driven by top management of an institution. However, this policy cannot achieve a
standardisation of these meta-practices. To achieve this goal, the front-end responsibilities should be evolved from the top mission down to programme level and from faculties down to units level for the best development of the QA&I processes and consistency with the primary aims of the systems. For instance, there is a requirement from the institution to regularly gather student feedbacks on teaching, so the process is unnecessarily developed at the institutional level. It can be devolved to academic units, although some key directions are still needed to guide the uniformity of that process.

Coherence and consistency

The QA&I processes relating to teaching and learning quality within the institutions must be mutually supportive and derived from a shared agreed-upon set of concepts, criteria, and standards. Mixed messages can only confuse, and the QA&I framework cannot then be implemented to create the full culture of quality within the institution.

University B states that: Better communication and understanding have been achieved among respective staff/units, helped to clarify the academic standards to staff/students, enhanced motivation for improvement and best practices; made outcomes from
teaching process more measurable; and ultimately benefits students, society and the whole economy in Hong Kong.

4.8 Examples of the Management Infrastructure for QA&I

Four universities studied here have undertaken substantial efforts to develop QA&I processes. Some of their particular practices are essentially consistent with TLQPR principles.

University A: Diverse formalised structural elements

At University A, a number of committees oversee the different aspects of QA&I, i.e., the Learning and Teaching Committee and Quality Assurance Committee. The former Committee is responsible for the development of procedures and policies that support teaching and learning quality, and for implementing procedures and policies that can facilitate teaching and learning. The Committee is also accountable for ensuring that such institutional policies are fully integrated with all teaching and learning experiences.
The latter, the Quality Assurance Committee is responsible for the assembling of QA systems institution-wide, and the supervision of their operations at faculty and departmental levels. Each department must identify its goals on the QA system and explain how they will be achieved, including the nature of any restraints and the development stages. This QA documentation becomes the self-conviction to strive for success from the department itself, rather than simply a standardized mechanism imposed by the university.

In other HEIs, Committees are commonly established to oversee the QA&I on learning and teaching. The fact that all institutions form such Committees carries out the last three principles as discussed above. In essence, Committees devolve their responsibilities to faculties and departments to develop the processes of the QA systems – with reference to both a high level of directions and objectives acquired from Committees – and help develop a quality culture within the university.

At University A, there are two key annual reviews of QA&I processes for different timeframes. First, a business plan and QA report are required to be submitted by the faculties and subject to the Quality Assurance Committee overview. A business plan outlines the departmental developments in the coming three years, while a QA report
reviews departmental activities and achievements and evaluates procedures as well as plans for further improvements. These documents are presented to the Dean and Faculty Boards for comments and approval. The consolidated final report is then submitted to the Quality Assurance Committee for endorsement. Eventually, the Dean’s report, together with the Quality Assurance Committee’s comments, is subsequently considered by the Top Management Committee, whose feedback will be given to the faculties for further implementation.

Secondly, an external academic adviser is appointed for each department to perform a holistic review of each department annually. The academic adviser acts as an assessor to determine the rate of progress of the business plan and QA report. The Committees also consider the adviser’s report along with the above documents.

The emphasis of such annual exercises on ongoing activities apparently is QI. Together, the evolution of obligation to faculties and departments helps assure the principles to abide by.

Other than the annual reviews, an extensive departmental assessment of the university is carried out once every five years. This in-depth exercise involves peer reviews both
internally and externally and covers all aspects of activities within the departments. At the department level, QA is the major focus. At the programme level, the focus is placed on the systems and procedures for programme validation and reviews the participation of internal and external peer reviewers.

University A contends that: *all university staff at all levels are involved in the QM system; from bottom up to top down and vice versa; assisted by an Implementation Committee of 12 essential staff - from drafting procedures, recommending changes to monitoring implementation. Without all staff’s whole-hearted commitment, QM is just like a dream that will never come true.*

*University B: Focus on student learning outcomes*

At University B, the QA&I approaches emphasise achieving desired student learning outcomes and how policies are framed based on these outcomes. The responsibility of the Quality Assurance Committee is to oversee the QA policy and the internal quality audit. Although the development of QA&I processes is devolved from a set of guidelines given to faculties and departments to ensure that departmental activities improve teaching and learning quality. Departments are asked to:
1. Make improvement in: a) designing and delivering the academic curriculum in a professional manner, including teaching and learning approach, student assessment, and assurance of academic standards; and b) designing and delivering the out-of-class experience for students, including mentoring, internship, and professional skill development;

2. Establish mechanisms for assuring quality, for example the following (see Table 4.16)

Table 4.16 Mechanisms for assuring quality

<table>
<thead>
<tr>
<th>Mechanisms for assuring quality</th>
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<tbody>
<tr>
<td>• Providing discussion forums for academic staff to participate in the design and delivery of education to promote the development of quality culture within the department and encourage the use of professional resources in the department to support teaching;</td>
</tr>
<tr>
<td>• Using peer review by academic practitioners in the design of academic programmes and their delivery, the scaling of student grades and meeting academic standards versus international norms, and transitioning to good practices and benchmarking;</td>
</tr>
<tr>
<td>• Consulting with stakeholders, such as alumni, other academic units, students, employers, and professional bodies;</td>
</tr>
<tr>
<td>• Assessing learning outcomes to improve teaching and learning performance; and</td>
</tr>
<tr>
<td>• Developing action plans with well-defined responsibilities and timelines and having a commitment to achievement.</td>
</tr>
</tbody>
</table>

3. Report to its faculty board annually on areas of improvement and on the implementation progress of systems for assuring and improving quality and academic standards.
It is obvious that to emphasise QI, the intention of establishing a quality culture and the evolution of responsibilities and activities to working levels with a set of guidelines is inevitably significant. Thus, adherence to these principles is ensured. Moreover, the panel of TLQPRs describes the activities that concern quality in University B as a “culture of evidence”. This is the second value discussed in Chapter II.

*University C: Ad hoc working groups set up for specific purposes*

In some cases, ad hoc or informal working groups are established for particular purposes. At University C, a task force was temporarily set up for carrying out specific issues related to teaching and learning quality. The goals of the task force were to develop policies and promote the teaching and learning excellence of the university. It also undertook a variety of surveys, studies, and discussions with all faculties and departments and provided recommendations for improvement. Finally, the Senate of the university adopted many of the recommendations provided by the task force for significant development on the overall quality of teaching and learning as well as QA&I arrangements to do so.
University D: Innovation of a “think tank”

University D, developed a “university think tank” some years ago to carry out the development of academic curriculum and review of its framework. The “think tank” recommends an experimental approach to use in different disciplines to facilitate different methodologies for study and provide an integrated framework for designing and implementing appropriate curricula for individual faculty and departments. It was shown in a university publication that University D successfully extended and integrated the QA&I process into a programme by adopting the experimental approach suggested by the “think tank”.

4.9 Observations

From the above findings and analysis, it reveals that individual HEI adopts slightly different emphasis in these categories while the fundamental approach to QM aligns with universal and government settings. Moreover, quality is a primary element in the customer-supplier relationship, and it must be constructively built and then managed. QM is thus adopted to address customer needs effectively and efficiently. All HEIs
are necessary to take the lead in moving the whole higher education sector from individual achievement-oriented process to procedural improvement-oriented effort. Under a clear system of thinking, HEIs can redesign their processes of teaching, administration, research and service as well as integrate basic quality principles effectively with all their educational, administrative and other support systems. Accordingly, both faculty and administrators should take on the responsibility for examining the opportunities for improving quality, not just for their own institutions but also for the higher education sector as a whole. In fact, universities should also take on their own missions to transform professionalism in QM and prepare students to be quality leaders in their particular fields. According to Gumport (2007), such transformation cannot be achieved merely by adopting, for example, more specialisation, greater performance accountability, greater emphasis on test results or structures, or providing more training to students to fit the existing systems. Instead, new restructuring with an aim of improving student achievement and higher education development can occur by making fundamental changes to the design of the processes and managing the educational, administrative and support systems throughout each institution. More importantly, these changes must be based on the customer and other constituent needs in order to achieve the most significant results.
In addition, Zink and Schmidt (1995) affirm that organisations are usually designed in line with what results those organizations want to obtain. They clearly point out that to achieve better performance, “rethinking” of the design of their systems is necessary. Hence, the foundation for changes in higher education and their work systems starts by rethinking their roles, rules/responsibilities and then rethinking the strategies/principles/practices of their staff members. On the whole, these concepts add up and can address important QM issues in the higher education sector. This same principle applies also to teaching and learning in the higher education sector.

To summarise, the significance of QA&I on both teaching and learning quality in higher education is in accordance with the four universities studied here. Traditionally, institutions are more emphasised on the QA to ensure that the quality level remains consistent with international standards. This emphasis later develops to be an indispensable part of QI in that the improvement of teaching and learning quality are integrated with the policies and practices of these institutions. Ongoing efforts must also be paid for to create an institutional culture for enhancing, assuring and improving teaching and learning quality throughout the institutions. Nevertheless, effectiveness is still the issue. Many institutions strive for a balance between
efficiency and limited resources. The implementation of the EQW cannot wait, as it fosters the full growth of individuals and the community.

Part B. Focus Group Studies

In accordance with the methodology explained in Chapter III, interview data were collected, categorised, and analysed as follows:

4.1 Promote the view that the primary functions of university are teaching and learning

The focus groups agreed that the primary functions of HEIs are teaching and learning, because they make the efforts to acquire knowledge for academic/career development and make a living after graduation. Advance in university ranking (principally through more prominent research, more funding from government/industry) will in turn advance teaching and learning. As major stakeholders, they concurred that HEIs should prioritize to improve teaching and learning, facilitate proactive collaboration among various academic units to improve teaching and learning, and offer best
practices and motivation to the teaching staff (e.g. workshops, seminars, teaching
development grants, education allowances, teaching excellence awards). The
participants also opined that though research is emphasised, quality teaching remains
inevitably important.

To strike a fair balance, HEIs should increase teacher weight during teacher
performance and appraisal upon substantiation, contract renewal, pay raises, or
promotion. They believe that teaching and learning quality should be sought
continuously for all HEIs. TLQPRs play an important role in pushing for its ongoing
success, which in turn rely on the embedded quality of culture in staff/student
mindsets and HEI’s extended commitment to QA&I as well as the pursuit of valued
research outcomes.

University F students opine that: *We don’t know too much on this University’s QM
systems, sometimes we feel over-cared as some teaching staff are very sincere, patient
and cooperative; whether it’s a result of the QM system or others, we are not very
sure, yet we surely benefit from all these QA&I activities.*

4.2 General view of the framework for Education Quality Work and its
implementation with respect to

- Procedures and activities to ensure the quality of education
- Curriculum, Teaching and Learning, and Assessment
- Design, Resources, and Allocation Implementation

The focus groups acknowledge that EQW refers to academic activities that focus at ensuring and improving education quality. Faculties should be empowered to improve teaching and learning continuously, while senior management can release their overseeing duties to avoid micromanagement. The EQW must not be involved with teaching itself. EQW should locate the most suitable curricula and work toward improving teaching and learning procedures, while delivering that curriculum content stays within the sphere of teaching. EQW helps improve assessment activities, while the actual assessment of students is not. Peer evaluation is through EQW, but not the teaching activities themselves. Systematic experiments and benchmarks for curricula design alternatives will improve teaching and learning procedures as well as assessment activities.

The interviewees opine that systematic exit surveys of graduates contribute to reflecting EQW development, as graduates can verify in practice the learning
experience they have attained from HEI while giving valuable feedback (e.g. curriculum design; quality of teaching, learning and assessment, design; resources and allocation implementation; program procedures and activities ensuring education quality) to HEI for QA&I. Such exit surveys require graduates to rate on a Likert 5-point scale self-assessment of learning gains, the degree of useful professional knowledge and skills, critical thinking, integration in problem-solving, effective presentation, teamwork ability, relevance of program design, clear indications of program requirements, availability of help from teacher, ability in applying knowledge, sense of belonging to faculty/department, library resources, information technology facilities, laboratory equipment, classroom facilities, common rooms, design studios, best aspects of program, areas of improvement for program, etc. They do appreciate also which generic skills (e.g. creativity, communication ability, team building, innovation) are acquired and which are helpful in their subsequent academic and career progression.

Alumni can contribute to advise on the relevance of program design, since graduates have gained some years of practical experience. Such an alumni survey is not formalised or mandated by HEI, and yet alumni comments are particularly useful upon new program validation and accreditation, which in turn, helps in developing
EQW and QA&I. Alumni will exert their influence in departmental or program advisory committees to advise and monitor the program required standards and quality, together with all major stakeholders from professional institutes, employers, and comparable HEIs.

Some graduates are employers as well who indicate their willingness to employ fresh graduates from the same department; as a trust to that graduates’ quality/ability resulting from the HEI’s continuous efforts placed on EQW and QA&I. HEIs operate mandatory employer surveys to analyse graduate and employer satisfaction data (e.g. graduate capabilities for fulfilling workplace requirements; extent of attitudes, knowledge, skills, professional competence, and values). Graduating cohorts are surveyed for 3 years, and the analyses channel into the HEI’s QA&I system. The participants acknowledge that they are confident of HEIs’ ability to continue producing relevant and quality graduates (or products, as discussed in the literature review) under such a QA&I system. They also recap that they have been interviewed through the TLQPR previously, which is a good measure to continue enhancing quality.
The focus groups admitted the usefulness of HEIs to engage external academic advisors (EAA) for each program who are renowned academics (either local or overseas) to advise on curriculum design, teaching, relevance of assessments, and student performance with international benchmarking. Such a process will in turn enhance QA&I. It can interpreted as well that EAAs serve as a third-party audit in a regular manner (e.g. to check examination papers and audit answer scripts every semester, vet program reports, comment on validation reports) in addition to other QA&I exercises.

They concurred that workshops/seminars organised through HEIs’ Education Development Office (EDO), English Language Teaching Unit (ELTU), Teaching Development Unit (TDU), Education Development & General Education Unit (EDGE), Independent Learning Unit (ILU), English Learning Centre (ELC), Chinese Civilisation Centre (CCC), Centre for Learning Enhancement & Research (CLEAR), Information Technology Service Centre (ITSC), Educational Development Centre (EDC) or the like do promote quality teaching and learning.
Resources allocation for soft services and built facilities are also perceived to enhance quality education, e.g., by adding multi-media centres, academic staff induction, disabled facilities, computer hardware implementation, software upgrading, new laboratories, and equipment and space reallocation.

University E teaching staff recollect that: *The budget cut during Hong Kong’s hard times a few years ago rendered no funding was available for recruiting teaching staff, not to mention launching student activities to enhance educational quality.*

### 4.3 TLQPR and the economy and efficiency of effort, campus-wide commitment, devolution and ownership, coherence and consistency

The focus groups opined that auditing processes should concentrate on EQW, which is evolving as a principal entity for developing quality programs. External agencies, such as TLQPR, will help evaluate EQW more objectively than the HEI itself in the following respects:

- Clear indication of curricula design, course structure, teaching order, perspective, program and course intended learning outcomes, teaching and learning activities,
assessment criterion, principal quality indicators, student needs, resources materials as content vehicles, and expected generic skills.

- Clear design of teaching and learning processes, teaching plan, student stimulation ad interaction with teaching material, mechanism of feedback for students, role of faculties and departments.
- Clear student assessment, measurement and indicators, determination of long-term outcomes of students’ learning experiences, availability of baseline and trend information.
- Clear implementation of quality assurance, assuring teachers do deliver teaching as planned, consistent execution of teaching ad learning processes, assessments performed as scheduled, departmental processes in quality implementation.

In addition, the participants opined that TLQPR should incorporate the following essentials (see Table 4.17):

<table>
<thead>
<tr>
<th>Table 4.17 TLQPR essentials</th>
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</thead>
<tbody>
<tr>
<td><strong>TLQPR essentials</strong></td>
</tr>
<tr>
<td>Define education quality with respect to outcomes.</td>
</tr>
<tr>
<td>Concentrate on the teaching and learning process.</td>
</tr>
<tr>
<td>Look for coherence in curricula and the educational process.</td>
</tr>
<tr>
<td>Cooperate to enhance mutual support and involvement.</td>
</tr>
<tr>
<td>Decide on the facts.</td>
</tr>
<tr>
<td>Mitigate quality variations.</td>
</tr>
<tr>
<td>Prioritize quality improvement continuously.</td>
</tr>
</tbody>
</table>
Certain issues should be addressed, e.g., teachers’ fulfilling student development of competence, integration of knowledge with curriculum, experiments using EQW principles, quality work initiatives tracked by task forces, departments embedding EQW as academic culture, teachers enforcing EQW via routine interactions, no ad hoc experimentation and firefighting, EQW being visible within HEI, EQW rollout and tracking of programs, adoption of EQW for performance criteria and budgeting, continuous improvement linking personnel review exercises, promotions and pay raises.

They also commended that their respective departments for being cohesive and committed professionally with student active involvement and critical discussion of quality issues. Design inputs were proactively utilized and integrated from various sources, while feedback loops effectively operated.

Some interviewees recollected that during a TLQPR, the sharing between faculty members strengthened their understanding of the nuts and bolts of teaching and learning, sense of belonging to the HEI being raised, knowing more about teachers’ dedication to education, departments’ fostering student ability for leadership, generic
skills and life-long learning, aroused to develop comprehensively and consistently, achieving whole person development, deeply understanding the departments prior to graduation, and narrowing the gap in teacher/student communication.

In summary, the focus groups commended that TLQPR as a useful exercise for HEIs to provide a general framework for delivering the highest quality teaching and learning to the H.K. community.

4.4 Management infrastructure for Quality Assurance & Implementation (QA&I) including diverse formalised structural elements, a focus on student learning outcomes, work groups for specific purposes, and innovation of a “think tank”

The participants concurred that formalised structural elements (e.g. Postgraduate Academic Review Committee, Senate Academic Planning Committee, Academic Conduct Committee, Grievance Committee, Undergraduate Academic Review Committee, Appeal Committee, Quality Assurance Committee, Academic Planning Committee, Student Development Services, Resource Allocation Committee, Faculty...
Advisory Committee, Departmental Advisory Committee, Student Advisory System

Senate Committee on Teaching & Learning, Departmental Teaching & Learning Committee) of the HEIs will help push QA&I, as they can have a channel to use to voice their concerns, grievances, and appeals regarding any irregularities, malpractices and poor management within the HEIs.

The respondents appreciated the voluntary institutionalised procedures composed of various campus-wide processes for staff to tap into easily. One relevant example is the standardised diagnostic survey in a HEI, available early on in a semester to offer staff student feedback to improve teaching. Staff should do a self-evaluation using the same survey form as students do. Targeted Teaching Strategies pamphlets are available for staff use as well.

The interviewees acknowledged staff voluntary activities to solicit student feedback in informal ways (e.g. early feedback on teaching rather than waiting for formal feedback at end of semester, one-minute questionnaires after each teaching session, forming a small class consulting group). Some participants recalled that they were
praised as “articulate, confident, and valuable for the role they play in QA&I processes” during one TLQPR.

Some of the innovations proposed by the HEI think tanks include: Action research to measure/monitor student learning problems/outcomes in individual courses and programs; students encouraged to participate in community/campus/professional services and sport competitions where possible to enhance whole-person development.

They contend that staff active self-consciousness can improve the explicit processes at all tiers of HEIs. Such self-consciousness must include rigorous discussion on quality issues, review of best practices, and examination of possible innovations systematically. Centralised procedures should be engaged in to initiate and reward the adoption of student learning outcomes as a way of implementing suitable curricula design, helpful student assessments, and excellent teaching performance.

They agreed that HEIs have transformed students so they are both innovative and adaptive (with learning how to learning, life-long learning skills) in an “Age of
“Information” that can better fulfill employer expectations and thrive in a demanding environment. QA&I aids in launching changes to concentrate on student outcomes and gather data in a systematic manner to assess the means, losses, and benefits of education and develop further ownership and more commitment effectively.

The participants enjoyed the various services, competitions, and orientation provided by different committees within each HEI (e.g. Student Affairs Committee, Staff-student Consultative Sub-committee, Student Counselling Sub-committee, Scholarships Sub-committee, Student Activities Sub-committee) to enrich student learning experiences.

Further, the extra-curricular activities led by students (e.g. English drama competitions, hardware design competitions, choir concerts, new music compositions/concerts, Japan Festival, programming contests, teacher-student competitions, orchestral recitals, creative writing journal, orientation camps, European cultural festival, philosophy camp/lectures) are highly welcome.

4.5 How to determine the essentials of good teaching?
The focus groups opined that students’ evaluation of teaching and learning is a straightforward and positive mechanism to push and monitor quality teaching. The following Teaching & Learning Questionnaire (TLQ) questions from a HEI can be treated as a valid example. Students are required to give a score (based on the Likert scale: 7 = strongly agree, 1 = strongly disagree) to evaluate a teacher and specify his/her overall learning experience (see Table 4.18):

<table>
<thead>
<tr>
<th>Feedback on teaching</th>
<th>TLQ questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher was well prepared for class.</td>
<td></td>
</tr>
<tr>
<td>The teacher’s instruction and explanations were clear.</td>
<td></td>
</tr>
<tr>
<td>The teacher provided useful feedback and comments.</td>
<td></td>
</tr>
<tr>
<td>The teacher was helpful.</td>
<td></td>
</tr>
<tr>
<td>The teacher used English as the medium of instruction throughout the course.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feedback on the Course Learning Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found the learning experience well designed.</td>
</tr>
<tr>
<td>I was encouraged to be creative/innovative.</td>
</tr>
<tr>
<td>I was encouraged to think critically.</td>
</tr>
<tr>
<td>I found the course difficult.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, I consider the learning experience provided by the teacher in this course as valuable.</td>
</tr>
</tbody>
</table>

In addition, students could write something on:

- What were the best aspects of the course?

- What aspects of the course were most in need of improvement?
The focus groups pointed out that not all students are mature enough to offer valid feedback on teachers’ teaching quality without communicating bias. This judgement involves the levels of a student’s learning skills, motivation, attitude, ability, resources committed and liking the course; not entirely relying on teachers, especially the trend of curricula specified for student-centered learning where teachers act as facilitators only. Yet students are well aware of this feedback system or tool that is used to “monitor, if not control” their teachers’ performance, including the way teachers assess the students. It’s not funny to note some of the students’ comments about their teachers “What marks you give me, what marks I’ll give you!” or “The more the assignments/tests, the lesser the marks I’ll give you!”. From this perspective, quality teaching can seem difficult to achieve. Some participants added that this system is a necessary evil, without which the situation would be even worse. As all teachers have to be “assessed” under this system, they are equally “weighed” on the same platform. Thus, teachers tend not to take on courses with large class sizes, difficult content, and a boring syllabus that demands much attention/effort from students. No special considerations will be given for such constraints. So, the evaluation system is questionable on whether it exactly operates equally on a level playing field.
University H graduates contend that: *The peer reviews conducted during the class when teachers are critically examined by another teaching colleague can maximise learning from team teaching synergies and draw the best from all teachers in the same course. Some participants mention that they hardly receive instant feedback on their critical comments on course evaluations, until a later date; while some opine that they disagree.*

4.6 How to distinguish good teaching from excellent teaching?

The focus groups acknowledged that HEIs has shifted substantially from teaching to learning as a guiding principle for EQW in order to facilitate ideal graduates and whole-person development. This goal is accompanied by a nicely planned co-curriculum program, where student-centered learning takes the lead while teachers become facilitators only. They also praised the well-designed curricula content, including out-of-classroom activities, internships, placements, immersion schemes, student exchange, local and overseas study tours, technical and site visits, work attachments, student mentoring schemes, orientation camp, supplemental instruction program, tea gatherings, dinner seminars, adventure training camp, career talks, career enhancement project, and seminars by distinguished speakers. Complete constructive alignment between the program/course for intended learning outcomes and
assessments activities within the sphere of outcomes was based on a teaching and learning approach (OBTL), with more continuous assessments instead of examinations was commended by the respondents.

Additionally, the focus groups appreciated teachers’ treating students as friends or learning companions and being readily reachable at any time, either in teachers’ offices or by mobile phone (or even Facebook) for ready consultations. Though not all teachers could do so, this effort will certainly help better communication/interaction and enhance student learning and teacher evaluation by students. All these formal and informal measures form the basis of good/excellent teaching and better learning.

4.7 Rewards and resources allocations for motivating teaching staff

The focus groups opined that they do not know much about this topic, and yet they did experience teachers who are mostly self-motivated, regardless of any particular rewards and resources allocated to them. Although some specific award schemes are available, e.g., Teaching Excellence Award and Teaching Innovation Award, that does not mean that not attaining this award means you are not an excellent teacher. These
awards are given at a very high level and each year’s awardees are few, so the recommendation is to implement other awards that are more “reachable” by teachers. They also acknowledged that most teachers join the HEIs with a good heart and the desire to educate the next generations even though performance and salary reviews (as a form of motivation) tend to be lean, mean, and political in recent years, which can demoralise a teaching staff. On the other hand, participants acknowledged the phenomenon where teachers are directed toward more research at the expense of more teaching resources.

Some participants noted that a one-line budget offers funds to support/motivate teaching (or in turn as QA&I), for instance, for staff training and development; organising academic conferences or workshops on teaching/learning; recruiting IT staff to adopt updated technologies in teaching, learning, and research; appointing renowned scholars as Visiting/Adjunct Professors; upgrading IT equipment in resources centres, laboratories, and multi-media lecture rooms; and organising project exhibitions like annual fine arts exhibitions, Japanese language textbooks and tapes, final year project competitions; purchase of special equipment; subscribing to teaching-related journals; and research topics in teaching and learning.
University G alumni admit that: \textit{Staff development with financial subsidies for pursuing higher degrees and presenting papers at conferences can advance teachers’ research capabilities, which in turn promotes educational quality.}

\textbf{4.8 Rewards to Teaching Units}

The focus groups commended HEIs having offered incentives and rewards effectively to encourage teaching and learning quality, such as the Reward Scheme at the academic department level. Yet, it was noted that top slicing is a common management tool used by HEIs to monitor academic departmental performance. If the performance is to up to Senior Management’s expectations, then that top sliced fund will be released or “rewarded back” to that department and applied/spent to promote student learning. Some examples include setting up computer laboratories, multi-media classrooms, Chinese Teaching Information Technology Centre (CTITC), multi-media innovation centre (MIC), Centre for Scientific Modelling and Computation, a new campus observatory, a bone-setting, acupuncture room and medicinal garden, a new clinical skills laboratory, Information Technology Service Office (ITS); and upgrading of self-accessed learning facilities and research libraries to enhance student learning as well.
4.9 Rewards for Individuals

The focus groups commended HEIs’ offering incentives and rewards effectively to encourage teaching and learning quality, such as the Teaching Excellence Awards annually at an individual level. Some participants concurred with the effects in organising Teachers’ Festival at some HEIs to promote and motivate teachers’ persistent striving to deliver quality education.

One HEI considers rewarding good teaching as teachers’ admission to obtain substantiation, promotion and biennial merit pay raises; where there is clear advancement path that links staff performance in teaching, research, and campus/professional services as recorded electronically by the end of each fiscal year.
This mechanism of “reward” is not uncommon throughout the HEIs, and the respondents contended that this policy will uphold quality education.

4.10 Teaching excellence awards

The participants opined that these are motivating awards, positioned at a high level by
HEIs to push for quality teaching although they are still quite difficult to attain. They are more than happy to recommend teachers to try for this award if requested. However, not all teachers have the time or resources to prepare for competing for this award. Most candidates are expelled in the first round. They contend that, even if teachers do not possess this award, that does not mean that teachers are not teaching in an excellent way. Most HEIs organise this award at the university level, while one HEI arranges for an additional award (known as the Exemplary Teaching Award - ETA) at the department/faculty level to further motivate teachers. In one HEI, some ETAs are given annually in accordance with student evaluations and colleague peer observations. One ETA winner at least from each faculty is nominated for the Vice-Chancellor’s ETA. The total number of awardees is higher than that for TEAs in another HEI. The interviewees affirmed that this award promotes an atmosphere for quality teaching across the entire institution.

4.11 Distribution of Teaching Development Grants (TDGs)

The participants praised the benefits they receive from various net results achieved by teachers through these TDGs, e.g., course materials using animation/films to illustrate the engineering/construction procedures, instead of relying on PowerPoint,
photos, or slides; course notes have been standardised and published as study packs and sold at a nominal price to students; workshops held to help improve students in terms of effective web teaching and learning.

Some interviewees recall that a TDG project was devised to acquire ongoing student feedback and teacher instant responses/instructions/assessments through an IT-based system. This was later developed into a learning portfolio; whereby students can possess full learning details and assessment records when exiting the HEI. Participants appreciated a “Student Engagement Project” that was funded by TDG to solicit student feedback at the programme level of students’ experiences in every teaching unit.

The respondents opined that more General Education courses can be developed under the TDGs to enhance generic competences (e.g. language proficiency, analytical and problem-solving skills, numerical skills, work attitude, management and inter-personal skills) as well as more campus life development.

**4.12 Assurance and Strategic Improvement of Teaching and Learning Quality**
Student feedback on teaching and learning (e.g. student evaluation of teaching (SET),
teaching feedback questionnaires (TFQ), student experience questionnaire (SEQ),
course and teaching evaluations (CTE), teaching and learning questionnaire (TLQ),
student feedback questionnaire (SFQ), learning experience questionnaire (LEQ),
student engagement questionnaire (SEnQ), etc., is crucial for QM, and all HEIs
should operate a system to collect student feedback that is both formative and
summative. Some HEIs conduct a graduate capability questionnaire (GCQ) and
alumni questionnaire (AQ) also to ensure graduate competences tie in with HEI
teaching and learning quality. Such surveys will continue yearly until five years after
graduation.

Taking one HEI as an example, it adopts a centrally monitored system, TLQ, for
every course that a teacher is involved in (even for only three lectures in a semester,
although the teacher may apply for an exemption from conducting the TLQ from
his/her Department Head). Student focus groups are organised to make sure the
questionnaire wording is understandable/meaningful. The TLQ questions are designed
to focus on (see Table 4.19):

Table 4.19 Focus of TLQ questions
Focus of TLQ questions

- Promote an outcome-based, discovery-enriched teaching and learning model and confirm the use of English as the medium of instruction.
- Use a 7-point scale to align it numerically with a previous evaluation questionnaire scale.
- Apply to all modes of learning, such as lectures, seminars, workshops, laboratories, and tutorials, as the questions are generic and diagnostic.
- Be administered to every teacher in every course/section.
- Be formatted to be suitable for mobile devices by the end of 2012, shown in pilot studies to boost response rates.

The TLQ score will be conclusive in terms of a teacher’s annual appraisal, contract renewal, substantiation, pay raise or promotion consideration; and QA/QI for the university. The focus groups opined that this may be a valid strategy for assessing student teaching and learning experience for future improvement by the teacher or university at large. They have reservations for concluding this process is the best quality management system, as the embedded business relationship would demand/dictate how teachers conduct their courses (Program & Course Intended Learning Outcomes, Teaching & Learning Activities, Assessment Strategies), perhaps even in a contractual manner. Both teachers and students would work under a “contract” to fulfill certain pre-defined outcomes for the benefit of both parties. One potential outcome that surely benefits both is “students attain high marks while teachers gain high score”, perhaps at the expense of quality, which could not be judged alone by students’ marks or feedback via TLQ. However, this QM mechanism
is perceived as a *must* management tool, without which Senior Management might not effectively manage, control, monitor, and compare all staff across the board under one system and within a tightened fiscal and financial system.

A minimum score is set for teachers as a passing threshold, failing which, such teachers will be subject to reprimand, no pay raise, dismissal, or non-renewal of contract. As an incentive, meeting certain scores (normally at the upper level) would attract higher pay raises, appraisal, or promotion. The pass threshold could be changed from time to time on a sliding scale to adapt to with Senior Management’s moving expectations on QA/QI. Thus, teachers would have no excuse not to pursue a higher score on their students’ feedback.

Programme Committee (PC) and Staff-student Consultative Committees (SSCC) are other valid forms of QA&I which the focus groups acknowledged. In some HEIs, PC is held once and SSCC is held twice in an academic year, respectively, for academic staff and students, so they can exchange views to better teaching, learning and academic advancement. All these meetings are channelled to Senior Management and the related Quality Assurance Committee (QAC) for necessary follow-up and
reporting to UGC. It is known that TLQPR include reviewing these documents and verifying the content with students/staff member upon previous visits to HEIs.

Some participants reported that their respective Department Heads met them in groups at least once during their studies in the HEI to discuss improvements in teaching and learning. Their input was considered not serious initially, yet no prompt feedback was returned nor why certain suggestions were not adopted. They opined that the departments possess a highly internalised quality culture, so they are less committed to possible innovations or the benchmarking quality processes.

Some interviewees also affirmed the various activities held to facilitate teacher exchanges on quality issues of teaching and learning, e.g. department forums/workshops, seminars by prestigious scholars, annual retreats, arranging international conferences, informal weekly departmental lunches, sharing of team teaching, and idea exchanges among academics of diversified disciplines.

They acknowledged that the following teaching and learning strategies were adopted by academic departments, including problem-based learning (PBL), Blackboard as a
learning platform, advanced software, role play ad simulations, support learning materials, audio/video recording of teaching activities for subsequent Internet teaching, professional skills workshops, and evidence-based methodologies to help students analyse literature critically. The respondents pointed out that “weak” teachers were requested to improve their teaching by learning from other colleagues’ classes and attending workshops offered by internal education offices (e.g. EDO, EDGE, CLEAR).

Almost all departments make use of the Blackboard system to aid effective teaching and learning, including discussion forum, grading, systematic feedback, newsgroups, plagiarism checking (by safeassign, turnitin), audio instructions/explanations at any time over the Internet. Some interviewees praised teachers’ efforts at organising summer placements, where regular visits occur during a practicum or internship to ensure that learning progress. All these various approaches help with effective staff/students interactions and communication to enhance the utmost teaching and learning quality, while also embedding cooperative responsibility for QA&I.
All the above responses from the focus groups collated with the findings from HEI interviews; and indicated that TLQPR is a useful and effective process. Further discussion and concluding remarks are incorporated in Chapter V that follows.

4.13 Observations

To a great extent, the participants are beneficiaries under the higher education system. Different interviewees at different HEIs acknowledge that they have gained varied degree of privileges under the above respective categories, whilst no one admits that all above categories are fully applicable nor worthwhile to them. Yet, with the implementation of EQW, QA&I and QM systems, they will definitely have a say in influencing the higher education quality ahead; whereby all parties will be win-win.

Throughout this study, an emphasis has been put on the importance of QM for continuous improvement. It not only provides a framework for involving all staff/student members to work toward new success, but also for developing a culture that can foster the organisation to keep learning and improving. Staff/student participation in these quality processes is crucial for success. An HEI wants to move toward a quality culture, and doing so requires commitment from educational leaders who can lead the way to cultivate positive changes. Top management usually is not
the touching point with customers; instead, the frontline/teaching staff is the key channel to use to communicate the organisation’s mission, products, and services to customers or in this case to students. Back-end support staff also performs an integral role to ensure satisfaction is delivered to customers. Thus, the messages of QM must be passed on openly at all levels within the organisation.

Mukhopadhyay (2005) further asserts that QM facilitates better communication flow, involves greater autonomy and empowerment as well as provide wider training that can supplement the inadequacies of existing HRM policies. Total QM measurements can also be mirrored to map Senge’s five disciplines of learning organisation precisely (Chang & Sun, 2007; Senge, 2006). However, the “incremental” process change in QM has been largely over-emphasised to undermine its competitiveness when compared to other QM approaches. As discussed, the business environment involves intense changes and innovations, Moynihan et al. (2001) point out that organisations, by merely adopting QM strategies, may not be able to create competitive advantage when other companies are applying similar systems. Senge et al. (2008) sum up the nature of a learning organisation as a cluster of people who enhance their capability continuously to create their own future. This action consists
of learning an organisation much more deeply than taking simple one-kick absorption of information.

Ballantine and Hammack (2011) highlight that with any QM implementation, the issue of individual and cultural differences should be considered. The effect of societal culture is influential, and QM has to work within the context of both an organisation and society. Senge (2005) realises that culture is a change-adverse element within an organisation, and the organisation can tolerate reengineering or downsizing with profound tenacity. Yet new styles of learning will not be sustained with cultural hostility. Noronha (2002) explains that Chinese organisations place strong traditional intrinsic values on adaptability, a harmonious relationship with humans and the world, and support collectivism as well as full respect for authority. Further, Senge et al. (2008) assert that the Oriental mindset can easily master the concept of continual change and interdependence; while the concurrent Chinese culture is exceptionally non-cooperative with very low trust. These factors can greatly hinder any actual implementation of change programmes and their effectiveness if not well considered by top management and HRM practitioners. Deming (1994) indicates that quality links to profit, yet if one focuses on profit only, quality does not come by itself. Successful universities and colleges around the world act differently now, and
they have systems that actively perform self-assessment on an ongoing basis so as to ensure that continuous quality improvement is put in place and stays in place.
Chapter V  Conclusion and Further Research

This section summarises and concludes this research with regards to both its findings and the limitations of this study, as well as suggestions for future useful studies. There appears as yet no worldwide recognised definition of QM, and some of the descriptions appear to be not well defined. Thus, the suggested alternatives are only indefinitely articulated (Tam, 2000a & 2000b). However, when QM is interpreted in its broader sense, most of the problems that are alleged can be solved. Assuming that if it is at all possible to manipulate QM for empirical testing, that effort can only be done using well-defined principles for the best comparison, and this verification seems overall to be far from being revealed.

5.1 Implementation of QM in education

Throughout this study, three key concepts of QM have been repeatedly discussed: customer, supplier, and process. However, these terms are uncommon in higher education. As previously discussed, the definition of customer in higher education remains unclear. The general accepted interpretation of customer in everyday business is usually connected to “pay for a product or service”. When students pay
tuition, they should be regarded as customers. Yet, the term “customer” in education is still very indefinite and not focused.

Similarly, another concept, that of the supplier, if one chooses to interpret professors in different faculties as suppliers, which is of course implying that students can choose courses or “products” from the professors they like. However, this interpretation is rather risky. It is appropriate only when students can make a good choice of a course programme they are interested in and understand fully. In the context of how such a definition should be interpreted in higher education, the term has not been discussed. As Tam (2000b) points out, it is possible to interpret the concept of QM in higher education clearly, with no excuse offered to renounce QM’s applicability in higher education for language difference. Essentially, this study was done to show the substantial and precise connections between how QM principles create desirable results in higher education and the interlinks that are at the heart of three fundamental QM concepts – the focus on customer, the focus on process and the focus on consistent quality improvement.

QM has been adopted in some cases, for instance as Quality Function Deployment; however, effectiveness of QM in higher education is still subject to scepticism.
Sutherland (2002) asserts that one reason for that view comes from the academic
differences in language and language connotation. The QM adopted in HEIs largely
relates to non-academic activities, for instance, administration and support service
functions (Harris & Sansom, 2001; Mukhopadhyay, 2005). That view may be because
that QM is originated in industry, thus it is well accepted in operational settings.

Table 5.1 below summarises the adaptability of QM to education:

<table>
<thead>
<tr>
<th>Adaptability of QM to education</th>
</tr>
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<tbody>
<tr>
<td>• No significant dissonance between educational activities and operational processes can be established in an education and industrial setting and the adoption of QM for organisational development;</td>
</tr>
<tr>
<td>• There is a possibility for improvement in teaching as well as the learning process, similar to improving the operational procedures in industry. For example, in industries, the hierarchical structure of an organisation can be transformed into an integrated- and process-oriented structure. It is also probable to change from monitoring inconformity and rework to find a greater emphasis on the design of flawless educational processes; and</td>
</tr>
<tr>
<td>• It also is apparent that a grading system can be integrated with other educational systems.</td>
</tr>
</tbody>
</table>

While the development of QM in education is not easy to attain, as Lundquist (1997)
believes, there are other ways that QM can be facilitated. Substantial pressures have
been placed on the HEIs concerning their accountability and institutional
effectiveness. The use of QM in education is still in its infant stage. Many scholars
state that QM has to be adopted at the heart of education – in the teaching and
learning process – to facilitate development and improvement in the learning and
teaching environment offered to students. Thus, to implement QM in other aspects rather than just teaching and learning will only superficially improve the effectiveness of these institutions. Venkatraman (2007) further advocates the application of QM in higher education and raises questions like the following (see Table 5.2):

<table>
<thead>
<tr>
<th>Questions regarding applying QM to higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How long can an organisation stay in business when it reduces its inputs by 35 percent?</td>
</tr>
<tr>
<td>• How long can it stay in business when it fails delivery at a rate of 25 percent?</td>
</tr>
<tr>
<td>• How long can it stay in business when half of its customers are dissatisfied with the company's products?</td>
</tr>
<tr>
<td>• How long can it stay in business when the price of its products rise at a rate in excess of the cost of living, and the cost of production is greater than its competitors?</td>
</tr>
</tbody>
</table>

The answer to the above questions obviously is “it cannot last long”. The same questions can be directed toward universities. More often than not, HEIs hardly accept complaints on flaws and believe the principles of QM cannot be applied to their institutions (Tulsi, 2001). The educational system in higher education has a similar function to mass production in industry. Teaching and learning activities play an important role in monitoring student results, identifying those with lower qualifications and helping them to improve, and screening out substandard students. Student numbers continue to rise in higher education, and the HEIs are now recruiting
students globally. Thus Dado et al. (2011) opine that the structure of higher education is becoming more and more similar to the structure of industry. One of the more common examples is the limited contact that exists between divisional units in both.

While it can be seen that many organisations attempt to achieve business goals through a division of labour, in fact, some systems in divisional subunits remain integrated. This approach suggests specialisation on one side and integration on the opposite side. In higher education, the concept of specialisation is more predominant than integration. Ballantine and Hammack (2011) point out that scholastic professionals do expect academic autonomy and freedom, and their loyalty to the HEIs may be temporary while permanent to their own disciplines. This characteristic is distinctive from the structure found in industry. Despite the fact that organisations are composed of different and isolated sub-units, for successful organisations, they can build processes to surpass borders between units for improving effectiveness rather than choosing to emphasise to optimise each individual sub-unit.

The effects on teaching and learning are both crucial and substantial. Moreover, students will study a variety of courses and subjects; their ability to integrate elements within courses and integrate concepts between courses is a crucial part of the learning
process. According to Barnett and Coate (2005), for HEIs where the organisational structure of the faculty and students are delimited to their actual discipline, in such a circumstance, the institutions involved are most likely to have difficulty achieving integration. In essence, education takes on an imperative societal role in any country comprised of both contemporary structures and traditions which then create several restrictions for the HEIs, in particular for any structural changes. As a result, there seems no simple alternative to these restraints. Bergman and Klefsjö (1994) affirm that teaching staff who are engaged directly in the learning process of their students can only exert a limited impact on the structural changes of the larger institutions.

The use of a grading system in higher education is universally accepted. However, Franz (2008) argues that the traditional format of examinations does not necessarily measure the effectiveness of teaching and student understanding; it only exhibits the intellectual skill of memorising. Moreover, the benefit of any grading system is to rank and sort, but not to prevent failure. It is also difficult for teachers to refuse to use the system in an institution, since this decision will certainly attract questions and pressure from the general public.
If the fundamental elements of customer needs, processes and continuous improvement do not optimally fit well in the HEIs, can QM still be accomplish in HEIs? One obvious answer is that, while there are some limitations, that does not mean that changes cannot be achieved in the teaching and learning processes. A possible better explanation is that students do learn, and knowledge can still be integrated even if the learning environment is not optimal. In fact, there is some degree of freedom in the very limits of the system, so that should further be emphasised in curricula design to render integration and have it take place. As advocated by Suganthi and Samuel (2004) and Chan, Chan and Ip (2006); useful approaches in industries e.g. QFD, quality improvement taskforces, and process mapping should be very applicable in higher education.

Another way to address the difference between these definitions of customer vs. student needs is by examining the learning styles of students. Resnick (2010) points out that by understanding students’ learning styles, it is possible for teachers to focus on the needs of their students more fully and compatibly. In the same way, students with better understanding of their own styles in the learning process can develop their own way of thinking and ways of coping with difficulties. Even so, the development of higher education does not happen in a day. Organisational structure in higher
education seems often to be an ongoing obstacle that hinders further improvement in
the teaching and learning processes, as it is far from actual system or procedural
changes, and the activities related to the use of grades and other evaluations of student
results are not easily integrated into the educational system.

5.2 Limitations of the Study

This section points out certain limitations of the study. Below are the key discussion
aspects as they relate to use of QM in higher education:

1. When using interview questions as the main research methodology, some related
problems can affect the results received. The most obvious weaknesses include the following:

(i) Accuracy in respondents’ interpretation of the questions

Throughout the responses gained from institutions, as mentioned where appropriate, some questions were interpreted by the respondents differently from the intended purpose of the writer. Several concepts are unavoidably often misinterpreted in an ambiguous way, for example, the amount of resources, the number of staff involved, difficulties, and demonstrable results.
(ii) Coverage problems

There are two principal concepts called “universe” and “frame”. “Universe” refers to the entire set of elements to be drawn, and “frame” denotes a list of elements from which a sample could be extracted from the universe. For this research, the universe can be identified as all the HEIs in the world where a quality system has been implemented; whereas the frame is confined to those institutions where only certain QM standards are adopted and selected.

(iii) Absence of a control group

In this study, all 4 of the 8 government-funded HEIs have implemented some aspects of a quality system to a certain extent. All indicated its applicability and relevance to their institutions, and some positive opinions and recommendations were received on the quality systems. However, this study did not examine the differences between their respective quality systems or approaches. The above positive results could have been achieved under strong leadership and institutional commitment, even without a quality system. However, the effectiveness of having a quality system could not be neglected since it provided the fundamentals that guided the institution to success.
2. This research aim was to discuss QM adaptability in higher education, and yet the terminology of QM has not been well enough defined. An understanding of quality and its related concepts is rely on the context examined, and hence, that issue becomes indefinable when discussion goes beyond such a context. Despite descriptions and circumscriptions of QM having been made, there still is lacking a universally accepted definition of QM before a comparable and transferable approach can be developed. Therefore, QM must often be interpreted in its broader sense. As a result, that increases the difficulty of confirm the propositions concerning the validity of QM as a suitable approach for higher education to improve quality. It is a theoretical issue and not a significantly practical problem, as organisations can still improve quality based on QM practices even with such theoretical limitations.

3. QM is often as regarded as an “approach”, “strategy” or “practice”, but it has never been considered as a “theory” or viewed as such by academia. There is not much attention paid to QM in the academic disciplines and society at large. This history/lack of direct focus may imply that at least for academics, it is difficult to conduct empirical studies on this concept, as QM means for them the totality of effort that involves substantial measuring variables. The variables in one organisation may not compare directly to those of another, since they are
variations always between organisational structures and management commitments.

4. There are other facets that were not covered in greater detail in this study. First is the assessment and evaluation of quality. This area has long been discussed in education, and substantial resources and considerable effort have been put into the research on evaluation as new emphasis has been placed on achieving quality improvement in higher education. To facilitate change and improvement, some measurement is needed of course, but it is also appropriate to suggest that developing measurement systems requires less effort than designing change systems. Hence, it is more reflective to the topic herein to explore the implication of change and improvement in an organisation than to focus on measurement as a well-defined aspect of quality.

5. Organisational behaviour is another area that has not been dealt with to a great extent. Although any discussion of quality improvement ultimately relates to the improvement of organisational performance, organisational behaviour management (OBM) is beyond our scope here. OBM is concerned with the application of psychological principles of behaviour analysis and focuses on
improving individual and group performance rather than improving the actual quality of processes and systems in educational institutions.

6. In addition, the aspect of sociology is excluded in this research. While it may be beneficial to include some discussion of sociology in the study since higher education is an educational system that is supposed to adapt and fulfill changing societal needs, this topic has not been discussed in detail here because higher education in its broadest sense carries a significant political standpoint for economic development and employment (Deem, 2004). However, it is possible to stretch the adaptability of QM to the teaching and learning processes a bit too far.

This research does not intend to discriminate against different approaches of quality systems. No matter which approaches are adopted for quality development by the HEIs, the most crucial decision is the institution’s commitment to continue to improve higher education quality. The urge for using QM to seek improvement of H.K. higher education has apparently increased. Globalisation of education is somewhat detrimental to teaching as well as the learning quality in HEIs. Concerning its applicability, readers should consider the quality of recent distance learning degree programmes offered by overseas universities in their countries.
5.3 Conclusion and Discussion

With respect to the analysis offered in Chapter IV, one conclusion has been drawn based on the current situations in H.K. higher education. Despite QM not being well defined, it is still believed that the fundamental concepts of QM and quality improvement provided in Chapter II are a useful foundation for our subsequent discussions. The second-round TLQPR report emphasises the need for a culture pertaining to teaching and learning and that culture should cultivate a commitment to continuous improvement. In many cases, the need for culture is explicitly stated in a number of literature references (see Table 5.3):

<table>
<thead>
<tr>
<th>The Need for different cultures</th>
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<tbody>
<tr>
<td>• “culture of search” to achieve continuous improvement;</td>
</tr>
<tr>
<td>• “culture of compliance” is increasing;</td>
</tr>
<tr>
<td>• institutionalising the “culture of quality assurance”;</td>
</tr>
<tr>
<td>• development of the “culture of trust” on campus; and</td>
</tr>
<tr>
<td>• building the “culture of evaluation” and “critical thinking” on</td>
</tr>
<tr>
<td>quality assurance elements.</td>
</tr>
</tbody>
</table>

This conclusion leads one to the question of how to create the desired culture in terms of QA plus QI in teaching and learning, as well as what sort of practices are derived from and still consistent with this culture. For some practices considered as good, certain criteria must be there guiding this judgment. While TLQPRs provide a set of
criteria for judging the quality work of HEIs, these criteria are in fact fairly generic.

As panel visits to the designated eight institutions will continue (no definite time frames a yet) and reports will be developed, certain clear indications of the desirable cultures and practices as well as recommendations are expected to be available then.

As discussed, QM has long been employed in industry; however, it is a relatively new concept and not yet widely adopted in higher education. Even QM is not all but largely accepted in education as a concept, little literature on QM in higher education is available. Since quality refers to the conformance of requirements (for customers), hence, the student is regarded as a customer of the HEIs. Nowadays, competition is ever increasing in education, and there thus arises a movement toward internationalisation as well as the privatisation of higher education. Many HEIs around the world have attempted to apply QM principles to the provision of education. Tam (2000a) suggests adopting an "open door policy" to deal with educational matters and urges a cafeteria-based approach, academic restructuring, and the internationalisation of curriculum.

All these initiatives highlight the importance and demand for QM application in higher education. The ongoing trend of internationalisation in higher education
indicates quality improvement has become the top priority of educational leaders.

Quality reflects the HEI capability to meet its obligations and goals. Whether the institution has the ability to achieve such customer satisfaction depends on its commitment to continuous quality improvement.

As offered by Tulsi (2001), in higher education, QM can be adopted to the input and output processes, including the design of curriculum, resource management, student support services, and connections to other organisations. It is a holistic approach that requires full support and collaboration between faculty and staff members at all levels. Staff participation and teamwork in an educational institution are critical for successful implementation of QM. Thus, the underlying elements for achieving quality involve the following (see Table 5.4):

<table>
<thead>
<tr>
<th>Table 5.4 Elements for achieving quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements for achieving quality</td>
</tr>
<tr>
<td>• Customer focus</td>
</tr>
<tr>
<td>• Process with staff member participation</td>
</tr>
<tr>
<td>• Commitment to continuous quality</td>
</tr>
</tbody>
</table>

With respect to QM, it is important to manage the above elements by establishing processes and systems to ensure desirable outcomes. This study also discussed the
following impacts on teaching and learning from adopting QM in the higher education sector (see Table 5.5):

Table 5.5 Impacts of QM on teaching and learning

<table>
<thead>
<tr>
<th>Impacts of QM on teaching and learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>● QM principles in general are consistent with the desirable outcomes of teaching and learning.</td>
</tr>
<tr>
<td>● Similar characteristics have been found in higher education and in industries, such as aiming to achieve mass production, screening and sorting non-conformances, rework and scrapping. Thus, the advancement of a comparable QM system in higher education could be beneficial for both the teaching and learning processes.</td>
</tr>
<tr>
<td>● Organisational structure and use of grading in higher education have exerted substantial barriers on teaching and learning, making it difficult to make changes as they are so ingrained in traditional education practices.</td>
</tr>
</tbody>
</table>

In conclusion, there are three important issues that will affect successful implementation of QM in higher education (see Table 5.6):

Table 5.6 Three Important issues in QM Implementation

<table>
<thead>
<tr>
<th>Three Important issues in QM Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Need for culture of change – e.g., organisational change, system change, process change, etc.;</td>
</tr>
<tr>
<td>● Identification of the role of QM in higher education; and</td>
</tr>
<tr>
<td>● A plan for further development of quality.</td>
</tr>
</tbody>
</table>

These issues, to all intents and purposes, still cannot be resolved without drawing on the full commitment of educational leaders in HEIs to cope with their challenges and difficulties as well as deal with the expected risks. Quality improvement is one of the most significant competitive advantages for HEIs to use to combat the
internationalisation of education in the current competitive world. Finally, the crucial findings of this research are (see Table 5.7):

**Table 5.7 Crucial findings of this research**

<table>
<thead>
<tr>
<th>Crucial findings of this research</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Overall results for implementing quality systems are positively perceived.</td>
</tr>
<tr>
<td>● Implementation requires a large amount of time, manpower, and resources; top management and full staff commitment within the institutions are the most critical factors to achieve quality.</td>
</tr>
<tr>
<td>● Some comments show that the system tends to emphasise the results of internal activities rather than to engaging with a more “customer-focused” approach to gather information from students and other stakeholders.</td>
</tr>
<tr>
<td>● TLQPR has helped push for HEI cultural changes and adaptation to achieve quality implementation at a high level; but it has not strictly laid down the road to deliver a complete set of QM requirements.</td>
</tr>
</tbody>
</table>

Other findings, as listed below, may be worth noting also (see Table 5.8):

**Table 5.8 Other findings of this research**

<table>
<thead>
<tr>
<th>Other findings of this research</th>
</tr>
</thead>
<tbody>
<tr>
<td>● The “why”, “how” and “where” questions embedded in the HEIs’ quality systems may not be complete.</td>
</tr>
<tr>
<td>● Some institutions responding to implementation of quality systems motive have been motivated by customers, but it is arguable that such implementation is actually driven by internal senior decisions. This internal driving force is linked to potential marketing advantage and expected future benefit for the organisation. Thus, it should be seen as a “management-motivated” approach rather than “stakeholder-motivated”.</td>
</tr>
<tr>
<td>● Some institutions responded that part of any QM strategy is adopted for implementation processes, but how those strategies are practised and what elements they comprise are not examined in this current study.</td>
</tr>
</tbody>
</table>

Overall, the use of quality systems seems to be a relevant and appropriate strategy for the higher education sector and some quite positive effects were revealed. TLQPR is
proven to be an effective tool for local government to use to push for education quality, and quality assurance and implementation. It is just a start, however, not an end, so the remaining matter must rely on how well the HEIs maintain their approaches to quality improvement.

Addressing quality issues, in fact is far from just a choice of methodology. One important perspective of quality issues, as discussed in the previous section, is the culture of change. This perception, when expressed negatively, can be seen as a threat; conversely, it may also be an opportunity. Barely responding to environmental forces is not enough for change, there must be someone who can perceive these forces and prepare for the changes. Such apprehension may be advanced by certain tactical tools, yet it appears there is no substitute that can replace commitment to bring forth changes.

For any change, however, it is imperative to obtain full support from educational leaders. However, in higher education, leadership can be rather diffuse because each faculty is an isolated sub-unit. As such, thanks to this diffusion of leadership, having only high-level support is not sufficient for achieving change. Commitment from leaders at all levels can allow changes to be carried out effectively. It also seems to be
more important to develop a culture where all staff members in individual units in the institution can actively participate and find ways for improvement. Moreover, changes for quality improvement are not only an administrative affair; they should be planned and implemented very systematically. Commitment to seeking new values is not a process that can be created by force. If leaders are not prepared to break new ground for changes, quality improvement is dubious and will likely not succeed.

With regard to any implementation of reforms, Sutherland (2002) asserts that the particular problems regarding education reform are primarily the diffusion of authority within the institution and arrays of vertical levels of autonomy-seeking professionals, both inherent in any educational institution. While the problems of change and diffusion of leadership are inexorable, what should the role of QM in higher education be to improve these situations? Some institutions commented that “QM does not fit in higher education”. However, Sims & Sims (1995) state that it is very difficult to reject a supposition if there is no alternative. What that means here is that it is inappropriate to argue that QM is not relevant to higher education if there has been no alternative yet ready to adopt in higher education to improve the problems QM can resolve/address.
QM has proven to be able to lead the way in improving quality in higher education.

In addition, QM is presumed to be a quality improvement framework and from other successful cases, it can be implemented for administrative and supportive functions as well as teaching and research. Individual efforts have been involved in other implementations of quality system and for self-reflection activities. Hence, the existence of successful examples where the adoption of QM has achieved quality improvement suggests its suitability and applicability for other cases like education.

The belief in success is the only commitment needed to achieve improvement. This belief, however, does not necessarily suggest that QM is the only approach to use for higher education, but merely a suggested cluster of quality standards and guidelines to consider. These valuable QM principles or even other quality systems can provide guidance to individuals who want to be involved in the processes that achieve changes and quality improvement. Organisations in fact may sometimes adopt approaches and practices that differ with their structures, so modifications are necessary to fit their particular needs.

QM is thus not the single solution to use to tackle current quality problems in higher education. Yet QM is still a means that can resolve the complicated issues identified in contemporary educational systems. Traditional perspectives and yesterday’s
systems are not capable of tackling today’s challenges. The basis of QM in higher education not only underscores that today’s educational system is in need of fundamental changes; it also offers a foundation that can guide the comprehensive development process to achieve for quality improvement. Despite the fact there are other systems and models that may be useful for organisational changes, QM is apparently one approach that does directly focus on the totality of improvement. Three perspectives are especially important here: (i) focus of customer needs; (ii) commitment; and (iii) teamwork to achieve continuous quality improvement in the HEIs. Hence, to answer the question of whether or not higher education requires changes and QM is the way to proceed, the answer must be affirmative.

QM is a possible gateway to future development and success in higher education. Current educational leaders seem unable to anticipate the future needs of “customers” effectively or the needs of society at large. In fact, higher education plays a central role in fostering human capital, employment, and economic development. It is hence necessary for HEIs to provide teaching and learning excellence to create a quality workforce for the society. To ensure that this mission can be achieved, educational leaders must consider certain critical factors that will influence the future
development of an economy when choosing and implementing any change and quality improvement systems (see Table 5.9):

Table 5.9 Critical factors for developing an economy

<table>
<thead>
<tr>
<th>Critical factors for developing an economy</th>
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</thead>
<tbody>
<tr>
<td>• demographic structure of student and working populations</td>
</tr>
<tr>
<td>• economic structure of the society</td>
</tr>
<tr>
<td>• future needs of business and industry</td>
</tr>
<tr>
<td>• changes in workforce competencies</td>
</tr>
<tr>
<td>• Government fiscal resources for funding</td>
</tr>
</tbody>
</table>

In the longer term, will QM (or TLQPR alone) be a useful approach and thus widely accepted to address educational issues? Will higher education be able to meet the demands of “customers” and also those of society? There is obvious or definite answer to these questions. QM (or TLQPR alone), at the moment, seems to be a viable approach to address the fundamental problems in high education, including lack of commitment, lack of customer focus and insufficient integration of resources and efforts. However, no one should expect that any one approach or single educational system can deal with all coming challenges affecting higher education. In essence, the capacity of QM (or TLQPR alone) to solve such problems effectively is still unclear; but it is presumably true that if the QM system (or TLQPR) is flexible and adaptable, then its inclusiveness can be increased and most of the challenges will not be a major matter of concern.
The demand for higher education is increasing more rapidly than educational capacity. QM (or TLQPR alone) is one approach that can help building the capacity to provide teaching and learning excellence and fulfil the growing requirements of “customers” and society at large. Notwithstanding how future development will progress or not progress, educational leaders should at least address the existing problems of their HEIs by adopting QM practices and systems. Although QM (or TLQPR alone) is not the only nor the final solution to all educational issues, it does address the potential problems in a meaningful way. It is not appropriate, however, to criticise the effectiveness of QM (or TLQPR) in higher education without at some point carefully considering both sides of the situation as comprehensively as possible. The suggestions derived in Table 5.4 to 5.8 could well provide the way forward for the academia, higher educational sector and local authorities to achieve a better economy of Hong Kong in future (Table 5.9).

5.4 Future Studies

Subsequent to those limited areas described herein, there could be easily a useful extension of this study. Besides, the comments from the respondents may be biased
since they have directly worked for educational systems; other views from other
stakeholders should also be gathered. The effects in the long term on those institutions
are still unknown of course. Thus, future development of any quality system must be
examined. Another suggestion is to explore more and still different approaches for
quality improvement. Quality systems, however, are definitely one of the possible
approaches to adopt deal with such quality issues as the following (see Table 5.10):

Table 5.10 Quality issues dealt with under quality systems

<table>
<thead>
<tr>
<th>Quality issues dealt with under quality systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>● How do these institutions differ from those not implementing quality system?</td>
</tr>
<tr>
<td>● Is there a possibility in the existing educational system to reconcile different interests and goals of academic professionals?</td>
</tr>
<tr>
<td>● Is there a way in the existing system to replace grading and sorting?</td>
</tr>
<tr>
<td>● What are the competencies needed by students in future?</td>
</tr>
<tr>
<td>● How do the changing trends in the community affect the roles and responsibilities of higher education?</td>
</tr>
<tr>
<td>● How will future students be constituted in terms of background, values, and attitudes toward studies and life beyond their education?</td>
</tr>
<tr>
<td>● There is an ample body of positive knowledge on pedagogy, learning theory, and evaluation research. However, it seems that such knowledge has not yet fully integrated into the educational systems. Can different fields of knowledge be co-related to the systems and extend to practice efficaciously?</td>
</tr>
<tr>
<td>● If there is a case where QM is delimited as a “theory”, what would then be the relations between theory and reality? What requirements can be set only on theory? How can a construct of QM be testified to easily?</td>
</tr>
</tbody>
</table>

Lastly, a possible area to explore is the adoption of systematic quality systems to
manage and regulate higher education at the government and funding level using the
UGC on top of TLQPRs. In some Western countries, there are attempts to require
compulsory implementation of a quality system in HEIs. However, up to now, the appropriateness and effectiveness of regulating higher education in this way remains uncertain. These questions can be further examined from various perspectives, such as those related to sociology, pedagogy and organisation theory. Higher education is not as systematic as desired. Therefore, there is a call for a more collaborative effort from researchers in the interdisciplinary field of management to continue focusing on QM’s significance in HEIs. Future studies can jointly pave a way forward in this regard.
List of abbreviations

AQ - Alumni Questionnaire
CCC - Chinese Civilisation Centre
CITIC - Chinese Teaching Information Technology Centre
CLEAR - Centre for Learning Enhancement & Research
CTE - Course and Teaching Evaluations
EDC - Educational Development Centre
EDGE - Education Development & General Education Unit
EDO - Education Development Office
ELC - English Learning Centre
ELTU - English Language Teaching Unit
EQW – Education Quality Works
ETA - Exemplary Teaching Award
GCQ - Graduate Capability Questionnaire
ILU - Independent Learning Unit
HEI – Higher Education Institution
ITSC - Information Technology Service Centre
LEQ - Learning Experience Questionnaire
MIC - Multi-media Innovation Centre
PC - Programme Committee
PBL – Problem Based Learning
QA – Quality Assurance
QA&I – Quality Assurance and Improvement
QMS – Quality Management System
SEnQ - Student Engagement Questionnaire
SEQ - Student Experience Questionnaire
SET - Student Evaluation of Teaching
SFQ - Student Feedback Questionnaire
SSCC - Staff-student Consultative Committees
TDU - Teaching Development Unit
TFQ - Teaching Feedback Questionnaires
TLQPR – Teaching and Learning Quality Process Review
TLQ - Teaching and Learning Questionnaire
UGC – University Grants Committee
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