

**The Changing Role of an Examination Board –
A Case Study of Hong Kong**

by

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Abstract of thesis entitled

**The Changing Role of an Examination Board –
A Case Study of Hong Kong**

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This case study examines the changing role of the Hong Kong Examinations and Assessment Authority with a view to identifying the way forward for it to enhance its effectiveness and inform future assessment development. The research questions are:

- 1) What functions do public examinations serve in Hong Kong and how effectively are they serving these functions?
- 2) What is the role of the Authority in the education system of Hong Kong and how effective is it in delivering this role as expected by its stakeholders?

A historical approach is adopted to trace and analyse the development of public examinations through literature and document review. In order to gain new insights into the implicit forces working behind public examinations and form a more balanced view of examination bodies, reference is also made to the internal documents of the Authority.

It has been found that due to an exponential growth in public education since the 1970s against a background of rapid social changes, the functions expected of public examinations have expanded from those of a selective school system to include also those of an inclusive one. Despite improvement measures introduced by the Authority over the years, it was only until the introduction of an education reform initiated by the Tung Chee Hwa Government in the 2000s that more fundamental changes towards the inclusive end have been brought

about. To enable this to be effectively done, three critical success pre-requisites on the part of the Authority can be identified: first, the technical competence to design assessments that can reconcile the traditional functions with the more progressive ones; second, the strategic competence to ensure the intended use of assessments is within the acceptability limits of the value systems of the concerned stakeholders and the society as a whole so that it is more likely that the assessments are used as expected; and third, if necessary, take steps to manage or narrow the differences.

Being structurally segregated from school education by design, the Authority was expected by the Government, its creator and the most influential stakeholder, to be the gatekeeper of the education system when it was established. Since the 2000s, with a much closer partnership with the Curriculum Development Institute, the introduction of the TSA and HKDSEE as cornerstones of the education reform, and provision of support of an unprecedented scale to schools in respect of assessment implementation, it is argued that the Authority has effectively become the Government's quality monitoring and enhancement agent of the school education system. For other stakeholders, with the HKDSEE recognising a much broader range of student abilities while up-keeping the selection function and widely recognised internationally and locally, the Authority has transformed itself from a gatekeeper to a gateway in addition, enabling our youngsters with different potentials to pursue their future through multiple pathways.

Looking ahead, apart from continuing with the success pre-requisites, this thesis recommends that the Authority should lever its achievement in Hong Kong to establish itself internationally for further enhancement of its organisational capacities.

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I am also grateful to my colleagues of the Hong Kong Examinations and Assessment Authority. With professionalism and dedication, we together have endured the mounting expectations of various stakeholders, braved the public examination reform, and sought to diversify and enhance our services to reach new heights in the last decade. The insights gained through these experiences lie at the heart of this thesis.

Of course, I have to thank Dr. Thomas Cheung Kwong Yuen, Acting Secretary General of the Hong Kong Examinations and Assessment Authority for allowing me to make use of the internal documents of the Authority in this thesis. It is believed that the little known internal operation and decision-making processes of an examination body can help bringing about a better understanding of the implicit forces behind the delivery of public examinations and a more balanced view of examination bodies.

I would also like to thank my family, my husband Raymond and my son George in particular, for their patience and understanding throughout all these years.

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List of Acronyms

ACE	American Council on Education
A-level	Advanced Level Examination
AP	Advanced Placement Examinations
ApL	Applied Learning
AS-level	Advanced Supplementary Level Examination
BCA	Basic Competency Assessment
BPT	Basic Proficiency Test
CDC	Curriculum Development Council
CDI	Curriculum Development Institute
CEEB	College Entrance Examination Board
CRA	Criterion-referenced assessment
CUHK	The Chinese University of Hong Kong
EC	Education Commission
ECR7	Education Commission Report No. 7
EDB	Education Bureau
EMB	Education and Manpower Bureau
ETS	Educational Testing Service
HKALE	Hong Kong Advanced Level Examination
HKAT	Hong Kong Attainment Test
HKCEE	Hong Kong Certificate of Education Examination
HKDSEE	Hong Kong Diploma of Secondary Education Examination
HKEA	Hong Kong Examinations Authority
HKEAA	Hong Kong Examinations and Assessment Authority

HKSAR	Hong Kong Special Administrative Region
HKSCCE	Hong Kong School Certificate Examination
HKU	The University of Hong Kong
HLE	Higher Level Examination
ILE	Intermediate Level Examination
LMI	Language medium indicator
NAEP	National Assessment of Educational Progress
NCLB	No Child Left Behind
NRA	Norm-referenced assessment
Ofqual	Office of Qualifications and Examinations Regulation
O-level	Ordinary Level Examination
QCA	Qualifications and Curriculum Authority
ROPES	Review of Public Examination System
SAT	Scholastic Aptitude Test
SAT I	SAT Reasoning Test
SAT II	SAT Subject Tests
SBA	School-based assessment
SCAA	School Curriculum and Assessment Authority
SCE	School Certificate Examination
SRA	Standards-referenced assessment
SRR	Standards-referenced reporting
SSPA	Secondary School Placement Allocation System
TOC	Target Oriented Curriculum
TSA	Territory-wide System Assessment
UCLES	University of Cambridge Local Examinations Syndicate

Key to Superscripts

G	Local Government Documents, e.g. policy documents, consultation papers, consultation reports, publications and press releases.
HP	The public documents of the Hong Kong Examinations and Assessment Authority, e.g. publications, press releases, information flyers and examination syllabuses.
HM	The minutes of meetings of the Authority Council, i.e. the governing body or decision-making body at the highest level of the Hong Kong Examinations and Assessment Authority (internal documents of the Authority)
HA	The appendices to the minutes of meetings of the Authority Council (Internal documents of the Authority)

The above documents are listed under their corresponding headings at the end of the thesis after “References”.

Chapter One

Introduction

Complaints about Public Examinations

Public examinations are high-stakes business and their high-stakes nature can be reflected by the way incidents in public examinations often make the newspaper headlines. There is no question that public examinations can easily stir up heated debates which are typically dominated by criticisms and hence examination bodies are frequently under pressure to make improvements. Apart from those related to assessment errors, common complaints about public examinations in Hong Kong can be broadly grouped as follows.

Teaching to the Test

There is a good deal of evidence that teachers, in order to drive up examination results, tend to teach to the test, focusing on what is to be tested and developing test taking strategies, and ignoring those skills not covered in the test (Andrews et al., 2002; Shohamy et al., 1996; Smith, 1991).

There are those in Hong Kong, who believe that teaching at Secondary 6 stops in January or even earlier so as to allow a large block of time for coaching activities such as going over past examination papers or practice papers, analysing marking schemes of examination boards and

studying recent trends of examination questions, followed by mock examinations held in their own school halls in order to have an early taste of the “real” examination commencing by the end of March. Full preparation of their students for public examinations is seen in Hong Kong secondary schools as one of the most critical responsibilities of teachers and principals (Cheng, 1997 p.38 – 54; Pong & Chow, 2002 p.143 – 144).

According to Pong & Chow (2002 p.143), though there are official curriculum guidelines in Hong Kong, which are supposed to be implemented in schools for every subject at each level, every teacher knows that in practice it is the examination syllabus that really matters. Even the Secretary of the Hong Kong Examinations Authority admits that students sometimes stop their teachers from teaching certain topics or materials which are not in the examination syllabus (Choi, 1999 p.412).

Another observed phenomenon is that teachers sometimes second-guess the questions that may appear in examinations and provide model answers to students to memorize by heart. In this way, public examinations in reality can become the curriculum. A secondary school teacher comments on public examinations that:

“I have to teach students knowledge and skills which would prepare them for the examination syllabus because everybody will complain if I don’t. For example, students will complain that I am not preparing

them for the exam. If students fail, parents and the school authority will complain that I did not drill them enough for the exam..... (but) we don't just teach for exams. I would like to refer to the fundamental aim of school education.....” (A secondary school teacher, cited in Biggs 1996, Chapter 9)

Some people argue that public examinations are amongst the strongest influences on teaching style. Examination boards in fact only stipulate what should be tested and they categorically do not stipulate how and how long teaching should be conducted. Even if they did, they are not in the position to enforce such stipulation in classrooms, and so it is very interesting to consider how the influence of examinations on teaching appears to be so very strong.

Rote-learning

Another criticism against public examinations is related to the way that students learn. Whatever the official aims of teaching, many students, in response to the examination oriented teaching style, “smartly” adjust their learning to a low cognitive level.

“..... For (Chinese) Chinese Language, we are given many School Certificate Examination questions with answers. I will study the questions and rote learn the answers as we know that the teacher will set the same questions. I know I should not do that but I have to in order to get high marks.....The problem is the format of the

examinations, which only requires (you) students to reproduce the answers.....I think to rote learn is a disgrace to myself because I am being spoon-fed and have been deprived of my right to understand....”

(A secondary student, cited in Biggs & Watkins, 1993 p.17)

Some teachers are thought to teach students to rote-learn as a strategy. With the pragmatic justification that the norm-referenced examinations in Hong Kong require inculcation of test strategy, they scan through past papers for frequently recurring questions, and train the students to rote learn model answers prepared by them. Morris found that formulating and transferring to their students test strategies is in fact the top priority of some teachers (Morris, 1985 p.3 – 18).

This happens despite the fact that the official curriculum guidelines prescribe high quality objectives such as intellectual, communicative, social and moral, personal and physical, and aesthetic development (Curriculum Development Council, 1993^G). The examination syllabi published by the Hong Kong Examinations and Assessment Authority (HKEAA) do include high order skills such as application and analysis. Yet, according to Pong & Chow (2002, p.143), paradoxically, the heavy emphasis that is placed on examination grades has made it very difficult for high order thinking to be assessed. The highly selective nature of the examination has forced examiners to put fairness and objectivity of marking above all other concerns. To achieve maximum fairness, grades are based on objective scoring of quantifiable elements.

Public examinations are hence accused of exerting negative influence on the learning style of students. However, should it be the sole responsibility of examination bodies to ensure proper teaching and learning? Are public examinations really the root cause for pragmatism in teaching and learning?

Examination-oriented Education System

According to Fullilove, the Hong Kong education system is characterized as an examination-led system where what goes on in the classroom is largely dictated by what happens in the public examination halls (1992 p.131 – 147).

The examination-driven nature of the education system in Hong Kong was well expressed by an OECD review panel commissioned by the Hong Kong Government in 1982. In its report, the phenomenon is described as “obsessive concern” with testing (OECD, 1982). According to Pong & Chow (2002), when exiting from secondary school, a teenager will have gone through a total of eight major selection examinations – from interviews for gaining admission to prestigious kindergartens to the Advanced-level Examination at the end of Secondary 7. Each of these examinations has an impact on the opening up or closing off of certain doors for future. Biggs finds that at all stages, the curriculum, teaching methods, and student study methods, are focused on the next major assessment hurdles (Biggs, 1996 p.5).

The Education Commission, i.e. the highest policy advisory body on educational issues of the Hong Kong Government, upon completion of the first and second stages of its comprehensive review of the education system in Hong Kong in 1999, explicitly stated that one of the major problems of the education system was related to the heavy emphasis on examinations. Students focus so much on examination results that they cannot enjoy learning (Education Commission 1999^G).

This examination-oriented culture in Hong Kong is exacerbated to a certain extent by the Chinese traditional beliefs in the reasons for success and failure. Hong Kong people, along with those in other Confucian-heritage cultures¹, attribute success to effort, and failure to laziness. This deviates notably from the common Western beliefs that success and failure tend to be the natural results of possessing the necessary abilities or the lack of them respectively (Carless, 2011 p.46 – 62; Hau & Salili, 1991 p.175 – 193; Holloway, 1988 p.327 – 345). An effort attributing culture can create enormous stress on the students who might be forced to tackle unrealistic targets.

It is perhaps necessary to do something about this examination-oriented culture. However, it is problematic that, on the one hand, the Education Commission suggests that something should be done by the Government to rectify the examination-oriented culture, and on the other, in the same review, it proposed the introduction of more examinations (i.e. the Basic Competency Assessments) for monitoring education standards (Education Commission 1999^G). The nature of

examinations mutates and multiplies along with this kind of quality monitoring policy agenda which, to some extent, has furthered the examination-oriented culture and complicated the work of examination bodies.

Demoralization

Literature outlining the negative consequences of high-stakes examinations on students is abundant. For instance, it is claimed that high-stakes examinations can induce test anxiety, lack of motivation for meaningful learning, and low self-esteem, just to name a few (Assessment Reform Group, 2002; Harlen, 2005). Locally in Hong Kong, it is Biggs's observation that Primary 6 students allocated to Bands 4 and 5 (out of 5 bands altogether) secondary schools simply have no hope of completing the curriculum successfully, whatever their efforts. Those in Bands 1 and 2 to some extent, become academically oriented and positively motivated, while those in Bands 4 and 5 become less achievement oriented, drop any "deep" or meaning-oriented approaches to learning they might have developed, and resort to simple rote learning (Biggs, 1991 p.140 – 150).

T. Tang (1993 p.35 – 53) studied Band 5 Secondary 2 and Secondary 4 students' views of their schooling in a series of individual interviews. Most of these low-achieving students see learning simply as "memorizing" enough key terms to get them out of trouble with tests. The purpose of tests is *"to force (us) students to revise and to let us*

score marks to get a pass”.

The demoralizing effects on low-achievers are unintended consequences of examinations and it has become a legitimate part of the work of responsible examination boards to take into account backwash effects of its examinations. Some examination boards address this problem by offering alternative syllabuses. However, in general, if given options, students tend to choose the more difficult syllabus which may be well beyond their abilities. They do this to meet the high expectations of their parents on them, and even their teachers may find it difficult to advise them against doing so. After all, even if a student manages to pass a less difficult examination, the result may fail to bear sufficient currency for future study and career.

It is indeed the responsibility of examination boards to offer high quality examinations, but how these examinations are perceived or used seems to be something beyond the remit of these institutions.

The above complaints about public examinations in Hong Kong should clearly be handled with a sense of urgency. However, the issues involved seem to be rather complex with no ready solution. Besides, instead of being directly related to public examinations, these issues have more to do with teaching and learning, and expectations on school education. To what extent should they be tackled by an examination body offering mainly external summative assessments like the HKEAA? Is it more direct to improve teacher training and school management?

However, events in the political scene of Hong Kong in the recent decade put further pressure on the HKEAA to face up to these challenges.

New Expectations on Public Examinations

Over the past ten years, the Hong Kong Government has made a number of reform proposals related to public examinations. Different reports have brought up different issues. The first set of deliberations about assessment and examinations appeared in the “*Reform Proposals for the Education System in Hong Kong*” (Education Commission, 2000a^G).

“Regarding public examinations, we propose that the modes, content, and assessment methods of the examinations should be reviewed. More flexible modes of examination should be adopted so that students have more room to display their independent thinking and creativity. As regards the assessment methods, an appropriate degree of teachers’ assessment should be introduced to better assess those abilities that are not easily assessed in written examinations. This would encourage students to participate in a more diversified range of learning activities.” (Paragraph 7.7)

“As a part of the curriculum, the major function of assessment is to help teachers and parents understand the learning, progress and needs of their students, as well as their strengths and weaknesses. Teachers

could take into account the results of assessment in planning the teaching syllabus, designing teaching methods and giving guidance to individual students to help them learn effectively and exploit their potentiality fully.” (Paragraph 7.12)

The first quotation proposes a diversified mode of assessments to be incorporated in public examinations, including teachers’ assessments, and the second quotation directly indicates that assessment is a part of the curriculum and highlights the importance of assessment for learning. This leads to the following issues for the HKEAA to consider in respect of its role in the education scene of Hong Kong:

- 1) The implications of teachers’ assessments
- 2) The relationship between curriculum and assessment
- 3) Assessment of learning vs. assessment for learning

The Implications of the Teachers’ Assessments

Two years later, a review of the academic structure of senior secondary education was completed. The report proposes the implementation of a new academic structure and the introduction of a new public examination. In addition, it points out five areas of focus for the reform of public examinations, amongst which is the introduction of school-based assessment:

The introduction of school-based assessment is being considered for

individual subjects in public examinations. School-based assessment may cover students' performance:

- *during the learning process;*
- *independent research, project learning, experiments or assignments.*

(Education Commission, 2003^G Paragraph 8.3)

Regarding the introduction of school-based assessment, a large number of practical problems have to be resolved, including the attitude and reactions of school teachers. These important matters have not been addressed in the report. More importantly, what role can an examination body play to help in this respect?

The Relationship between Curriculum and Assessment

The curriculum reform proposals in 2001 highlight a number of steps for the Curriculum Development Council (CDC) to undertake to ensure consistency between curriculum and assessment. Three possible strategies for public assessment to follow are noteworthy:

- 1) Assess students on what and how they are expected to learn in the curriculum
- 2) Use different modes of assessment suited to the purposes and processes of learning (e.g. projects, observation, portfolios, tests, examinations) throughout the school years
- 3) Avoid excessive assessment and unproductive uses of dictation,

memorization, and assessment for the sake of recording only
(CDC, 2001^G p.80)

It is also pointed out that the CDC should undertake the following to ensure consistency between curriculum and assessment:

- 1) Develop evidence-based quality criteria in line with the curriculum framework, to help teachers judge the performance and progress of students in relation to the learning targets
- 2) Work with the HKEAA to develop combined curriculum and assessment guides for various examination subjects so that the scope and modes of assessment are consistent with the learning objectives and contents
- 3) Liaise with the university sector and relevant agencies about broadening university admission criteria and about other means of providing information on student achievement.

(CDC, 2001^G p.81)

It should be emphasized that the CDC is responsible for the curriculum and the HKEAA is responsible for assessment. These are two separate organisations. How can the linkage between curriculum and assessment be so effectively established as expected in the policy documents?

Assessment of Learning vs. Assessment for Learning

In 2009, the guide for the new senior secondary curriculum was

published. The advantages of assessment for learning are particularly highlighted. Another observed feature is that assessment for learning is contrasted with assessment of learning. It is hoped that students and teachers will pay due attention to the learning process itself. The Government has made this point clear in its official documents:

*“The evidence collected in assessments should show clearly both the outcomes of learning (what students have learned and what students have not learned) and the processes of learning (how students learn).....The former is related to establishing how well students have achieved, the quality of education being provided, and what standards are being attained, and the assessment involved is often referred to as "**assessment of learning**". The latter is related to helping students to continuously improve and the assessment involved is referred to as "**assessment for learning**". Assessment of learning is for reporting and assessing students’ performance and progress against the learning targets and objectives. Assessment for learning is for identifying students’ strengths and weaknesses and providing quality feedback for students, which entails providing timely support and enrichment. Assessment for learning also helps teachers to review learning objectives, lesson plans and teaching strategies.”* (Education Bureau, 2009^G p.3 – 5)

Thus while the 2001 publication indicates some special measures for the integration of assessment of learning and assessment for learning, the different forms of integration have not been specifically dealt with

in the 2009 publication. A more fundamental question is that if assessment for learning is more related to teaching strategies, then does an examination body have a role to play in the current moves for assessment for learning?

The Need for a Role Clarification

In this age of complaints and reforms, both the public and governments are mounting more and more expectations on public examinations to tackle and even resolve educational issues. With a wide range of stakeholders making different demands which are not necessarily in line among themselves, and not necessarily within the remit of examination delivery, the author of this thesis as a staff member of the HKEAA finds that it is timely to examine the role of an examination body with a view to identify the way forward in order to maintain the effectiveness of its work and inform future development. This soul searching work is of particular relevance to the colleagues of the HKEAA as the term “assessment for learning” has now become a slogan to the extent that it is printed on the staff name cards and letterheads though its full implications for the HKEAA have yet to be found out.

Research Questions

It cannot be overemphasized that public examinations are powerful educational tools. Luijten points out that examinations are not the be-all

and end-all of education and the teaching process (Luijten, 1991 p.9). Though influential, they are not and should not be an end in themselves. However, it is because they are so dominating, it is not always clear whether they are the means or ends. Making effective use of these powerful tools has long proved mind-racking.

Hence the starting point of this research is to trace the possible functions served by public examinations, how well such functions are served, and the reasons behind the chorus of complaints. Instead of stopping at this point as most researchers on public examinations do, this thesis probes further to study the societal and educational role of the examination boards which seem to be directly controlling these powerful tools, to identify if this has any significant part to play in the overall effectiveness of public examinations in serving their purposes.

The HKEAA is chosen as the target of this case study. Two research questions have been formulated:

- 1) What functions do public examinations serve in Hong Kong and how effectively are they serving these functions?
- 2) What is the role of the Hong Kong Examinations and Assessment Authority in the education system of Hong Kong and how effective is it in delivering this role as expected by its stakeholders?

The first research question is about the work of the Authority. While some may choose to define the role of an examination body by what it

claims itself to be or the way it is perceived by others, the approach adopted here is to start with what the HKEAA actually delivers. The second research question then elicits answers in respect of the nature, capabilities, limitations and positioning of the Authority as major factors contributing to its effectiveness in delivering its role as expected by its stakeholders. It is hoped that at the end of this thesis, suggestions can be made for the possible way forward for the Authority to enhance its effectiveness.

The Significance of the Research

Literature on high-stakes public examinations is abundant, and these works concentrate mainly on three broad themes:

- 1) The development of public examinations and their impact on the education system and the society as a whole;
- 2) Constructs and purposes of public examinations arising from different assessment, psychometric, psychology and learning theories;
- 3) Influences of education policies and government decisions on public examinations, and how these impact on the education system.

Though many have with great conviction laid at the door of examination boards the blame for most, if not all, that they have found to be undesirable or inappropriate about teaching and learning, and

curriculum development as outlined in the earlier part of this chapter, few have gone the extra miles to analyse in more detail how examination boards have come to exert this strong influence (Murphy 1986 p.4). In fact apart from Murphy's paper (1986) "*A Changing Role for Examination Boards*", little has been written specifically on these influential organisations. "*Setting the Standard: A Century of Public Examining by AQA and Its Parent Boards*" by Kathleen Tattersall et al. is amongst the very few books on the work of examination bodies. This book, however, was commissioned by the examination board itself and is by no means an objective study of its work. "*ACT: The First Fifty Years, 1959 – 2009*" and "*Examining the World: A History of the University of Cambridge Local Examinations Syndicate*" are similar books on the work of ACT, Inc. and Cambridge Assessment commissioned by the examination boards to commemorate their respective anniversaries. Nicholas Lehmann's "*The Big Test*" and David Hubin's "*The History of the SAT*" strictly speaking, are about the SAT and not its developer – the Educational Testing Service (ETS), though both have gone to some lengths to trace the origin and development of ETS. "*Examinations in Singapore: Change and Continuity (1891 – 2007)*" explores the development of Singapore's examination system but the societal and educational role of the Singapore Examinations and Assessment Board established in 2004 has hardly been discussed. Regarding the HKEAA, except the ones published and commissioned by the Authority, no book has been written solely on it so far. The ones published by the Authority are mainly examination documents, such as examination syllabuses,

backdated question papers, examination reports and statistics or research reports on public examinations. The only one which provides some useful information on the Authority is *“The Twenty-fifth Anniversary Commemorative Issue: Examinations and Assessments in Hong Kong”* published in 2002, which is a collection of reflective writings of people who have participated in various ways in the work of the Authority. The book hardly contains any academic analysis. The ones commissioned by the Authority are two consultancy reports: *“Review of Public Examination System in Hong Kong”* by Broadfoot et al. in 1998 and *“Strategic Review of Hong Kong Examinations and Assessment Authority”* by IBM Consultant in 2003. Both have a limited scope and purpose as defined by the project owner.

The significance of the study of examination boards is overshadowed by that of public examinations probably for pragmatic reasons. Public examinations seem to be far more directly related to their stakeholders. This could also be a result of the confidential or secretive nature of examination operation as concluded by Whitty:

“It is of course, hardly surprising that there has been little research in this area, since even those boards which boast a large measure of teacher participation are notoriously secretive in their operations. Access to their committee structures is generally restricted to ‘insiders’ whose loyalty to the organisation limits their freedom to discuss their experiences and the administrative procedures of the boards have remained totally impenetrable.” (Whitty, 1976, cited in Murphy, 1986

p.5)

The author of this thesis, as a staff member of the examination body under review, may well be considered an “insider”. However, it is hoped that this study will enrich the literature on examination boards by adopting a slightly different angle to provide an evidence-based account as an insider, making reference to internal documents whenever available alongside with relevant academic work and policy documents to formulate views and arguments. As these organisations are exerting direct influence over public examinations, new insights regarding their work may lead to a more comprehensive understanding of the implicit forces working behind public examinations and cast light on the critical success pre-requisites for any public examination initiatives. By adopting an insider approach, this work also aims at contributing to the demystification of examination bodies, which is probably a necessary step towards a holistic and more balanced view of their essential nature and role.

Organisation of this Thesis

The literature review in Chapter Two provides an overview of the major functions served by public examinations nowadays in modern societies, issues surrounding these examinations, the benefits they bring and their limitations, followed by a literary survey on the role of examination bodies. It is hoped to identify unified themes at a global level to provide a framework of the scope and focus of study for this

research thesis. The relevance of the findings in Chapter Two is tested on the American case in Chapter Three as an enrichment of the literature review. The United States is chosen as it is amongst the very few advanced countries where there is no national school-leaving public examination. One of the aims of this case study is to investigate if it is recommendable for public examinations to remain detached from the school system and how far an examination body can maintain a balanced approach in serving a range of stakeholders. As the SAT I or SAT Reasoning Test is still the best known high-stakes public examination in the United States, the American case concentrates only on the Educational Testing Service which offers the SAT though there are other similar examination boards in the country. Another aim of this case study is to enrich the framework of the scope and focus of the research into the Hong Kong case. The research methodology of this thesis is detailed in Chapter Four. Chapter Five is a historical study of the development of public examinations in Hong Kong, through which the functions that public examinations serve and the challenges faced by the Authority are analysed. Attempts are made specially to study changes and continuities over time and the reasons behind within a context of rapid social, political and economic developments. Chapter Six concentrates on the way the Authority has been responding to the public examination reform introduced at the turn of the twentieth century leading to the implementation of the Basic Competency Assessment in 2005 and the Hong Kong Diploma of Secondary Education Examinations in 2012. Special attention is paid to explore how effectively the Authority has been coping with stakeholders’

demands and expectations on public examinations in a time of compulsory education undergoing an education reform. Chapter Seven is an analysis of the unique nature of the Authority as the only statutory examination body in Hong Kong and whether this position is conducive to the effective implementation of its public examinations. The final chapter summarizes the findings and arguments with an eye for the future. It is hoped that suggestions can be made for informing possible courses of action for examination bodies in general and the Authority in particular to enhance their work or position in age of increasing emphasis on accountability.

Definitions

Public examinations in this thesis refer to formal large-scale state- or system-wide examinations or assessments, the results of which have direct consequences for the concerned candidates, educational programmes, teachers or institutions. These examinations are hence high-stakes in nature. Besides, for fairness sake, they are necessarily standardized, i.e. their formats, procedures or administration are uniform across examinees (Phelps, 2007 p.8 – 9).

These examinations are almost without exception administered at the end of a course or stage of study and provided externally. By external, it is implied that the source of these examinations is an entity outside the schools, mostly referred to as examination board, or awarding body in the UK. In their most pristine forms, external examinations are

devised, conducted and processed by the examination boards in the complete absence of the instructors of the candidates (Vlaardingerbroek et al., 2009 p. xi).

Some people consider that the three major stakeholders in education are the academic community, state and market (Altbach, 1999; Ball, 1998). Something is clearly missing if the learners, their parents and whoever support them in their studies are not expressly mentioned though they may be grouped under “academic community” or “market”. Stakeholders of public examinations in this thesis refer to all stakeholders of their respective education systems where public examinations exist, and all those who take part in the decision-making processes of, participate in or are directly or indirectly affected by public examinations.

Though the words “assessment”, “examination” and “test” are slightly different in terms of meaning and connotation, they are used interchangeably in this thesis if they are not a part of proper names, or not specified. The same applies to “candidate”, “examinee” and “test-taker”.

Endnote:

- 1. John Biggs, a significant thinker about learning and assessment in Chinese societies, has popularized the term Confucian-heritage cultures to refer to the countries or educational systems of China, Japan, South Korea, Singapore, Taiwan and Hong Kong, which have all been*

influenced by the tenets of Confucianism in such a way that they are all examination-driven (Carless, 2011 p.4).

Chapter Two
Literature Review I –
An Overview of the Functions of Public Examinations
and Role of Examination Boards in Modern Societies

Introduction

This chapter aims at providing an overview of the major functions served by public examinations in modern societies, issues surrounding them, the benefits they bring and their limitations, followed by a survey on the role of examination bodies. It is hoped to identify unified themes in respect of the functions of public examinations and the role of examination bodies to provide a framework of the scope and focus of study for this research thesis.

The Functions of Public Examinations

Public examinations serve multiple purposes nowadays. Broadfoot (1996 p.10 – 11) suggests that the purposes of public examinations are associated with the themes of competence, competition, content and control. Pongi (2004) asserts that public examinations around the world are commonly used for summative, accountability and evaluation purposes which play an important and indispensable part to cater for the diverse and often competing demands of the various stakeholders and users of assessment information, for example, selecting the best students for the next level of education, monitoring school performance

or allocating limited resources. Newton (2007 p.149 – 170) puts forward eighteen uses of educational assessments, including diagnosis, placement, system monitoring and so on. According to William and Leahy (2007 p.29 – 42), public examinations should support learning, certify student achievement or potential and evaluate educational programmes, institutions or curricula. Different people may draw up different lists and express themselves in different terms depending on their standpoint, focus and purpose of discussion. However, the following is probably a representative range of purposes expected of public examinations in modern societies:

- 1) selection as well as certification
- 2) providing a wider range of information on teaching and learning
- 3) driving curriculum and educational changes
- 4) supporting teaching and learning
- 5) serving as a standards monitoring procedure

It should be highlighted that public examinations are almost without exception serving multi-purposes, meaning that they are serving or expected to serve more than one function listed above and there is such possibility that they are serving all of them at one time.

Selection and Certification

Public examinations are in general highly respected and that comes with a price. It is of foremost importance for a public examination to be

widely recognised and hence the importance for maintaining high standards, the importance of which, in the interest of students being provided pathways to higher education both locally and internationally, is reflected in the decision of many former colonies to continue to operate examinations of international examination boards, notably the University of Cambridge Local Examinations Syndicate (UCLES) and Edexcel International. Bray and Steward attribute this phenomenon also to concerns about technical expertise and cost-effectiveness (Bray and Steward, 1998 p.223 – 224).

Some countries simply adopt the examinations as provided by these international providers. For example, Mauritius and Brunei Darussalam, which gained independence in 1968 and 1984 respectively, choose to remain tied to UCLES (Broadfoot et al., 1998 p.67 – 68). Singapore takes a slightly different route to use a customized version of UCLES examinations with equivalent recognition as their international counterparts. Singapore in fact has all the professional expertise and financial competence to develop its own domestic national examinations, but decided to continue to peck with UCLES for respectability and neutrality considerations (Bray and Steward, 1998 p.223 – 224; IBM, 2002^{HP} p.49).

In most countries, the contemporary system of public examinations owes its origins to the need to select a handful of elites to enter higher education so as to “refresh” the sources of leadership in due course (Vlaardingerbreuk et al., 2009 p.3). However, despite examination

systems designed for this purpose have already been well recognised as being inadequate to cope with a much broader candidate abilities in an age of mass education without some devaluation of the credential gained (Eckstein and Noah, 1993 p.172 – 176), the same approach of selection is still widely adopted. If pass rates rise, it is typically assumed that standards have been watered down (Aldrich, 1998 p.42) making it difficult to recognise or certify a wider range of achievements.

Different countries may traditionally put various levels of emphasis on the use of public examinations for selection as against certification purposes, and the balance tends to be tilted to the earlier. It is however inspiring to note that it is also possible for some countries to design a more inclusive system through policy decisions to expand candidature. While China is an extreme case where students are having the least chances of success in a highly selective education system, France provides a good example of a country which has committed to widening opportunity in order to raise the overall skill threshold of the nation (Eckstein and Noah, 1993 p.174). The Baccalaureate examination – in which a pass carries with it the right to access university education – was once the national icon of an elite minority. The French government has now set 80 percent of the age cohort as the target for success in one of the several different forms of Baccalaureate. Although this ambitious target will take some time to be realised, access to these iconic qualifications has already been widened significantly in recent years without much diminution in public

confidence in them (Bonnet, 1997 p.296 – 297). In 1997, 61 percent of the 16- to 18-year-olds obtained the Baccalaureate or a baccalaureate level qualification with 88 percent of these students enrolling in some forms of higher education and 57 percent going on to university (QCA 1998, cited in Broadfoot et al., 1998^{HP} p.68 – 69). In 2007, the Baccalaureate recipients rose to 65 percent of the relevant cohort while the overall pass rate had risen to 83 percent. That said, the high success rate does raise issues of the effectiveness of the Baccalaureate as a filtering mechanism in France as it is not only a secondary school exit certificate but also a university entrance qualification (Vlaardingerbroek et al., 2009 p.20 – 26).

Certification has been lumped on to the traditional selection function of public examinations in response to an expanding education system in the recent decades, resulting in a conflict between the two functions which many public examinations are serving at one time.

Provision of a Wider Range of Information on Teaching and Learning

Some countries, for example, Japan, China and United States, offer limited options in what is essentially the same examination for all candidates, whereas other countries, particularly England, France, Germany and Sweden, offer candidates options among subjects, syllabi and levels of difficulty. Uniform examinations are generally considered to be more reliable and capable of facilitating selection by enhancing

the comparability and evenhandedness of treatment for different groups, but this comes with a price. Uniformity significantly reduces the opportunities for recognising the different needs of candidates (Eckstein and Noah, 1993 p.227).

In modern societies with mass or even universal education, selection should no more be the sole purpose of school examinations and, increasingly examination systems that began with a strong commitment to uniformity and comparability for mainly selection purposes have yielded to the need to accommodate a wider spectrum of student population and broadened definitions of what should be learned at school and assessed (Eckstein and Noah, 1993 p.228). Greater emphasis is now being put on the certification of competence, i.e. what students have learned and are able to do, and how effective teaching has been in changing the competencies of students (Biggs, 1998b p.323). There is no denying that examinations will continue to play a very important role into the foreseeable future in terms of selection which brings with it the need to rank candidates' relative levels of academic performance. Meanwhile the diversity of routes opening up within education systems catered for a range of skills and qualities about which information on candidates is sought means that the role of public examinations is more and more one of certification – providing accurate and trustworthy information on a wide range of candidates' competencies at different levels – allowing the users themselves to make use of the information in ways that are appropriate for their own purposes (Broadfoot et al., 1998^{HP} p.70 – 71).

In reviewing the international trend of an increasing use of public examinations for a much broader scope of certification purposes for OECD, Nisbet wrote:

“The general international trend since the early 1960’s has been the greater reliance on internal school assessments. In every OECD nation which has national examinations at the end of secondary education, the external examinations have been extensively revised since the mid 1980’s....The modifications have included school-based assessment of extended projects, attempts to test (and thus foster) problem-solving and the application of knowledge, assessing practical ability, and oral communication skills and relating examinations more precisely to clearly stated objectives.” (Nisbet, 1993 p.33)

The theory and practice of assessing learning are currently undergoing a paradigm shift, as public examinations become increasingly grounded in theories of learning and teaching rather than traditional psychometric theory (Biggs, 1998a p.375 – 378). Ironically, the move towards enhancing the certification role of assessment is also closely associated with the widespread recognition of the pressures arising from the selection role of assessment and attempts on generating positive washback effects on the priorities of teachers and students. As a result, there is a considerable impetus behind the search for alternative assessments (i.e. assessments other than external written examinations), such as “authentic” assessments (Newman & Archbald, 1992; Wiggins,

1989) or “performance-based” assessments (Moss, 1992) which, being conducted by teachers at schools, can take into account a range of skills and qualities (such as investigative skills, teamwork, oral and problem solving skills) on a continuous basis. These assessments can hardly be conducted in a valid way through traditional uniformed external written examinations which, on the contrary, are valued for its reliability as an assessment tool administered on a large-scale (Broadfoot et al., 1998^{HP} p.71).

There is growing recognition that personal attributes such as critical thinking, problem-solving, leadership, citizenship, perseverance and creativity are important both for employment and the sustainability of a society as a whole. However, very often the narrow focus of examination systems on academic achievement works against encouraging the development of such qualities. Meanwhile, the assessment of these personal attributes is recognised as being deeply problematic within the assessment technologies currently available. Professor L. Mo, in a seminar in Guangzhou, PRC in October 1998, commented on assessing students’ social qualities as follows:

“Students’ social qualities are now treated with increasing importance. Social qualities mainly include social knowledge and social ability. The assessment of social knowledge (such as knowledge on safety etc.), of course, can be conducted in the form of an exercise; However, although assessment of social abilities (such as socializing ability, managing ability, and organising power etc.) in theory can be conducted in the

form of an exercise, generally such kind of assessment has to be conducted in exercise form under actual circumstances. This kind of exercise under actual circumstances requires a huge amount of manpower and resources. Moreover, practically it can only be used to assess a small number of people, so it is not applicable to the assessment of students' qualities on a large scale. Therefore, in order to assess students' qualities in this area on a large-scale, the only method to be adopted at present is either the use of questionnaire or evaluation. Since the value and meaning of assessing social qualities is relatively obvious, therefore, there exists also the problems of authenticity and objectivity etc. In this regard, the assessment of students' social qualities lacks viable scientific methods.

To conclude, the conditions for a scientific assessment of various students' qualities with an intention to make use of an integrated quality assessment result as the deciding selection criteria are at present not sufficient.” (Mo 1998, cited in Broadfoot et al., 1998^{HP} p.72 – 73)

The fact that traditional external written examinations which put emphasis on reliability are still widely offered by examination bodies does not mean non-academic qualities are not valued. If well-designed, assessments developed for collecting evidence on personal attributes can be accepted as more valid than traditional external written examinations under certain circumstances. The problem lies in the difficulties in identifying effective and efficient ways that these

assessments can be used without compromising reliability in a high-stakes context. This brings another set of dilemma embedded in the implementation of public examinations – validity (measuring the intended traits) and reliability (producing consistent results across time and condition) (Phelps, 2007 p.3). The new expectation now is to enhance validity while not compromising reliability.

Driving Curriculum and Educational Changes

In a pledge to enhance validity within limits, public examinations incorporating significant practical work, such as laboratory experiment or field trip, are quite common in some places. Although most, if not all, public examinations test recall of knowledge content to some extent, these new forms of assessment, involving more than a timed, external, paper-and-pen examination, are expected to assess higher-order intellectual activities like critical thinking, problem-solving and creativity. They take into account a corpus of the candidates' work accumulated over time. Some advocate reporting results in more detailed and diversified ways, beyond traditional grades or scores, to reflect fuller “profiles” of achievement.

Behind all these efforts is the recognition that public examinations are exerting strong motivating effects or influence in various aspects on the school curriculum, to the extent that in France, England, Japan and China, the subjects examined and the examination syllabi virtually determine the school curriculum and the objectives of teaching. Though

it is arguable to say that the format and content of examinations reflect what an education system considers to be the knowledge and skills of most worth, they do reflect and even stimulate curriculum development (Eckstein & Noah, 1993 p.221).

More and more policy makers now believe that public examinations can serve as levers to educational changes and seize upon them as handy instruments for pushing schools and teachers in the desired directions. Traditionally, public examinations have been conducted by external bodies specially set up for this purpose. More recently, recognising the importance of a close link between assessment and curriculum, many governments have combined the two branches into one body which is capable of providing an overall coordination so that developments in one area are reinforced by those in another. For example, in England, the Secondary Examinations and Assessment Council was merged with the National Curriculum Council to form the School Curriculum and Assessment Authority (SCAA). Then a further merger took place between the SCAA and the National Council for Vocational Qualifications to form the Qualifications and Curriculum Authority (QCA) which had the responsibility for approving all curriculum and public assessment arrangements in England. Similar developments have taken place in Australia and New Zealand. (Broadfoot et al., 1998^{HP} p.70) The National Council for Curriculum and Assessment Ireland also adopts a unitary model. Such organisational developments facilitate the integration of decisions concerning the goals of education and hence, curriculum priorities, with

the powerful potential of examination and assessment arrangements to ensure that it is these priorities that are pursued at an operational level within the education system (IBM^{HP}, 2002 p.29 – 31).

Though assessment and curriculum are interdependent, they are two separate functions serving different purposes. Not everything taught can be assessed and not everything assessed is or should be the most valued educational outcome. Making use of examinations to drive curricular ends may result in some changes but may not be the best or expected results. Due to an “artificial marriage” or forced amalgamation between the two functions in many cases as highlighted in the preceding paragraphs, professionals involved from the two ends are in constant search for the best way to work together and this relationship could be unsettling and even a source of conflict. The following observation of the Singapore situation before the establishment of the Singapore Examinations and Assessment Authority as a statutory body in 2004 may provide a glimpse of the tension:

“In Singapore, curriculum and assessment units work closely together within the one organization. However, even physical proximity did not mean harmony, and Singapore stressed the importance of creating a single committee to develop curriculum and assessment syllabi.” (IBM, 2002^{HP})

It is also noteworthy that events in England took a further turn in 2008 when the regulatory function over examinations of QCA was taken

over by the Office of Qualifications and Examinations Regulation (Ofqual), the then newly created independent regulator of examinations. Despite the change, the use of examination to drive educational changes has remained unchanged as illustrated in the “Reforming Key Stage 4 Qualifications” consultation paper issued by the UK Department for Education:

“We need to raise the level of challenge in our Key Stage 4 qualifications to match the best in the world. Raising our expectations of attainment for all students will drive up standards as teaching and learning improve to meet that challenge.” (Department for Education, UK, 2012 p.1)

The necessity for examinations to be able to reconcile both assessment and curriculum demands is getting more and more prominent nowadays in face of the tendency of policy makers to effect curriculum changes and drive up standards through the use of assessments, and the global trend towards the use of more formative assessments alongside with summative assessments or formative use of summative assessments for addressing the validity issues discussed earlier.

Supporting Teaching and Learning

According to Gipps (1994), using examinations for various educational purposes will not go away in many education systems around the world. If this is the case, then are there better ways to live with examinations

or even make use of them to support teaching and learning?

Since the turn of the century, attention has been drawn to the connection between assessment and classroom learning (Black & William, 1998):

“An assessment activity can help learning if it provides information to be used as feedback by teachers, and by their students in assessing themselves and each other, to modify the teaching and learning activities in which they are engaged.” (Black et al., 2003 p.2)

The above suggests that assessment can actually be used “for learning”. Based on teachers’ judgement, feedback and possible solutions are provided to enable students to bridge gaps between their actual level of performance and the desired level of achievement (Sadler, 1989). This practice is now generally called formative assessment as the assessment information is fed back to the teaching and learning processes and points the direction for improvement (Harlen, 2005; William & Leahy, 2007). Assessment of learning or summative assessment, on the other hand, serves the purpose of grading and reporting, the results of which are used mainly for comparison, selection and monitoring performance (Assessment Reform Group, 1999).

Formative assessment and summative assessment serve different purposes but they are not necessarily different assessments. In many cases, the same assessment can be both formative and summative

(William and Leahy, 2007 p.39). Stiggins (2007, p.17) argues that assessment for learning involves *“the use of the formative process and its results as an instructional intervention designed to increase – not merely to monitor and grade – pupils’ learning”*. This implies that the assessment information generated by formative assessment taking place within a classroom can also be used for summative purposes. Hence the nature of the assessment depends critically on the purpose of the assessment instead of the assessment itself and where it takes place. In other words, though public examinations are administered outside the school administration and have a distinct summative role, there is a potential for information generated by these powerful tools to be used for formative purposes.

With an increasing amount of evidence supporting the benefits of formative assessment to promote student achievement, equity of student outcomes and even lifelong learning (Assessment Reform Group, 1999; Black et al., 2003; Black & William, 1998; OECD, 2005), there is an impetus in modern societies to explore the possibility and potential of integrating both formative assessment and summative assessment into the curriculum (Bennett & Taylor, 2004; Biggs, 1998a; Carless, 2008; Harlen, 2005; Harlen & James, 1997). It is argued that there is a powerful interaction between formative assessment and summative assessment that *“could usefully be incorporated in an overall synthesis, so that both backwash (from summative assessment) and feedback (from formative assessment) are conceptualized within the same framework.”* (Biggs, 1998b p.105)

However, the formative use and summative use of assessments could be conflicting at times. A teacher providing assistance to students in completing their assignments could be understood as supportive at the formative end but unfair at the summative end. Potential conflicts to be overcome within classrooms should not be underestimated. Some researchers caution policy makers about the tension between summative assessment and formative assessment when the two are conflated in assessment policy. Harlen and James (1997) point out that in practice, teachers may find it difficult to manage the requirements of both, and in reality, there may not be much genuine formative assessment going on in the classroom due to the powerful influence of summative assessment.

The support of teachers and their professionalism are critical success pre-requisites for reconciling the conflict between the two kinds of assessments in classroom teaching. Instead of treating them as collaborators, some policy makers are introducing more and more accountability procedures for monitoring their performance.

Serving as Standards Monitoring Procedure

It is not uncommon nowadays for public examinations to be used for standards monitoring purposes. The professional work involved for an examination body is simply to adopt a standards-referenced approach in the reporting of results instead of a norm-referenced approach

commonly used in most traditional selective examinations. However, the implementation of standards monitoring examinations is not as straightforward. Standards monitoring examinations are in their extreme forms in America and England where the term accountability testing is more frequently used. According to Stobart (2008 p.119), the key features of test-based accountability are:

- 1) goals – which are presented as “standards”, and which represent the desired level of achievement;*
- 2) targets – required levels of performance are specified as both annual improvement and long-term objectives;*
- 3) measures – the tests by which achievement is judged. These may be the results from tests used for other purposes, or specific accountability tests which have no other major purposes;*
- 4) consequences – results are linked to punishment and rewards. It is these that make the tests so high-stakes that the future of a school may be determined by the results*

In America, the *No Child Left Behind Act* (NCLB) became law in 2002, which requires schools to show regular progress towards all children achieving high standards, with the goal of all children being proficient reached by 2014. From the perspective of policy makers, NCLB is tough but fair, particularly as focusing on sub-groups, meaning that poor performance by minority groups cannot be covered up in statistics of overall improvement. This pressure for results is unprecedented and so is the rate of improvement in school performance as figured out by

Linn (2005, p.78 – 98).

In England the introduction in 1988 of a national curriculum was a radical change for education, which had previously been known for its very local approach to curriculum and assessment. It was accompanied by national assessments, which have progressively turned into standardized tests in English, mathematics and science. These assessments are taken by 7-, 11- and 14-year-olds, with national GCSE examinations for the 16-year-olds. Results of the national tests are published in performance tables, which are quickly changed to rank-ordered “league tables” by the media. Poor results mean both bad publicity and inspections which may further lead to “special measures” or may even put schools “at risk”. Though these national tests have both financial and managerial consequences for schools, they have also brought about some positive results (Stobart, 2008 p.120 – 121).

The policy intention behind standards monitoring examination is to push up standards year on year by regularly providing feedback on the effectiveness of teaching and learning in schools to help teachers and school administrators make improvements. However, in reality, in order to do better, something more than “better teaching” may have to be done. Dan Koretz and colleagues have identified seven types of teacher response to high-stakes standards monitoring examinations: providing more teaching time; working harder to cover more materials; working more effectively; reallocating teaching time; aligning teaching with the standards; coaching for the test; and finally, cheating (2001, Koretz et

al., p.551). Except the first three types of teacher response, the rest could all undermine good teaching. By its very nature, standards monitoring examination undermines to various extents the professionalism of teachers. This is highly problematic, especially under the current trend of relying more and more on the professional judgement of teachers in a plethora of formative assessment initiatives.

The importance of the role of teachers in the changing face of educational assessment practices is widely recognised. The traditions of various systems in this respect are very different. Germany is representing one extreme with its willingness to trust teachers with most of the responsibility in the assessments for certification and selection, while the United States is illustrating the other extreme where almost all such assessments are externally designed and scored by machine (Harlen, 1994 p.47). In this connection it is interesting that even in the United States, where the use of multiple-choice, machine-marked objective tests has long been the predominant form of assessment for all kinds of purposes ranging from diagnostic tests of classroom progress to state-wide minimum competency tests and university selection, recently there has been a considerable growth in interest in the use of school-based assessment through the preparation of student portfolios of work (Koretz, 1998 p.309 – 335). In tandem is an increasing interest in curriculum-based standardized tests, such as ACT, so that these tests can become potentially more formative in orientation (Zwick, 2004).

Under the international trend towards the formative use of assessments, which increases teachers' professional responsibility in this area and, potentially at least, their workload, teachers urgently need to be provided with external support in the form of resources and professional training. In some countries, such as Scotland or the Netherlands, teachers have access to a range of commercially-produced diagnostic tests to support their classroom work. In others, they must rely on their own efforts. Where external support has not been provided, whether the country concerned is Ghana or England (Pryor and Akwesi, 1998 p.263 – 275), Sri Lanka or Namibia, these new assessment initiatives have encountered significant problems. (Broadfoot et al., 1998^{HP} p.74)

The fruitfulness of teachers' professional development has been demonstrated in the context of assessment reform as put forward by McLaughlin:

“Reforms of all stripes agree that teacher involvement in developing assessments and in assessing student work comprises perhaps the single most potent opportunity of teachers' learning and change. Engaging teachers in conversation about what students should know and be able to do, and how that performance could be assessed, prompts teachers to look critically at their own work and question the relationship between teaching practices and student learning.” (1997 p.77)

In short, if without sufficient support and training provided to teachers, the use of examinations for standards monitoring or accountability purposes could potentially work against teacher professionalism and become detrimental to the successful launch of formative assessment initiatives, including the formative use of summative assessments. Accountability testing and teacher professionalism form another set of dilemma embedded in the use of public examinations in modern societies.

The Role of Examination Boards

Restricting or facilitating curriculum development?

Though literature on public examinations is abundant, it is rather limited when it comes to independent accounts on examination boards. As mentioned in Chapter One, literature on examination boards are very often commissioned by these institutions themselves. Even less is available specifically on their societal and educational role. Fortunately, Murphy (1984) provides some very useful insight in this respect in his work on UK's massive move towards the setting up of the GCSE examination, entitled "*A Changing Role for Examination Boards?*" He queries if examination boards are making sufficient progress to meet changing demands. According to Murphy, to recognise the powerful hold that public examinations exert on the entire education system is one thing, but to understand the nature of that power is quite another. "*The key question in such an analysis has always been whether*

examination boards with their published syllabuses are restricting and holding back curriculum initiatives and changes within schools, or are instead operating as a pioneering force to initiate change and development”.

Based on Mortimore and Mortimore (1984), Hargreaves (1982) and other similar analysis regarding the relationship between examination boards and the education system, Murphy concludes that public examinations in fact work as a dominating conservative force inhibiting and delaying curriculum changes and development. He cites Macintosh (1982) who interestingly highlights the conservative force within examination boards as follows:

“The boards which run the system virtually without exception remain essentially administrative organisations maintaining that they reflect and respond to the curriculum and do not dictate it – curriculum thinking is thus something alien to those who work for them. All boards suffer from progressive arthritis of the procedures and form varying forms of tunnel vision. The boards operate today as they did in 1945 and indeed since their inception.” (1982 p.13 – 14)

Though Murphy’s paper does not provide a lot of information on examination boards, it does point the direction for further research into examination boards in order to identify the role of these influential institutions in curriculum development. He believes what is sadly missing is an independent account of the organisational culture and

working of individual examination boards, and their internal power structures that have led to distinctive curriculum and assessment policies, change and development.

Serving the government only or other stakeholders as well?

Despite the pessimism that little essential change will occur within examination boards as a result of the then “public examination reform” in the UK, Murphy ends the paper with his hope that the new GCSE examination boards will submit a much greater level of accountability not only to the central government, but also to the customers of public examinations, which include users of the results, schools, teachers, parents, and the candidates. It is implied here by Murphy that it is the role of an examination board to ensure its public examinations are serving the functions expected of it by a range of stakeholders apart from the central government.

Conclusion

A list of common purposes served by high-stakes public examinations in modern societies is given in the beginning of this chapter, followed by an analysis of how well public examinations are serving these purposes. It has been revealed that in the modern age of mass education, issues surrounding the implementation of public examinations are in fact caught in a web of dilemmas and conflicts as summarized in the following list with the more traditional approach grouped on the left:

- 1) Selection vs. certification
- 2) Reliability vs. validity
- 3) Assessment demands vs. curriculum demands
- 4) Summative use vs. formative use of assessments
- 5) Teacher professionalism vs. standards monitoring assessments
(probably involving change from norm-referenced to standards-referenced assessments)

As public examinations are now expected to serve a plethora of conflicting purposes, it is more difficult than ever to make improvement or remedy defects in one area without causing repercussions in another. The challenge is to identify ways forward that represent the best compromise among competing agendas, and is robust enough to work in the way intended. No wonder Carless comments that “good assessment is the art of compromise” (Carless, 2011 p.5).

In order to answer the first research question, in the upcoming case study of Hong Kong, a historical approach is adopted to study in context the changing functions that public examinations have served in Hong Kong. With reference to the findings of the literature review, attempts are made to explore how progressive the HKEAA has been over the years to develop examinations to serve the functions grouped on the right of the list above, and what compromises it has made along the way to resolve the associating conflicts and dilemmas.

Major factors which determine the role of an examination body seem to have much to do with the way how it prioritizes its stakeholders and based on which to define the functions of its public examinations. In order to answer the second research question, these will be traced, as far as possible, in the upcoming case study of Hong Kong with the focus on the following as inspired by the literature review:

- 1) The part the HKEAA has played in curriculum and assessment development over the years. Special attention is paid to evaluate if assessment is essentially promoting or inhibiting curriculum development.
- 2) The way the HKEAA has handled its stakeholders, the Government in particular, and whether an evenhanded approach has been adopted.

It is explained in Chapter One that the methodology of this research is mainly historical based on literature and document analysis. As prompted by Murphy, apart from literature and documents accessible to the general public, the case study will also make reference to relevant internal documents of the HKEAA whenever available in order to provide a more comprehensive evidence-based analysis of the role of the HKEAA in Hong Kong.

Chapter Three

Literature Review II – The American Case

Introduction

The major dilemmas in respect of functions served by public examinations identified in Chapter Two are closely related to teaching and curriculum issues. Such findings are not helpful at all for answering the question raised in various ways more than once in Chapter One regarding the appropriateness or effectiveness for rectifying teaching and curriculum problems through assessments. In this connection, it is implied in Chapter Two that examination bodies are in fact under strong government influence to the extent that the interests of other stakeholders may not be sufficiently accommodated. The United States is among the very few advanced countries where school-leaving public examinations are delinked from school curriculum, and examination bodies are not a part of the American government, and neither are they regulated by the government as examination or awarding bodies. The relevance of the findings in Chapter Two is hence tested on the American case where the SAT I¹ is a curriculum-free intelligence test offered by the Educational Testing Service (ETS) as a commercial organisation. One of the aims of the American case study is to critically investigate whether public examinations can remain detached from their respective school systems and how far examination bodies can maintain a balanced approach in serving a range of stakeholders. It is also hoped that the study of the

relatively unique American case can help enriching the framework of the scope and focus of the research of this thesis.

The College Entrance Examination Board

The College Board, formerly known as the College Entrance Examination Board (CEEB) and the creator of the SAT, was founded in 1900 for rationalizing the rather disconcerted admission processes of the Ivy League colleges.

Its initial work was to seek uniform levels of attainment from those students who took specific high school subjects and create a single battery of centrally scored examinations and, in so doing, bring order and higher quality to the college preparatory curriculum. The first series of these examinations, the so called “College Boards,” were administered in 1901 (Bennett, 2011 p.3 – 4; Eliot, 1892 p.90). The first College Boards were hand-graded essay tests in various content domains, which solved some problems but created a few others. By the end of its first decade, subscription had only grown from an original fourteen institutions to thirty (CEEB 1911). This hardly matched the aspirations of the Board’s leadership. In response to this, the Board actively investigated means to supplement, not replace, these essay tests (Hubin, 1988 p.55 – 68).

The Birth and Growth of Intelligence Tests

On a totally separate front, the French psychologist Alfred Binet administered the first intelligence test in Paris in 1905. Claimed to be able to derive a rating of school children's "mental age", Binet's test was meant by him to be used for identifying slow learners so that they could be given special help in schools. It was the American promoters of intelligence tests, led by Lewis Terman of Stanford University, that were responsible for the notion that everyone had an innate brain capacity which could be discerned by an intelligence test and expressed numerically as "intelligence quotient" or IQ – the ratio of mental and physical age. Lewis Terman and Edward Thorndike were amongst the earliest advocates that IQ tests could be widely used by educators so that students could be assessed, sorted and taught according to their capabilities. This idea of using a curriculum-free intelligence test for educational selection, as opposed to the use of a curriculum-based achievement test, was something groundbreaking by the early 20th century (Lemann, 1999 p.17 – 18).

Along with this trend of rising interest in intelligence testing in the United States, the American Council on Education (ACE) began its own initiative to develop intelligence test for admission purposes. ACE was founded in 1918 with a membership dominated by public universities. It is the public school equivalence of the much smaller CEEB which, in contrast, was consisted primarily of private colleges. In 1924, ACE commissioned Louis L. Thurstone, a psychologist at the

Carnegie Institute of Technology, to create an admissions test based on the Army Alpha Test – the first IQ test administered in a massive scale to all US Army recruits during the First World War. ACE found the need to do so as many public institutions were already using their own intelligence tests in admissions and ACE wanted to bring coordination to this approach (Hubin, 1988 p.177 – 178).

The First Scholastic Aptitude Test

Carl Brigham, a psychologist at Princeton University, under the auspicious of the CEEB, also adapted the Army Alpha Test for use in college admissions on a competing front. The CEEB administered experimentally Brigham's Scholastic Aptitude Test for the first time in 1926 to evaluate its predictive validity claims (Lemann, 2004 p.6 – 7).

James Bryant Conant became the president of Harvard University in 1933, at a time when Harvard and other elite colleges like it in New England, i.e. the Ivy League colleges, were dominated by well-to-do boys from their feeder schools – an exclusive circle of elitist northeastern boarding and private day schools. Conant was unhappy with the College Boards because he saw them as nothing more than a measure of mastery of the curriculum of the feeder schools and were not suitable at all for assessing students from public schools. Conant saw the danger that the Ivy League colleges would become the “property” of a new American aristocracy, which in turn had been created by the immense industrial fortunes that had materialized in the

decades following the Civil War in the United States. He was determined to address this problem. He started the Harvard National Scholarships, through which he intended to have a small number of students from the Midwest selected purely on grounds of academic promise and provide them full four-year scholarships to study at Harvard. The selection tool posed an immediate challenge as the target groups were obviously beyond the reach of the battery of College Boards geographically, let alone the curricular differences between the Northeast and Midwest. Conant entrusted his assistant dean, Henry Chauncey (who later became the founding president of the Educational Testing Service) to source an appropriate selection tool. Chauncey eventually settled on Brigham's Scholastic Aptitude Test as it was a curriculum-free intelligence test for predicting academic attainment. The first test was administered in 1934 (Lemann, 1999 p.29).

The Harvard National Scholarship programme turned out to be a great success for Conant and the SAT. For Conant, the scholarship winners did well at Harvard, and more importantly, the programme succeeded in bringing about a process of redefinition of "merit" amongst the Ivy League colleges away from a vaguely defined personal quality called "character" (which evidently was not commonly found in students who went to public high schools) towards "intellectualism" (Lemann, 1999 p.8). For the SAT, the predictive validity of the test for academic achievement became so well recognised that in 1938, it was adopted as the major admission test for the scholarship applicants to the College Board institutions, and in 1942, it became the admission test for all

applicants to College Board institutions (Lemann, 2004 p.8).

The Formation of the Educational Testing Service

By late 1930s, several key figures in the American educational scene raised the idea of a unified testing organisation. These include James Conant of CEEB, William Learned of the Carnegie Foundation and Ben Wood of ACE. Somehow the idea failed to materialize until the 1940s. After much negotiation, the three organisations finally agreed on an independent arrangement, in which they would each contribute their testing programmes and a portion of their assets to the new organisation (ETS, 1992; Fuess, 1950, cited in Bennett, 2011 p.7). In January 1948, Educational Testing Service (ETS) was formally established with Chauncey at its helm as the first president, Conant as the Chairman of the Board of Trustees, and the SAT its flagship test (Lemann, 2004 p.8; Bennett, 2011 p.7).

The Growth of the SAT

Though there were three collaborating organisations, ETS would not have been possible as what it is now without Conant. Why was Conant so supportive of this move of a unified testing organisation for promoting the SAT to new heights? This did not seem to have brought himself or Harvard much benefit? Conant *“was actually, throughout his long career, preoccupied mainly with elite selection.....he believed passionately in operating an open, national, democratic contest for*

slots in a new elite – in the manner of an updated, scientized version of the Cinderella story, with the SAT as the glass slipper” (Lemann, 2004 p.9). It is interesting to note that the SAT as a selective test was promoted by its early advocates for democratic reasons. Conant believed that the best and most distinctive feature of American society was equal opportunity for all – the American creed. One of the ways of realizing this is by providing an equal opportunity for all to demonstrate their intellectual capabilities in the SAT, get selected and excel to become what Thomas Jefferson called a “natural aristocracy” to replace an “artificial aristocracy founded on wealth and birth” (cited in Lemann, 1999 p.43). Hence, one of the most effective ways to democratize college admission is to promote the SAT to the much wider arena of public universities. With this ambition in mind, ETS set up its first branch office strategically in Berkeley, California even before it was formally established, paving its way to win the support of the University of California, a public and the largest university in America.

Apart from ideological reasons, there are also practical reasons for ETS to promote the SAT. Established as a private organisation, ETS has to sustain itself financially and this has always been a strong driving force of the marketing efforts behind the SAT, which fortunately met with a wave of unprecedented expansion in American higher education came after World War II. In 1946, with government financial support under the G.I. Bill of Rights passed in 1944, over a million war veterans swelled the enrollments of American colleges and within one year, the

number of college students doubled (Valentine, 1987 p.65).

Compulsory public education was introduced in the United States as early as the end of the 19th century but that did not immediately turn public universities serving in-state population selective due to a lack of interest in university education. However facing the rapid growth in higher education after World War II, even the public universities found the necessity for the use of some entrance test as gatekeeper for ensuring the quality of their students and, for longer term, maintaining the standards of their academic programmes and sparing the professors sufficient time to carry out their own research instead of providing teaching similar to that provided by high schools.

Even decades after World War II, the requirement for the SAT continued to grow. In 1947 over seventy-seven percent of the College Board's total membership of sixty-seven institutions came from New England, whereas by 1959 that percentage had declined to fifty percent of a total membership of 286 institutions (Hubin, 1988 p.309). Over 81,000 candidates took the SAT in 1951, and in 1961, the number increased to 805,500 (College Board, 1977 p.4). By 1970, there were more than two million individual SAT administrations a year and the SAT has become truly national and universally accepted by both private and public universities (Lemann, 2004 p.10).

American higher education has indeed expanded to sizes hitherto undreamed of. Being different from the 19th century, higher education

nowadays is taken for granted. Within the expansion, high school students are sorted by selective testing, e.g. the SAT and ACT. The highest scorers are given access to selective higher education institutions. Those who want to attend graduate schools need to go through another round of selective testing, e.g. the GRE and GMAT. In the past, only the elites were given higher education, now elites are put at the head of an expanded and all-encompassing higher education, equally poised to make their claim to leadership and wealth.

Issues Associated with the Technical Design of the SAT

Is the SAT still serving its democratizing function in a contemporary selective education system in the United States? This is highly controversial. Conant's "democratizing college admissions" through the SAT effectively turned a significant number of the universities on the public end of the system, which used to be relatively open and matched in terms of curriculum to public high schools, selective and untied from the high schools.

Though marketing forces within the College Board promoted the SAT for popular use, even Brigham himself viewed the test as experimental and resisted the idea that science in psychology or measurement then was sufficiently advanced to support the large-scale operational use of intelligence testing at a national level (Hubin, 1988 p.v). Brigham wrote: "*Practice has always outrun theory ... this is a new field and ... very little has been done which is right*" (cited in Lemann, 1999, p.34).

Then what was wrong about the SAT to Brigham?

Brigham wrote about his own error in an earlier letter: "*The more I work in this field, the more I am convinced that psychologists have sinned greatly in sliding easily from the name of the test to the functions or trait measured*" (cited in Lemann, 1999, p.33). These comments referred to the hasty conclusion which the psychologists of his day made that IQ tests measured innate intelligence, a quasi-biological quality which supposedly could not be changed – a view he himself had taken but quite publicly denounced later. Besides, Brigham wrote in New York Times that "*the original and fallacious concept of the I.Q. was that it reported some mysterious attribute of the individual unrelated to his training but now it is generally conceded that all tests are susceptible to training and to varying degrees of environmental opportunity. The tests measure a result and not its origin*" (cited in Hubin, 1988 p.283). In other words, it was already known even as early as in Brigham's days that the SAT was not able to bring about equal opportunity for all by picking only academic talent and not family background and the quality of education.

Psychologists such as Ralph Nader and Allan Nairn have indeed demonstrated that the SAT scores and socio-economic status correlate positively and strongly (Linn, 1982 p.279 – 291; Kaplan, 1982 p.15 – 23; Herrnstein, 1980 p.40 – 51). Amongst those who enthusiastically promoted the SAT as a college entrance test, at least some did genuinely aspire for an objective measurement tool which could help

identifying individuals well-suited to succeed in American colleges. What has been implemented, some accuse, is a system which perpetuates a social hierarchy of “meritocracy” dominated by brainy elites which have replaced the aristocracy of the old days. It is arguable whether the elites of a society should be the brainiest. However, it is probably an advancement if people who manage to rise to the top are the brainiest and not by right of birth.

Let alone socio-economic considerations, is the SAT an effective selection tool for academic talent then? Though the word “aptitude” is now removed, the SAT finds its roots in intelligence testing. The test in fact has changed little since its first implementation in 1926. The present SAT still reflects Binet’s concept of a unilinear measure of intelligence with two components – verbal and quantitative abilities. Criticism of this concept first emerged in the 1920s. Louis L. Thurstone postulated “multiple ability factors” and Guilford proposed that there were more than 120 distinct components contributing to intelligence (Matarazzo, 1972 p.49 – 54).

More recently Daniel Goleman wrote that *“new views about the nature of being gifted have spawned a skepticism toward I.Q. test score, once sacrosanct among educators. The idea that a single number can summarize a person’s intelligence and abilities has intense criticism from many psychologists.”* Goleman notes that the efforts of such psychologists as Harvard’s Howard Gardner and Yale’s Robert Sternberg “are gathering momentum” (Goleman, 1986 p.26). These

indicate that the SAT may be overlooking talents, or worse, systematically discriminating against talents.

One may wonder why ETS has not revamped the SAT so that it can reflect progress in cognitive science and learning theories over the years. Indeed, one of the most striking characteristics of the SAT is its unchanging nature. From 1926 to 1940, Brigham reported the SAT scores on a scale for which he and his research associates set each year (Wilks, 1961 p.102). This ambiguity was not welcomed by admission officers, and hence in 1941, the CEEB responded to pressures from universities and began a process of “equating” all forms of the SAT from one administration to the next. This equating process necessarily restricts changes to the test. Thus, since 1941, versions of the SAT have been stable due to concerns that *“the confusion which would be created among present College Board users who had already developed a familiarity and working facility with the existing scale would be intolerable”* (Wilks, 1961 p.13).

There are clear indications that the effectiveness of the SAT is undermined by technical constraints of its design. In the upcoming case study of Hong Kong, special attention will be paid to any technical issues which might have implications for the overall effectiveness of public examinations.

Functions and Dilemmas of the SAT

Comparing with public examinations in Hong Kong and other end-of-school examinations elsewhere, it seems that the SAT has a much simpler job of serving mainly a selective function. Does it mean that the SAT is much less controversial and need not face the dilemmas that many public examinations are facing? Evidence shows that the SAT is just as controversial, if not more.

Let us revisit the list of dilemmas that public examinations are facing in modern societies as summarized in Chapter Two.

- 1) Section vs. certification
- 2) Reliability vs. validity
- 3) Assessment demands vs. curriculum demands
- 4) Summative use vs. formative use of assessments
- 5) Teacher professionalism vs. standards monitoring assessments
(probably involving change from norm-referenced to standards-referenced assessments)

Though not exactly facing these dilemmas, in the absence of any national school-leaving examination, the SAT in the USA is drawn into debates around these dilemmas because it has been widely taken as a by-default national school-leaving examination.

Controversies Associated with the SAT

Selection and Certification

Though a selective test, the SAT is very often mistaken as a school-leaving certification test as well. Employers seldom match what qualities required of their employees with what public examinations assess. They simply take the face value of the scores and treat them as a measure of intelligence of all kinds. Despite its long history, the SAT is widely *misunderstood* as a measure of one's innate intelligence, i.e. how innately smart one is, and the scores are stamps of lifelong worth, or the lack of it. That is why students shudder at the potential lifelong implications of less than satisfactory performances on this test of only a few hours and nobody ever forgets their test scores (Stickney, 1988 p.127).

Maybe it is not appropriate to put the blame on the SAT or ETS for this phenomenon. However, the importance of the certification function served by a school-leaving examination perhaps cannot be ignored by an examination board effectively serving a universal education system at a national level.

Reliability and Validity

One of the major controversies surrounding the SAT is over its validity, or rather, the lack of it again. In contrast to the achievement

examinations offered in Hong Kong, the SAT has little face validity, i.e. the tasks that the students perform in the examination do not look like the tasks that students perform in colleges. According to President Richard Atkinson of the University of California (2004 p.19 – 20), one of the clear lessons of American history is that colleges and universities, through their admission requirements, strongly influence what is taught in the K-12 schools. He complains that much time has been wasted inside and outside the classroom prepping students for the SAT. Thus only standardized tests that have a demonstrable relationship with the specific subjects taught in high-schools are fit for use for admission.

Without face validity, the SAT relies critically on its predictive validity, i.e. the ability of the test scores to predict students' later performance, together with the consistency of its equating efforts over the years. ETS takes pride in the SAT's extremely high test-retest reliability. So much so that one of its basic techniques for catching cheaters is simply to compare first and subsequent test scores (Lemann, 1999 p.113). ETS contends that the predictive validity of the SAT is excellent. The company maintains that, because it encourages institutions to conduct validity studies before subscription, "*there have been literally thousands of studies*" (Hubin, 1988 p.10). This claim is questioned by James Crouse and Dale Trusheim, two University of Delaware sociologists who break new ground among the criticisms of the validity of the SAT. Using powerful statistical analysis, they argue that the SAT does not work and make the concluding remarks that "*most colleges could ignore their applicants' SAT score reports when they make*

selection decisions without appreciably altering the academic performance and graduation rates of the students they admit.” (Crouse & Trusheim, 1988 p.123 – 145)

Assessment and Curriculum Demands

The solution to unsatisfactory examination results in Hong Kong in general is to study harder, or to improve learning and teaching strategies. This hardly happens on the SAT as there is no clue how the SAT scores can be improved by normal teaching and learning. Students resort to pure test prep, i.e. instructional courses in test-taking tricks, which are often very expensive. This issue has taken on tremendous economic significance since the 1970s in the United States as the development of a highly profitable test coaching industry has gained momentum. Though the extent of coaching effects on the SAT remains unknown, American parents, hoping that a respectable score on the SAT will open doors to social mobility for their children, take no chances and flock to invest large sums of money on test preparation courses. This is considered a morbid phenomenon and one of the most unwanted backwash effects of the SAT (Federal Trade Commission, 1979).

Until the 1970s, ETS argued that there was nothing that an individual could do on a short term basis to prepare for the SAT. The whole idea of psychometrics was that mental tests were a measurement of a physical property of the brain, analogous to taking a blood sample.

However, in face of endless indisputable evidence indicating the effectiveness of test drilling, ETS has taken on a measured retreat from its earlier position. Ironically, in 1981 ETS broadened its services by selling past copies of the SAT for students to use in preparation though stopped short of giving any explanation for the move (Biemiller, 1981 p.1).

Multiple-choice testing adopted extensively in the SAT lends itself admirably to machine-scoring. Such tests are more objective, provide higher level of comparability, more cost-effective to operate, etc. Those benefits, however, come at a very high price. Such test format encourages styles of teaching and learning that some education practitioners would prefer downplaying, if not avoiding entirely. Practice in the careful construction of an extended answer has given way to practice in test-taking tricks and tactics of guessing; emphasis on recall-type learning rather than analysis and problem-solving; the use of written language skills is not a high priority, just to name a few. These drawbacks are widely conceded (Eckstein & Noah, 1993 p.233).

In view of the serious negative backwash effects, there is an increasing demand for non-selective colleges that do not truly make use of the SAT to drop the test altogether (Boyer, 1986 p. A24).

Summative and Formative Use of Assessments

As briefly touched on in Chapter One, in Hong Kong, the emphasis on

design and use of public examinations is shifting from the summative towards the formative end. In America, the SAT I, designed basically for predicting future academic performance, is neither a summative nor formative assessment. Probably in face of increasingly intensive criticisms and market competition, alongside with the SAT I, ETS has introduced the SAT II and Advanced Placement Examinations (AP), both are curriculum-linked achievement tests that can provide not only more information to admission officers, but also to schools for enhancing teaching and learning. Data seem to show that the predictive validity of the SAT I is similar to those of achievement tests, including the ACT offered by a competing examination board. Conant purported almost 80 years ago that the SAT helped identifying extraordinarily talented students whom might have otherwise been missed because they had not had the chance to go to good schools. According to information of the College Board, amongst the two and a half million SAT test-takers a year, about three thousand students get above a 630 on the verbal portion of the SAT I (Reasoning Test) and below a 550 on the SAT II (Subject Tests) writing test; only about five hundred students get above a 650 on the math portion of the SAT I and below a 540 on the SAT II Math IC test. According to Lemann, these data show that there are not that many of the so called high-aptitude, low-achievement population (2004 p.12).

Many recent critics of the SAT, including David Owen, James Crouse and Dale Trusheim, and many even within the College Board, advocate the use of criterion-referenced achievement examinations which are

aligned with high school curriculum as opposed to intelligence tests though they fully understand that achievement tests cannot escape most of the controversies over aptitude tests, such as unequal access to good schools and elaborate coaching resulting in distorted scores, and poor results leading to a sense of failure and worthlessness for life, etc. Most of them, however, would rather see pressure placed on schools and districts to improve the conditions that support good scores on achievement tests than to improve scores on the SAT (Owen, 1985 Chapter 13; Crouse & Trusheim, 1988 Chapter 8). With achievement tests aligned to curriculum, combined with instruments that determine specific academic strengths and diagnose weaknesses without subjecting the students to a normative scale, would be more useful to institutions and less detrimental to individuals. By contrast, intelligence tests, which only classify but not diagnose, are separated from advances in our understanding of cognition and learning and therefore have the potential to be educationally detrimental. Their prep courses are not directly related to the test content and the test-taking tactics can hardly be transferred for other purposes (Hubin, 1988 p.25 – 26).

Teacher Professionalism and Standards Monitoring Assessments

The SAT was adopted by Conant back in its early days because it factored out high school quality. Nowadays, the SAT is ironically widely received as a measure of high school quality. Secondary school administrators are horrified by the idea of connecting their salary adjustments to their students' results in these tests (Koretz, 1988 p.8 –

15). Though some teachers and even schools might be held responsible for the SAT results of their students, the SAT is not amongst those accountability tests introduced by governments as handy instruments for pushing schools and teachers for desired directions. However, again, its popularity has drawn it into inevitable consequences beyond its control.

The fact that the SAT is drawn into the above controversies could be a strong indication of a general need of a national curriculum-based criterion-referenced end-of-school public examination which cannot be substituted by aptitude tests in many ways. If there is none, then its “closest cousin” will be taken as one by de-fault to serve the essential functions expected. Achievement test is mainly for assessing past academic performance while aptitude test for predicting future academic performance. They serve different functions and can both be of very high quality. However, for the benefit of the school education system, achievement test seems to be an obvious choice though this might not be the case for other stakeholders, notably some universities.

Social Control and Social Liberation

It is interesting that despite the litany of complaints surrounding public examinations, they appear to have great survival capacity. They have in fact positively flourished by fulfilling an expanding range of functions, including some unexpected ones as revealed in this American case study, for the school and university systems, and the society at large.

This “love-hate” relationship between public examinations and its stakeholders has long proved a research topic of interest to sociologists.

The SAT was introduced by Conant to democratize college admission by providing an equal opportunity for all to demonstrate their intellectual capabilities, get selected and excel. The ultimate purpose of the SAT in Conant’s mind was associated with social liberation along the line of the American creed of “equal opportunity for all”. The SAT may not be working in the contemporary context in the same way as Conant expected. Though the SAT did bring about a change to the mix of student population in higher education at the time of Conant, it is accused of limiting access to social status and wealth by being systematically biased against minorities, blacks, Hispanics and rural residents (Zwick, 2004 p.203 – 216; Eckstein & Noah, 1993 p.198). Besides, as detailed earlier, the test has effectively turned a significant number of the universities on the public end of the system, which used to be relatively open and matched in terms of curriculum to public high schools, selective and untied from high schools.

To summarize, it is interesting that the SAT is caught in controversies with similar themes as other public examinations as highlighted in Chapter Two for a slightly different set of reasons. Instead of complaints about the inefficacy of the examinations in serving their intended purposes, those related to the SAT are more about its unintended uses or mis-uses. The use of examinations to engineer social change in the American case in particular, and how its

effectiveness may have been undermined by unforeseen uses of the examinations due to conflicting value systems at work, brings new light to the central theme of this thesis. It can be inferred that the gap between the designed and the actual use of examinations is, in a way, the result of differences in the value systems of the various stakeholders. Hence, on top of technical competence, another major factor contributing to the effectiveness of an examination body seems to be its strategic capability to recognise the value systems of the concerned stakeholders, how they may impact on the use of public examinations, and in response to that, take steps to narrow or manage the gaps between the designed and actual use of public examinations. Attempts will be made to evaluate the effectiveness of public examinations in Hong Kong from this perspective.

The Role of ETS

As gathered in the literature review in Chapter Two, the role of an examination body has much to do with the way it prioritizes its stakeholders and defines the functions of its public examinations. In this respect, two guiding questions are posed. The role of ETS is examined in the coming paragraphs along these lines.

Serving the government only or other stakeholders as well?

ETS as a Commercial Organisation

ETS is a private and commercial examination body which claims itself a nonprofit educational measurement organisation (Bennett 2011). It is commissioned by the College Board as its first and foremost stakeholder to deliver the SAT and AP for college admission, and these examinations are delivered as a business operation, with the stakeholders at the feeding end as customers. On top, ETS offers its own examinations, such as TOEFL, TOEIC, etc. as commercial products.

The role of ETS as an examination body in the American education system is probably the envy of many of its counterparts. First, the SAT, one of its flagship examinations, is owned by its close partner – the College Board, the core members of which are amongst the most prestigious universities nationally and internationally. As such, it is well-positioned to attract candidates from all corners of the world. This guarantees a lucrative business. Second, though the government is one of its clients, probably quite a significant one, the policy makers do not have any regulatory nor directive authority over ETS.

With the above analysis, it can be instantly understood why the SAT can remain selective and curriculum-free for so long despite demands from the feeding end for something quite different. ETS has been

focusing mainly on serving the College Board to ensure that the SAT is sufficiently selective with high predictive validity for admission purposes. The government is amongst one of its valued customers of course, but probably nothing more than that. Nonetheless, as a commercial organisation, ETS cannot afford to lose sight on the market force somehow, especially when it is gradually coming strongly from within the College Board as its major stakeholder and the federal government offering opportunities for nation wide education assessment projects. The demands of members of the College Board will be analysed in the next section of this chapter under the heading “Restricting or facilitating curriculum development?”. The upcoming paragraph will concentrate on the relationship between ETS and the American federal government.

Apart from the SAT and AP of the College Board and a range of its own assessment products, ETS also offers some high-profile nation wide assessment services for the federal government, notably the National Assessment of Educational Progress² (NAEP) and the No Child Left Behind³ (NCLB) initiatives. It is not uncommon for policy makers to make use of examinations for standards monitoring purposes in the recent decades for enhancing national or territorial competitiveness. The rationale behind is to push up standards by regularly providing feedback on the effectiveness of teaching and learning to help teachers and school administrators make improvements. It is natural for an examination body as a part of the government or regulated by the government to take part in such assessment projects which, in fact, are

equally irresistible to most commercial examination bodies for business considerations.

Professional vs. Political Role

The proactive participation of ETS in school assessments as a provider of professional service, without any policy or political agenda, is probably a preferred role of an examination board offering national public examinations. This is not to say that this preferred role will reduce criticisms in anyway. ETS is constantly under fierce criticisms. However, the handling of political conflicts is very often not the forte of an examination body and more often than not distracts it and drains its resources from its essential work. Nevertheless, this retreat from politics may not be welcomed by the government as this could mean losing a “mouthpiece” for supporting its educational policies. Some may even take the pessimistic view that public examinations can hardly escape political criticisms, and instead of avoiding them, a wiser strategy perhaps is confronting them strategically.

Examinations in themselves are frequent objects of debate as they are essentially about what should be taught and how learning should be evaluated. Besides, they may have sociological implications associated with power and social control as analysed in the earlier part of this chapter. They can readily become highly contentious when being used as instruments to control the curriculum and teaching activities. As such, they can become targets for contending parties which seek to maintain

or establish a particular vision of what education and society should be. Hence debate over public examinations frequently ends up being discussed within the political arena.

What makes the situation more complicated is, being closely associated with the sets of dilemmas and controversies put forward in Chapter Two and earlier in this chapter, examinations are in fact inherently contentious. Even questions arising from technical or psychometric concerns are likely to carry implications beyond the immediate problem to be solved. For example, although examinations are supported as being effective ways of reducing nepotism, aristocracy and corruption, examinations are constantly under scrutiny for evidence of deficiencies, like bias in favour of some groups or against others arising from weaknesses in administration, outmoded syllabi, poor question construction, or unreliable grading (Eckstein & Noah p.195, 213).

It is for the very reason that public examinations could become unduly political or convenient targets for attacks for a plethora of implicit socio-economic and political reasons that it is more important for examination bodies to take a professional stance at all times, especially those with no political and policy role in education, like the HKEAA.

In order for an examination board to defend its own work, the importance for it to maintain a strong research and development capability cannot be over emphasized. It could be a lot more objective and hence persuasive if it is through the use of solid research data

rather than political rhetoric for an examination board to support the rationale behind its professional work, such as item construction, grading and marking.

What is more important is that “staying out of politics” does not mean that an examination body should retreat from communicating with the public and its stakeholders. On the contrary, in order to proactively promote their work, transfer their assessment expertise to teachers in a formative assessment setting, to avoid misunderstandings, and more importantly, for consensus building, constant communication, rather than political lobbying, is necessary to enable stakeholders to understand what public examinations are doing, can do and cannot do.

In the coming case study of Hong Kong, it is probably useful to review whether the HKEAA as an independent examination body as it claims, can stay professional (i.e. not unduly political) and maintain a balanced approach in serving a range of stakeholders.

Restricting or facilitating curriculum development?

Examination bodies given a high degree of autonomy may result in segregation between curriculum and assessment. This could be the case with the SAT. The catch is that ETS is a commercial organisation which is sensitive to market demands. ETS has indeed responded to market demands by introducing curriculum-based achievement tests alongside with reasoning tests. But if without ACT looming large, will the

availability of achievement test be at the mercy of ETS? More importantly, ETS must take heed of the demands of the College Board, i.e. the owner of the SAT, and the SAT's major users, i.e. universities and colleges, who will have no choice but resorting to other admission tools if the SAT fails to live up to their expectation. The President of the University of California, Mr. Richard Atkinson, in his speech in February 2001 entitled "Achievement vs. Aptitude in College Admission" recommended elimination of the SAT as a criterion for admission to the university and advocated an immediate switch to college admission tests that were closely tied to the high school curriculum. The speech reignited ongoing controversies about the use of standardized tests in college admission (Zwick, 2004 p. xvii). On balance, ETS is somehow duty-bound to provide quality service to the American education as a whole if it wants to maintain its market position, which, in this context, requires the provision of curriculum-linked achievement tests.

In American, ETS initially offered a selective test for serving college admission purposes but changed over time to introduce in parallel curriculum-linked achievement tests and took part in government assessment projects at school levels. This case study has illustrated how the nature of an examination body determines the way it prioritizes its stakeholders and work, and this in turn defines its societal and educational role which is susceptible to change over time according to demands and circumstances. With this in mind, the nature of the HKEAA as an organisation combined with the changes impacting on its

educational and societal role over the years will be analysed in the Hong Kong case.

Conclusion

The American case study indicates that there is room for exploration regarding the expected and actual use of public examinations as the two are obviously different from each other in the United States. Based on the findings of the American case, such differences could be closely associated with the technical limitations of the SAT on the one hand, and also the value systems of the various stakeholders on the other. Hence, on top of its technical capability, another major factor contributing to the effectiveness of an examination body seems to be its strategic capability to recognise the value systems of the various stakeholders, how they may impact on the use of public examinations, and in response to that, take steps to narrow or manage the gaps between the designed and actual use of examinations. Attempts will be made to evaluate the effectiveness of public examinations in Hong Kong from these perspectives.

The question whether it is appropriate or effective to tackle curriculum issues through assessment is raised more than once in Chapter One. A strong government influence behind examination boards implied in Chapter Two is queried at the beginning of this chapter. With the American case study, attempts are made to explore if such queries can be substantiated. Conant took the shortcut with curriculum-free

intelligence testing because a unified teaching syllabus was beyond imagination in his days in a country where the education system is amongst the most decentralized in the advanced world. However, ETS eventually cannot escape introducing the curriculum-linked SAT II and AP. On top, there is the same trend in the United States that examination bodies are increasingly involved in providing assessment for quality monitoring purposes of the policy makers. ETS is one of the providers of the NEAP and NCLB initiatives of the federal government. It is hard to conclude if ETS manages or is expected to maintain a balanced approach in serving its stakeholders, but for the sake of sustaining its market position, ETS is somehow duty-bound to provide quality assessment service to the American education as a whole, including offering curriculum-linked achievement tests and taking part in the federal government's standards monitoring projects. In light of these findings, the linkage between assessment and curriculum and the relationship between the Authority and the Hong Kong Government will be explored as major themes of the Hong Kong case.

Regarding the linkage between assessment and curriculum, the American case in fact has wider implications than the above. Being well-recognised by higher education institutions, with a well-researched test design and a high predictive validity, the SAT has a global appeal which goes beyond the education system in the United States. Examinations are too often tied down by demands associated with curriculum and other educational needs specific to local context, and somehow being deprived of a status of its own. A couple of UK

awarding bodies and the International Baccalaureate Organisation offering assessment programmes based on international syllabuses, such as IGCSE and IB, are similar cases of breaking away from the control of local curriculum to establish an international status. This international perspective regarding the effectiveness of an examination body will be taken into consideration as an additional dimension when the Hong Kong case is examined.

Examination work could be highly contentious, and sometimes unnecessarily political. Regarding the role of an examination body, an inspiring finding in this chapter is that one of the strengths of ETS appears to be its position as a commercial organisation which sends clear messages to the public that it is not a part of the government. As a commercial organisation, ETS can be spared to concentrate more on professional work instead of dealing with political issues. In the coming case study of Hong Kong, it will be examined whether the HKEAA can stay professional and maintain a balanced approach in serving a range of stakeholders.

Finally, the American case has illustrated how the nature of an examination body determines the way it prioritizes its stakeholders and work, and this in turn defines its societal and educational role which is subject to change over time according to demands and circumstances. In light of this, the nature of the HKEAA as an organisation and changes impacting on its educational and societal role over the years will be analysed in the Hong Kong case.

Framework of Research into the Hong Kong Case

Based on the findings of the literature review in Chapter Two and Chapter Three, the following framework of the scope and focus of the research into the Hong Kong case is drawn up for answering the research questions:

What functions do public examinations serve in Hong Kong and how effectively are they serving these functions?

Scope

Examine how the HKEAA has been handling common dilemmas related to functions of public examinations faced by modern societies as follows, and how progressive it has been over the years in developing examinations to serve the functions grouped on the right without compromising the more traditional ones grouped on the left:

- 1) Selection vs. certification
- 2) Reliability vs. validity
- 3) Assessment demands vs. curriculum demands
- 4) Summative use vs. formative use of assessments
- 5) Teacher professionalism vs. standards monitoring assessments
(probably involving change from norm-referenced to standards-referenced assessment)

Focus

Identify gaps between the expected and actual functions of public examinations, the reasons behind, and whether the HKEAA has the

necessary technical and strategic competence in effectively narrowing or managing these gaps

What is the role of the Hong Kong Examinations and Assessment Authority in the education system of Hong Kong and how effective is it in delivering this role as expected by its stakeholders?

Scope

How the HKEAA has prioritized its stakeholders and defined the functions of its public examinations and whether there have been any changes over the years and why.

Focus

Examine the effectiveness of the HKEAA in the following areas:

- 1) supporting curriculum
- 2) attaining a balanced approach in handling stakeholders
- 3) establishing itself internationally
- 4) as an organisation

Endnote:

1. *For simplicity, the term SAT in this thesis refers to the SAT I or SAT Reasoning Test.*
2. *The National Assessment of Educational Progress (NAEP) is the largest nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since NAEP assessments are administered uniformly using the same sets of test booklets across the nation, their results serve as a common metric for all*

states and selected urban districts. The assessment stays essentially the same from year to year, with only carefully documented changes. This permits NAEP to provide a clear picture of student academic progress over time.

- 3. In America, the No Child Left Behind Act became law in 2002, which requires schools to show regular progress towards all children achieving high standards, with the goal of all children being proficient reached by 2014.*

Chapter Four

Research Methodology

Case Study Research

It is pointed out by Eckstein & Noah that *“the uses, forms and effects of an examination system can only be understood in context. Examinations are part of a larger system, educational/cultural; they are not like replacement parts, separable and transportable.”* (1993 p.225)

There are clear advantages for public examinations to be analysed in context. It is likely that a case study can best facilitate this to be done. According to Yin, a case study investigates a phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. This is considered a characteristic that distinguishes case studies from other research strategies (1994 p. 13). An experiment, for instance, is very often carried out in a controlled laboratory environment which effectively divorces a phenomenon from its context so that attention can be focused on only a few variables. A survey can be used to deal with a phenomenon in context but its ability to investigate the context is limited by the number of variables or questions that can be effectively asked in order to fall safely within the possible number of respondents.

Hong Kong has been chosen to be the target of the present case study

for the following reasons:

- 1) Hong Kong is generally believed to be one of the most examination-oriented places;
- 2) It has a short history of modern education and public examination;
- 3) It has gone through rapid changes from a colonial time under the British rule to the handover of sovereignty back to the People's Republic of China, up till the recent introduction of a large-scale education reform inclusive of a public examination reform.

As such, it is believed that Hong Kong is a compact and information-rich case worthy of academic research.

There are contrasting views regarding the definition of a case study. For example, Creswell identifies a case study as one of the strategies within the qualitative approach where the researcher explores “*in depth a program, an event, an activity, a process, or one or more individuals*” (2003 p. 15). Alternatively, Gerring defines a case study as “*an intensive study of a single unit for the purpose of understanding a larger class of (similar) units*” (2004 p. 2) without stating whether the study is essentially qualitative or quantitative. Stake believes that a case study is a choice of what is to be studied rather than a method, where one can “*study it analytically, holistically, entirely by repeated measures, hermeneutically, organically or culturally by mixed methods*” (2005 p. 443). Indeed there can be variations within case studies as a research strategy. A case study can be, for instance, a

single- or multiple-case study, a quantitative or qualitative study, or a historical study.

A Historical Approach

“Not only are tests constructed, like every other social institution; if they are as widely used as the SAT, their use has been constructed also. It is important that we understand how and why that happened.”
(Lemann, 2004 p.5)

The above comments on the SAT in the United States by Nicholas Lemann may hold some truths about public examinations in other places as well. One of the possible ways to answer the research questions is to conduct a historical study of public examinations in Hong Kong so as to analyse how and why they came into being and have further developed into what they are today. The use of an historical approach is in fact quite common for case study on public examinations. For example, this is the approach adopted by David Hubin in *“The History of the SAT”* and Tan et al. in *“Examinations in Singapore: Change and Continuity (1891 – 2007)”*. Carless also finds the need for a historical approach when researching on the implementation of formative assessment in Hong Kong.

“There are compelling reasons supporting the need of a focus on historical development of testing systems. Assessment and testing can only be understood with reference to a country’s historical development

in relation to its educational system and broader social factors (Black, 1998). The way examination and preparation for them are approached is firmly influenced by these historical and sociocultural factors.”
(Carless, 2011 p.47)

Richard Aldrich precisely sums up in “*Education for the Nation*” the advantages of a historical approach in the study of some macro issues like the role of examination boards:

“History is the study of human events with particular reference to the dimension of time – past, present and future; it is especially concerned with change and continuity……. Historical study provides an interaction with a much wider range of facts and human experience than is possible simply by reference to the contemporary world.”
(Aldrich, 1996 p.2 – 3)

Though the research methodology of this thesis is mainly historical based on literature and document analysis, similar to the research works quoted above, its nature and purposes are educational. It is intended to identify trends and developments related to public examinations and examination boards based on evidence. Whilst knowledge of history cannot enable us to predict the future with certainty, it provides invaluable data to help us choosing between different courses of action. It is hoped that in this thesis, a set of essential attributes can be drawn up for informing possible courses of action for examination bodies to enhance their work or position.

Collection of Evidence

The framework of scope and focus of research drawn up at the end of Chapter Three sets the boundaries and emphasis for evidence collection of the present study. Regarding the possible sources of evidence, though a comprehensive list can be quite extensive, Yin provides a useful overview of six major sources of evidence for case studies: documentation, archival records, interviews, direct observations, participant-observation and physical artifacts. “Direct observations” and “participant-observation” are more suitable for contemporary instead of historical studies while “physical artifacts” are not relevant for the study of an examination body. The first three, however, are all possible sources of evidence for this thesis, the strengths and weaknesses of each of them are summarized by Yin in the following table.

Figure 4.1 Sources of evidence for case studies

Sources of Evidence	Strengths	Weaknesses
Documentation	<ul style="list-style-type: none"> ➤ stable – can be reviewed repeatedly ➤ unobstrusive – not created as a result of the case study ➤ exact – contains exact names, references, and details of an event ➤ broad coverage – long span of time, many events, and many settings 	<ul style="list-style-type: none"> ➤ retrievability – can be low ➤ biased selectivity, if collection is incomplete ➤ reporting bias – reflects (unknown) bias of author ➤ access – many be deliberately blocked
Archival Records	<ul style="list-style-type: none"> ➤ <i>[same as above for documentation]</i> ➤ precise and quantitative 	<ul style="list-style-type: none"> ➤ <i>[same as above for documentation]</i> ➤ Accessibility due to privacy reasons
Interviews	<ul style="list-style-type: none"> ➤ targeted – focuses directly on case study topic ➤ insightful – provides perceived causal inferences 	<ul style="list-style-type: none"> ➤ bias due to poorly constructed questions ➤ response bias ➤ inaccuracies due to poor recall ➤ reflexivity – interviewee gives what interviewer wants to hear

(Adapted from Yin, 1994 p. 80)

There are obvious advantages to use as many sources of evidence as possible to provide a thoroughly explored account. However, as indicated in the literature review in Chapter Two and Chapter three, public examinations involve highly controversial issues and an extended range of stakeholders representing different and sometimes conflicting interests. It is hence preferred to restrict only to “documentation” and “archival records” as major sources of evidence of the present study so as to maintain, as far as possible, a broad and objective stance despite the potential loss of some focused and insightful views that interviews may be able to generate.

It is worth mentioning here that surveys are very often used as one of

the data collection strategies in case studies and they are in fact included under “archival records” by Yin. However, surveys are not preferred in this case study because of the necessity to study public examinations in a full range of real-life context in reference to the historical development of Hong Kong as discussed earlier in this chapter. These criteria cannot be easily accommodated by surveys which are bound to be contemporary and very often limited by the number of possible variables to be included. The reliance on the honesty of the respondents in self-reporting their knowledge, attitudes or behaviour in surveys is another limitation which cannot be ignored given the high-stakes nature of public examinations.

Hence, apart from the relevant literature, the research data are collected mainly from the following documentary and archival materials.

- 1) Local Government Documents – These include policy documents, consultation papers, consultation reports, publications and press releases. They are indicated in the thesis with the superscript “**G**”.
- 2) Public documents of the HKEAA – These include publications, press releases, information flyers and examination syllabuses, indicated in the thesis with the superscript “**HP**”.
- 3) Internal documents of the HKEAA not accessible to the public – These include the minutes of meetings of the Authority Council (i.e. the governing body or decision-making body of the HKEAA at the highest level) indicated with the superscript “**HM**”, and the appendices to these minutes indicated with “**HA**”.

Data Analysis

Within the boundaries of the research framework and from the target documentary and archival materials, data are collected and sorted into groups or categories and evaluated as they relate to trends, patterns and connections that answer the research questions. Efforts are made throughout to scrutinize data and their interpretations holistically for underlying themes. It is hoped that conclusions with implications to the future development of the HKEAA and beyond the Hong Kong case can be drawn.

Special attention is paid to the meeting minutes of the Authority Council and their appendices so as to analyse the little known internal operation and decision-making processes of the Authority, dilemmas and difficulties, compromises made along the way, the original rationale behind the designs of its public examinations and how things eventually worked out. Despite frequent debates on public examinations in Hong Kong, this side of the story is rarely told and could be an important missing piece for gaining a full picture of the public examination landscape of Hong Kong.

Limitations

One of the aims of this research study is to generate conclusions that have implications for the future development of assessments in Hong

Kong and beyond. However, some researchers hold the view that a major weakness of case studies, single-case studies in particular, is that they provide little basis for scientific generalization (Leedy and Ormrod, 2001 p.149). Yin defends the generalizability of case studies, claiming that a case study, *“like the experiment, does not represent a “sample” and the investigator’s goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization).”* (Yin, 1994 p. 10) Indeed, though no two cases are completely the same and by no means can results of a case study be generalized as common or universal, lessons learned from one case are very often enlightening for other similar cases.

A case study adopting a historical approach to draw evidence from documentary and archival materials can be prone to the subjectivity of the researcher who may allow equivocal or biased evidence to influence the direction of the findings and conclusions. This problem can be perceived as even more prominent in the present study with the researcher as an employee of the HKEAA. However, any researcher can be biased or subjective. This can happen in the conduct of experiments as well (Rosenthal, 1966). What is more important perhaps is to lever the professional experience and insider information of the researcher as an assessment practitioner to work on a more comprehensive evaluation of the work of the Authority based on both public and internal materials while minimizing as far as possible subjectivity.

In order to overcome the problem of subjectivity, efforts are made throughout to ensure as far as possible findings and conclusions are drawn based on a broad range of reliable and objective evidences spanning over a long period of time, events and settings. These include official and public documents of the Hong Kong Government and the HKEAA. As for the internal documents of the HKEAA not available to the public, only the minutes of meetings of the Authority Council together with their appendices are used for their accuracy, objectivity and reliability. As these are documents involving decision-making at the highest level of the HKEAA, they are without exception meticulously compiled and circulated to all Council Members for review and comments after each of the meetings, and the consolidated versions agreed by all Members are finally signed by the Council Chairman and Secretary for confirmation. Except the Secretary General of the HKEAA serving as the Secretary of the Authority Council, all Council Members are representatives of the most critical stakeholder groups of public examinations, including tertiary and vocational institutions, employers, schools, teachers, parents and government officials. As such, it is expected that the meeting minutes are truthful and accurate accounts of the decision-making processes of the HKEAA representing the views of a range of the most critical stakeholders of public examinations in Hong Kong.

Summary

In view of the advantages of examining the role of an examination

body in context with reference to historical developments, a historical case study approach is adopted in this thesis to facilitate this to be done. Taking into consideration the high-stakes and highly controversial nature of public examinations, with stakeholders from all quarters, all bearing different and sometimes conflicting interests, efforts are made to ensure as far as possible evidence and conclusions are drawn from a broad range of reliable and objective documentary and archival materials to minimize subjectivity and biased views. These include the internal documents of the HKEAA not available to the public before to facilitate new insights to be gained and a more balanced view of the HEKAA to be formed.

Chapter Five

Public Examinations in Hong Kong up to the Late 1990s

Part I: Public Examinations before the Hong Kong Examinations

Authority

Background

Colonial authorities around the world are faced with at least two different modes of schooling. One is to impose their own modes of schooling while the other is to promote the indigenous modes. The most common form of schooling in colonial societies is a mixed system (Kelly and Altbach, 1984 p.1 – 8). This mixed mode has a strong centre-periphery orientation, whereby the government provides elite schooling which heavily favours colonial nationals and those proficient in the colonial language, while missionaries and local organisations mainly provide schooling of various kinds for other children. The curriculum in the elite government schools is academic and geared towards producing administrators for the government sector. Hong Kong became a British colony in 1841 and since then until the 1970s, the colonial government had adopted a mixed mode of schooling directed towards selection and creation of an elite class to support the colonial government (Bray, 1997 p.103 – 118).

Despite the provision of a small-scale and highly elitist government schooling, the colonizers in fact held an indifferent attitude towards

social welfare and education in the early decades of the colonial regime, taking Hong Kong only as a base for penetration of China. It was left to missionaries, local charities and neighbourhood organisations to educate the majority of children. However, after the establishment of the People's Republic of China in 1911 following the fall of the Qing Dynasty, the British felt the need for a more aggressive approach towards education in Hong Kong, especially higher education, to secure the British control and influence in this part of the world. The establishment of the University of Hong Kong immediately followed (Hui and Poon, 1999 p.101).

The quotation below from the editorial in *China Mail*, Friday 15 December 1905 sheds light on the British motives behind the setting up of the first university in Hong Kong:

".... On careful examination it will be found that the education provided in the schools of Hongkong is of an elementary nature. To judge from the reports of the various headmasters, this is to a large extent the fault of the boys themselves in that they leave school too early to proceed to a higher standard of work. But if the British Empire intends to hold its own and spread its influence equally with its rival of the North [Japan] something far more than elementary education is needed.....What is needed is a regularly established system of higher education in Hongkong – or, in other words, a University. If such an institution be set up so near to him the Chinaman of the Southern provinces, and probably some of the Northern ones, will prefer to take

advantage of it rather than of his own universities, for there is no doubt as to the eagerness of the rising generation of Chinese to absorb Western ideas and Western civilization.....But a university established in Hongkong would rank as an Imperial asset....” (cited in Sweeting, 1999 p.278 – 279)

Considerable emphasis seemed to be placed on advancing British Imperialism rather than serving colonial interests. No matter what the ultimate British motives were, the establishment of the first university quickly resulted in the first public examination in Hong Kong and brought about unprecedented changes to the educational scene.

Functions of Public Examinations

Admission to the University of Hong Kong

The University of Hong Kong (HKU) was set up in 1911 and in 1913 it offered its first entrance examination, the University of Hong Kong Matriculation Examination. This was the only public examination in Hong Kong until 1937. Clearly, this examination was designed to provide university entrance for the small minority of students who, at that time, remained in formal education. Apart from Chinese Language and Chinese History, the examination was offered in English only (Hong Kong Museum of History, 1993 p.65; Choi, 2002^{HP} p.35).

In 1954, HKU changed the duration of its four-year first degree

programmes to three years, and the duration of its medical school programme from six years to five years. This was in line with the British system. In parallel with this, the admission requirements of HKU also underwent some major changes. Students were required to take the Ordinary Level (O-level) Examination at the end of Secondary 6 and the Advanced Level (A-level) Examination at the end of Secondary 7. The first O-level and A-level Examinations took place in 1953 and 1954 respectively (Choi, 2002^{HP} p.36).

Certification of School Education

Anglo-Chinese Schools

In 1934 Mr. E. Burney, an HMI Inspectorate of the UK Ministry of Education, was invited by the Hong Kong Government to pay a visit to Hong Kong and conduct an overall review of the education system of Hong Kong. As recommended in the Burney Report dated 27 May 1935, amongst other things, the Education Department¹ of the Hong Kong Government offered the first Hong Kong School Certificate Examination (HKSCE) in June 1937 to provide certification to students of government and government aided schools (which were all Anglo-Chinese schools), who had successfully completed their secondary school education or Class Two (Sweeting, 1990 p.344, 358).

As the examination was mainly set up for the Anglo-Chinese schools, the medium of assessment was English except for Chinese Language

and Chinese History. In 1961, the name of the examination was changed to the Hong Kong English School Certificate Examination (English SCE) which lasted until 1967 (Sweeting, 1990 p.358 – 359; Choi, 2002^{HP} p.40).

Vernacular Schools

Education opportunities were opened up significantly in the 1950s, a period of post-war reconstruction and expansion in population under various political and economic factors. At the secondary school level, Chinese middle schools, which offered curriculum similar to that of the elitist Anglo-Chinese secondary schools, increased in number dramatically (Adamson and Li, 1999 p.47). There were in fact many more Chinese middle schools than Anglo-Chinese secondary schools. In order to improve and provide progression pathway for the burgeoning Chinese middle schools to accommodate a much expanded population, in 1951, after a series of consultation amongst Chinese middle schools, the Government decided to set up the Hong Kong Chinese School Certificate Examination (Chinese SCE) for Senior Middle Three students of the Chinese middle schools (Figure 6.1 refers). The Government believed that this could help enhancing the status of these schools and standardizing their curriculum. The first examination was held in June 1952 (Sweeting, 2004 p.150).

Figure 5.1 shows the structure of the school systems in Hong Kong from 1951 to 1992, with the vernacular school system in parallel with

the Anglo-Chinese school system.

Figure 5.1: The structure of the Hong Kong school system from 1951 until 1992

Vernacular School System	Anglo-Chinese School System
Primary One to Primary Six	Primary One to Primary Six
Junior Middle One	Secondary One
Junior Middle Two	Secondary Two
Junior Middle Three	Secondary Three
Senior Middle One	Secondary Four
Senior Middle Two	Secondary Five
Senior Middle Three	Secondary Six
	Secondary Seven

(Choi, 2002^{HP} p.35; Sweeting, 2004 p.185)

Admission to the Chinese University of Hong Kong

Post-war political changes also brought about radical changes in the colonial government's policy over tertiary education in the vernacular sector. It now began to recognise the value of, and lend its financial support to, some of the post-secondary Chinese colleges using Chinese as the medium of instruction and hence meeting the needs of the Chinese middle school students. The Chinese University of Hong Kong (CUHK) was eventually set up in 1963 (Sweeting, 2004 p.152 – 153). Due to the sinocentric background of its component colleges, CUHK initially offered a four-year university education, the same as universities in Mainland China. The first Chinese University of Hong Kong Matriculation Examination was held in 1964. Apart from English

Language, the examination was offered in Chinese only (Choi, 2002^{HP} p.39).

Rationalization and Recognition of Public Examinations

In the 1960s, secondary school students who wanted to proceed to tertiary education had a number of examinations to take:

For Anglo-Chinese school students

- English SCE
- HKU O-level Examination
- HKU A-level Examination

For Chinese middle school students

- Chinese SCE
- CUHK Matriculation Examination

For those who wanted to study overseas

- The British GCE O-level and A-level Examinations

In order to reduce the examination pressure of secondary school students, the HKU O-level Examination was held the last time in 1965 and phased out in 1966; and arrangements were made so that in 1966 both UCLES and the University of London recognised a Credit in the English SCE was equivalent to a British GCE O-level Pass (Choi, 2002^{HP} p.36 – 37).

To help unifying the two different school curricula and extending the

overseas recognition of examination results to benefit students of Chinese middle schools, the Education Department combined the English SCE with the Chinese SCE in 1974. The new examination was named the Hong Kong Certificate of Education Examination (HKCEE). The recognition of C or Credit in the English SCE as equivalent to a GCE O-level Pass since 1966 was extended to both the English and Chinese papers of the HKCEE in 1975. By 1976 all subjects of the new examination, except English Language, Chinese Language and Chinese History, were offered both in English and Chinese. Students were free to choose the language medium of assessment at the time of registration (2002, Choi p.43 – 44; 2002, Sweeting p.261, 269).

Establishment of the Hong Kong Examinations Authority

It was first recommended in the Marsh-Sampson Report in 1964 to establish an independent central body to administer public examinations in Hong Kong. With a specialized examination body, it was expected that public examinations could be implemented more professionally and efficiently. This recommendation was included in the Education White Paper in 1965. In June 1969, the Government appointed a working group to study how this should be implemented, which submitted a report to the Hong Kong Government in May 1970. Six years later, the recommendation was actively pursued, probably because of the growing volume and specialization of the examination administration work, especially after combining the English and Chinese SCEs. The Legislative Council approved the Hong Kong

Examinations Authority (HKEA) Ordinance on 5 May, 1977. The Authority started to assume its statutory examination duties stipulated by the HKEA Ordinance as an independent and self-financed establishment external to the school system on 1st August 1977.

The Authority took over the HKCEE, CUHK Matriculation Examination and HKU A-level Examination in 1978, 1979 and 1980 respectively. The CUHK Matriculation Examination was renamed the Higher-level Examination under the Authority in 1978. The HKU A-level Examination was renamed the Hong Kong Advanced Level Examination under the Authority in 1980. The recognition of the HKU A-level Examination by overseas universities as equivalent to GCE A-level and the recognition of C or Credit in the HKCEE as equivalent to a GCE O-level Pass continued after the handover (1993b, HKEA^{HP} p.1 – 3; 2004, Sweeting p.271).

In the early days of the Authority, school education and assessment were two largely segregated functions. School education was under the Education Department while public examinations administered at the end of Secondary 5, 6 and 7 were under the Authority.

Conclusion

Public examination systems are very often considered to be value-laden and, in some ways, reflect the predominant value and philosophy of a society as a whole or that of the dominant class. High-stakes public

examinations in Hong Kong fit this model more or less. Hong Kong became a British colony in 1841, and soon afterwards, the colonial government set up an education system directed towards selection and creation of an elite class to support its administration. The selection role of the education system of Hong Kong accentuated with the establishment of the University of Hong Kong in 1911 as an extension of the British imperialism in the East. This resulted in the first public examination in Hong Kong, which was purely selective in nature for channeling highly capable individuals from the Far East to enjoy a western education taught in English.

The English SCE introduced in 1937 was claimed to be for certification of secondary education. However, with English as the medium of assessment, the examination was highly elitist. This examination remained English until the colonizers started to take a more inward perspective of Hong Kong after World War II and found the need and value to expand the provision of formal and subsidized education for the local masses. It was with that political and societal change that significant progress started to take place, such as the introduction of Chinese SCE, and finally the HKCEE and HKALE, which were subsequently recognised as equivalents of GCE O- and A-levels respectively, followed by the establishment of the Hong Kong Examinations Authority in 1977.

Even with this progress, public examinations up till the inception of the Authority served limited certification function. The HKALE was

selective to serve university admission. The HKSCE was originally developed to serve the certification of secondary education, but when it was amalgamated under HKCEE, it became a part of the university admission system and its function gradually skewed towards selection. The Authority, being structurally segregated from school education by design, it was expected by its originators, i.e. the Hong Kong Government, to be the gate-keeper of the education system providing reliable summative external written examinations which served little support functions for school education.

Part II: The Work of the Authority up to the 1990s

Background

From the 1970s to the 1990s was a period of rapid expansion in education in Hong Kong. Compulsory six-year primary education was introduced in 1971, and then a free nine-year compulsory school education was introduced in 1978 (Adamson and Li, 1999 p.47). About ten years later, similar efforts were made by the Government to gradually open up opportunities for tertiary education. The student enrolments in the six higher education institutions funded by the University Grants Committee grew from 8.6 percent in 1989/90 to 18.8 percent in 1995/96 (Biggs, 1998b; Yung, 1999 p.84). The entire education system was stretched to accommodate the needs of this exponential growth in volume and diversity of students. Trow defined higher education systems which enrolled up to 15 percent of the age

cohort as elite systems; between 15 and 40 percent as mass systems; and above 40 percent as universal systems. Hong Kong's school education had already entered the era of universal system in the 1990s, and tertiary education mass system by Trow's definition (Trow 1984, cited in Yung, 1999 p.77). However, during this period, quantity did not necessarily mean quality in education.

In the eyes of the early colonial rulers of Hong Kong, the majority of the population did not need high levels of literacy or numeracy to carry out their respective roles. The formation of an educated middle class, however, was necessary for taking up the governance and administration of the colony. In general, developing countries or territories, like Hong Kong by the early half of the 20th century, cannot afford a sophisticated universal education system. In such circumstances, schooling beyond the basics is justifiably appropriated to those who can benefit most from it. According to this rationale, the work of a "good" education system is to "efficiently" screen out those not capable of academic work at a high level. This is usually done by teaching the same highly academic curriculum to all regardless of individual differences, and then put everyone through the same highly demanding academic examination, the aim of which is to differentiate so that the most capable ones can be identified as a result of this process. This was the basic design of the Hong Kong education system until the 1990s, however, *"with the additional complication of requiring that, as an English colony in its earlier days, the educated majority, many of whom were destined for the Civil Service, were to be*

able to speak and write English. This problem was solved very cost-effectively by teaching and assessing in English, those who could survive that were very bright on the one hand, and English-literate on the other.” (Biggs, 1998b p.316) Figure 5.2 illustrates the structure of a selective school system in Hong Kong by the late 1990s.

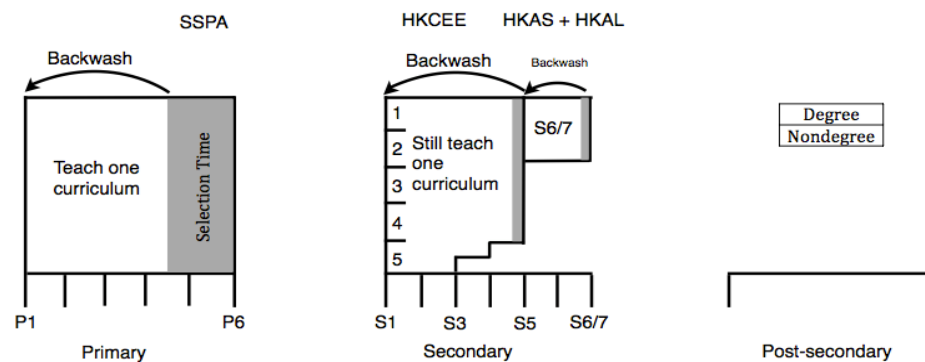


Figure 5.2 Structure of a selective school system in Hong Kong (Biggs, 1998b p.316)

Primary school students, regardless of aptitude and ability, were taught the same curriculum, and trained in the rigours of test-taking by frequent internal tests, right from the beginning. The whole point was to ensure good individual student performance as well as good overall school performance in the Secondary School Placement Allocation System (SSPA)². From about the second half of Primary 5 until the end of Primary 6, all efforts of teaching and learning were focused on the SSPA which determined the “band” of ability into which a child was allocated, and which in turn determined the length and quality of secondary education that a child would receive. There were five bands, each representing 20 percent of the ability range, with Band 1 on the top.

The same process repeated itself, perhaps in a more intensive way, in secondary school. All students were by now badged and entered the schools of their respective bands. All of them, including those in Band 5, were then taught the same highly academic curriculum. No wonder about 10 to 15 percent dropped out at the end of compulsory schooling at Secondary 3. Apart from a small batch of dropouts at Secondary 4, the rest proceeded to take at the end of Secondary 5 the first major external public examination, the HKCEE. Only 30 percent managed to gain sufficiently good results to move further on to Secondary 6 and Secondary 7, which were matriculation classes fully devoted to preparation for the HKALE. Eventually, about 25 percent of the cohort survived and gained access into post-secondary studies, about 15 percent in degree and 10 percent in sub-degree courses (Biggs, 1996 p.4 – 6; Biggs, 1998b p.316 – 317; Adamson & Li, 1999 p.52).

The Hong Kong education system until the late 1990s was still very elitist, the beneficiaries being the top 20 to 30 percent of students, as determined by their performance in external public examinations in traditional academic content areas. These bilingual elites were given university or higher education, and in due course the social status as civil servants, professionals and senior executives of public organisations and sizable commercial organisations, most of which were dominated by English people in the colonial days. The rest became failures of the education system.

However, being different from the earlier colonial days, with a huge failure rate in a universal school education system by the late 1990s, there were not without noises regarding such a situation. Various measures were implemented by the Authority over the years to accommodate the needs of a growing student diversity and serve a range of functions other than selection. In the upcoming paragraphs, some of these functions are discussed alongside with representative changes made by the Authority to public examinations during the period.

Functions of Public Examinations

Driving Curriculum Changes

Unifying Curricula

For a long time there were two secondary school systems in Hong Kong, viz. the Chinese middle schools, taking the HKCEE and then the Higher Level Examination (HLE), and the Anglo-Chinese schools taking the HKCEE and then the Hong Kong Advanced Level Examination (HKALE). In 1986 the Education Commission, the highest advisory body to the Hong Kong Government on educational policy issues, recommended in its Report No. 2 to unify the two secondary school systems into one by eliminating the HLE. The following is a summary of the relevant parts of the report:

- 1) The retention of the HKALE with a wider range of subjects and the examination to be made available in Chinese as well as English from 1991;
- 2) The abolition of the HLE in 1990;
- 3) The introduction in 1990 of an Intermediate Level Examination (ILE);
- 4) Apart from academic subjects, the new syllabuses for the ILE could include courses in technical and practical subjects.

Members of the Authority recognised that the intention behind the proposal to introduce an AL related IL to replace the HL was, in part, to ensure that no student would need to take two local sixth-form examinations with different syllabuses in two successive years. Members also generally agreed with the Commission's recommendation that the sixth-form curriculum could be broadened to flexibly accommodate wider student diversity (HKEA, 1986b^{HA}).

In August 1988, the Hong Kong Government took the lead to set up the Working Group on Sixth Form Education which submitted a report in July 1989 with the following recommendations:

- 1) All Chinese middle schools should adopt the seven-year structure (i.e. same as the Anglo-Chinese schools) in September 1992 at the latest;
- 2) Commencing in 1992, the HKALE would be offered in Chinese as well as English;

- 3) The HLE for Chinese middle schools would be administered the last time in 1993;
- 4) Instead of Intermediate Level, subjects at Advanced Supplementary Level (AS level) would be introduced in both English and Chinese under the HKALE in 1994.

With a one-off grant of the Government for setting up new subjects, developing new computer programmes and translating syllabuses into Chinese, all the above recommendations were subsequently implemented by the Authority.

This was clearly a major attempt of the Government to work through the Authority to broaden and provide flexibility to the sixth-form curriculum in the 1990s. However, could this revamped joint university admission examination be successfully introduced without the support of universities? Records of the Authority indicate that universities, both local and overseas, were consulted in order to maintain their continued recognition of the new bilingual qualifications. In the Authority's Meeting on 8 March 1990, it was reported that:

- 1) The Chinese University of Hong Kong, the Hong Kong University of Science and Technology, the Hong Kong Polytechnic and the City Polytechnic had written to indicate that they would accept in principle for admission purposes results of the HKALE taken in Chinese and results of the AS-level Examination.
- 2) The University of Hong Kong also accepted in principle the results

of these examinations, although details would have to be worked out.

- 3) A reply from Hong Kong Baptist College was forthcoming.
- 4) The Committee for University Entrance Requirements of London University had agreed to extend recognition to the HKALE conducted in the medium of Chinese, and had agreed that a pass in the Hong Kong AS Examination should be recognised as equivalent to a pass in the GCE AS Examination in the corresponding subject and that four passes in the AS Examination at Grades A to E in approved subjects would satisfy the general entrance requirements of the University of London.

(HKEA, 1990^{HM})

The above local and UK recognition of HKALE offered not only in English but also Chinese was highly applauded especially by the Chinese middle schools.

It is interesting to note that despite all these efforts to effect curriculum changes, instead of developing, first of all, teaching syllabuses, the Government pushed changes through the public examination system. There were in fact no corresponding teaching syllabuses for AL, HL and AS levels at the time when these examinations were introduced. Teachers had to make do with examination syllabi that did no more than listing the topics to be covered with the rubrics for the examination papers. These were characteristics of an examination-led education system. The decision making for this particular case was

government-led and supported by the universities. The Authority's role was one of coordination and aligning interests apart from administration (2002, Vicker^{HP} p.55 – 56).

Some policy makers seem to have firm beliefs that curriculum innovations without in-step corroboration by examinations will not succeed. The Authority is also aware of the strong influence that public examinations can exert on the education system and in order to lever that strong influence in a positive way, it has demonstrated efforts on producing positive backwash effects. The Education Commission Report No. 4 issued in 1990 says:

“The Hong Kong Examinations Authority is well aware of the fact that the syllabi for HKCEE affect the curriculum and even the teaching methods in schools, particularly in Secondary 4 and 5.....the revised HKCEE syllabi have served to improve the clarity of the curriculum objectives which has had a positive influence on teaching.” (Hong Kong Government, 1990^G) Given below are some examples of efforts made by the Authority in this respect.

Abolition of Language Medium Indicator

Until the 1980s the language of assessment selected by the candidates was printed on the certificates. The continuation of this practice in the HKCEE was raised for deliberation in 1985. Members of the Authority agreed that the language medium indicator (LMI) in itself did not

discriminate against any language, however, it was noted that the LMI could possibly be used to discriminate against the use of Chinese, which was the mother tongue of most students in Hong Kong. It was believed that the abolition of the LMI would encourage teaching in Chinese, which was opined to be more educationally sound than using English. Some people, however, expressed serious concerns for this as they believed that LMI should be critical information to be provided to the users of the qualifications, such as universities and employers. However, the public sentiment then was on the side of the abolition of LMI as a necessary means to enhance the status of Chinese in Hong Kong (HKEA, 1985^{HM}).

The Authority initiated the change in response to the policy direction in education as recommended by the Education Commission (1984, Chapter 3^G). As the education system of Hong Kong was moving towards a more inclusive one in the 1990s, it was the Education Commission's belief that the use of Chinese as the medium of instruction in junior secondary schools was likely to be educationally beneficial for the majority of students because mother tongue was more effective as a medium of instruction, and thus LMI should be removed. This would reduce parental pressure on schools to teach in English and encourage school principals to choose Chinese to be the medium of instruction. The removal of the LMI would be a material factor in the package designed to encourage teaching in Chinese, and the Government was ready to go ahead with plans to implement other parts of the package such as providing additional teaching resources, Chinese

textbooks, and improving teacher preparation in the use of Chinese in the classroom.

Despite strong opposition from the users' end, the Authority finally decided to abolish LMI in the certificates of HKCEE in 1986 on the grounds that academically the standard achieved by a candidate in an examination was unaffected by the language medium of the assessment and hence it was not meaningful to show the LMI on the certificate. Placing LMI on the certificate could even confuse the issue as people might misunderstand that a difference in the language medium implied a difference in standard achieved, or that the language of the examination was the language used in teaching the subject in school, which was often not the case.

This change was welcomed particularly by the Association of Hong Kong Chinese Middle Schools. It was strongly felt that local people were biased against students taking public examinations in the Chinese language and tended to discriminate against them when they sought employment or tried to further their studies.

The removal of LMI in 1986 was an example of a major change decision eventually introduced by the Authority after several rounds of consultation amongst its stakeholders, with the strong support of the Government, more for the educational needs of the majority of the students rather than that of the users of the qualifications, who were then unable to lodge a strong protest due to the inevitable societal trend

towards the more extensive use of Chinese in Hong Kong. This measure was extended to ALE and HLE in the following year.

Abolition of Fine Grades in the HKALE and HKCEE

When the Authority took over the two former university entrance examinations from the Chinese University of Hong Kong and the University of Hong Kong in 1979 and 1980 respectively and renamed them as Hong Kong Higher Level Examination and Hong Kong Advanced Level Examination, the Authority was not in a position to continue making marks available to the universities since candidates themselves were not able to access their marks. In order to furnish reasonably sufficient information for universities to admit students, the Authority agreed to provide fine grades instead of marks to the universities as a compromise. In the earlier years, each coarse grade was divided into three fine grades for both examinations.

In 1992, in order to facilitate the implementation of conditional offer by universities based on the HKCEE results, the Authority, at the request of the universities, introduced fine grades for the HKCEE as well. In order to strike a better balance between grade reliability and discrimination between candidates, it was agreed to have two fine grades for each coarse grade (A to F) for both the HKCEE and HKALE. The Hong Kong Higher Level Examination phased out in 1992 and hence no change was made.

However, up until the end of the 1990s, the Authority found it necessary to revisit the issuance of fine grades since a fine discrimination of examination results was, in theory at least, no longer necessary as by then, universities were revamping their admission system and trying to reduce the emphasis on public examination results in a bid to promote whole-person development of students. It was also taken into consideration that this change would enhance the reliability of the examination grades. In its meeting on 8 March 2000, the Authority decided to consult the nine tertiary institutions, the Vocational Training Council, schools and the Civil Service Bureau (as the largest employer) on the abolition of fine grades by 2002 at the earliest (HKEA, 2000a^{HM}).

Despite the objections of the University of Hong Kong and the Chinese University of Hong Kong, who complained of a lack of information for student recruitment purposes, the Authority still decided to go ahead with abolishing fine grades in 2002 in its meeting on 26 April 2000 due to support from the remaining seven tertiary institutions, the Vocational Training Council, 85 percent of the responding schools and also the Education Commission (HKEA, 2000b^{HM}). As the stakeholder base of the Authority had widened over time, the Authority had also adjusted the focus of its work accordingly.

Adopting the TOC Principles in Question Paper Design

In 1993, the Authority introduced a series of changes to its HKCEE

English in accord with the Education Department's Target Oriented Curriculum (TOC) initiative (Education Department, 1994^G). The syllabus changes were implemented in September 1994 on Secondary 4 students who were due to sit the first revised HKCEE English at the end of their Secondary 5 in June 1996. TOC, underpinned by a humanistic orientation and constructivist view of learning, aimed at a target and task-based approach to curriculum and assessment. By giving due emphasis to both curriculum and assessment, these educational changes were made in reaction to the then general sentiment against the over emphasis on standardized testing and its perceived shortcomings (Biggs, 1995 p.1 – 22; Genesee, 1994; Adamson & Li, 1999 p.48). The syllabus changes made in HKCEE English reflected a step towards assessing students' abilities to carry out real-life tasks.

“The proposed changes of the 1996 HKCEE in English aim to modernize and improve the examination syllabus as well as to incorporate some TOC principles by adopting an integrated approach and by being more task-based. It is expected that the changes will narrow the gap between what happens in the exam room and the real world.” (HKEA, 1993a^{HP})

This attempt to “narrow the gap” was reflected in changes to question paper setting. The total number of papers was reduced from five to four. Major changes were made in Paper III and Paper IV. Paper III: *Integrated Listening, Reading and Writing* consisted of Part A: Short

Tasks and Part B: Extended Tasks. In Part A, candidates were required to select from and to make use of the information they heard and/or read in order to carry out a variety of short tasks. Part B required students to process information by selecting and combining data from both spoken and written sources in order to complete various writing tasks. Paper IV: *Oral* had changed greatly from *Reading Aloud and Guided Conversation* in the old examination paper to task-based *Role Play and Group Discussion* in the new (HKEA, 1994^{HP}).

The most significant change intended by the 1996 HKCEE English examination syllabus laid in the content of teaching. It was hoped that the “*new format will have favourable washback on classroom teaching*” (HKEA, 1993a^{HP} p.5). According to a research by Cheng, by the time the examination syllabus affected teaching in secondary schools in the 1994/5 academic year, nearly every school had changed their textbooks for the students. Almost all textbooks were labeled specifically “For the New Certificate Syllabus”. Apart from that, amongst the teachers interviewed, 84 percent commented that they would change their teaching methodology as a result of the introduction of the revised syllabus (Cheng 1998 p.325 – 350).

In the same survey, when students were asked to rank their language activities according to skills in the classroom, listening came as the most frequent activity. The second most frequent were activities related to language exercises such as grammar or vocabulary. Reading and writing occupied similar class time whereas the amount of time spent

on speaking was ranked the lowest. In 57 percent of class time, teachers talked to the whole class. Only in less than 5 percent of the time did teachers keep silent during teaching. That observation made was despite the fact that 76 percent of the teachers mentioned that they would certainly advise their students to change their learning strategies as the new examination required students' active participate in learning, and they had to initiate questions in speaking rather than answering questions passively.

It can be seen through the research that there are limitations to what an examination board can do in changing school culture. Despite the good intention of the teachers to make changes, they might lack the necessary skills and support. This possibility is highlighted in the research findings of the study which concludes that although teachers did show a welcoming positive attitude towards the change, there was not enough evidence to prove whether positive attitude would necessarily bring about positive changes in teaching methodology and eventually learning attitude of the students. In fact some teachers expressed worries about difficulties over shy and less outspoken students and also about difficulties over classroom management and the involvement of teaching facilities.

Provision of a Wider Range of Information on Teaching and Learning

Introduction of Teacher Assessment Scheme

It has been widely recognised that the pressure to achieve the all-important examination grades has inhibited students from engaging in a wider range of activities while at school and hence from acquiring the corresponding skills. As briefly covered in Chapter Two, a significant international change to the structure of secondary school examination systems is a pronounced shift away from a sole focus on external examinations. The Authority introduced a substantial component of Teacher Assessment Scheme (TAS) into many HKALE and a few HKCEE subjects. Through TAS, teachers evaluated their students' performance in certain aspects which were not normally assessable in external written examinations. After appropriate moderation, these assessment records were included in the students' public examination results.

TAS gave consideration to students' abilities in various domains and their overall learning process. It generated a fuller picture of students' performance and hence encouraged all-round development. It also helped addressing the drawback of judging students' abilities with just one single examination. Figure 5.3 summarizes the implementation of TAS up till the end of the 1990s.

Figure 5.3: The implementation of the Teacher Assessment Scheme up until 1999

Exam	Year Implemented	Weighting	Assessment Area	Adjustment Method	Remarks
HKALE					
AL Chemistry	1978	20%	Laboratory skills	Statistical moderation	1973 – pilot w.e.f. 1978 – schools to opt whether to take TAS
AL Chemistry	1994	20%	Laboratory skills		First examined in 1994
AL Biology	1995	20%	Laboratory skills	Statistical moderation with reference to examiners' report	
AS Biology	1994	20%	Laboratory skills		First examined in 1994
AS Chinese language & Culture	1994	10%	Reading reports	Statistical moderation	First examined in 1994
AS Liberal Studies	1994	20%	Project	By external inspection or statistical moderation	First examined in 1994
AS Design & Technology	1994	33.3%	Project	By external inspection and random checking by examiners	First examined in 1994
AS Electronics	1999	20%	Project		First examined in 1999
AL Gov't & Public Affairs	1988	12.5%	Project	By external inspection	First examined in 1988
HKCEE					
Art	1984	50%	Portfolio	By external inspection and random checking by examiners	First examined in 1984
Design & Technology	1980	33.3%	Project		First examined in 1977 with practical exam
Electronics & Electricity	1980	35%	Project		First examined in 1980
Metalwork	1980	33.3%	Project		First examined in 1955 with practical exam

(HKEA, 1999b^{HP})

TAS was a relatively successful measure implemented by the Authority to enhance the validity of public examinations. This was probably due to the elaborate support provided by the Authority to teachers. Seminars were conducted whenever necessary. Detailed pre-assessment guidelines were issued, aiming at standardization of the assessment process.

Despite all these efforts on providing supports to schools, according to the findings of Yung on assessment reform in science of Hong Kong, there was still a tremendous opportunity for improvement for the full potential of TAS to be realized. Yung stresses the importance of concerted efforts of the relevant parties, including the Authority, to conduct research and development in this area so as to help teachers become reflective about their own assessment practices in classrooms (Yung, 2006 p.225). Besides, the introduction of TAS was in fact not without resistance. The range of subjects remained small and the scheme could hardly be expanded over the years mainly due to objections of various subject committees of the Authority for quality assurance reasons and concerns of schools regarding teacher workload.

Balanced Use of a Variety of Question Items

According to the internal guidelines of the Authority, starting from 1995, all subjects have to adopt constructed response questions as far as possible. It is stated in the marking schemes that bonus marks are to be

awarded to style and thinking, and also good communicative skills in presenting answers. With this, students are required to think critically and coherently express themselves in extended writing, and it is hoped that for this reason, the corresponding skills are covered in the daily teaching and learning at school.

If examinations are restricted merely to testing knowledge, teachers will be tempted to teach for the memorization of knowledge rather than prompting students' higher-order cognitive development. However, students do need factual knowledge to support their arguments, illustrate their points or solve a problem. Hence, in preparing question papers, it is a general principle for setters to adhere to the cognitive domain of Bloom's Taxonomy of Educational Objectives (1956) as follows:

- *Knowledge*
- *Comprehension*
- *Application*
- *Analysis*
- *Synthesis*
- *Evaluation*

The lowest level “knowledge” normally refers to rote-recall, and the five higher levels call for students to demonstrate their higher-order cognitive skills. While rote-memorisation is not encouraged, it is perfectly appropriate for examinations to assess recall of facts and

acquisition of basic skills provided such questions are kept to a suitable proportion. It is important to keep a right balance between items testing factual recall and other basic skills. A study was made in 1999 HKCEE and HKALE of seven content-based subjects with findings as summarized in Figure 5.4.

Figure 5.4: Percentages of marks awarded to factual recall in local public examinations

Subject	HKCEE		HKALE	
	Paper 1	Paper 2 (M.C.)	Paper 1	Paper 2
Biology	14	18	14	18
Chemistry	11	10	13	8
Physics	11	9	3	16
Economics	12	11	11	14
Geography	13	5	2	0*
History	17	30	25	25
Chinese History	26	18	19	33

* HKAL Geography Paper 2 consists of essay question only.

(HKEA, 1999e^{HA})

The above percentages indicate a reasonable proportion of recall type questions. An international study carried out in the 1990s on the style of examining in mathematics and science subjects in university entrance examinations in a few advanced countries reported findings as given in Figure 5.5.

Figure 5.5: Percentages of marks awarded to factual recall in public examinations in Science and Mathematics in other countries

Countries	Percentage of recall only
France	20%
Germany and Israel	33%
England and Japan	40%
U.S.A. (Advanced Placement)	50%

(Britton 1996)

In relation to this, the cap of 40 percent of multiple-choice questions has been applied across the board for all subjects in all examinations since the 1990s. This measure is not meant to devalue multiple-choice questions which can bring a lot of benefits, such as a wide coverage of topics and objectivity in assessment. However, a heavy use of multiple choice items may lead to mechanical drilling and rote-memorization amongst students which is counter-productive to the development of thinking and linguistic skills.

Yet, according to Pong & Chow, due to the highly selective nature of public examinations in Hong Kong, markers are forced to put fairness and objectivity of marking above all other concerns. Even in essay-type papers, markers tend to treat the marking scheme with suggested answers as containing all the “correct or acceptable” content points, while higher cognitive skills, such as analysis, logic, arguments and style, are often awarded only a few marginal bonus marks. Both teachers and students soon figure out that “good” answers are those that can be “nailed” with a parade of “points” rather than carefully structured arguments. Even when a particular question asks for “discussion” or “evaluation”, the markers are looking neither for organisation of arguments nor for expression of personal views. Hence the actual assessment practice of the markers convey messages to teachers and students a view of *“knowledge that is static, circumscribed by points and to be learnt for regurgitation at appropriate moments.”* (Pong & Chow, 2002 p.143)

Certification

Basic Proficiency Test

To adjust itself and its services in a universal school education system, apart from inducing positive washback effects through the HKCEE and HKALE, the Authority attempted something more drastic – introducing a new examination named the Basic Proficiency Test (BPT). The development of the BPT is detailed in the coming paragraphs so as to illustrate that an examination board is very often required to align diversified and sometimes conflicting interests of different stakeholders, and this can be a mission impossible at times.

The BPT, with a practical orientation, was designed for students less capable academically. Despite support of the Education Commission, education policy makers and schools, the BPT still failed to take off because the test could not serve the purposes expected by the qualification users.

It was stated in paragraph 5.10 of the 1987 White Paper on the Development of Senior Secondary and Tertiary Education that the provision of Secondary 4 to 5 places had been expanded to cover some 60 percent of the relevant age-group and it was time to review the school curriculum and examination arrangements to see if they could meet the needs of the wider ability spectrum in schools resulting from

the increased provision of senior secondary places.

When the Education Commission in its Report No. 1 (1984^G) proposed that the senior secondary provision rate should be further increased to cover 85 percent of the relevant age cohort, it recommended in paragraph 2.36 of the report *“that the Education Department should continue its present efforts to revise the curriculum for secondary education and similarly the HKEA should revise the examination system, both of these to proceed in parallel with the provision of more subsidized post Secondary 3 places.....”*

In pursuance of the government policy statement contained in paragraph 5.10 of the 1987 White Paper and the related recommendation of the Education Commission, and on the advice of the Curriculum Development Council³, the Government wrote to the Authority in January 1987 requested that a criterion-referenced examination leading to the award of a “Proficiency Grade” certificate at the HKCEE level be introduced for the subjects of English, Mathematics and Chinese preferably in 1990. The Proficiency Grade Tests were intended mainly for students who were academically less capable and wished to seek employment after completing Secondary 5 and hence it should test basic skills that would be useful at work.

Subsequently three subject working groups were formed by members of the Education Department and the Authority to work tentatively on the development of the Tests for about a year. With the inputs of these

working groups, the idea was deliberated by the Authority in its meeting on 8 December 1988. It was clarified in the meeting that the Tests would not be considered a part of the HKCEE as they would probably be pitched at about Secondary 3 and the candidature was expected to be only a few thousand. Despite the significant discrepancy in standard, it was also noted that students would not be following a different curriculum other than the HKCEE curriculum in school. Members of the Authority agreed in principle to offer the Tests, though the timing of the first live tests would be decided after the results of a survey of schools. Besides, since it was expected that the results of the Tests would be either a Pass or Fail, the Authority decided that they should be called the Basic Proficiency Tests (BPT) rather than Proficiency Grade Tests (HKEA, 1988^{HM}).

The BPT was brought up for discussion again in the Authority's Meeting on 25 April 1989. It was reported that over 50 percent of the school principals were in favour of allowing Secondary 5 students to take the Tests before they took the HKCEE later in the school year so that students seeking employment immediately after the HKCEE would already have a Certificate of Proficiency in hand. A majority of school principals preferred to have the Tests conducted in November so that students' preparation for the HKCEE would not be interrupted.

The BPT attracted some 7555 candidates in its first administration in 1990. However, the entry dropped dramatically by 74 percent to 1996 in 1991 (HKEA, 1991a^{HA}). It was felt that if no formal recognition

could be gained for the Tests, the candidature would likely drop further and it would be financially unviable for the Authority to continue to offer these Tests. The Authority had already written to employers' associations asking them to give favourable consideration to holders of the BPT with little avail. The response was nothing more than the acceptance to circulate the information to members.

The Authority then requested the Education Department to write to the Civil Service Branch to ask for formal recognition of the BPT qualifications. Unfortunately after a lengthy deliberation, in its reply to the Authority in February 1993, the Civil Service Branch finally reiterated its stance that a pass in the BPT could not be accepted as being equivalent to a pass in the HKCEE (i.e. Grade E) as the Tests were pitched at a level below (i.e. Grade F). The Civil Service Branch, however, counter-proposed that two BPT passes as equivalent to one HKCEE pass and three BPT passes be equivalent to two HKCEE passes.

Based on the reply of the Civil Service Branch, enquiry with the relevant government departments was conducted with the following findings:

- 1) Some departments rarely recruit HKCEE candidates with only 3 passes because they have an over subscription of applicants with much higher academic qualifications.
- 2) Other departments put more emphasis on applicants' physique,

interest in the nature of the job, maturity and other non-academic qualities. Based on the records then, the majority of the new recruits were those with a lesser qualification than 3 HKCEE passes.

Based on these findings, it was highly doubtful that the recognition would bring any material benefit to the qualification holders. The entry for BPT dropped further to 814 in 1992. The Authority finally decided to abolish the Tests in its meeting on 27 April 1993 (HKEA, 1993^{HM}).

The BPT experience is a good example to illustrate that the stakeholders of public examinations are sometimes holding conflicting expectations on public examinations. The case of BPT was a conflict between the certification and selection functions of public examinations. The BPT managed to satisfy the education policy makers and schools by providing the less capable students the hope of some kind of certification. However, the BPT failed because it could not satisfy the selection expectation of the qualification users.

The BPT was designed to certify practically grade F in HKCEE, which is traditionally regarded as a fail. Public examinations are never value-free. They carry, and often deeply embed, the values of its society. The lesson learned is examinations specially designed for low achievers may have labeling effects. This kind of mindset is a typical example of problems which cannot be easily resolved or uprooted by the professional work of an examination board. However, what an examination board can do is to improve the test design so as to

minimize the labeling effect. This is further discussed in the forthcoming section.

Tailored Syllabus in the HKCEE Mathematics Examination

In 1988 a conference was held in Brighton which was attended by representatives of five European countries on assessment, certification and the needs of young people. While some participants raised the question of whether all pupils should be included in the public examination system, it was recognised that excluding them would disadvantage them in many ways. The report of the conference emphasizes that changes which only affect the disadvantaged continually run the risk of further disadvantaging them. If a certificate is only available for disadvantaged pupils, it may become a new badge of failure. The report concludes that only when all teachers and pupils are drawn into the process of change will the target population reap the benefit (Cheung, 2001).

In order to minimize labeling effect, the above suggestion was applied on the tailored syllabus in the HKCEE Mathematics, examined the first time in 1998, with the lower achievers as the target population though the examination was taken by all candidates. About two thirds of the whole syllabus were designated the core or tailored part. It included the more basic elements of the whole syllabus and two thirds of the examination paper were set on this part of the syllabus. The objective of this move was to provide flexibility in curriculum tailoring to help

low-attaining students achieve more by first concentrating on the tailored part (Cheung, 2001).

Mathematics was proposed to be the pilot subject for two reasons. First, it was a popular subject taken practically by all Secondary 5 students. Second, it was a content-based subject and hence easier to mark out components for the tailored part. All HKCEE participating schools were consulted on this proposal. Their views were summarized in Figure 5.6

Figure 5.6 Response from schools on the tailored HKCEE Mathematics curriculum

Response	Percentage
Agree	70%
Agree with reservation	24%
Disagree	6%

(Cheung, 2005 p.154)

Examination statistics in 1998 revealed that school candidates on average scored about 58 percent and 34 percent of the marks in the tailored part and the non-tailored part of the syllabus respectively. The corresponding figures for the weakest third of students were about 39 percent and 19 percent respectively. The overall “passing”⁴ percentage was marginally higher than the previous year (HKEA, 1999g^{HA}). Although there was not sufficient data to conclude whether the results of students had improved, it at least enabled teachers to adjust their teaching pace according to the ability of the students. The tailored approach was further developed subsequently and this is elaborated later in the thesis.

Introduction of Application-oriented Subjects

Another way to recognise a wider range of abilities was to introduce more application-oriented subjects. Although public examinations in Hong Kong are perceived as highly academic, there were in fact a range of application-oriented subjects offered as alternatives to the less academic students in the HKCEE. However some of these subjects were not as popular as they were intended to be. Most would believe that this was due to the perception that only academic qualifications count. Given in Figure 5.7 are application-oriented subjects in the HKCEE with entries in 1998.

Figure 5.7: Application-oriented subjects in HKCEE with entries in 1998

Subjects	No. Sat
Accommodation & Catering Services	106
Art	6 651
Buddhist Studies	2 058
Ceramics	58
Commerce	9 899
Computer Studies	16 048
Design & Technology	600
Electronics & Electricity	1 609
Engineering Science	1 706
Fashion & Clothing	120
Home Economics (Dress & Design)	150
Home Economics (Food, Home & Family)	286
Metalwork	1 178
Music	211
Physical Education	490
Principles of Accounts	17 753
Religious Studies	12 234
Shorthand	21
Technical Drawing	2 699
Textiles	206
Travel and Tourism	1 851
Typewriting	6 019
Total number of HKCEE school candidates sat	90 210

(HKEA, 1998c^{HA})

The Role of the Hong Kong Examinations Authority

A Confident Gatekeeper

From its establishment in 1977 till the 1990s, the role of the Authority was, in the main, a gatekeeper of the school education of Hong Kong. This was in line with the policy documents. The Education Commission report in 1994 suggests that standards in school education can be divided into input standards (in terms of funding, equipment, etc.), outcome standards (in terms of results in public examinations), and process standards (in terms of school management and teaching). It acknowledges that the main instrument for defining expected standards and monitoring outcomes from school education is the public examination system (Education Commission 1994, Chapter 3^G).

The most influential stakeholder and collaborator of the Authority in this period was the Government which initiated some of the major educational changes through the Authority, such as the merging of two separate school systems. The Authority was also responsive to government change initiatives, such as the abolition of LMI in response to the recommendation of the Education Commission, and adopting the Education Department's TOC principles in question paper setting. The universities still had a very strong influence though their influence was taken over gradually by the school sectors within which, the Chinese-medium schools were becoming more and more the equals of

English-medium schools in the public examination system. Other major stakeholders who had an influence on the work of the Authority were employers, including the Civil Service Branch. Curriculum development as a function was still at its initializing stage during the period, and hence relatively speaking, classroom teaching, especially from Secondary 4 onwards, was largely directed by the examination syllabi of the Authority.

As the owner of a powerful selection machinery in those days, the Authority was a “confident” gatekeeper of the education system seeking to exert positive influence on curriculum content and teaching pedagogy (HKEA, 1998^{HP}). This could be demonstrated through the continuous efforts on effecting changes, such as the implementation of teacher assessment scheme, ensuring a balanced use of various question types, abolition of fine grades, development of a wide range of application-oriented subjects, introduction of tailored syllabus, etc. In other words, instead of simply delivering a reliable examination service, the Authority had taken on the additional mission of:

- 1) enhancing the validity and certification function of public examinations by taking into account a wider range of student abilities in its assessment process; and
- 2) striving to produce positive backwash effects on the education system.

Enhancing the validity and certification function of public

examinations is more within the control of an examination body. It has already been revealed in the preceding paragraphs that issues related to dilemmas arising from conflicting expectations on the functions served by public examinations as illustrated in Chapter Two can likely be resolved professionally by enhanced assessment designs though this is not easy to achieve and there is still much room for improvement. The results of the tailored syllabus in HKCEE Mathematics in this direction are very encouraging. However, the results of efforts on driving backwash effects are not so clear-cut.

It is true that backwash effects may be able to drive some educational changes but it is never easy to identify the nature of the changes. Cheng points out that changing the examination is likely to change the “kind” of examination practice, but may not be the “fact” of the examination practice. Changes tend to happen at a superficial level with the form of teaching and learning, but not necessarily the substance or values behind (Cheng, 1997 p.37 – 54). No wonder despite the many assessment measures introduced by the Authority, some fundamental problems remain, such as teaching to the test, rote-learning, an examination-oriented culture, etc. The effectiveness of backwash effects depends critically on the way public examinations are chosen to be tackled and used by its stakeholders at the feeding end. There are very often gaps between the intended and actual use of public examinations as discussed in the American case. The reasons behind appear to be closely related to differences in the value systems of various stakeholders. The following experience of the Authority is

enlightening in this respect.

In an attempt to broaden the sixth form curriculum, the Education Commission (1994) recommended a move from 3 A Levels to 2 A Levels and 2 AS Levels. An AS Level then was already recognised as equivalent to a GCE AS Level representing half of a GCE AL as detailed in Part I. The recommendation was supported by the officials and so was the Authority. The Authority even urged the universities to award more points for AS Levels in recognition that studying two separate disciplines was more challenging than doing twice as much in the same subject. Despite all these supports, schools feared that their students would be disadvantaged if they indeed made such a change in their subject options. Some schools were also concerned that they did not have the necessary resources to deliver this 2+2 model, and that it would represent too heavy a loading for the average students. Schools expressed the view that students were not able to cope with six subjects (2 A Levels, 2 AS Levels and two languages, English and Chinese). The guidelines issued by the Curriculum Development Council of the Hong Kong Government for the low achieving sixth form student recommended five subjects: the two languages, and either 1 A Level and 2 AS Levels or 2 A Levels and 1 AS Level. In practice, over 50 percent of HKALE school candidates did not take any AS Level subjects, apart from AS “Use of English” and AS “Chinese Language and Culture”, which were virtual prerequisites for university admission. Even some Authority members who were principals and teachers also held the view that some university departments would give priority to A

Levels and that students doing AS Levels would not as a consequence consider themselves as intellectually competitive as their A Level counterparts (HKEA, 1994^{HA}).

The above incident calls to mind the lack of support for most of the application-oriented subjects and the Basic Proficiency Test. It appeared that the general aspiration during the period was not to widen the curriculum but to excel at all cost in an academic-focused examination system. Indeed it was the observation of Morris et al. that the curriculum changes introduced by the Government in the 1990s with emphasis on individualism, creativity and all-roundedness was not reflected in the implemented curriculum, where attempts to promote problem-solving and other active forms of learning were passively resisted by teachers (Morris et al., 1996).

Before moving on, it is perhaps worth returning to the range of criticisms of public examinations highlighted in Chapter One, such as teaching to the test, rote-learning, an examination-oriented education system, demoralizing effects, insufficient use of teachers' assessment to improve learning, not generating useful information to support teaching, etc. It is hinted at that early stage by the author that those complaints are i) related more to teaching and learning; ii) not necessarily the consequence of public examinations. Now with the findings in this chapter, we have more evidence to support this argument. Public examinations are simply tools subject to various ways of handling and use. The phenomena being complained about lie within the remit of

teaching and learning, and have more to do with the use of public examinations by the stakeholders at the feeding end and the associating motives and values behind. That said, does this mean that there is nothing much that an examination board can do to actively influence the way public examinations are used and hence improving its own effectiveness by narrowing the gap between the expected and actual use of public examinations? Besides, an examination board can hardly justify any stance for not taking measures to ensure the proper use of its examinations. This issue is further analysed in Chapter Six.

Conclusion

Public examinations in Hong Kong introduced by its colonizers were, in the main, modeled on their UK counterparts for selecting highly capable English-speaking elites to go through university education and then support the administration of the colonial government. As the provision of formal education grew exponentially with the introduction of compulsory education in the 1970s, the Authority was established in 1977 by the Government as a statutory body to take over the administration of public examinations for specialization and efficiency reasons.

Part II provides a range of progressive assessment initiatives designed to accommodate the needs of a rapidly expanding student diversity from the 1970s to 1990s. These designs were initiated either by the Government as the major stakeholder of the Authority for driving

curriculum changes or by the Authority itself for enriching the functions served by public examinations and also for generating positive backwash effects on the education system. Based on the findings of this chapter, there is evidence that the common dilemmas related to the functions of public examinations can be resolved professionally by enhancing the assessment designs. However, public examinations can be mis-used. There is also evidence that the expected and actual use of public examinations is not always the same. Thus the effectiveness of public examinations depends critically on, amongst other things, first, whether the initiatives are well-designed professionally, and second, whether their intended use is within the acceptability limits of the value systems of concerned stakeholders and the society as a whole so that they are more likely to be used as expected.

As revealed by archival evidence, the most well-received assessment change during the period seemed to be the incorporation of the two public examination systems into one in the 1990s in order to unify the two secondary school systems in Hong Kong. This move significantly enhanced the progression opportunities of students of the Chinese middle schools and broadened the then sixth-form curriculum. The change was almost unanimously heralded by all stakeholders. The abolition of language medium indicators and fine grades in reporting of results respectively for encouraging more extensive use of Chinese and promoting whole-person development of students were not without resistance from the qualification users, but the educational values

behind was undisputable and hence strongly supported by the majority of the stakeholders.

However changes can hardly deliver the results as expected if they are not on balance within the acceptability limits of the value systems of the society as a whole. Attempts were made by the Authority to make a balanced use of a variety of question items in paper setting to rectify over reliance on mechanical drilling and rote-memorization amongst students. Yet there was evidence that in reality, under the intense pressure of a highly selective education system which forced markers to put fairness and objectivity first, the assessment practice of markers conveyed conflicting messages to teachers and students that knowledge could be memorized for regurgitation at appropriate moments. Neither was there much evidence that the adoption of the Target Oriented Curriculum principles in public examinations could bring about any significant positive change in teaching methodology and learning attitude. The efforts behind the Teacher Assessment Scheme and the application-oriented subjects for enhancing the validity and diversity of public examinations were undermined by the lukewarm support that they managed to generate.

The abolition of the Basic Proficiency Test (BPT) in 1993 was more revealing. Though the BPT was introduced with the good intention of recognising a wider range of student abilities, it was designed to certify practically grade F in the HKCEE, which was traditionally regarded as a fail. Not much was done to contain the labeling effect by

disassociating a BPT pass from an HKCEE fail. The BPT experience sends a clear message that even in an examination-oriented culture, only examinations serving functions valued by sufficient stakeholders can survive. The failure of the BPT could be the direct result of over-stretching the stakeholders' acceptability limits for the educational values that it claimed to embrace while not providing adequate certification of abilities valued by end-users of the qualification. There was too wide a gap between the expectations of BPT's designers and potential users.

How technical competence of an examination body may contribute to the effective implementation of its public examination was demonstrated in the development of the tailored syllabus in the HKCEE Mathematics, examined the first time in 1988. There was initial evidence that by regrouping the syllabus into a core and tailored part by level of difficulty, the lower achievers were helped to attain better results. As the syllabus was taken by all students, being different from the BPT, labeling effect was minimized and hence the values of most of the target stakeholders were accommodated.

During the period, the Authority played the role of a proficient and highly respected gatekeeper of the school education system of Hong Kong. It worked collaboratively with the Government as its first and foremost stakeholder to introduce assessment initiatives to support education policies. Universities and employers as the major qualification users were obviously highly influential. Regarding

contribution to curriculum development, in recognition of the power of public examinations to drive both student and teacher priorities, the Authority did try to generate positive backwash effects on curriculum content and pedagogy. However, as the education system grew rapidly, it became clear that there were inevitable limitations to what basically a selective examination system could do to assess and certify the full range of intellectual skills and bring about a truly inclusive education system. Interestingly though, with all these problems, these selective examinations were still well-supported. There seemed to be no evidence of sufficient pressure in the society as a whole for the essential nature of public examinations and the role of the examination board to be changed by the 1990s.

The failure of the Authority to convince universities and schools to opt for more AS subjects for broadening the sixth form curriculum for the benefits of the low achieving students, together with the lack of support for most of the application-oriented subjects and the BPT, seem to indicate that the way public examinations are actually used is, to a significant extent, determined by what the stakeholders at the feeding end value and want to achieve with these assessment tools. In the upcoming chapter, the way how an examination board can actively influence the use of public examinations in order to enhance its effectiveness will be analysed.

Endnote:

1. *The Education Department was responsible for education matters in the*

territory, with the exception of post-secondary and tertiary education. The Department was abolished with its functions put under the Education and Manpower Bureau in 2003.

- 2. Under SSPA, primary schools were required to submit results of one internal examination in Primary 5 and two internal examinations in Primary 6 for all students to the Education Department for banding of the students of the following year of the respective schools. The ranking of the schools was achieved through the administration of a placement examination by secondary schools on their Secondary 1 students, the results of which were also submitted to the Education Department.*
- 3. The Curriculum Development Council (CDC) is a free-standing advisory body appointed by the Chief Executive of Hong Kong to give advice to the Government on matters relating to curriculum development for the local school system. The Curriculum Development Institute (CDI) was established in 1992 under the Education Department to support CDC at an implementation level.*
- 4. HKCEE subjects have no official passing grade though grade E is traditionally perceived as the passing grade.*

Chapter Six

Public Examinations in Hong Kong in the 2000s

Part I: The Work of the Authority at the Turn of the Twentieth Century

Background

As outlined in Chapter Five, there was a clear expansion of the education system of Hong Kong from the 1970s to 1990s. The then Hong Kong Government stated that the “fundamental” aim of school education was to *“develop the potential of every individual child, so that our students become independent-minded and socially-aware adults, equipped with knowledge, skills and attitudes which help them to lead a full life as individuals....”* (Education & Manpower Branch, 1993a p.8) To fulfill such targets, what an education system should not do is to use a single and academically biased set of measurement criteria to predict the potential of their youngsters and sort them early into different ability groups in such a way as to restrict the quality of their future education and career opportunities. In a competitive modern environment with unpredictable and rapid changes, a selective education system is simply too wasteful, both in defining “talent” too shortsightedly, and in giving up other talents that are potentially useful in a broad sense. The alternative, and perhaps a more sensible utilization of human capital, is to expand the education system to

enable as many young people as possible to get their talents developed for potential use.

Expectations on Public Examinations

The clearly expressed goals for education in Hong Kong then were wide ranging. The “Statement of Aims” published in 1993 by the Government states that schools should:

- 1) help students develop their potential;*
- 2) provide education to meet community needs;*
- 3) help pupils build a strong foundation of literacy and numeracy;*
- 4) develop pupils’ ability to think independently and logically;*
- 5) encourage pupils to acquire knowledge, skills and a better understanding of the world;*
- 6) provide opportunities for pupils to acquire practical and technical skills;*
- 7) help pupils develop a sense of civic awareness and social skills;*
- 8) contribute to pupils’ personal growth by helping them develop a sense of morality;*
- 9) help pupils develop health awareness and good physical coordination; and*
- 10) help pupils develop their creativity and aesthetic awareness.*

(Education and Manpower Branch, 1993b^G)

A real concern was these broad aims of education were more said than

done. Hence after a period of dramatic progress in terms of quantity, the need was felt for education in Hong Kong to further develop in terms of quality. To achieve this, the next step would be to truly open up opportunities for all. Efforts were to be made to change the nature of the education system from one designed primarily to select to one that was educational in a diversified way, aiming at drawing out the potentials of the younger generation instead of simply spoon-feeding them with a large volume of academic information. In such a system, the function of assessment would change, from one primarily for selection, to one that would give information on a diversified spectrum of skills and competencies of individuals. Instead of what the students could not do and their relative performance in comparison with others, what would be important to find out was what had been achieved and the effectiveness of teaching in the learning process. This would be a profound paradigm shift, involving a re-conceptualization of the nature and function of educational assessments captured by Gipps as “....a move from testing and examinations-as-hurdle model (where you make the exam as difficult as possible and give the candidate little guidance, the proof of quality being in the numbers that fail) to an assessment model where we all try to give all candidates a real opportunity to show what they know, understand and can do (by giving more guidance, by sharing criteria with the student, and making the tasks match real life or classroom tasks).” (Gipps, 1998 p.32)

Expressed in terms of the findings regarding the functions of public examinations in the literature review in Chapter Two, public

examinations in Hong Kong at the turn of the 20th century were expected by the policy makers to move towards the right on the list below without compromising those on the left:

- 1) Selection vs. certification
- 2) Reliability vs. validity
- 3) Assessment vs. curriculum development
- 4) Summative vs. formative use of assessments
- 5) Teacher professionalism vs. standards monitoring assessments
(from norm-referenced to standards-referenced assessments)

Despite this misfit, the ingrained examination-oriented culture in Hong Kong continued. This led to a vicious cycle of intensified competition in public examinations and further neglect of attributes needed but not tested.

An Examination-oriented Culture

In Hong Kong, as observed by Bond:

“....parents exert massive pressure on their children to do well in school. Homework is supervised and extends for long periods, extracurricular activities are kept to a minimum, effort is rewarded, tutors are hired, and socializing is largely confined to family outings.”
(1991, p.18)

Traditionally, Chinese parents attach great importance to education and academic achievement (Ho, 1986 p.1 – 37). Education is considered a main vehicle for upward social mobility, especially for those who fled to Hong Kong from Mainland China after World War II. Also important is the belief that achievement is essentially a matter of effort, not ability. The malleability of human behaviour is known as one of the fundamental precepts of Confucianism (Munro, 1977).

Examinations play such a dominant role in the lives of Chinese teachers and students that it is imperative they are handled effectively, and in ways that promote productive student performance. A survey conducted by the Hong Kong Federation of Youth Groups (1997) on secondary school students reveals that the testing culture has successfully bred a sizable proportion of students who are ready to agree that the stress from examination is self-imposed (38 percent) or due to parental aspirations (27 percent), rather than due to examinations being held too often, not appropriately designed or being too difficult. It seems that students have already internalized the cultural values and beliefs about the nature of knowledge and learning. Almost half (45 percent) of the students believe that examinations are the best way to assess one's performance.

A report on the secondary examination systems in several Confucian-heritage cultures describes an “obsession with higher education” as a characteristic of the Asian region:

“Higher competition for college admission has led some secondary schools in the region to ignore formal standards of curriculum and concentrate principally on curriculum that prepares students for college entrance examinations. Hence, some teachers in higher schools give weight to memory-centered instructions that encourage cramming and memorization. It seems that there is a tendency for student assessment to be merely summative, used to support administrative decisions on promotion, streaming and selection of students for tertiary education and for competition in the job market.” (SEAMEO 1998)

In Hong Kong, as in most other Confucian-heritage cultures in the region, examinations are likely to continue to play an important role in society into the foreseeable future. However, as is recognised above, their high status comes at a price. What is worse is that examinations are “loved” so dearly in this part of the world that it seems even the very victims of examinations are not that enthusiastic about changes for improvement.

Sociological Implications of Public Examinations

As argued in Part I of Chapter Five, the purpose of the first public examinations introduced by the colonial government went beyond selecting suitable students for university admission. It can be understood as one of the mechanisms to create English-speaking elites to support the Government. Being similar to the SAT in some ways, these examinations defined what was considered legitimate knowledge

or competence and controlled the distribution of rare social resources.

Researchers such as Bernstein and Bourdieu have developed some insights regarding the role of examinations as instruments of social control. Broadfoot has been applying sociological theories in her analysis of educational assessments. Along the same vein, Carless claims the ancient Chinese system of imperial examination originated in around 165 BC represents the earliest example of how examinations can be used to shape and legitimize state-control over individuals and society (Carless, 2011 p.47). Though the imperial examination ended about a century ago at the decline of the Qing Dynasty, its spirit remains firmly embedded in Chinese societies (Cheng, 1994 p.67 – 84). Though not without defects and known to be corruption plagued, the imperial examination system provided some kind of pathway to commoners to fight for their life chances (Miyazaki, 1976 p.111 – 113). According to Lee, *“the belief in the possibility of upward social mobility through educational success was important and became a significant driving force for many ordinary people to study hard for a better future.”* (1996, p.38) The residual influence of the Chinese imperial examination system works at a perceptual level and impacts on attitude towards examinations amongst Chinese (Biggs, 1996 p.45 – 68). Evidence put forward in the earlier section illustrates that in a Confucian-heritage society like Hong Kong, examinations are so “loved” that a substantial proportion of students believe they are the best way to assess performance.

According to Bernstein, social control, by which individuals may reach positions of power, contributes to social reproduction, i.e. those processes that sustain given social structures over time. Bernstein has identified three key message systems of schooling: “curriculum” or what is classified as valid knowledge; “pedagogy”, how that knowledge is transmitted; and “evaluation”, the way that knowledge is assessed (Bernstein, 1971 p.63 – 66). Broadfoot goes further to purport that it is generally assessment procedures that determine curriculum and pedagogy, and hence social reproduction (Broadfoot, 1996 p.102 – 124). Bordieu & Passeron argue that examinations are in fact a means by which schools maintain the power of the privileged class (1977, 1990 p.142 – 167). They often support the interests of certain dominant groups and hence can be used to perpetuate their influence (Bourdieu, 1991 p.119 – 120). Along this line of argument, any change in examination systems implies a restructuring of the power base in society, which is bound to arouse strong challenges and resistance from some quarters. This conservative force has been proved too often as a barrier for change to enable examinations to do more than select just a handful of elites for further advancement (Eggleston, 1984 p.22 – 28). The fact that public examinations manage to flourish in Hong Kong and the United States despite the extent and frequency of criticisms against them seems to support the claims of these researchers.

Limitations of Public Examinations

As pointed out by the Education Commission (1996^G), the two public

examinations in Hong Kong were highly respected and internationally renowned, but they were not without limitations.

Norm-referenced

Both the HKCEE and HKALE had an important selection function. Users of examination results implicitly expected the grades of different subjects to be “equally” difficult to obtain and the level of attainment attached to each grade to be reasonably stable between years. If these expectations were not reasonably met, the credibility of the Authority and its examinations would be at stake. The grading methodology was designed primarily to achieve these two objectives. It was through applying norm-referencing principles to a control-group that the Authority managed to maintain its grading standards despite syllabus changes and variation in difficulty level of question papers between years.

The norm-referenced nature of these examinations required a broadly similar distribution of candidates across the grades from year to year, and hence their results were unable to inform users the actual standards of the candidates and whether standards were rising or falling in any absolute sense. However, this information is the starting point for formulating any education policy in a large scale to monitor or improve standards over time. Besides, results of a norm-referenced examination cannot tell categorically what candidates awarded a certain grade know or can do. They provide only one piece of information that:

- 1) reflects a candidate's snapshot performance in a sample of the syllabus, at a certain time under certain controlled conditions;
- 2) helps to provide some evidence for predicting a candidate's chance of success in work of future study;
- 3) provides a broad indicator of students' performance in the examination subjects.

(HKEA 1998b^{HA})

Results of the HKCEE and HKALE might be adequate for the selection function which is typically associated with norm-referenced assessment and concerned with relative performance. Certification is essentially concerned with attesting to the standards achieved in broadly criterion-referenced terms. The HKCEE and HKALE only managed, to a certain extent, to fulfil the certification function and, by design, they were inadequate for informing whether educational standards were changing.

Too Academically Focused

Both the HKCEE and HKALE were predominantly academic in focus. In the case of the HKCEE, as the retention rate of students in senior secondary education increased, the incompatibility of the certification and selection functions became more apparent. There was increasing dilemma between maintaining the standards of the examinations and accommodating lower achieving students. Attempts had been made to

address the problem through offering a range of application-oriented subjects, but the entries of most of them remained low over the years. This situation had not been satisfactorily resolved since the introduction of a nine-year free compulsory education in 1978.

Designed to cater for what was originally a small minority of academically capable students, the HKCEE had been providing since the 1990s, so far as it was able to do so, for the certification needs of the large majority of school students in Hong Kong at almost the full ability range. The wide-ranging abilities of students created a measurement problem since a single test had difficulties in accommodating the needs of all students. The most significant findings of a research conducted by the Authority on the widening gap in HKCEE performance from 1988 to 1995 were as follows:

- 1) The performance in the HKCEE of the top third of the public sector schools remained stable, and hence there was no evidence of a falling standard.
- 2) However, over the period, the gap for candidates achieving all subjects at grade E or above, using the top/bottom third yardstick, the gap had widened by 15.2 percent and 5.9 percent respectively for public sector schools¹ and day schools; while using the top/bottom 20 percent yardstick, the gap had widened by 18.0 percent and 4.6 percent respectively.
- 3) The percentage of secondary school population that went on to sit the HKCEE during the period increased by 7 percent. There were

an increasing number of low-achieving students who were well out of their depth. For this group, an academic examination such as the HKCEE was not a sensible or achievable goal. These students contributing to the “falling standard” would not have gone on to Secondary 5 in the 1980s.

(HKEA 1996^{HA})

With a large number of students leaving schools without any certificate of what they knew or could do, the system failed to lay a good foundation for further development of their potentials. For such students, the system could be counterproductive, leading to a sense of failure and demoralization. It is clear that, to meet the requirements of a changing future, all members of society will need to have a firm foundation upon which to build new knowledge, and the desire and motivation to do so is rooted in the confidence in oneself as a learner. Public examinations as a part of the education system are expected to facilitate this to happen.

HKALE as a Subject-based Examination

Both the HKCEE and HKALE were subject-based examinations with no compulsory subject entry or built-in requirement for a breadth of study in the way that a “grouped certificate” would provide. For the HKCEE, there was a minimum requirement for entering into sixth form and students normally took five to eight subjects. However, for the HKALE, students normally took only two to three subjects, in addition

to AS Chinese Language and Culture and AS English Language (to meet the admission requirements of local universities). This very design of the HKALE made it very difficult to avoid a high degree of specialization at an early stage. This was reinforced by the general practice of students having to begin to follow either an arts-stream, a science-stream or a commercial-stream when they moved into Secondary 4 in the old senior secondary school system (Broad et al., 1998 p.51).

It is widely held to be unacceptable to have examinations which meet only a narrow range of needs, both in terms of the students who are served by the system and the range of attributes which are assessed. Though the HKALE served the selective function well, there was not enough emphasis on other desirable attributes. While imposing considerable stress upon all of those involved, the examination was not particularly conducive to full-potential growth and lifelong learning, which are the qualities perceived to be essential for meeting the challenges of the 21st century.

Lack of Flexibility in the Assessment Scheme

Shortly after the implementation of the tailored approach in the HKCEE Mathematics in 1998 as detailed in Chapter Five, it was suggested that further measures in this direction could be introduced to cater for students of varying abilities. For example, some parts of the syllabus could be set aside to form a core. Mastery of the core part

would lead to a pass in the subject. This would provide some sense of satisfaction to the lower achievers and motivate them to learn better. The Authority conducted a consultation exercise with subject committees in 1999. Individual subject committees responded differently but on the whole, there were more criticisms than support (HKEAA 1999/2000, cited in Cheung, 2005 p.162).

The Mathematics Committee

“The core part would sound to be an unexpected low standard and the grade descriptors would only disclose the low standard of the examination. The society might not accept this standard as grade E level..... The core part of a syllabus would be so small that no higher order thinking skill could be incorporated into it.”

The Chemistry Committee

“It is difficult to identify a part of the chemistry syllabus, which can be considered as essential for a Secondary 5 student.....The syllabus is fundamental and basic. It already constitutes a core....The core part of a CE chemistry syllabus probably includes topics, such as bonding and structure, chemical equations and the concept of mole etc., which the academic low achievers would find them difficult to master. In consequence, adoption of the core-competence model would probably produce a greater number of examination failures.”

The Economics Committee

“The definitions of many fundamental concepts were difficult lessons to less able students..... However, these.....were usually considered to be the essential concepts and skills that a Secondary 5 student should know. It seemed absurd, for example, to award a pass to those who could not even regurgitate a correct definition of opportunity cost.....”

These internal discussions reveal that it is not always easy for the Authority to persuade members of the subject committees to adjust their assessment schemes to answer the demands of its stakeholders. Even for matters which seem to be totally internal to the Authority are not within its total control.

The various limitations of public examinations combined to form barriers both to raising the overall level of students' achievements and to widening students' competencies. Being different from sentiments by the late 1990s when mainly selective public examinations were still acceptable on balance, at the turn of the 20th century, it became a concern that the potential for Hong Kong to stride into the 21st century was likely to be seriously inhibited by students' lack of essential work and enterprise skills such as problem-solving, the ability to think critically and creativity. While the value of public examinations as a relatively fair and objective assessment mechanism, providing a chance for the grassroots to progress up the social ladder was acknowledged,

their narrow focus on academic achievement was conceived as being unable to identify the full range of achievements needed to be recognised to enable the progression of all individuals into all parts of Hong Kong's economy, and could undermine the economic competitiveness of Hong Kong. This time, it appeared that there was a much wider concern not only from an educational perspective, but also economic.

The Impact of Sovereignty Handover on Public Examinations

What triggered a major public examination reform were changes in the political scene. On 1 July 1997 the sovereignty of Hong Kong was returned by the British Government to the People's Republic of China. The first Chief Executive of the Hong Kong Special Administrative Region (HKSAR)², Mr. Tung Chee Hwa, was of the view that Hong Kong could no longer sustain its competitive edge if the colonial elitist education system, limiting the opportunities for higher education only to a handful of the academically capable, were to continue. As he stated in the Policy Address (HKSAR Government, 1997^G), Hong Kong's education policies, including those on assessment and curriculum development, had to change time and time again in order to keep up with the rest of the world and to meet the changing needs of society.

The HKSAR Government found it was necessary to launch an education reform, an integral part of which was a public examination reform. These ideas were highlighted in the Education Commission

Report No. 7^G on Quality School Education published in September 1997.

“.....We consider examinations a valuable tool in assuring quality in education, which should be modified to cope with changes in the development of the education system.” (Section 7.13)

“.....We recommend the Government to, together with education bodies such as the HKEA, examine the feasibility of and encourage public acceptance of considering students' school-based assessment alongside their public examination results, so that their academic standard will not be determined by a single examination. In this respect, we note that the HKEA has included school-based assessment component in some HKCEE and HKALE subjects. Consideration can be given to extending this to more subjects.....To promote development of all-round education, we also welcome the initiative by some tertiary institutions to adjust their admission criteria to take account of non-academic performance of students.” (Section 7.16)

“.....that the Education and Manpower Bureau³ should consider in collaboration with the Education Department (particularly the Curriculum Development Institute), Curriculum Development Council, Hong Kong Examinations Authority and tertiary institutions the interface of school curriculum, examinations and tertiary admission criteria.” (Section 7.17)

The idea behind all these recommendations was for the Authority to continue to offer “assessment of learning” and on top, promote changes to the curriculum and teaching processes by offering “assessment for learning”.

In Kennedy’s paper “The politics of ‘lifelong learning’ in post-1997 Hong Kong”, he points out that to view the post-1997 education policy developments just in terms of Hong Kong’s convergence with global trends would be to neglect the ways in which the discourse of lifelong learning has been tactically deployed to serve local political agendas. By referring to Foucault’s concept of “governmentality” (Foucault 1991), Kennedy argues that the education reform under the Tung Chee Hwa regime has been exploited by the post-1997 HKSAR Government to enhance its performance legitimacy in compensation for its lack of political or democratic legitimacy (Kennedy 2004). Indeed, there was every sign that the Tung Chee Hwa Government was trying to move away from a relatively short-term mindset of an outgoing colonial government to adopt a much more enterprising outlook in formulating its education policies.

It is hard to say for sure the political motives behind the education reform, though the determination and resources involved in driving the reform by the HKSAR Government under the Tung Chee Hwa regime, and the pressure for implementing changes experienced by education practitioners in the first decade of the sovereignty handover of Hong Kong was unprecedented.

Conduct of the Review of Public Examination System (ROPES)

In response to this rather drastic policy change, in 1998 the Authority appointed a group of consultants to review the examination system in Hong Kong.

Due to the determination of the then HKSAR Government to effect educational changes and the complexity of the proposed changes, the Authority considered it was the time to take some bold steps forward. Taking into consideration the Education Commission's recommendation in its Report No. 7^G for both "assessment of learning" and "assessment for learning" to be accomplished by the Authority, the consultants were specifically asked to cover six areas:

- 1) Development and implementation of school-based assessment in the HKCEE and HKALE;
- 2) Selection and certification functions of the HKCEE and HKALE;
- 3) Grading methodology for accommodating a wide range of student abilities;
- 4) Coordination between the Target Oriented Curriculum and the HKCEE Chinese, English and Mathematics examinations;
- 5) IT development and public examinations;
- 6) Research agenda for the Authority

The ROPES consultants submitted its final report in December 1998

with 61 recommendations. It was quite obvious to the Authority that most of the recommendations, though in line with global trends in assessment development and customized for special circumstances of Hong Kong, would significantly affect the interests of the stakeholders of public examinations and the Authority, being a provider of assessment services, was not in the position to decide the way forward.

Noting that some recommendations, such as those related to school-based assessment and the selection and certification functions of the HKCEE and HKALE, would likely have impact on the society as a whole, the Authority decided that a public consultation would be necessary in its meeting on 29 January 1999 (HKEA, 1999a^{HM}). The consultation came out to be a sizeable exercise as detailed in Figure 6.1.

Figure 6.1: Implementation plan for consultation on the way forward as recommended by the ROPES report

<p>Sending consultation documents to stakeholders, including</p> <ul style="list-style-type: none"> ● Schools and sponsoring bodies, ● Government (Education and Manpower Bureau and Education Department) ● Curriculum Development Council and its subject committees ● HKEA subject committees ● Other education-related advisory committees ● Legislative Council Panel on Education ● Tertiary institutions ● Vocational Training Council ● Employers associations ● Professional bodies ● Students and parents ● District Boards 	Late April/early May 1999
Make available the consultation document on HKEA website, 19 City District Offices and HKEA Offices	Late April/early May 1999
Holding seminars for schools	Late May to June 1999
Meeting with other stakeholders including tertiary institutions and students	May to July 1999
Deadline for return of comments and response (from the public and subject committees)	15 July 1999
Final deliberation by the Authority	October 1999
Formulation of a policy document and presenting it to the Education and Manpower Bureau	November 1999

(HKEA, 1999d^{HA})

Upon completion of the consultation exercise, the Authority decided to set up a high-level ad hoc committee, including representatives from the Education and Manpower Bureau and the Curriculum Development

Institute (CDI), to give an in-depth study of the consultants' recommendations and response generated from the public consultation. The committee was given the latitude to make additional or alternative suggestions for the Authority's consideration (HKEA, 1999c^{HM}).

The Committee completed its study and submitted a report to the Authority in September 1999. The 61 recommendations were reduced to only 4 which were considered feasible:

- 1) Development of school-based assessment in the HKALE and gradually extending this policy to the HKCEE
- 2) Introducing core-competence approach to HKCEE subjects by identifying part of the subject syllabus which is considered essential for a Secondary 5 student to be the core-competence part and awarding a grade E, using criterion-referencing principles, to candidates who have attained the specified standard in this part.
- 3) Making public examinations more flexible by allowing academically strong Secondary 6 students, with permission from their schools, to take the HKALE or part of it after Secondary 6.
- 4) Enhancing the linkage between schools and the community by consulting relevant employer associations and professional organisations on syllabus changes to business oriented subjects, with a view to seeking appropriate recognition.

However, even with this much reduced scale of recommended changes, knowing too well how even the smallest change in high-stakes

examinations could seriously impact on its stakeholders, the Authority still found the need for another round of public consultation to be launched in early 2000 to gauge schools' response to the first three recommendations before a final recommendation for changes was submitted to the Government for consideration by the end of April 2000 (HKEA, 1999^{fHA}).

The Role of the Hong Kong Examinations Authority

In Search of a New Role in a Universal School Education System

ROPES was a major attempt of the Authority in response to the examination changes recommended by the Education Commission in its Report No. 7^G (ECR7) and to get itself prepared for the challenges of the 21st century. The ROPES and the connecting events reveal that the Authority during the period was i) identifying possible ways to cope with a rapidly expanding student population hoping to benefit from public examinations; and ii) identifying its potential role in the process of enhancing the quality of an enlarged education system in Hong Kong. The implementation of the recommendations of the ROPES involves more than minor changes to the syllabuses or designs of question papers of the HKCEE and HKALE. Nonetheless it was an anticlimax that there was eventually no implementation plan subsequent to ROPES despite all the unprecedented efforts and resources invested on the project. Being different from previous major large-scale changes, such as the merging of two public examination systems in the 1990s, the

HKEA was the initiator of the changes this time, while the other major stakeholders, notably, the Government, were not particularly enthusiastic. As such the Authority appeared to have difficulties in taking any decisive move.

The decision-making of the Authority could sometimes get caught in a web of dilemmas as exemplified in its consensus building process to follow up on the recommendations of ROPES. The problem intensified as its examination work expanded in scope. This also had much to do with the inherent conflicts amongst the various functions expected of public examinations as analysed in the literature review in Chapter Two. While the Authority managed to introduce a series of changes for generating positive backwash effects and enhancing the validity and certification functions of the HKCEE and HKALE as a confident gatekeeper of the education system in Hong Kong as discussed in Chapter Five, it was not so successful in this respect at this stage in face of a lot more stakeholders in a universal school education system.

Growing Tension between Assessment and Curriculum

More importantly, in parallel to ROPES, the Government was in fact conducting a series of its own reviews and public consultations in respect of a major education reform plan based on the recommendations of ECR7^G. An examination reform had been included as an integral part of this series of planned changes and the Authority was expected to take a supportive role under that master reform plan

for better alignment of efforts.

By its very nature, examinations are there to support teaching and learning, but in reality, more often than not, examinations come first before teaching and learning. Pearson (1998 p.98 – 107) points out that examinations are commonly used as levers of change. Morris (1990) states that any change in Hong Kong education system must first involve a change in the examinations. Cheng (1998 p.325 – 350) comments that if a new examination is introduced, school administrative and organisation staff, teachers and students will all work hard to achieve better results in the examination. Even textbooks will immediately be designed to match the requirements of a new examination. The way how the recommendations of ROPES were suspended and how the public examination reform was incorporated as a part of the education reform to ensure alignment of efforts between the two seem to indicate that the Government is amongst the believers of this logic.

It was in the main an examination-led school education system in Hong Kong in the 1970s with the Government as the Authority's major collaborator and stakeholder. However, tension between the Government and the Authority gradually emerged in the 80s and 90s. The Government was under increasing pressure to improve the quality of an expanding education system which was drawing in more and more student population, whose parents started to query if the Government had done enough to ensure time of their children was

meaningfully spent, while the tax payers started to query if the enormous education expenses could be justified, and whether this had contributed to the long-term economic competitiveness of the city. The Government saw public examinations as powerful means for them to improve the education system, especially in an examination-oriented culture. Yet these examinations were not without problems in themselves. Thus the Government found it necessary to actively exert its influence on the work of the Authority. In the meantime, it was equally important for the Authority to uphold its independence and neutrality as an examination body. This tension is further discussed in Chapter Seven.

The recommendation of the ECR7^G for “assessment for learning” to be introduced by the Authority, followed by the determination of the Tung Chee Hwa Government to bring about a public examination reform signaled the dawn of a new era for the Authority. The changing relationship between the Government and the Authority in the 80s and 90s brought about a gradual shift in the role of the Authority from an external gatekeeper of school education, controlling outcome standards, to an in-house quality monitoring agent, influencing not only the outcome but also the process standards. This major change in the role and responsibilities of the Authority started to take effect at the turn of the twentieth century.

Conclusion

During this period, though the functions served by public examinations remained basically unchanged, expectations of the Government on public examinations seemed to have changed quite rapidly due to expansion in education, global educational trends towards whole-person development and economic considerations. The broad aims of education as stated in the policy documents were paid lip-service. In the meantime, by design, public examinations in Hong Kong were thought to be too narrowly focused, too academic and inadequate for monitoring standards over time. Despite the misfit, perhaps under the strong influence of Confucianism, combined with other conservative forces arising from public examination procedures as purported by sociologists such as Broadfoot, Bernstein and Bourdieu, the ingrained examination-oriented culture of Hong Kong continued. The situation came to a tipping point when the first Chief Executive of the Hong Kong SAR took office on 1 July 1997. There was every sign that the Tung Chee Hwa Government was trying to move away from a relatively short-term mindset of an outgoing colonial government to adopt a much more forward looking approach in formulating its education policies. Shortly after that, the HKSAR Government announced the need to launch an education reform, an integral part of which was a public examination reform.

The mainly selective HKCEE and HKALE had come a long way to what they were in the 2000s for reasons and values reaching beyond

education. These examinations, providing access to social status and wealth, were not only a part of the education system but also the social system. In a compulsory education system, consensus building for any major change in public examinations is difficult as such change may upset the prevailing social structure and public interests, and not simply the interests of its immediate stakeholders. Consensus building related to public examinations at this critical juncture of sovereignty change was particularly difficult. The Authority appeared to be searching for a new role at this point in time as revealed by the need felt for contracting out a major review project, ROPES, for identifying its way forward. The inconsequentiality of ROPES indicated partly the complexity of the situation, and partly the inability of the Authority to initiate on its own significant structural changes to public examinations.

Meanwhile the Government was actually figuring out a master education reform plan, incorporating public examination reform initiatives to be launched through the Authority. The reform would soon bring about a critical change to the role of the Authority in the education scene.

Part II – The Work of the Authority in the 2000s

Background

At the turn of the 20th century, education provision in Hong Kong was poised on the brink of a new era. Behind it was the colonial episode and

in front of it was both the global challenges of the 21st century and the new opportunities of being a part of the People's Republic of China. It could be considered in many respects a time for inevitable changes.

Following up on the recommendations of the ECR7^G, Mr. Tung Chee Hwa entrusted the Education Commission to conduct a comprehensive review of the Hong Kong education system right after he assumed duty in 1997 as the Chief Executive of the Hong Kong Special Administrative Region. The aim of the review was to map out a blueprint for the 21st century education system. The Education Commission adopted notions such as “life-long learning”, life-wide learning”, “student-focused education”, “no-loser”, “society-wide mobilization”, etc. as the guiding principles for setting the direction and formulating proposals for reforms (Education Commission, 2000b^G). The focus of the whole reform package was on the following as summarized by Cheng (2005), amongst which, the two in bold were directly related to the work of the Authority:

- 1) ***Reforming the admission systems and public examinations so as to break down barriers and create room for all;***
- 2) *Reforming the curricula and improving teaching methods;*
- 3) ***Improving the assessment mechanism so as to supplement learning and teaching (i.e. assessment for learning);***
- 4) *Providing more diverse opportunities for lifelong learning at senior secondary level and beyond;*
- 5) *Formulating an effective resource strategy;*

- 6) *Enhancing the professionalism of teachers; and*
- 7) *Implementing measures to support frontline educators.*

The first focus is mainly on “assessment of learning”, and the third on “assessment for learning”. According to official documents, the former is related to establishing how well students have achieved, the quality of education being provided, and what standards are being attained. It is for reporting and assessing students’ performance and progress against the learning targets and objectives. The latter is related to helping students to continuously improve. It is for identifying students’ strengths and weaknesses and providing quality feedback for students, which entails providing timely support and enrichment. It also helps teachers to review learning objectives, lesson plans and teaching strategies (Education Bureau, 2009^G Booklet 4 p.3). The expected role of assessment in the education system is no longer gate-keeping. It is also quality monitoring and quality enhancement. This will be explained more fully in the rest of this chapter.

In order to demarcate a new assessment era with “assessment for learning” as an additional role expected of the Authority, the Government proposed to rename the Authority as the Hong Kong Examinations and Assessment Authority. This was eventually approved by the Legislative Council in July 2002 with immediate effect.

Basic Competency Assessment

Upon completion of the review on Hong Kong's education system, in its 2000 report entitled *Learning for Life, Learning through Life*, the Education Commission set out detailed proposals for the Basic Competency Assessment (BCA). The objectives of the BCA are to:

- 1) enable teachers and parents to understand students' learning needs and problems so as to facilitate timely assistance. Apart from helping students attain basic standards, appropriate measures should also be implemented to help students develop their various potentials;*
- 2) provide the Government and school management with information on schools' standards in key learning areas so that the Government will be able to provide support to those schools in need of assistance, and to monitor the effectiveness of education policies.*

(Education Commission, 2000a^G)

Through the BCA the Government hoped to address two major problems that the two public examinations of Hong Kong were unable to solve due to their design, viz. i) answering questions regarding changes in standards of education and ii) providing feedback on effectiveness of teaching and learning. By accepting the Education Bureau's⁴ invitation to take up the BCA in 2001, the HKEAA took an unprecedented step forward to deliver additional support and monitoring roles in the education system as a contractor of the

Government.

The Education Bureau introduced two assessments under the BCA: the Territory-wide System Assessment (TSA) and the Student Assessment (SA). The SA, being a web-based assessment freely accessible to schools and students anytime anyplace, is not a public examination as defined in this thesis. However, the TSA is arguably a public examination.

The Territory-wide System Assessment – Design and Functions

The TSA is officially announced as a low-stakes assessment of the performance of students at the end of Key Stages 1 to 3 (i.e. Primary 3, Primary 6 and Secondary 3) in the three main subjects of Mathematics, English and Chinese, aiming at providing feedback to schools and parents for improvement in teaching and learning while generating data to the Government on school standards. The TSA commenced at Primary 3 in 2004, extended to Primary 6 and Secondary 3 in 2005 and 2006 respectively. As its name tells, the TSA is administered to all schools all students at the specified levels except special schools.

Measures for Containing Backwash Effects

In order to avoid unnecessary backwash effects of accountability testing, the TSA has incorporated features associated with low-stakes assessments. First, it is an assessment at the “basic competency” level

only. Second, while externally set and assessed, it is internally administered by the schools themselves. For standardization, schools are given administration and invigilation guidelines by the Authority, which they need to strictly adhere to. Third, it provides overall assessment results at territory-wide and school levels, and no assessment results are provided for individuals. Fourth, Since the TSA aims to provide information to schools simply for enhancing the effectiveness of learning and teaching, the assessment results of individual schools are not ranked or made known to the public. Only assessment reports with territory-wide data are made available to the general public by the HKEAA. Besides, participating schools are to sign the following confidentiality protocol regarding the handling of assessment results:

“Access to the school report is limited to the school management and the teachers of the school, and schools are reminded to deal with their school data seriously. Schools must follow the protocol strictly to avoid any misuse of information. The data is restricted to schools’ internal use and not for promotional purposes.” (HKEAA, 2011a^{HP})

Standards-referenced Assessment

Norm-referenced assessment (NRA) was used in the HKALE and HKCEE up until 2007 when standards-referenced reporting was introduced in English and Chinese. NRA originates from trait theory and assumes that performance on test items reflects a stable ability or

trait that is presumed to exist in an individual, which can be converted into a linear scale of a single dimension, and along which all individuals can be compared and their future performance can be predicted (Taylor, 1994 p.231 – 262; Phelps, 2007 p.2 – 3). NRA cannot provide much descriptive information on what students can do and their performance standards and hence it is not fit for use in the TSA. To enable the TSA to serve the purpose of monitoring student performance and provide data on educational standards, a standards-referenced approach is adopted for reporting of results.

“The TSA is a standards-referenced assessment. The purpose of the assessment is to see how students have attained the Basic Competency (BC) levels set for Chinese Language, English Language and Mathematics. Through the TSA we can better understand the performances of the students in the different dimensions/skills of the three subjects..... Measurement specialists, experienced teachers and curriculum experts are appointed to form expert panels to set cut-scores for the BC levels for the three subjects. From these cut-scores, the HKEAA can find out for each school the percentages of students having attained BC levels.” (HKEAA 2011a^{HP})

Standards-referenced assessment (SRA) is a modified version of criterion-referenced assessment (CRA). With CRA, a complex task is broken down into simpler objectives, and as such, the chance of candidates meeting at least some of them is greatly enhanced. Through this process, CRA can reveal what candidates know and can do. By

comparing candidates' performance against an absolute standard rather than that of a norm group, advocates of CRA claim that it is capable of serving monitoring purposes. However, as correctly pointed out by Ebel (1979), CRA is practicable in skills tests which involve a limited number of abilities, but not in tests focused on knowledge and understanding which does not come in discrete chunks that can be defined and identified separately. Some educators, however, realize that criteria can be interpreted in a wider context and in a broader way. Amongst them are Sadler, who proposes the SRA, inspired by the same philosophy as CRA but approaches the task from a radically different direction by promulgating standards through four basic methods, i.e. using numerical cut-offs, the shared tacit knowledge of teachers, exemplars and verbal descriptions. (Sadler, 1987 p.191)

Standards-referenced assessments are closely associated with the learning outcomes of the curriculum and seek to report students' results against a hierarchy of described levels of achievement based on the typical performances of students at that level. Each of the levels is accompanied by detailed information on what a typical student at that level can do. Sample tasks and sample student responses are provided to illustrate those standards. In this way, there will be a simple and yet informative report of the standards of student achievement and such standards, in theory, should remain consistent over time. Based on the level descriptors, users of the qualifications can make informed decision in their screening process (Cheung, 2005 p.175).

Supports to Schools

The HKEAA provides school reports for each participating school and organises jointly with the Education Bureau briefing sessions on results analyses and utilization of the wealth of results data. From the report, a school will understand the performance of its students as a whole in each dimension/skill of the three subjects at item level. For each subject, the report will show the number and percentage of students who have attained the BC level for each item. Alongside, the corresponding percentages of the entire cohort of students in Hong Kong will also be provided for reference. From the report, a school may better understand the strengths and weaknesses of its students as a whole, which in turn facilitates the development of a school plan to enhance learning and teaching. If necessary the Government will provide additional support to schools to help them improve their standards.

Thus, the TSA is a standardized, secure and standards-referenced assessment centrally administered at the end of the concerned key-stages with the collaboration of schools at a basic-competency level for schools to formulate plans to improve effectiveness of learning and teaching on the basis of the assessment data and their own development needs. They also provide information to the Government for reviewing the effectiveness of education policies. Though the TSA is not an accountability test technically as there is no “explicit” punitive consequence attached to it, it serves the purpose of monitoring the standards of teaching and learning and does bring pressure to teachers

and schools.

The Role of the Hong Kong Examinations and Assessment Authority

Collaborating with Curriculum on Quality Monitoring of the Education Process

Both the HKCEE and HKALE, and recently HKDSEE are specified examinations according to the HKEAA Ordinance, and hence these examinations can be understood as owned by the Authority as its statutory responsibilities. The owner of the BCA is the Government instead, and the Authority is serving as a contractor to deliver these assessments. This collaboration signals a new relationship between the Authority and the Government, and a diversification of business of the Authority through leverage of its assessment expertise. This is a diversification also in the sense that these assessments are serving different purposes from those of the HKCEE, HKALE and HKDSEE.

By taking up the BCA project, the HKEAA has made a series of new attempts, including the offer of standards-referenced assessment, web-based assessment and also assessment for learning at both secondary and primary school levels, which is professionally enriching. This has also led to an additional dimension of relationship between the HKEAA and CDI. Apart from the overall design of the assessment, administrative procedures for schools, standards-referenced information documents, such as learning outcomes, sample tasks,

sample student responses, etc. are prepared jointly by the HKEAA and CDI. Working groups with balanced representatives from CDI and the Authority have been formed to draft these documents, formulate curriculum standards (or quality criteria) and to define the “basic competency” for the various subjects by key stage, with CDI taking the lead as the government representatives. The HKEAA is now proactively involved in curriculum planning and even classroom teaching (e.g. when providing suggestions on how to make formative use of the assessment data) as required by the new role.

Working towards Transformation of School Culture

Though measures have been taken to keep the assessment low-stakes, the TSA has always been understood as high-stakes by schools, students and parents. In 2011, five educational organisations, including the Subsidized Primary School Council, Hong Kong Aided Primary School Heads Association and Education Convergence, jointly conducted a large-scale survey amongst parents of Primary 5 students, with 11,097 returned questionnaires, indicating that over 50 percent of the parents felt the pressure of the TSA so intensive that the five organisations strongly urged the Government to cancel the assessment at Primary 6, the level at which the students have to take another government administered examination – the Hong Kong Attainment Test (HKAT), mainly for Secondary 1 placement purposes (Leung, Sing Tao Daily, 2011). Based on recommendations of a Working Group comprising representatives of the Education Bureau, the HKEAA,

school councils of primary schools and secondary schools, and front-line teachers for reviewing P.6 assessment arrangements, the Education Bureau announced in November 2011 that the TSA at Primary 6 would be suspended in 2012 and 2014, and the HKAT would be suspended in 2013 so that P.6 students would only need to sit one government administered assessment in the following three years. The Education Bureau also promised to take this opportunity to overhaul various aspects of the TSA and further announcement regarding its future would be followed (EDB, 2011^G). Though the TSA is a government-led initiative, in an open society like Hong Kong and in an age of greater accountability of public bodies, for the sake of achieving positive results, it is clearly impossible for the Government not to take heed of the voices of other stakeholders and make compromise accordingly in assessment implementation.

It is interesting to note the response of a school principal as reported by a newspaper that under the new assessment arrangements, her school would then have more time to do more quality teaching for strengthening the foundation of their students instead of mechanical drilling for the TSA. The principal admitted that her school dedicated three lessons per cycle on the TSA (Chan, Sing Tao Daily, 2011). This was resonated by another newspaper report that there was already a drilling culture in school brought about by the TSA (Wong, Economic Daily, 2011). The then Chairman of the Subsidized Primary School Council chimed in to say that though the TSA could indeed provide some very useful information to schools, when the pressure on the

students became so unbearable, they had no choice but to sacrifice the assessment. The Chairman went on to comment that one of the problems was with the TSA report on basic competency attainment rate which triggered a sense of comparison and competition amongst schools (Ching, Sing Tao Daily, 2011). More recently, a parent complained to the press that a primary school required Primary 3 and Primary 6 students to attend supplementary classes on Chinese, English and Mathematics at 7:35am every Tuesday and Thursday for drilling on the TSA, and students who missed the classes would be punished and warned (Sing Tao Daily, 29 October 2012).

These reports indicate how assessments can produce negative backwash despite preventive measures are in place. Nevertheless, there can be no denying that the TSA does manage to generate valuable educational data that was not available hitherto. Even the pressure groups that lodged resistance appreciated the effectiveness of the TSA. Their complaints were basically about the high frequency of assessment administration at Primary 6 and not about the TSA in itself. They did not object to the TSA at Primary 3 and Secondary 3. Still, the price paid at the teaching and learning end for assessment implementation perhaps should not be overlooked. Assessments perceived to be summative, despite their formative purposes, tend to promote efforts towards performance goals rather than learning goals (Assessment Reform Group, 2002). It seems that continued efforts have to be made on transforming the school culture. Efforts along this direction have now become a part of the work of the Authority as well.

New Senior Academic Structure

As mentioned earlier, Mr. Tung Chee Hwa entrusted the Education Commission to conduct a comprehensive review of the Hong Kong education system right after he assumed duty in 1997 as the Chief Executive of Hong Kong. In its *“Reform Proposals for the Education System in Hong Kong”*, amongst other things, such as the Basic Competency Assessment covered earlier, the Education Commission put forward the idea of a 3-year senior secondary academic structure (Education Commission 2000a^G). The proposal was strongly supported by the Chief Executive as indicated in his Policy Address 2000. He said, *“.....the education system of old can no longer meet the challenges of the new age. Embracing the knowledge-based New Economy requires a large pool of talent equipped with the right skills and creativity.....without sweeping reforms of our education system, the quality of our education would not be able to meet the requirements for social development and the community’s expectations”*. (Tung, 2000^G)

The Education Commission then set up a Working Group to examine the feasibility, specific measures, transitional arrangements and timetable for implementing the new structure. After considering the report of the Working Group, the Education Commission issued the *“Review of the Academic Structure of Senior Secondary Education”* in May 2003 as a detailed proposal for implementing a 3+3 academic structure (i.e. 3-year junior secondary + 3-year senior secondary +

4-year university education), in which a brand new public examination (subsequently entitled the Hong Kong Diploma of Secondary Education Examination (HKDSEE) was recommended to replace the HKCEE and HKALE. This would help create more space and time for students to enrich their learning experience and contribute to enhance learning effectiveness (Education Commission, 2003^G). As far as public examination is concerned, the main impact of the change to the 334 academic structure is that all students are expected to remain at school until Secondary 6, upon completion of which, they will need to take a single baccalaureate-style examination.

Instead of adopting a top-down approach, in view of the complexity of the issues and the far-reaching implications, the Education and Manpower Bureau (EMB) launched three rounds of consultation on the proposed new academic structure for senior secondary education. In October 2004, a 3-month public consultation was conducted to seek the views of about 30,000 stakeholders on the design blueprint of the new 334 academic structure, which finally resulted in *“The New Academic Structure for Senior Secondary Education and Higher Education – Action Plan for Investing in the Future of Hong Kong”* issued by the EMB in May 2005. Parallel to this public consultation, the EMB conducted a questionnaire survey in 2005 to collect the views of the secondary school sector (i.e. principals and teachers) on the new senior secondary structure. A total of 476 questionnaires were sent and 471 questionnaires (i.e. 98.7 percent) were returned with findings released in December 2005 (EMB 2005^G). The third round of consultation was

launched in September 2006 to seek inputs on the draft Curriculum and Assessment Guides for all the twenty four new senior secondary subjects uploaded on the EMB's website on 30 June 2006. (<http://www.edb.gov.hk/FileManager/EN/Content-4687/3rdintro-pdf>)^G

The implementation timetable of the new academic structure with regard to public examinations is summarized in Figure 6.2.

Figure 6.2: Implementation timetable of the new senior secondary structure

Old Structure		New 334 Structure	
	3-year Undergraduate Degree	4-year Undergraduate Degree	1 st cohort of graduate in 2016
AL programme with the last full-range exam in 2012, and a supplementary series for private candidates in 2013	Secondary 7		
	Secondary 6	Secondary 6	New Senior Secondary programme leading to the 1 st cohort of HKDSEE 2012
CE programme with the last full-range exam in 2010, and a supplementary series for private candidates in 2011	Secondary 5	Secondary 5	
	Secondary 4	Secondary 4	
	Secondary 3	Secondary 3	
	Secondary 2	Secondary 2	
	Secondary 1	Secondary 1	2006/07 school year

The Hong Kong Diploma of Secondary Education Examination – Design and Functions

The aim of the education reform is to shift school education “*from transmission of knowledge to the development of attitudes and skills for lifelong learning; and from a narrow focus on academic achievements to the nurturing of multiple intelligences*”. (EMB, 2000^G) It is the belief of the Education Commission that in order to bring about the full merit of the education reform, the new public examination should avoid specialization at an early stage, encourage critical thinking and flexible application of knowledge of different faculties, cater for the needs of students of a wide ability range, provide clear indication of performance standards and other relevant feedback so as to facilitate teachers and students to make conscious efforts to work in the right direction. The features of the new examination are therefore as follows:

- 1) Using a standards-referenced approach to report results
- 2) Providing a wide exposure by introducing core and elective subjects
- 3) Enhancing Liberal Studies to form one of the core subjects
- 4) Special measures to cater for the needs of students over a wide ability range.
- 5) Extending school-based assessment to most subjects

Standards-referenced Reporting

In the HKCEE and HKALE, in general, the performance of candidates was reported in six grades, i.e. from A to F, with A being the highest. Performance below F was represented as “Unclassified”. In the HKDSEE, a standards-referenced reporting (SRR) system is used in reporting student results. There are 5 levels, i.e. from Level 1 at the lowest to Level 5 on the top, with those lower than Level 1 given “Unclassified”. In this new reporting system, students’ results are reported with reference to a set of defined levels or standards of performance. Levels are used instead of grades to avoid confusion between the old and new systems. To annotate the best performers among the Level 5 students, 5* and 5** are used. (HKEAA, 2009a^{HP} p.5)

Under SRR, the standards of the various levels of performance are made known to the public through level descriptors and held constant. Being different from norm-referenced assessment, there is no fixed proportion of students for each level. Students now have much clearer targets of achievement and their results will not be affected by the performance of other students. Details regarding the theoretical rationale behind SRR can be found in an earlier part of this chapter.

Core and Elective Subjects

As discussed earlier in this chapter, one of the limitations of the HKCEE and HKALE (HKALE in particular) was that they were subject-based examinations with no built-in requirement for a breadth of study in the way that a “grouped certificate” would provide. This contributed to a specialization at an early stage. The situation was aggravated by the general practice of the students to opt for an arts-stream, a science-stream or a commercial-stream as early as Secondary 4. The HKDSEE has taken a core-plus-electives approach which is intended to ensure that all students receive a broad and balanced education that nonetheless provides opportunities for specialization and choice (Cheung, 2010^{HP} p.3).

All Secondary 6 students are required to enter for the four core subjects, viz. English Language, Chinese Language, Mathematics and Liberal Studies, and in addition, choose two to three elective subjects from the Category A to C subjects.

Category A: 20 New Senior Secondary (NSS) Elective Subjects

These subjects are: Biology; Business, Accounting and Financial Studies; Chemistry; Chinese History; Chinese Literature; Design and Applied Technology; Economics; Ethics and Religious Studies; Geography; Health Management and Social Care; History; Information and Communication Technology; Literature in English; Music;

Physical Education; Physics; Science; Technology and Living; Tourism and Hospitality Studies; and Visual Arts (HKEAA, 2009a^{HP} p.3).

These subjects are offered by the HKEAA and taught at school as part of the senior secondary curriculum and graded in standards-referenced format in the same way as the core subjects.

Category B: Approx. 30 Applied Learning (ApL) Subjects from 6 Areas

The six subject areas are: Applied Science; Business, Management and Law; Creative Studies; Engineering and Production; Media and Communication; and Services (HKEAA, 2012e^{HP} p.2).

ApL subjects are introduced to provide a more diversified curriculum. ApL courses can be provided by schools or approved course providers responsible for both teaching and assessment. ApL results are included in the HKDSEE certificate in two categories: “Attained” and “Attained with Distinction”, which are accepted as the HKDSEE Level 2 and Level 3 or above respectively for the purpose of further studies and/or work. Moderation is carried out by the HKEAA based on evidence submitted by the course providers for awarding “Attained with Distinction” (Education Bureau, 2012a^G).

Category C: Other Learning Subjects

These include French, German, Hindi, Japanese, Spanish and Urdu.

The question papers of Cambridge International Examinations AS Level are used and the results are reported in the HKDSEE certificate (HKEAA, 2009a^{HP} p.4).

Liberal Studies as a Core Subject

Liberal Studies at AS Level was introduced as early as 1992 as an attempt to bring about subjects of a more enquiry-based nature. Regrettably, with the support of only around 10 percent of the schools, the subject failed to take root in effecting any change in study culture and remained an insignificant subject in the 90s. It has made a comeback in full force since the announcement of the education reform in 2000, which puts emphasis on “whole-person development” for “life-long learning”.

According to the Education Bureau, Liberal Studies is a central feature of the new senior secondary education system (EDB, 2005^G). To answer the societal demand for critical thinking skills to be emphasized in the education system, the enhanced Liberal Studies of the new public examination aims at broadening students’ knowledge base, enhancing their social, national and global awareness, as well as developing their multi-perspective and critical thinking skills through a wide range of issues. In terms of curriculum design, first, the learning units consist of topics closely related to everyday life. Upon completion of the teaching course, students are expected to have their horizon broadened and awareness of current issues and other people heightened. Second,

Liberal Studies is cross-curricular and not bound by the framework of a single subject. Students have to integrate knowledge of different subjects when they make inquiries into different topics in order to demonstrate abilities to analyse issues from different perspectives and value systems.

In terms of question setting, authentic assessments are used in Liberal Studies as far as possible. One of the strategies of encouraging thinking skills is through the use of authentic assessments in traditional subjects. The authentic assessment movement (Newman & Archbald, 1992; Wiggins, 1993 and 1998) is radical in suggesting that tests should reflect the goals of learning, requiring students to think, decide, and act in the real world (Archbald and Newman, 1988). The focuses of authentic assessment are thinking, knowledge and understanding demonstrated in real-life situations. Someone who possesses a good understanding of a concept is able to flexibly draw on the relevant parts or dimension of the concept to tackle problems. This is typically someone with a shallow understanding of the concept based on rote-memorization cannot do.

In Liberal Studies, there are two written papers as external assessments. On top, students have to complete an independent enquiry study within the last two years of the senior secondary education as school-based assessment, assessed by students' own teachers and accounts for 20 percent of the total subject result. The design of the examination is intended to emphasize the need for an enquiry approach in which

students have to complete realistic tasks in relation to situations and issues which happen in everyday life. In order to reflect the complexity of reality, the question format is not meant to imply that candidates should aim to identify certain correct answers. On the contrary, the approach used stresses that most contemporary issues are much too complex to allow simplistic solutions (CDC/HKEAA, 2007^G p.129 – 134).

In short, the general direction is to set questions which require students to exercise their processing skills in understanding contextual description and application of knowledge to complete realistic tasks in traditional subjects. The introduction of Liberal Studies is a step further taken by the Authority to enhance the importance of thinking skills in the new public examination system.

Catering for the Needs of Students of Varying Abilities

It is important for any large-scale public examination to cater for the needs of a range of candidates. This is particularly important for serving the certification function. Starting from 2012, nearly the whole cohort of students are now promoted up to Senior Secondary 3 and take the HKDSEE. This high retention rate makes it essential to re-design the assessment system so as to enable as many candidates as possible to demonstrate their abilities. This problem has existed since the implementation of a free nine-year compulsory education in 1978 as discussed earlier and all along has not been sufficiently dealt with. One

of the limitations of the HKCEE and HKALE was their lack of flexibility to cater for students of varying abilities as discussed earlier in this chapter. This problem could be more severe this time as the two public examinations are now collapsed into one, making it more high-stakes, while free compulsory education is now extended by three more years to twelve and the full cohort is participating in the HKDSEE.

The successful experience of tailored curriculum in Mathematics covered in Chapter Five indicates that to avoid labelling effects when offering special arrangements for low-achievers, all teachers and students have to be drawn into the process of change. This strategy is repeated in the HKDSEE. Those who support the strategy believe that by placing the foundation topics, which occupy a prescribed proportion of the syllabus, in a clearly defined section in the examination papers, teachers and students would then become confident enough to leave the last part of the syllabus at a later stage if they can afford the time. The last part of the syllabus consists of topics which are typically considered to be more demanding conceptually (Cheung, 2008^{HP} p.7).

The examination syllabi and their assessment schemes are flexibly planned in such a way that the needs of students of varying abilities can be catered. Different subjects utilize different strategies. For example, in Mathematics, apart from the compulsory part, two optional modules are offered in the extension part to extend students' mathematical horizons, which are Calculus & Statistics and Algebra & Calculus. The

results of the elective part are reported separately. For English Language, in the reading and listening papers, there are three sections. All students need to attempt Section 1 and then choose either Section 2, the easier section, or Section 3, the most demanding section. Students attempting Sections 1 and 3 can attain the full range of possible levels, while Level 4 is the highest level attainable by those attempting only Sections 1 and 2.

A slightly different strategy is adopted in science subjects. Some students may not like to take the entire subject of Physics, Chemistry or Biology. Flexibility is provided so that students may take only the foundation parts of two of the science subjects and combine them together as a single subject. Thus three combinations are possible:

- 1) Combined science in Biology and Chemistry
- 2) Combined science in Chemistry and Physics
- 3) Combined science in Physics and Biology

It is hoped that this flexible approach can help providing information about student performance to facilitate selection needs on the one hand, and serving as a yardstick of student attainment at various levels on the other (Cheung, 2008^{HP} p.8).

School-based Assessment

School-based assessment (SBA) is one of the salient features of the

HKDSEE for enhancing the validity of public examinations. SBA in the HKDSEE refers to assessments carried out by schools as part of the teaching and learning process, with students being assessed by their subject teachers. The marks awarded will count towards the results of the public examinations (HKEAA, 2009a^{HP} p.5).

SBA is basically an extension of the teacher assessment scheme (TAS) in the HKALE and HKCEE. Due to resistance from various subject committees of the Authority and also to some extent from schools, TAS was only used in a rather limited range of subjects as outlined in Chapter Five. After extensive consultation with schools and teachers, it was finally agreed that SBA would be implemented in twelve subjects in 2012. These subjects are: English Language, Chinese Language, Liberal Studies, Biology, Chemistry, Information & Communication Technology, Physics, Science, Chinese History, History, Design & Applied Technology and Visual Arts. For these subjects, SBA typically involves making oral presentation, completing a design project, doing laboratory work, carrying out investigation, undertaking fieldwork and developing a portfolio of work. The weighting of the SBA component of each subject is around 15 to 20 percent of the total subject mark. For other subjects, the implementation of SBA will be deferred until 2014 to 2016. There is no time line for the implementation of SBA in Mathematics yet (Cheung, 2010^{HP} p.6).

Some concerns are raised in Chapter One regarding the actual implementation of SBA. To ensure a smooth delivery of SBA, the

Authority has gone extra miles to provide schools with additional resources and supports, such as detailed guidelines on the way to conduct the assessments, assessment criteria and exemplars to ensure consistency in teachers' assessment, professional development programmes for teachers, a system of district coordinators to support schools in the conduct of SBA of their subject(s), and an online system to store and submit SBA marks (HKEAA, 2009b^{HP} p.3).

Despite the detailed inputs and extra supports to schools, a moderation process has to be in place in order to address concerns regarding the reliability of SBA scores. The SBA scores submitted by teachers will be moderated by the Authority before they are used in the calculation of the final subject scores. Teachers are professionals and they know their students well and hence are in the best position to judge their performance. However, they are not necessarily aware of the standards of performance of student across all schools. There may be variation in mark ranges awarded by different teachers. Besides some teachers may be relatively lenient and some harsh. To ensure comparability of scores across schools, two moderation methods are adopted in the HKDSEE: statistical moderation and moderation by expert judgement. In order to make the moderation process more transparent to schools for information and for professional development of teachers, moderation reports at subject level are sent to schools after the examination. The reports specify the extent of adjustment made to the marks submitted (HKEAA, 2010^{HP} p.5 and 17).

It is hoped with the combined effects of an extensive consultation, more sophisticated moderation methods, better support and feedback to schools, SBA could be more readily accepted than its predecessor TAS.

In relation to the implementation of SBA at an operational level, concerns regarding the effective linkage between assessment and curriculum as two separate functions are raised in Chapter One. This will be discussed in detail in Chapter Seven.

Have the limitations of the HKCEE and HKALE been satisfactorily dealt with?

Four major limitations of the HKCEE and HKALE are listed earlier in this chapter:

- 1) Norm-referenced
- 2) Too academically focused
- 3) HKALE as a Subject-based examination
- 4) Lack of flexibility in the assessment scheme

It is now about the right time to evaluate if these limitations have been sufficiently addressed with the introduction of the HKDSEE. Standards-referenced reporting of results is adopted to enable monitoring of standards over time. A range of compulsory core subjects are introduced to provide better breadth of study. Assessment schemes are now more flexibly designed for catering a wider range of student

abilities. However, being “too academically focused” seems to be an outstanding issue which has not been properly dealt with by the new suite of examinations. There were application-oriented subjects offered as regular subjects in the HKALE and HKCEE as discussed in Chapter Five. However, in the HKDSEE, Applied Learning (ApL) subjects are no more amongst the regular elective subjects offered by the HKEAA and their results are reported as either “attained” or “attained with distinction” and not on a 5-point scale as other academic subjects. Even the teaching courses and assessments are conducted by approved course providers instead of schools. This treatment may make the ApL subjects look second-class and discourage interests. Indeed, entries for the first HKDSEE in 2012 show that only 5,291 candidates entered for ApL subjects out of a total of 71,762 candidates (HKEAA, 2011b^{HP}).

The popularity of a qualification depends much on its relevance to the students and the currency that it carries. Even at this early stage, the Civil Service Bureau has already announced that the results of ApL subjects are accepted as Level 2 and Level 3 in the HKDSEE for recruitment purposes. The same level of recognition is granted for admission to associate degree and higher diploma programmes (Education Bureau, 2012^G). In other words, the level of recognition of ApL is no lower than the application-oriented subjects in the HKCEE and HKALE, and yet the range of subjects provided under the HKDSEE is much wider and can flexibly expand as needs arise. The authorized providers of ApL subjects are a lot more professional in their own fields of specialism than schools.

The HKDSEE is only administered the first time in 2012. It is still too early to tell whether ApL will become popular. After all, perhaps the entry number of ApL subjects is not really that important. What is more important probably should be whether students interested in applied learning can be provided sufficient choices and quality teaching courses, and gain the recognition they need for advancement.

The Role of the Hong Kong Examinations and Assessment Authority

The Influence of Government

Although the HKDSEE is owned by the HKEAA as its statutory responsibility, its implementation has been largely driven by the HKSAR Government in the direction as recommended by the Education Commission in 2000. A huge amount of resources is involved in a public examination reform at this massive scale and this is not something that the Authority can afford on its own. Besides, if without the backing of the Government behind the Authority, it would not have been possible to align views and efforts so effectively. For changes at a reform level, there are certainly advantages for adopting a fully coordinated and centralized approach under a single body – the Education Bureau.

From Quality Monitoring to Quality Enhancement

With the wealth of information generated by standards-referenced reporting, apart from enriching teaching and learning strategies, the HKDSEE can be used for monitoring education standards – something that the HKCEE and HKALE were not designed to deliver. However, even with this new quality monitoring role, the HKEAA can only indirectly influence the quality of the education process and remains external to school education. The change that impacts most on the role of the Authority with the introduction of the HKDSEE is the use of SBA in a significant range of subjects. With this, the HKEAA is now exerting active influence on teacher assessments and student learning by providing support of an unparalleled scale to schools through furnishing guidelines, feedback, regional support and professional training.

With the introduction of SBA as a salient feature of the HKDSEE, the policy makers in fact aim at something more than quality monitoring. It is officially documented that:

“Based on the beliefs that every student is unique and possesses the ability to learn, and that we should develop their multiple intelligences and potentials....there should be a change in assessment practices and schools should put more emphasis on “Assessment for Learning” as an integral part of the learning, teaching and assessment cycle.” (CDC, 2002^G p.4)

“In the context of the Senior Secondary curriculum.....it is of utmost importance that schools and teachers put more emphasis on assessment for learning to help students to learn better and to promote life-long learning. Though assessment of learning has always been of great concern at the Senior Secondary level, the good intentions of assessment for learning should not be neglected throughout the course of study.” (Education Bureau, 2009^G p.3)

With SBA aiming at bringing about more emphasis on assessment for learning, the expectation of the policy makers is to enhance the quality of education through i) drawing more attention to the learning process itself; ii) effecting a continuous interaction between the Authority and schools on the progress made as against the required standards so that students can be assisted to make continuous improvement throughout the teaching course. Hence, for the policy makers, the role of the Authority has further developed from a quality monitoring agent to a “quality enhancement” agent of the school system.

For the Authority, the implementation of SBA is an on-going process and demands great care to strike a precarious balance amongst a number of stakeholders. It is the observation of Carless that the prospects for implementing SBA in Confucian-heritage cultures, where there is a tendency of competitive testing militating against school-based grading of high-stakes assessment, are much more complex than in a number of Anglophone countries. Tensions between

the judging and supporting roles can be particularly stark, especially among teachers who are not yet ready professionally (Carless, 2011 p.39). Kellagan and Madaus highlight in particular the pressures this places on teachers and students who have to cope with the new roles (2008 p.386 – 387), viz. teachers are to double up as assessors while students as learners are encouraged to carry out self- and peer-assessments.

Indeed, not long after the commencement of the three-year HKDSEE syllabus in 2009, there were already widespread complaints in the education sector regarding the workload and pressure arising from SBA. According to the press release issued by the HKEAA on 14 February 2012, in order to study the issue, two rounds of surveys and consultations had been conducted since October 2011 to seek the views of schools, frontline teachers, curriculum developers and subject experts. The Public Examinations Board of the HKEAA finally endorsed the proposal of streamlining SBA to address teachers' and students' workload (HKEAA, 2012a^{HP}).

Events leading up to the streamlining of SBA again demonstrate the Authority's efforts on balancing views of various stakeholders, not only the Government. In an open society like Hong Kong where there are always ample channels for people to voice their views and in this age of greater accountability of public bodies, it is becoming increasingly necessary for an examination board to take a proactive approach to ensure its work can satisfy its stakeholders from all quarters.

According to the various policy documents quoted in this chapter, it seems that in order to reverse the relative role of public examinations in the school system as a “dominating master” to a “helpful servant”⁵ in accomplishing the desired curriculum changes, the Government has chosen to maintain a high degree of influence over the public examination reform via the Authority. In response to that, the Authority has introduced the TSA and HKDSEE with features designed to provide more and better feedback and guidance to support teaching and learning. Nevertheless at the implementation end, for some schools, teachers, students and parents, these changes may simply mean more examinations. Ironically, to these stakeholders, examinations could become more dominating than ever due to a much higher frequency of testing. Hence, if the implementation process of these assessments is not managed well, there could be a tendency to gather frequently what is essentially summative evidence rather than evidence that can be used formatively (Harlen, 2006 p.61 – 80). If the majority in the education sector cannot appreciate the constant feedback provided by these assessments as valuable information for improving learning and student performance in long-term, it is doubtful if the aim of the education reform to reverse the examination-oriented culture can be achieved.

From Gate-keeping to Provision of a Gateway – the Recognition of the HKDSEE

The year 2012 was the so called double-cohort year in which the first

HKDSEE and the last full-administration of the HKALE were held. Given in Figure 6.3 are the numbers of day school candidates meeting the general entrance requirements of local universities through the two public examinations in 2012.

Figure 6.3: The number of day school candidates meeting the general entrance requirements of local universities in 2012

Programmes	No. of day school candidates
Three-year degree programmes of local universities through HKALE	18 212
Four-year degree programmes of local universities through HKDSEE	25 431

(HKEAA, 2012b^{HP} and 2012c^{HP})

Though the new and old senior secondary examination systems are different and it is not appropriate to compare them directly, there are signs that students going through the new system are standing better chance of advancement academically. However, before applauding the positive results of the HKDSEE, maybe a cautious approach should be taken to examine if this new examination can maintain the selection function that has been served so well by its predecessors – HKCEE and HKALE

The HKEAA has been conscious of up-keeping the linkage of the HKCEE and HKALE as equivalence of IGCSE and GCE in a broad sense over the years through overseas moderation (i.e. reviewing of question papers and vetting of marked scripts by a GCE/IGCSE

awarding body in the UK). The service was provided by the University of London Examinations and Assessment Council from 1978 to 1998 and then the University of Cambridge Local Examinations Syndicate from 1999 onwards (HKEA, 1998a^{HA}). In order to ensure the HKDSEE will enjoy the same level of recognition as the HKCEE and HKALE, if not more, an elaborate promotion and lobbying exercise has been launched by the HKEAA in Hong Kong as well as major countries that Hong Kong students are interested in for further studies, notably UK, Australia, New Zealand, USA, Canada, Mainland China and Taiwan. At the time of writing, i.e. the first year in which the HKDSEE is administered, apart from recognition of local universities and tertiary institutions, some encouraging recognition has already been gained from NARIC and UCAS (with 5** reaching a tariff of 145 points, i.e. higher than the top scores of most public examinations worldwide) in the UK, the Australian Education International, the University Entrance Committee for Overseas Chinese Student of Taiwan, over 150 tertiary institutions worldwide (mainly from the UK, USA, Canada and Australia), 70 universities in Mainland China as well as the Civil Service Bureau as the biggest employer in Hong Kong (HKEAA, 2012d^{HP}). There are reasons to be optimistic that the recognition of the HKDSEE will soon excel that of its predecessors.

As an examination board in the 21st century in a metropolitan city like Hong Kong, under the impetus of globalization, it has become essential to be able to ensure its qualifications are known and recognised as widely as possible to facilitate advancement of the students through

different channels. The role of the HKEAA in the 21st century has expanded from simply gatekeeping to the provision of a gateway in addition, enabling our youngsters with different potentials to progress via multiple pathways locally and internationally.

In possession of a suite of fully bilingual university entrance examinations administered in two languages which are amongst the most widely used in the world (viz. English and Chinese) with international recognition, there are reasons to believe that the HKEAA has the potential to become an international world class examination body. There are likely demands for the HKDSEE in the Chinese speaking places, like Taiwan and the PRC, where students may prefer the use of HKDSEE in Chinese to gain access to tertiary institutions in the West. However, apart from seeking overseas recognition of its qualifications, not much has been done by the Authority to promote its examinations outside Hong Kong. The effectiveness of the HKEAA at a global level is further analysed in Chapter Seven.

How far can an examination body influence the way public examinations are used?

It is highlighted at the end of Chapter Five that the use of public examinations seems to be largely determined by its stakeholders or by what they value and want to achieve with these assessment tools. How far then is it possible for an examination body to actively influence the way public examinations are used and hence improving its own

effectiveness by narrowing the gap between the expected and actual use of public examinations? According to the evidence gleaned in this chapter, the HKEAA has done at least three things in this respect. The first two have already been touched on in Chapter Five.

First, it is with the various professional assessment designs that the HKEAA has truly expanded the functions served by public examinations without unduly compromising the more traditional functions. For example, with the introduction of low stakes features, the TSA is now generating valuable educational data while the backwash effects of accountability testing are minimized; a flexible approach in curriculum design is adopted in the HKDSEE to help providing information about student performance to fulfill selection needs on the one hand, and serving the certification of student attainment at various levels on the other; with a combination of core and elective subjects, the senior secondary curriculum can now accommodate a wider breadth of study with the core subjects while retaining the academic depth of study with the elective subjects; with new features for easing teacher workload and addressing quality concerns, extensive use of SBA for enhancing the validity of the HKDSEE has eventually become acceptable on balance. New functions of public examinations can be accommodated and even valued if the more traditional functions (such as selection which is of foremost importance to many stakeholders) are not compromised. Whether all these expected functions can be integrated within the same examination depends much on the technical competence of the examination body.

Second, to ensure the smooth delivery of anything which requires the active collaboration of teachers, such as the TSA and SBA, the provision of additional supports to teachers, such as detailed guidelines, professional development programmes, coaching and feedback must be factored in. The change that efforts along this direction have brought about is particularly impressive with the implementation of SBA. Not too long ago, the same stakeholders were reluctant to take on board the Teacher Assessment Scheme in the HKCEE and HKALE though considerable teacher support was already given. It is likely that the new features of the SBA in this respect, such as the provision of post-examination feedback to schools at subject level, the use of a system of district coordinators, etc., have made the difference. Most important of all, such supports and feedback can help ensuring the proper use of assessments as designed on an on-going basis.

Third, extensive consultation is equally important for identifying the optimal assessment design to suit the needs of as many stakeholders as possible and enhancing the readiness of the stakeholders to accept the new assessment design. This process helps uncovering the concerned value systems of the various stakeholders at work, how much their acceptability limits can be stretched and where the optimal compromise lies. For example, extensive consultation was done to seek views of schools and teachers on the draft Curriculum and Assessment Guides for all the twenty four new senior secondary subjects and a consultation of similar scale was done for SBA. An overhaul of the TSA has been

scheduled for a consultation report to be due in 2015. Immediately after the implementation of the first HKDSEE, the Education Bureau announced on 5 October 2012 that it was launching jointly with the CDC and HKEAA a multi-staged review of the New Academic Structure, with the delivery of the HKDSEE amongst one of the focuses of this review (Education Bureau, 2012b^G).

Compared with events in the 1970s to 1990s as detailed in Chapter Five, the Authority has demonstrated in the implementation of the TSA and HKDSEE its ability to learn from the past to improve itself in the three aspects highlighted above to narrow the gaps between the designed and actual use of public examinations.

Earlier in this chapter, it has been detailed how the HKEAA has effectively become the Government's quality monitoring and enhancement agent of the education system with its active role in assessment for learning. However, if there are insufficient measures and supports to ensure these assessments are used as what they are designed, the school system may simply suffer from more frequent testing. It is only by narrowing the gap between the designed and actual use of assessments that the Authority can truly contribute in a positive way to quality monitoring and quality enhancement of the education system for a wide range of stakeholders and not just the Government.

Conclusion

The development of public examinations came to a tipping point for change at the turn of the 20th century with the determination of the Tung Chee Hwa regime to introduce an education reform of a breakthrough nature. As cascaded down to public examinations, the direction was for the Authority to progressively strengthen its “assessment for learning” function alongside with its traditional mission of “assessment of learning”. With this expectation of an enhanced assessment role, the Government initiated to change the name of the Authority to the Hong Kong Examinations and Assessment Authority.

Amongst the first wave of changes under the education reform was the introduction of the TSA in 2004. The TSA is a standardized, secure and standards-referenced assessment administered by the Authority with the collaboration of schools at the end of key stages one to three to generate data at the basic competency levels for schools to evaluate the effectiveness of their teaching and learning and also for the government to monitor education standards over time.

Through the implementation of the TSA, the Authority has taken an unprecedented stride forward to contribute to curriculum planning and even classroom teaching as required by the new role as an assessment service contractor of the Government. It has always been an examination-led education culture in Hong Kong. From the TSA

onwards, it has become a part of the work of the Authority to collaborate with CDI and schools to shift the balance towards curriculum. More importantly, by providing an assessment which can monitor educational performance at school and territory-wide levels, the Authority has effectively become the Government's quality monitoring agent of the school education system.

Again, there is a gap between the purported and actual use of the TSA. Though measures have been taken to keep the TSA low-stakes and its formative purposes are stressed, the assessment has been widely perceived as high-stakes and summative. Due to the recommendation of a Working Group comprising school councils, school heads and frontline teachers for less frequent testing at P.6, the Education Bureau eventually announced in 2011 to suspend the TSA at P.6 level in 2012 and 2014, and promised to conduct an overhaul of the TSA to consider its mode of implementation in future. Though the TSA is a government-led initiative, in an open society like Hong Kong and in the age of greater accountability of public bodies, for the sake of generating positive results, it is clearly impossible for the Government not to take heed of the voices of other stakeholders and make compromise accordingly in assessment implementation.

Though the HKDSEE is owned by the Authority, its introduction is in fact an ambitious move initiated by the Government as one of the cornerstones of the education reform as detailed in this chapter. The major limitations of the HKCEE and HKALE (i.e. being

norm-referenced, too academically focused, subject-based and lack of flexibility in the assessment scheme) have more or less been addressed in the design of the HKDSEE. Curriculum and assessment are now aligned at the senior secondary level. With this, for the Government, there is a further expansion of the role of the HKEAA from a quality monitoring agent to become a quality enhancement agent of the school education system as argued in this chapter.

Elaborate efforts have been made by the Authority to lobby support and recognition of the HKDSEE locally and worldwide. For stakeholders at the feeding end of the public examination system, the international recognition of the HKDSEE is probably what they value most of all. For these stakeholders, the role of the Authority has transformed from simply gatekeeping to offering a gateway of multiple pathways in addition for our youngsters to pursue their futures. With the encouraging international recognition that the HKDSEE has achieved so far, the Authority in fact has further room to fully exploit the unique competitive edge of the HKDSEE as a world class bilingual examination to promote itself at a global level.

Regarding the effectiveness of the HKDSEE in serving its stakeholders, according to Dr. George Pook, the outgoing Deputy Secretary General of the HKEAA in a media interview in August 2012, though the launch was not perfect, with extensive consultations and training for teachers, compared with other countries, Hong Kong was well-prepared for the education reform (Chong, SCMP 2012). Though the education reform

was initiated from the top, it cannot be considered as top-down as preceding the actual implementation, there were three rounds of extensive consultation. Adjustment to SBA was made according to the request of teachers in 2012. It can be observed that the HKEAA jointly with the Government are willing to make compromise in the implementation and design of the HKDSEE by taking into consideration the interests of a range of stakeholders. It is still too early to comment on the effectiveness of the HKDSEE. However, in comparison with the HKALE, there are early signs indicating students going through the HKDSEE are provided better chance of academic advancement.

This chapter has explored the effectiveness of the HKEAA to actively influence the use of public examinations by its stakeholders to ensure the expected and actual use of public examinations are better aligned. Three things have been done by the HKEAA to this effect: first, through professional assessment design; second, through extensive consultation; and third, through continued professional support to schools and teachers. It is only with achievement in this respect that the Authority can truly contribute in a positive way to the quality monitoring and quality enhancement of the education system for a wide range of stakeholders and not just the Government.

The significance of the experience gained in ROPES briefly discussed in this chapter should not be overlooked. The inconsequentiality of this costly project brings to light that the HKEAA is not in the position to

initiate on its own significant structural changes to public examinations. In association with this, the nature of the Authority as an organisation and its decision making process will be explored in the coming chapter.

Endnote:

- 1. Over 90 percent of school candidates come from public sector schools which include all government schools, grant schools and aided schools. The only exceptions are direct subsidy schools and private schools.*
- 2. On 1 July 1997 Hong Kong became a Special Administrative Region of the People's Republic of China, and the head of Hong Kong was re-titled the Chief Executive.*
- 3. On 1 July 1997, all government policy branches were renamed policy bureaux.*
- 4. The former Education and Manpower Bureau. The Education Bureau is responsible for education policies in Hong Kong. The manpower portfolio was transferred to the Labour and Welfare Bureau in July 2007. The Education Department was responsible for education matters in the territory, with the exception of post-secondary and tertiary education. The Department was abolished with its functions put under the Education and Manpower Bureau in 2003.*
- 5. These terms are borrowed from the book entitled "Secondary School Examinations: The Helpful Servants not the Dominating Master by Mortimore, P. and Mortimore, J. in 1984 (cited in Murphy 1986 p.3)*

Chapter Seven

The Organisational Nature of the Authority

So far, except having mentioned a few times that the Authority is a statutory body, little has been discussed about its nature as an organisation, and how this impacts on its role in the education system of Hong Kong. These will be examined in this chapter, the objective of which is to evaluate the effectiveness of the Authority as an organisation.

The HKEAA Strategic Review

One critical incident in the recent history of the Authority has brought about profound impacts on its organisational capacity. It is the HKEAA Strategic Review commissioned by the Authority in 2002. This is discussed right at the beginning of this chapter as a necessary background for further analysis of the organisational nature of the Authority.

After the handover of sovereignty in 1997 and the inconsequentiality of the ROPES consultation exercise in 1998/99, in view of a much expanded role and scope of services expected by the Government as well as the public, in 2002 the HKEAA found it was time to call for another holistic organisational review in order to map out the strategic position of the Authority and the corresponding resource requirements in meeting possible changes and challenges ahead. Obviously,

innovative and pragmatic solutions of a progressive nature were required. In its meeting on 8 March 2002, the HKEAA decided that an external consultant would be commissioned for carrying out a strategic review (HKEA, 2002a^{HM}).

The enormous support of the policy makers for this Strategic Review is something noteworthy. Perhaps under the pressure to deliver the public examination reform through the Authority as a policy direction, comparing with the review conducted not too long ago in 1998/99 initiated by the Authority, the Education and Manpower Bureau (EMB) this time was very supportive and even accepted to provide financial support to the HKEAA to expand the scope of this exercise to ensure its comprehensiveness. The final report with 70 recommendations was submitted by the consultant on 7 May 2003. Upon receipt of the final report, the EMB representative promptly agreed in principle to the direction of the recommendations and supported all the recommendations in relation to the Bureau in the meeting on 16 May 2003. A Steering Committee was then set up by the HKEAA to scrutinize the 70 recommendations in greater detail and report back to the Council in the following meeting on 9 July 2003 (HKEAA, 2003b^{HM}).

In the report of the Steering Committee, the 70 recommendations were divided into six categories:

- 1) Acceptable – 32 recommendations

- 2) Acceptable with qualification – 5 recommendations
- 3) Current practice – 21 recommendations
- 4) Comments only – 4 recommendations
- 5) To be considered by the EMB – 7 recommendations
- 6) Not acceptable – 1 recommendation

Those under “To be considered by the EMB” were later actively considered by the EMB and hence re-grouped as “Acceptable”. In short, all except one of the 70 recommendations were either accepted by the Steering Committee for implementation, some with adaptation, or required no follow-up actions as they were already the current practice. Recommendations which have significant implications on the role of the Authority will be discussed in this chapter under the various headings as appropriate.

Independence of the Authority

The independence of the Authority is one of the distinct features of the Hong Kong education system. The main reasons for setting up the Authority were pragmatic. It was largely out of the need to improve and rationalize the examination system in Hong Kong. It was believed that a centralized approach would lead to greater cost effectiveness by standardizing procedures and pooling the limited and specialized human and technical resources available (HKEA, 1993a^{HM}). The model of an independent examination authority was conveniently borrowed from England, where a number of such bodies offer a wide variety of

examination syllabuses for different subjects at different levels, from which schools or even individual candidates can choose. In Hong Kong, by contrast, the Authority is a not-for-profit monopoly. From the enactment of the HKEA Ordinance in 1977 onwards, anyone attempting any changes in public examinations would have to work through the Authority, whose control of the administration, setting and marking of all public examinations gives it the power to make or break changes related to public examinations.

The independence of the Authority is solidly defended by its financial independence. Though occasionally the Authority receives one-off funding from the Government for special projects, it is basically self-financed with a steady stream of income generated from examination fees. The financial capability of the Authority is further analysed later in this chapter.

However, does the independence of the Authority mean that it is free to make its own decisions? According to the Ordinance (Section 13):

- 1) The Chief Executive (of Hong Kong) may give the Authority directions of a general character as to the discharge by the Authority of its functions in relation to matters appearing to the Chief Executive to affect the public interest.*
- 2) The Authority shall, in the exercise or performance of any power or duty under this Ordinance, comply with any directions given by the Chief Executive under (the above) subsection (1)*

Though in theory the Chief Executive of Hong Kong is in full control of the Authority, in practice, major decisions of the Authority are largely made by members of the Authority Council. The independence of the Authority is a qualified one. Indeed, the Authority is outside the civil service structure and not directly under any other organisation, and capable of making its own decisions (if the Chief Executive chooses not to intrude). However, with a closer look at the composition of the membership of the Authority Council, it would not be difficult to see that the Authority is under the dominant influence of the Government, followed by other major stakeholders represented in the Authority Council.

Governance of the Authority

The composition of the Authority Council when it was established in 1977 is given in Figure 7.1. The council members are not paid staff except the Secretary, i.e. the Head of the Authority. The implementation arm of the Authority is its Secretariat of paid staff headed by the Secretary.

Figure 7.1: Composition of the Authority Council in 1977

Category		Number
Ex-officio members:	The Vice Chancellor of HKU or his representative	1
	The Vice Chancellor of CUHK or his representative	1
	The Director of Education or his representative	1
	The Secretary (i.e. the Head) of the HKEA	1
Members appointed by the Governor:	3 public officers (one normally a person experienced in training teachers in Hong Kong)	3
	1 person nominated by the Senate of HKU	1
	1 person nominated by the Senate of CUHK	1
	Not more than 3 persons from other tertiary institutions	3
	5 secondary school principals	5
	3 secondary school teachers	3
	3 persons experienced in commerce and industry or a profession	3
	Up to 3 other persons the Governor may appoint	3
Total		26

(HKEA, 1986a^{HA})

With an overwhelming proportion of direct government appointees and government officials serving as council members, no wonder the decisions of the Authority are by and large in line with education policies.

The fact that public examinations were mainly for university admission was reflected by a large proportion of university representatives as council members in its early days. The need was felt to amend the Ordinance in 1987. With the establishment of more tertiary institutions, the composition of the Authority Council was expanded to cover representatives from universities as well as other government funded tertiary institutions. The number of secondary school principals was increased from 3 to 5 to reflect a stronger presence of secondary

schools. In parallel to this, 3 persons experienced in commerce or “industry” in Hong Kong was changed to 3 persons experienced in commerce or a “profession” in Hong Kong to reflect a shift of emphasis in Hong Kong’s economy (HKEA, 1987^{HA}).

Due to the growing importance of curriculum development, in 1992 the membership of the Authority Council was further changed so that the Chairman of the Curriculum Development Council became an ex-officio member (HKEA, 1991b^{HM}). In the same year, the second member of the University of Hong Kong and the Chinese University of Hong Kong were deleted for a more balanced representation, while a much expanded technical education in the 1990s and the need for public examinations to control access to technical education was evidenced by the formal inclusion of the Executive Director of the Vocational Training Council as an ex-officio member (HKEA 1991c^{HA}).

Effective in September 2003, the composition of the Authority Council changed again as a result of the Strategic Review conducted in 2002/3.

Figure 7.2: Composition of the Authority Council in 2003

Category		Number
Ex-officio members:	University sector	2
	Chairman of Curriculum Development Council or his representative	1
	Vocational sector	1
	Government	1
	Secretary General ¹	1
Members appointed by the Chief Executive	Secondary school principals	3
	Secondary school teacher	1
	Primary school principal	1
	Parent association	1
	Industry	2
	Others	3
Total		17

(HKEAA, 2003a^{HM})

The size of the Authority Council was significantly reduced as a measure to strengthen the governance of the Authority as recommended by the Consultant. A much reduced presence of the tertiary institutions is now compensated by representatives from primary schools and parents for the first time as major stakeholders of the Authority.

The above principle changes to the composition of the Authority could be perceived as milestones for an increasingly inclusive education system of Hong Kong with its focus shifting from elitism to diversification. They also mark the expanding role of the Authority and its changing relationship with tertiary education, curriculum developers, schools, commerce and industry, vocational institutions and parents. What remains unchanged is apparently the dominant influence of the Government. Though the number of government representatives has reduced since 1977, more than half of the members are appointed by the Chief Executive of the HKSAR Government. However, is it

possible for the Authority to change the composition of its governing council?

As the composition of the Authority Council has been written into the HKEAA Ordinance, there is procedural requirement for any change to be put through the Government for approval by the Legislative Council. In other words, all changes in composition to the Authority Council over the years are in fact endorsed by the Government whose influence over the Authority is solidly secured by the Ordinance.

Resources of the Authority

The Authority is self-financed and its major source of income is examination fees. The Authority, however, is not free to set its examination fees. According to Section 7(2) of the Ordinance, the examination fees to be paid by candidates sitting the “specified examinations” of the Authority are subject to the approval of the Chief Executive. In practice, the Authority has to submit proposed examination fees for the coming year as a part of the programme of proposed activities and estimates of income and expenditure for approval by the Legislative Council every year. As a rule, the extent of increase in examination fees can only be on par with the inflation rate.

Neither is the Authority free to invest any surplus income generated from examination fees according to the Ordinance. There are good reasons for this as examination fees are in a sense public funds and

their disposal is expected to be restricted. The most updated version of the concerned Section 12A(1) of the Ordinance is quoted as follows:

All moneys of the Authority which are not immediately required may be —

- (a) deposited in Hong Kong currency on fixed term or call deposit or in a savings account, in any authorized institution within the meaning of the Banking Ordinance;*
- (b) invested in Hong Kong dollar certificates of deposit issued by any authorized institution within the meaning of the Banking Ordinance; or*
- (c) invested in bonds or other securities issued or guaranteed by the Government*

While it is unlikely that the Authority would wish to deal in what might be considered to be speculative investment, the Ordinance leaves no room even for investment activities considered as good practices, such as buying of foreign currencies at certain fixed rates (e.g. rates assumed when service charges are agreed) for settling examination fees payable to overseas examination bodies in due course to ensure “no surprises”.

Given the only statutory examination body in Hong Kong, the current funding model is probably sufficient for recurrent expenses at an operational level. In fact, through cross-subsidization amongst different examinations and subjects, the Authority is even able to afford some subjects or examinations which are with poor entries or highly

expensive to operate, such as the short-lived HL examinations and some application-oriented subjects. Nevertheless, when it comes to the need for a major research or change initiative, the Authority will need to turn to the Government for funding which, in principle, can only be one-off or on project basis.

The one-off injection of funding by the Government is regarded with mixed feelings by the Authority. This happened a number of times. Government funding was provided for the introduction of AS-level to replace HL examination, the commissioning of the HKEAA Strategic Review, and of course, the introduction of the HKDSEE. On the one hand, this one-off injection of funding is welcomed for easing some immediate financial problems. On the other, this short-term arrangement may hamper the independence of the HKEAA in the long run and yet the fundamental problem of the lack of a satisfactory funding model to ensure the availability of a continuous financial support for developmental purposes deemed appropriate by the HKEAA is left unresolved.

Powers and Duties of the Authority

According to Section 7 of the Ordinance, the powers and duties of the Authority are as follows:

The Authority shall have powers to do all such things as are necessary or advantageous and proper in planning and conducting examinations

and shall –

- 1) conduct the specified examinations;*
- 2) determine the educational requirements necessary for candidates to be eligible to sit specified examinations;*
- 3) make rules to regulate the conduct of candidates sitting specified examinations and the exclusion of candidates from sitting specified examinations for breach of any such rule;*
- 4) award certificates to candidates who attain a standard determined by the Authority in specified examinations.*

This part of the Ordinance has remained unchanged since its enactment.

Based on this, it can be inferred that the role expected of the Authority, at least at the time of its establishment in 1977, was mainly administrative, and not even necessary to be professional. Perhaps it is useful to make reference to the work of other examination bodies. The activities of the Educational Testing Service as stated in the organisation's Charter and Bylaws as paraphrased by Bennet (2011 p.1) are:

- 1) conduct educational testing services;*
- 2) counsel test users on measurement;*
- 3) serve as a clearinghouse about research in testing*
- 4) determine the need for, encourage, and carry on research in major areas of assessment;*
- 5) promote understanding of scientific educational measurement and the maintenance of the highest standards in testing;*

- 6) *provide teachers, parents, and students (including adults) with products and services to improve learning and decisions about opportunities;*
- 7) *enhance educational opportunities for minority and educationally disadvantaged students; and*
- 8) *engage in other advisory services and activities in testing and measurement from time to time.*

Raban (2007 p.4) comments in reference to the 150 years of history of the University of Cambridge Local Examination Syndicate that the examining body *“has always felt a strong commitment to the maintenance of standards and the promotion of good practice within the secondary school system. In the early years it played an instrumental role in this. Today much of the responsibility has been assumed by governments at home and abroad, but examining bodies remain the principle source of research into refining methods of assessment and developing new ones.”*

It is perhaps not appropriate to make direct comparison between activities of different examining bodies as they have their own historical and cultural backgrounds. In the West, the emphasis of the work of an examination body tends to be more associated with stakeholders support, advisory, research and development. However, in a Confucian-heritage culture like Hong Kong, it is generally believed that public examinations should be centrally administered by examination bodies so that fairness is seen to be maintained. As such,

the HKEAA indeed has a prominent and labour-intensive examination administration role that any examination body in the West can hardly imagine.

The Consultant for the Strategic Review saw the problem from a slightly different angle. It highlighted the need for the Authority to enhance its professional competence so that it could be given a policy role in assessment. Although the Authority is the only organisation in Hong Kong specialized in delivering assessment services, it does not have any responsibility at a policy level, nor has it the capacity to influence the policy direction. It is in fact not clear who or which organisation in Hong Kong should be held accountable for assessment policies. This is not to say that the Government has not raised issues of assessment, but it is unclear who bears the responsibility for raising such issues, through what procedures should assessment policies be determined and who should be accountable for policy consequences.

The Authority is essentially the regulator and operator of public examinations in Hong Kong. Working within a policy vacuum, the Authority is left with the responsibility for setting the education standards, sometimes jointly with the CDC/CDI. It is recommended in the Final Report of the Strategic Review that providing a firm policy for assessment and a firm role for the Authority within that policy should be taken as a priority.

1) The EMB (which includes the CDI) and the HKEAA should quickly

agree and publish a firm, consolidated policy for assessment, which also articulates the roles and responsibilities of the participating agencies.....

- 2) The resulting assessment policy should set out a very clear position on the role of high stakes assessment in Hong Kong's education system, and provide a framework for HKEAA's operations of the public examinations, and other forms of assessment.....*
- 3) The Authority should be given the mandate to advise the SEM (Secretary for Education and Manpower) on assessment policy and related matters in the school sector. This may require changes to (Section 7) of the Ordinance: "Power and Duties of the Authority".*
- 4) The policy advice role should extend to the provision of advice on educational assessment generally, at the request of the SEM. This would include advice on school assessment generally, and post-secondary assessment, including advice on policies applicable to university admissions.....*
- 5) The HKEAA should be part of all significant education policy machinery of the SAR (Special Administrative Region of the PRC), such as the Education Commission and its sub-committees. This inclusion should extend to the staff of the Authority, as well as Council members.....*
- 6) Further, HKEAA should be invited into internal working groups of EMB that deal with issues that impact upon the Authority.....*
- 7) To fulfil HKEAA's public policy role, the Government should fund a policy and research function within the Authority on a recurrent basis. The outcome would be a professionally informed*

organisation, capable of producing high quality information and position papers to inform a continuous debate on assessment, ensuring that assessment supports education in Hong Kong, and does not become an end-in-itself.

(HKEAA, 2003b^{HA})

Singapore shares some of the cultural features of Hong Kong. The Singapore Examinations and Assessment Board is an examining body with strictly operational roles, but nonetheless is deeply involved in influencing, if not driving, assessment policy debates. The Senior Secondary Assessment Board of South Australia has both operational role and also a mandate to advise the Minister of Education on assessment policy. In the UK, although the awarding bodies are given purely operational role, there is Ofqual working as a regulator to determine assessment policies and set rules for the awarding bodies. As a part of the implementation plan of the Strategic Review, active steps have been taken between the Authority and CDI (as the Government's major interface with the Authority) to establish a closer partnership. Despite these efforts, it is still far from clear where the policy role of assessment lies.

There are pros and cons regarding this “lack of policy role in assessment” situation.

Pros:

1) This allows the Government to make ultimate decisions on

assessment policy direction. With CDI (which is a part of the Government) working closely with the HKEAA, it is highly likely that assessment and curriculum policies can be in line with each other.

- 2) The HKEAA can concentrate on professional work and not be distracted to maintain a policy or political role which is very different in nature.
- 3) If given enough resources for maintaining an effective research function, the HKEAA can still perform an advisory role to ensure the Government is capable of making well-informed decisions

Cons:

- 1) The HKEAA will only be able to play a relatively passive role in providing policy advice as it is not necessarily included in wider policy decision-making and policy forums, and where it is, it might be entering too late to inform them in their formative stage
- 2) The grey area leaves the Government and HKEAA feel equally vulnerable at both the policy formulation and implementation ends when things go wrong.

Regarding whether an examination body should take up a political role is discussed at length in the American case in Chapter Three. Examination work tends to be highly contentious, and sometimes unnecessarily political. One of the strengths of the ETS seems to be its nature as a commercial organisation. This sends clear messages to the public that it is not a part of the government and has no involvement in policy decisions. As such, ETS can concentrate more on professional

work. There are certainly advantages for the HKEAA to stay out of politics and maintain a professional stance in defending its assessment initiatives. What may seem more urgent is for the Authority to strengthen its research and development functions to upgrade itself to become a world class professional examination body. Otherwise, it could only be too optimistic to expect the Authority to provide advice at a professional level to the Government for policy formulation, or effectively implement some pioneering assessment in a forward looking way.

The Authority is not unaware of the importance of strengthening its research and development capabilities. A Research Committee was set up in September 2000. However, due to financial constraints, the scope of the research projects was rather limited. A significant change in fact has been brought about by the HKEAA Strategic Review which recommended that the Government should make available funding to enable the Authority to enhance its research capabilities to support policy initiatives and its own work as detailed in the preceding paragraphs. Shortly following that, a joint working group was set up with members of the Grading Committee and Research Committee of the Authority and representatives of the Education and Manpower Bureau to study the implications of education policy changes on the grading of public examinations. In February 2004, the Finance Committee of the Legislative Council approved the Bureau's proposal to inject a one-off grant of HK\$136.7 million to the Authority to support its research and development activities in the following five

years (HKEAA 2004^{HA}).

Though this one-off injection of funding for delivering research projects closely associated with policy implementation is helpful in many ways, what is left uncertain is the financial support on a continuous basis for research and development projects deemed appropriate by the Authority. As an examination body, there is still room for advancement in this respect for the Authority to be on par with its international counterparts.

Relationship between Assessment and Curriculum

The Curriculum Development Council (CDC) is a free-standing advisory body appointed by the Chief Executive of the Hong Kong Government to give advice to the Government on matters relating to curriculum development for the local school system. It was formerly known as Curriculum Development Committee.

On the surface, the work of the Authority is question paper setting and marking, and that of the CDC is curriculum development. However, at an operational level, the work of the Authority and CDC are so closely intertwined that it is sometimes hard to be certain where a particular measure was conceived or by whom it should be delivered. The relative positions of assessment and curriculum on the continuum of school education are not static. The changing relationship between assessment and curriculum development in Hong Kong in the recent decades again

reflects the changing role of the Authority.

The rapid expansion of educational provision in Hong Kong during the 1970s up to 1980s, first at primary and then at secondary level, increasingly stretched the capacities of the then educational bureaucracy. Until the early 1970s, there were in fact no teaching syllabuses for school subjects. The focus of the education system was all on public examinations and so the only official guidelines as to what should be taught and how, were the examination syllabuses. Before the establishment of the Authority in 1977, the drafting of examination syllabuses and papers was usually undertaken by more or less ad-hoc committees of academics and teachers brought together by subject officers of the Education Department (Vickers, 2002^{HP}).

In 1972, the system began to become more formalized with the establishment of the Curriculum Development Committee under the auspices of the Education Department. The main function of the Curriculum Development Committee was to develop teaching syllabuses recommended for use in primary and secondary schools. In its earlier days, the subject committees of the Curriculum Development Committee were assembled by the subject officers at the Education Department's Advisory Inspectorate, set about drafting Hong Kong's first official teaching syllabuses, starting with those for junior secondary level. However, at senior secondary and matriculation levels, teachers still had to make do with examination syllabuses that did no more than providing topics to be covered and rubrics for the

examination papers (Vickers, 2002^{HP}).

As more attention started to be put on teaching and learning, during 1982, procedures were worked out detailing how the Education Department's Curriculum Development Committee and the Authority would cooperate to produce unified teaching and examination syllabuses for new subjects. The procedures were designed so that:

- 1) joint consultation occurs at all critical points in the development process to ensure that a consensus is reached before the next phase commences;*
- 2) both the Authority and the Curriculum Development Council (CDC), by working within an agreed framework, are able to commit sufficient resources to ensure that the project is done in the shortest possible time consistent with the need to consult adequately all those who will be affected in schools, tertiary institutions, etc.;*
- 3) teaching and examination syllabuses share the same aims and objectives, and that there is an agreed common content between the two;*
- 4) teachers and students alike are helped to prepare for the examination in an enlightened way, without feeling that there is conflict between the examination requirements and what is advocated by the teaching syllabus.*

(HKEA, 1993b^{HP} p.25 – 27)

The Education Commission, in its review in 1990 of the way in which curriculum was developed and delivered, recommended that the Curriculum Development Council (CDC)² should be upgraded and its membership reviewed. The CDC was reconstituted in January 1992 to become a free-standing advisory committee appointed by the then Governor of Hong Kong, and supported at an implementation level by the Curriculum Development Institute (CDI), also established in 1992 under the Education Department, and made up of “professional educators”. The establishment of CDI was the consequence of a recognition that curriculum development – as distinct from broader educational policymaking – was best given to professional educators (Vickers, 2002^{HP}). These changes marked a much enhanced position of curriculum development in the education system and the attempt of the Government in the early 1990s to enhance the quality of education.

Even with this change, it seemed that not enough could be achieved to rectify the examination-led education system. The ambitious “Statement of Aim” for education issued by the EMB in 1993 (quoted in Part I of Chapter Six) was clearly at odds with the more traditional approach taken by public examinations in Hong Kong in the 1990s as detailed in Chapter Five. The dominance of examinations over curriculum could, in a way, be manifested by the way that the Target-Oriented Curriculum (TOC) initiative launched by CDI at primary level in the early 1990s was eventually abandoned towards the end of the decade. TOC was an ambitious and wide-ranging reform that sought to transform curriculum, pedagogy and assessment through

multiple components, including targets indicating stages of progression, purposeful learning tasks and criterion-based assessment. Evaluations of TOC indicated that the assessment aspects were the most difficult to reform. Morris, Lo and Adamson (2000 p.255 – 256) made the following comment.

“The development of a more formative type of assessment linked more to teaching than testing was that part of the reform that was most difficult to achieve in schools. This was partly a function of a strongly embedded meritocratic ideology and of the powerful impact of assessment on all aspects of the curriculum.”

Carless points out that the decline of TOC was in particular due to “a lack of alignment of curriculum, pedagogies and assessment and a failure to cater adequately for existing knowledge and practices in assessment.” (Carless 2011, p.82)

In order to further enhance its effectiveness in face of a deep-rooted examination-oriented culture, the CDC was recommended in the 1996 Policy Address^G to undertake another review of its function and structure. The re-engineering aimed to streamline and revitalize the structure for the development of a quality curriculum attuning to the needs of the students and the community in the 1990s. The new two-tier system was launched in September 1999: the first tier being the CDC and its Standing Committees while the second tier being the Key Learning Area Committees and Functional Committees. Flexibility is

allowed for each CDC Committee to form its own ad hoc committees for specific tasks on a need basis (CDC, 2012^G).

With the re-organisation in September 1999, the CDC subject committees were replaced by ad hoc committees and as such the working relationship between the Authority and CDC/CDI was seriously affected. The main difference between the former and the revised modes of operation was the abolition of the joint-working-party formed with representatives of the HKEAA and CDI for curriculum development of Secondary 4 to Secondary 7, the years in preparation for the HKCEE and HKALE. The rationale for the change was that curriculum should be more than the content of examination syllabus and it would be appropriate for curriculum not to be seen as examination-driven. It was also suggested that the best way for this perception to be presented to the public was to drop the joint-working-party mechanism. The CDI would independently develop the curriculum and pass this to the Authority for drawing up the corresponding assessment scheme. This was an aggressive attempt to actually put curriculum in front of assessment.

While acknowledging the educational intent of the CDC/CDI, the Authority expressed concerns that the revised mode of operation would imply a segregation of curriculum and assessment, which was not desirable educationally and would incur real problems at an operation level. It was felt that in order to develop an assessment scheme for a specific curriculum, it would be necessary for both CDI and the

Authority to have full understanding of the whole picture at the beginning so as to resolve pedagogical and technical issues (HKEA 2000c^{HA}). It was finally agreed between the CDC/CDI and the Authority as an interim solution that:

- 1) For new subjects proposed by the Education Commission such as.... the curriculum will be developed by CDC Ad hoc Group as there are currently no relevant (HKEA) subject committees. The HKEA will nominate 2 to 4 persons to join the Ad hoc Group. The examination syllabus will be subsequently prepared by the HKEA subject committees.*
- 2) When major syllabus review is required for existing HKCEE and HKALE subjects, the joint-working-party mechanism will continue to be adopted until another mechanism has evolved.*
- 3) In the meantime, CDC/CDI and HKEA will carry out a joint study to find out how curriculum and assessment work together in other parts of the world with a view to identifying a seamless interface between curriculum and assessment that is effective and efficient to meet the needs of the changing society in Hong Kong*

(HKEA 2000d^{HA})

In March 2001, the Education and Manpower Bureau presented a paper for discussion in the Authority's meeting on 6 March 2001. The paper first of all made reference to the Education Commission's Report on "Reform Proposals for the Education System in Hong Kong" (2000^G) that:

“Assessment was an integral part of the curriculum, the main role of which was to assist teachers and parents to understand on a continued basis, students’ learning progress, their learning needs as well as their strengths and weaknesses, so as to help students learn more effectively. It should also provide feedback for the on-going curriculum development, including the adjustment of the curriculum standards. It was recommended in the EC’s report that the CDC and the HKEA should review the interface between curriculum development and the public examination process to strengthen the link between the two and to enable the updating work to be conducted more effectively and efficiently to keep in pace with the changes of the society.....During the consultation, many schools, teachers, parents and students have raised concerns about whether corresponding changes would be made in the public examinations to tie in with the changes in the school curriculum. To foster their confidence in the support for the curriculum reform, it is essential to strengthen the link between the school curriculum and the public assessment and convey this message clearly to the public.” (HKEA, 2001c^{HA})

Along with this aim of leveraging examination to effect the intended curriculum changes, the paper made the following proposal for consideration of the CDC/CDI and the Authority.

- 1) To integrate the curriculum guidelines and the examination syllabuses into one publication to be named Curriculum and

Assessment Guides jointly published by the CDC and the HKEA. The HKEA would publish the booklet on Regulations and Examination Rubrics separately.

- 2) Joint working groups between the CDC and the HKEA should be established to draw up the Curriculum and Assessment Guides for senior secondary education. The Guides would be submitted to the CDC and the HKEA for consideration and endorsement before issue.

(HKEA, 2001b^{HA})

The primary objectives of this proposal were i) to facilitate the work of schools which at that time had to refer to both the CDC's Teaching Syllabuses and the Authority's Examination Syllabuses; ii) to corroborate the perception that curriculum and assessment were integrated rather than segregated.

Though there were still a number of technical issues to be addressed in order to ensure a smooth implementation, the Authority Council welcomed the proposal and believed the move would help removing the ingrained misconception that curriculum and assessment were segregated though two different functions. It was also agreed that a pilot exercise for one subject would be conducted before launching a full-scale implementation (HKEA, 2001a^{HM}).

AL Biology was finally chosen as the pilot subject and through a close partnership between the CDC/CDI and the Authority, the combined

Curriculum and Assessment Guide for Advanced Level Biology (2004^G) was issued in 2002. It was a breakthrough in the mode of cooperation between the two bodies. In its meeting on 18 October 2002, the Authority approved to form CDC/HKEAA Joint Committees for the development of new subjects with effect from September 2003 (HKEAA, 2002b^{HM}).

What drew the Authority and CDC/CDI further together was the recommendation of the HKEAA Strategic Review. Regarding the working relationship between the Authority and CDC/CDI, the following recommendations were made in the Final Report:

- 1) *HKEAA and CDI should be charged with creating very close ties at a working level, with the intent of producing common curriculum and assessment guidelines for all subjects within a 3-year timeframe.*
- 2) *The two agencies should engage a project leader, shared and respected by both, to steer and oversee the development initiatives.*
- 3) *Longer term – within 3 years – the (Education and Manpower Bureau) should review the progress of the HKEAA and CDI in developing a single continuum of curriculum-and-assessment to support learning and its assessment. If the review shows that the progress would be enhanced by a merger of elements of the CDI with the Authority then this merger should be pursued.*
- 4) *HKEAA and CDI should cooperate closely to establish a linked framework(s) of learning objectives and outcomes that will*

underpin standard-based learning and assessment.

- 5) *To achieve such cooperation, the respective committee structures of the two organisations need to be integrated and rationalized.*
- 6) *Any such new body would focus on those parts of CDI engaged in syllabus development for the secondary school, and the Basic Competency Assessment work – those parts of the CDI that outwardly face the community and provide assessment information.*
- 7) *Any such new body could form a Curriculum and Assessment Institute at the secondary level, reporting directly to the (Secretary for Education and Manpower), but exist outside of the civil service. The new institute would then operate within an annually renewed policy framework for school education established by the Education and Manpower Bureau.*

(HKEAA, 2003b^{HA})

The above recommendations were deliberated at length by the Authority Council and relevant committees at various levels. The first three were accepted. It was generally agreed that the HKEAA and CDI should work more closely together, noting that the two bodies had already been engaged in close working relationship, especially in the 2000s when the two organisations were working together on the education reform proposed by the Education Commission. The 4th and 5th recommendations were considered by the Authority as already the then current practice while the last two should be considered at a later stage, subject to the progress review by the Education and Manpower

Bureau as recommended under item 3 above (HKEAA, 2003a^{HM}).

It was reported in the meeting on 17 December 2003 that since October 2003, in order to ensure a seamless interface between curriculum and assessment, the senior management of the Authority and CDC, and the representatives of the Education Bureau had been meeting regularly on weekly and in some cases monthly basis to identify curriculum and assessment issues related to the new senior secondary school system for further internal discussion at the CDC and the Authority. Subject Officers of the Authority had been working closely with their CDI counterparts in the respective “one committees” on developing curriculum and assessment guides. The working relationship between the Authority and CDC/CDI was at its historic height (HKEAA, 2003c^{HM}). The progress was viewed favourably and the need for a merger was considered unnecessary.

It may seem logical as recommended in the Final Report of the HKEAA Strategic Review to take a further step to create one “Curriculum and Assessment Authority” accountable to the Government but independent of it, for incorporating a larger role for curriculum and assessment development process so that the two functions can eventually be amalgamated. In recognition of the motivating effects of public examinations, some international experience in merger of curriculum and assessment is cited in Chapter Two, in which, it is cautioned that physical proximity does not necessarily mean harmony. There are also advantages for an

examination body to stay professional as discussed in Chapter Three. From another perspective, some degree of tension arising from the two as separate bodies may be healthy, as long as it exists in a constructive context. So far, there appears to have sufficient evidence to convince the HKEAA, CDC/CDI and the Education Bureau that the current cooperation model works.

Conclusion

The Authority is a statutory body and its essential nature is stipulated in the HKEAA Ordinance. One of the most salient features of the Authority is its independence which refers mainly to its ability to make its own decisions through the Authority Council and being financially self-contained as a monopoly offering public examinations in Hong Kong. However, the independence of the Authority is a qualified one. First, as restricted by the Ordinance, its source of income is only sufficient to cover its work at an operational level and probably not for any major change or research and development initiatives. Second, according to the Ordinance, though a territorial examination body, the Authority's powers and duties do not include work at a policy-making or advisory level, and hence its role is largely confined to policy implementation. More importantly, as its governing council is under the dominant influence of the Government and the statutory requirement for its examination fees and any changes to the Ordinance to be put through the Government for approval by the Legislative Council, the Government is capable of exerting influence on the Authority whenever

it chooses to. It is no coincidence that all along the years, major development decisions of the Authority are somehow in line with the education policies of the Government. This relationship is clearly manifested in the events leading up to the implementation of the public examination reform as a part of the education reform.

The major stakeholders of the Authority are represented in the Authority Council, changes to the composition of which over the years denote major changes to the role and responsibilities of the Authority. It can be observed that the focus of work of the Authority has been expanding from selection for the two elitist universities to the other tertiary and vocational institutions; from supporting university and tertiary education to enhancing teaching and learning at various school levels in recent years. Despite all these changes, the influence of the Government in the Authority Council has remained strong throughout as safeguarded by the stipulated composition of the Authority Council.

Cooperation and tension between the Authority and CDC/CDI of the Education Bureau is another interesting area that signifies the changing role of the Authority. Since the 1970s, the Authority has been adjusting itself to work with an ever burgeoning CDC/CDI, making continuous efforts on claiming the importance it deserves in an examination-led school system. Since the CDC/CDI is a part of the Education Bureau and given the strong influence that the Bureau has over the Authority, a close partnership has now been formed between the two organisations, with curriculum and assessment worked out in such a way that they

are reinforcing and supportive to each other.

Being a monopoly with no competitor in Hong Kong, the Authority may be the envy of some of its counterparts. However, as an organisation, given only an operational ambit, with limited ability and reasons to generate sufficient income to fund major research and development initiatives, and in a way losing its dominant control over its own public examinations in face of increasing curriculum demands, there could be a lack of motivation to be innovative and dynamic on the part of the Authority. Besides, with so many stakeholders having different and sometimes conflicting interests, and under constant public scrutiny in an examination-oriented culture, it is not easy for the Authority to initiate any change without inadvertently producing undesirable consequence. This may result in inertia or inaction. The inconsequentiality of ROPES could be considered an example to illustrate this situation of the Authority.

On the other hand, the Government has always had a stake in the HKEAA. Thus as far as it is within the boundaries of the education policies of Hong Kong, the Government is willing to provide whatever reasonable support to the HKEAA for it to deliver its statutory mission at an operational level. This is particularly helpful for aligning stakeholder interests, and maybe financially at times on project basis. However, much is left to the professionalism, creativity and entrepreneurship of the HKEAA to develop its research and development capacity, and establish itself and its examinations at a

global level. There is still room for advancement in this respect for the Authority to be on par with its international counterparts.

Endnote

1. *Effective from 19 July 2002 the Secretary as the head of the Authority was re-titled Secretary General.*
2. *The Curriculum Development Committee was reorganised in 1988 and renamed the Curriculum Development Council.*

Chapter Eight

Conclusion

Introduction

In this age of compulsory education and greater accountability of public bodies, both the general public and governments are mounting more and more expectations on public examinations to tackle and even resolve educational issues. With a wide range of stakeholders making different demands which are not necessarily in line among themselves, and not necessarily within the remit of examination delivery, the author of this thesis as a staff member of the Authority finds that it is timely to examine the role of an examination body with a view to identifying the way forward to enhance the effectiveness of the work of the Authority and inform future assessment development.

To enable an in-depth contextual analysis, this research focuses on the Hong Kong case. The two research questions are:

- 3) What functions do public examinations serve in Hong Kong and how effectively are they serving these functions?
- 4) What is the role of the Hong Kong Examinations and Assessment Authority in the education system of Hong Kong and how effective is it in delivering this role as expected by its stakeholders?

Recognising the importance of understanding public examinations with

reference to their historical background, a historical approach is adopted in this case study to trace and analyse the development of public examinations in Hong Kong through literature and document review. On top, in order to gain new insights into the little known internal operation and decision-making processes of an examination body, reference is made whenever available to the internal documents of the Authority not generally accessible to the public.

Framework of Research

Chapter Two as the first part of the literature review provides useful background information for building a basic framework of the scope and focus of research of this thesis. A spectrum of functions served by public examinations in the modern age of mass education is showcased, the delivery of which is no simple task. It is revealed that examination boards are in fact under constant pressure to juggle priorities amongst a plethora of conflicting purposes that public examinations are expected to serve by stakeholders from all quarters. Major dilemmas related to the functions of public examinations faced by examination boards are summarized as follows with the more traditional approach grouped on the left:

- 1) Selection vs. certification
- 2) Reliability vs. validity
- 3) Assessment demands vs. curriculum demands
- 4) Summative use vs. formative use of assessments

5) Teacher professionalism vs. standards monitoring assessments
(from norm-referenced to standards-referenced assessments)

The effectiveness of an examination body appears to lie critically in how successful they are with progressively moving its public examinations to serve the purposes grouped on the right above without compromising those on the left. In relation to that, two guiding questions are posed for evaluating the effectiveness of an examination body as follows:

- 1) Whether the board is serving the government only or other stakeholders as well?
- 2) Whether its public examination is restricting or facilitating curriculum development?

According to the literature review in Chapter Two, the role of an examination body is largely determined by how it prioritizes its stakeholders and hence defines the functions of its examinations. The literature review seems to further suggest that apart from serving the government, it is somehow preferred for an examination body to provide the same level of support to curriculum development and a wider range of stakeholders.

The major dilemmas in respect of functions served by public examinations identified in Chapter Two are closely related to teaching and curriculum issues in places where examination bodies are under the

strong influence of their respective governments. In Chapter Three, i.e. the second part of the literature review, the relevance of these findings is tested on the contrasting American case. The American case is chosen as the United States is among the very few advanced countries where school-leaving public examinations are delinked from school curriculum, and examination bodies are commercial entities independent of the American government. They are not even regulated by the government as examination or awarding bodies. A historical approach is adopted to analyse ETS in context and its changes over time. One of the aims of the American case study is to investigate if it is recommendable for public examinations to remain detached from their respective school systems and how far examination bodies can maintain a balanced approach in supporting a range of stakeholders and not skew towards serving the government. It is also hoped that the study of the contrasting and relatively unique American case can help enriching the framework of the scope and focus of the research into the Hong Kong case.

Conant took the shortcut with curriculum-free intelligence testing because a unified teaching syllabus was beyond imagination in his days in a country where the education system is amongst the most decentralized in the advanced world. However, ETS eventually cannot escape introducing the curriculum-based SAT II and AP though it is a commercial organisation. On top, though the major stakeholders of ETS are the College Board and tertiary institutions, there is the same trend in the United States that examination bodies operating effectively

at a national level are increasingly involved in providing assessments for quality monitoring purposes of the policy makers. ETS is one of the providers of the NEAP and the NCLB initiatives of the federal government as a valued customer. It is hard to conclude if ETS manages or is expected to manage a balanced approach in serving its stakeholders, though for the sake of maintaining its market position, ETS is somehow duty-bound to provide quality assessment service to the American education, including offering curriculum-linked achievement tests and taking part in the federal government's standards monitoring projects. In light of these findings, the linkage between assessment and curriculum and the relationship between the Authority and the Hong Kong Government are explored as major themes in the Hong Kong case.

Based on the literature review in Chapter Two and Chapter Three, a framework of the scope and focus of the research into the Hong Kong case is developed. In Chapter Four, a historical case study approach is identified as the preferred research methodology for this thesis. Attempts are now made to draw a conclusion from the research findings as covered from Chapters Five to Seven in respect of the functions served by public examinations in Hong Kong and the role of the HKEAA, and their overall effectiveness. In the upcoming conclusion, instead of following a chronological order, evidence and arguments are reorganised so that the research questions are dealt with in a more direct way.

What functions do public examinations serve in Hong Kong and how effectively are they serving these functions?

Public examinations in Hong Kong introduced by its colonizers were, in the main, modeled on their UK counterparts for selecting highly capable English-speaking elites to go through university education to support the administration of the colonial government. The range of public examinations took over by the Authority at its inception in 1977 were norm-referenced summative assessments with a narrow academic focus serving mainly selective purposes.

In order to cope with the needs of a rapidly expanding student diversity from the 1970s to 1990s, a number of progressive assessment changes were initiated either by the Government as the major stakeholder of the Authority for driving curriculum changes or by the Authority itself for enriching the functions served by public examinations and generating positive backwash effects on the education system. Based on the findings in Chapter Five, there was evidence that some dilemmas related to the functions of public examinations could be resolved professionally by thoughtful assessment designs. However, public examinations can be mis-used. There was also evidence that the expected and actual use of public examinations was not always the same. Thus the effectiveness of public examinations depends critically on, amongst other things, first, whether the initiatives are well-designed technically to accommodate conflicting expectations of different stakeholders, and second, whether their intended use is within the

acceptability limits of the value systems of the concerned stakeholders and the society as a whole so that they are more likely to be used as expected.

The most well-received assessment change during the period seemed to be the incorporation of the two public examination systems into one in the 1990s in order to unify the two secondary school systems in Hong Kong. This move significantly enhanced the progression opportunities of students of the Chinese middle schools and broadened the then sixth-form curriculum. The change was almost unanimously applauded by all stakeholders. The abolition of language medium indicators and fine grades in reporting of results respectively for encouraging more extensive use of Chinese and promoting whole-person development of students were not without resistance from the qualification users, but the educational values behind was undisputable and hence strongly supported by the majority of the stakeholders.

However changes can hardly deliver the results as expected if they are not on balance within the acceptability limits of the value systems of the society as a whole. Attempts were made by the Authority to make a balanced use of a variety of question items in paper setting to rectify over reliance on mechanical drilling and rote-memorization amongst students. Yet there was evidence that in reality, under the intense pressure of a highly selective education system which forced markers to put fairness and objectivity first, the assessment practice of markers conveyed conflicting messages to teachers and students that knowledge

could be memorized for regurgitation at appropriate moments. Neither was there much evidence that the adoption of the Target Oriented Curriculum principles in public examinations could bring about any significant positive change in teaching methodology and learning attitude. The efforts behind the Teacher Assessment Scheme and the application-oriented subjects for enhancing the validity and diversity of public examinations were undermined by the lukewarm support that they managed to generate.

The abolition of the Basic Proficiency Test (BPT) in 1993 was more revealing. Though the BPT was introduced with the good intention of recognising a wider range of student abilities, it was designed to certify practically grade F in the HKCEE, which was traditionally regarded as a fail. Not much was done to contain the labeling effect by disassociating a BPT pass from an HKCEE fail. The BPT experience sends a clear message that even in an examination-oriented culture, only examinations serving functions valued by sufficient stakeholders can survive. The failure of the BPT could be the direct result of over-stretching the stakeholders' acceptability limits for the educational values that it claimed to embrace while not providing adequate certification of abilities valued by end-users of the qualification. There was too wide a gap between the expectations of BPT's designers and potential users.

How technical competence of an examination body may contribute to the effective implementation of its public examination was

demonstrated in the development of the tailored syllabus in the HKCEE Mathematics, examined the first time in 1988. There was initial evidence that by regrouping the syllabus into a core and tailored part by level of difficulty, the lower achievers were helped to attain better results. As the syllabus was taken by all students, being different from the BPT, labeling effect was minimized and hence the values of most of the target stakeholders were accommodated.

As the education system grew rapidly, it became clear in the 1990s that there were inevitable limitations to what a basically selective examination system could do to assess and certify the full range of intellectual skills and bring about a truly inclusive education system. Interestingly though, with all these problems, these selective examinations were still well-supported. There seemed to be no evidence of sufficient pressure in the society as a whole for the essential nature of public examinations to be changed by the 1990s. The situation was clearly demonstrated by the futility of the Authority's efforts on broadening the sixth form curriculum. It is questioned at the end of Chapter Five if there is anything that an examination board can do to actively influence the way public examinations are used so as to narrow the gap between the expected and actual purposes served by public examinations and hence improve its own effectiveness.

During this period, though the functions served by public examinations remained basically unchanged, expectations of the Government on public examinations appeared to have changed quite rapidly due to an

exponential expansion in education, global trends towards whole-person development and economic considerations as indicated in the policy documents. Despite the misfit, perhaps under the strong influence of values such as Confucianism, combined with other conservative forces arising from public examination procedures as purported by sociologists such as Broadfoot, Bernstein and Bourdieu, the ingrained examination-oriented culture of Hong Kong continued.

The situation came to a tipping point for change at the turn of the 20th century with the determination of the Tung Chee Hwa Government to introduce an education reform of a breakthrough nature, an integral part of which was a public examination reform. Since then, the Authority has introduced the TSA and HKDSEE as products of the public examination reform. Both assessments have incorporated the traditional and progressive functions of public examinations as put forward in Chapter Two. According to the evidence gathered in Chapter Six, the Authority has done at least three things to reconcile the dilemmas between the two sets of functions and narrow the gaps between the expected and actual use of these assessment tools.

First, it is with the various professional assessment designs that the Authority has truly expanded the purposes served by public examinations without unduly compromising the more traditional ones. Second, extensive consultation is equally important for identifying the optimal assessment design to suit the needs of as many stakeholders as possible and enhancing the readiness of the stakeholders to accept the

new assessment designs. This process helps uncovering the concerned value systems of the various stakeholders at work, how much their acceptability limits can be stretched and where the optimal compromise lies. Third, to ensure the smooth delivery of anything which requires the active collaboration of teachers, such as the TSA and SBA, the provision of additional supports, such as detailed guidelines, professional development programmes, coaching and feedback must be factored in. These supports also help ensuring the proper use of assessments as designed on an on-going basis.

Compared with events in the 1970s to 1990s, the Authority has demonstrated in the implementation of the HKDSEE and TSA its ability to learn from the past to improve itself in the three aspects highlighted above to narrow the gaps between the designed and actual use of public examinations and hence their effectiveness in serving their purposes. It is further argued in Chapter Six that it is only with achievement in this respect that the Authority can truly contribute in a positive way to quality monitoring and quality enhancement of the education system for a wide range of stakeholders and not just the Government.

What is the role of the Hong Kong Examinations and Assessment Authority in the education system of Hong Kong and how effective is it in delivering its role as expected by its stakeholders?

The Authority was formed in 1977 as a statutory body by the Hong Kong Government to put public examinations in Hong Kong under one single specialized body so that they could be conducted more professionally and efficiently. Naturally, the Authority was designed to serve the purposes expected of it by the Government. With an overwhelming proportion of direct and indirect representation at the governing Authority Council as stipulated by the Authority Ordinance, the Government is the most influential stakeholder of the Authority. This explains why the decisions of the Authority over the years have always been more or less in line with the education policies of Hong Kong.

The Authority was established to takeover the public examinations which served mainly selection function. The HKALE was selective to serve university admission. The HKSCE was originally developed to serve the certification of secondary education, but when it was amalgamated under the HKCEE, it became a part of the university admission system and its function gradually skewed towards selection. Being structurally segregated from school education by design, the Authority was expected by its creator, i.e. the Hong Kong Government, to be the gatekeeper of the education system at the time of its establishment. This role of the Authority remained largely unchanged

until the sovereignty handover in 1997.

Having taken over Hong Kong, the Tung Chee Hwa Government immediately proposed an education reform for enhancing the long-term competitiveness of the territory. As cascaded down to public examinations, the direction was for the Authority to progressively strengthen its “assessment for learning” function alongside with its traditional mission of “assessment of learning”. With this expectation of an enhanced assessment role, the Government initiated to change the name of the Authority to the Hong Kong Examinations and Assessment Authority. With a number of new assessment initiatives introduced as a part of the education reform, such as the implementation of the TSA and HKDSEE, the Authority has effectively become the Government’s quality monitoring and enhancement agent of the school education system since the turn of the twentieth century.

Though the most influential stakeholder, the Government is not the only stakeholder of the Authority. The major stakeholders of the Authority are represented in the Authority Council. The shift in priority in its service over the years towards certification and supporting school curriculum can be reflected in the changes in the composition of the Authority Council as detailed in Chapter Seven. For stakeholders other than the Government, such as tertiary and vocational institutions, schools, students and their parents, and employers, etc., the role of the Authority has remained basically gatekeeping over the years. However, with the introduction of the HKDSEE, recognising a much wider range

of student abilities while up-keeping the selection function, coupled with its international and local recognition, the Authority has transformed its role from simply gatekeeping to the provision of a gateway in addition, enabling our youngsters with different potentials to pursue their future through multiple pathways.

According to the research framework, the evaluation of the effectiveness of the Authority in serving its roles may focus on four areas. The first one is how well it has been supporting curriculum development.

The Authority is relatively more effective in supporting curriculum development. Apart from generating positive backwash effects and supporting the Government to drive curriculum changes in its earlier days, through the implementation of the TSA, the Authority has taken an unprecedented stride forward to contribute to curriculum planning and even classroom teaching as an assessment service contractor of the Government. With the introduction of SBA in the HKDSEE, the Authority is now exerting active influence on teacher assessments and student learning by providing guidelines, professional training, coaching and feedbacks to schools on an on-going basis.

The progress made by the Authority in respect of cooperation with the CDC/CDI of the Education Bureau is significant. Since the 1970s, the Authority has been adjusting itself to work with an ever burgeoning CDC/CDI, making continuous efforts on claiming the position it

deserves in an examination-led school system. Since the CDC/CDI is a part of the Education Bureau and given the strong influence that the Bureau has over the Authority, a close partnership has now been formed between the two organisations, with curriculum and assessment reinforcing and supporting each other.

The second focus is whether the Authority manages to attain a balanced approach in handling its stakeholders. Apart from a strong presence of the Government, a range of major stakeholders are represented in the Authority Council. Changes in composition of the Authority Council over the years denote the focus of work of the Authority has been expanding from selection for the two elitist universities to the other tertiary and vocational institutions; from supporting university and tertiary education to enhancing teaching and learning at various school levels in recent years. Despite all these changes, the influence of the Government in the Authority Council has remained strong throughout as safeguarded by the stipulated composition of the Authority Council. It is hard to say that the Authority has taken an even-handed approach in serving all its stakeholders. However, in an open society like Hong Kong and in an age of greater accountability of public bodies, for the sake of positive results, it is impossible for the Government and the Authority not to take heed of the voices of as many stakeholders as possible and make compromise correspondingly in assessment designs. For example, though the education reform was initiated from the top, it cannot be considered as top-down as preceding the actual implementation, there were three rounds of extensive consultation.

Adjustment to SBA was made according to the request of teachers in 2012. Due to the recommendation of a Working Group comprising school and teacher representatives, it was decided to suspend the TSA at P.6 level in 2012 and 2014.

The third area is the effectiveness of the Authority as an organisation. One of the most salient features of the Authority is its independence which refers mainly to its ability to make its own decisions through the Authority Council and being financially self-contained as a monopoly offering public examinations in Hong Kong. However, the independence of the Authority is a qualified one. First, as restricted by the Ordinance, its source of income is only sufficient to cover its work at an operational level and not for any major change or research and development initiatives. Second, according to the Ordinance, though a territorial examination body, the Authority's powers and duties do not include work at a policy-making or advisory level, and hence its role is largely confined to policy implementation. More importantly, as the composition of its governing council is under the dominant influence of the Government and the statutory requirement for its examination fees and any changes to the Ordinance to be put through the Government for approval by the Legislative Council, the Government is capable of exerting influence on the Authority whenever it chooses to. It is no coincidence that all along the years, major development decisions of the Authority are somehow in line with the education policies of the Government. This relationship is clearly manifested in the events leading up to the implementation of the public examination reform as a

part of the education reform.

Being a monopoly with no competitor in Hong Kong, the Authority may be the envy of some of its counterparts. However, as an organisation, given only an operational ambit, with limited ability and reasons to generate sufficient income to fund major research and development initiatives, and in a way losing its dominant control over its own public examinations in face of increasing curriculum demands, there could be a lack of motivation to be innovative and dynamic on the part of the Authority. Besides, with so many stakeholders having different and sometimes conflicting interests, and under constant public scrutiny in an examination-oriented culture, it is not easy for the Authority to initiate any change without inadvertently producing undesirable consequence. This may result in inertia or inaction. The inconsequentiality of ROPES could be considered an example to illustrate this situation of the Authority.

On the other hand, the Government has always had a stake in the HKEAA. Thus as far as it is within the boundaries of the educational policies of Hong Kong, the Government is willing to provide whatever reasonable support to the HKEAA for it to deliver its statutory mission at an operational level. This is particularly helpful for aligning stakeholder interests, and maybe financially at times on project basis.

Finally, the effectiveness of the Authority in establishing itself internationally seems to be an area where it has much room for

improvement. It is with the inspiration gained from the American case that international effectiveness has been included into the framework of this research. It is only through achievement at this level that a public examination can establish a status on its own as an assessment tool and not being unduly tied down by demands associated with a local curriculum. Such achievement may also help enhancing the status of the Authority back in Hong Kong and contribute to its overall effectiveness professionally and financially.

The Authority is not without potential to become an international player, though this may seem far too ambitious. At the time of writing, i.e. the first year in which the HKDSEE is administered, apart from recognition of local universities and tertiary institutions, some encouraging recognition has already been gained from NARIC and UCAS in the UK, the Australian Education International, the University Entrance Committee for Overseas Chinese Student of Taiwan, over 150 tertiary institutions worldwide (mainly from the UK, USA, Canada and Australia) and 70 universities in Mainland China (HKEAA, 2012b).

In possession of a suite of fully bilingual university entrance examinations administered in two languages which are amongst the most widely used (viz. English and Chinese) with recognition worldwide, there are reasons to believe that the HKEAA has the potential to become an international world class examination body. There are likely demands for the HKDSEE in the Chinese speaking places, like Taiwan and the PRC, where students may prefer the use of

HKDSEE in Chinese to gain access to tertiary institutions in the West.

Last Word

Given the abundance of academic works on public examinations, those specifically on examination bodies are surprisingly scanty. The study of institutions which create such powerful tools as public examinations perhaps should deserve more attention than they do now. This study of the changing role of an examination body I trust is illuminating from at least three perspectives.

From an academic perspective, it is hoped that this study can stir up more debates regarding the role of examination bodies, generate suggestions for enriching the research framework proposed in this thesis and lead to more systematic approaches to evaluate the effectiveness of these institutions and help them improve their work. Besides, based on the findings of this study, it seems more research work is worthwhile for exploring ways to achieve a smooth interface between assessment and curriculum as these are two separate functions responsible by different professionals and yet getting increasingly interdependent due to changing concepts of curriculum, learning and assessment theories.

From an educational perspective, this study has illustrated the limitations of an examination body in designing its own examinations and controlling their uses partly due to the incompatibility of the value

systems of different stakeholders. While complaining about the detrimental effects of these examinations as some stakeholders in the education field often do, perhaps they can also reflect on what they can do to minimize such detrimental effects. More importantly, they should perhaps be aware of and better prepared for their own changing roles in assessment for learning as the trend furthers.

From a practical perspective, this study is timely for colleagues of the Authority. Findings of this study reinforce that assessment and curriculum have an inevitable mutual support role for each other in an age of compulsory education under the current development towards a qualitative approach in assessments (including summative assessments) for formative purposes. Assessment practitioners in general perhaps should be ready that development in these directions is likely to further and result in significant changes in assessment culture in the coming years. Amongst a plethora of imminent technical and professional issues to be tackled, such as teacher workload, professional training, moderation methodologies, etc., what should not be overlooked are potential conflicts of interest and the need for all parties to demonstrate high professional standards and conduct to enable the implementation of assessment initiatives in this direction to be credible and sustainable. In relation to this, I wish to end my thesis with the following remarks of Tattersall (2008) in this respect:

“At the heart of professional involvement in the system is an issue of trust. Trust that those involved in the design of specifications and

examinations do so without gain for their own students, trust that marking will be objective and reliable, trust that grades will reflect the true attainment of students; trust in the consistency of the standards of awards; trust on the part of users of certificates – HE and employers; trust of the parents, politicians and the wider public; trust of the students themselves that they will get a fair deal. At its simplest level, the public looks to professionals who know their job – raising the status of assessment through CPD is a vital part of that process. But the public expects and deserves much more: a full understanding of the system through openness and transparency on the part of all the players; an engagement in the debate about standards. In order for the public to trust the awarding bodies, I suggest that there needs to be a new understanding of the roles people and organisations play: a Professional Code of Conduct for awarding bodies and for assessors whether in schools or working externally, together with a Code of Ethics, might go some way to underpin public confidence in the system.”

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(I would like to express my sincere thanks to Dr. Thomas Cheung, Acting Secretary General of the Hong Kong Examinations and Assessment Authority for allowing me to make use of the following internal documents in the present study. These documents include the minutes of meetings of the Authority Council indicated in the thesis with the superscript “HM” and the appendices to these minutes indicated with “HA”.)

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