# An Analysis of Educational Reform at the School Level in Hong Kong

Dr Terrence Quong Jockey Club Ti-I College terry.quong@gmail.com

# Bio

Over a career of 34 years, Terry has taught at the primary, secondary and tertiary levels in Australia and Hong Kong. Terry has held principalship positions in both primary and secondary schools and is currently principal of Jockey Club Ti-I College in Hong Kong SAR. In addition to his work in schools, Terry has provided educational consultancy services to various organizations. As a consultant, he has facilitated strategic planning and leadership training programs in Australia, Singapore, Philippines, Malaysia and Hong Kong. Terry's research interest is in leadership and strategic planning and he has published widely in various journals.

## **Abstract**

The Hong Kong government has implemented a major educational reform that has included the introduction of the New Senior Secondary curriculum from the school year 2009-2010. In this paper a description is provided of the impact of this educational reform on the work of teachers. A brief analysis is also provided using Jurgen Habermas' theory of knowledge constitutive interests to gain insight into the impact of the reform with implications for the work of school leaders in implementing the change agenda.

#### Introduction

From the school year 2009/10 the Hong Kong Government implemented a New Senior Secondary (NSS) curriculum as part of an overall major educational reform called the New Academic Structure.

The background to this reform can be seen in the overall impact of globalization on educational development in the region and the need for HK to maintain the country's competitiveness in the global marketplace (Chan 2010). Cheng (2009) says that the discussion of educational reform in Hong Kong should be put in the larger context of the Asia-Pacific Region. "In the past two decades, there had been nine trends of education reforms at four levels of education systems in the Asia-Pacific Region and other parts of the world. At the macro-level, the main trends include: towards re-establishing a new national vision and educational aims; towards restructuring an education system at different levels; and towards market-driving, privatizing and diversifying education. At the meso-level, increasing parental and community involvement in education and management is a salient trend. At the site-level, the major trends are: ensuring education quality, standards and accountability; increasing decentralization and school-based management; and enhancing teacher quality and the continuous lifelong professional development of teachers and principals. At the operational level, the main trends include using information technology in learning and teaching and applying new technologies in management, and making a paradigm shift in learning, teaching and assessment." (p. 75)

The advent of globalization and the rise of China are two factors that are impacting on the development of Hong Kong. China is fast moving to a position of first world authority and along with this, Hong Kong's comparative position of economic affluence, that had its roots in British rule and East-West hybridization may be dwindling. In the post-reunification period Hong Kong citizens will want to be proud of being Hong Kong permanent residents not just because they are economically more affluent (as in pre-1997 days), but because of an emerging identity framed by political pluralism, the rule of law, respect for human rights and free speech, accountable governance and democratic institutions (Cheung 2005).

In school staff rooms, teachers can be heard to discuss the necessity for the education reforms in terms of the need for Hong Kong to maintain economic competitiveness given the rapid rise importance of Shenzhen and Shanghai, and to reaffirm the uniqueness of identify of Hong Kong citizens under China, especially the values of human rights, the rule of law, free speech and democracy.

Whatever the reasons the educational reform of the NSS is a massive curriculum change mandated by a central authority, the Education Bureau; and the trouble with any externally imposed change is getting it accepted by teachers and thereby implemented in schools.

As Byung-kee Huh (2011) describes "the characteristics of educational organizations suggest that the forces from the outside of a school do not have a strong influence on it.

Schools are inclined to function according to the internal mechanism, which prevents them from responding willingly to the demands and pressures from the outside. The members of educational organizations tend to perform their 'confidential and unclear' tasks in the way of uncertainty. In these organizations there exists a peculiar culture that we cannot control with ease. The members follow the norms that the organizational culture is dictating. In particular, the strong and exclusive norms in an educational organization are likely to defy or remarkably weaken the forces exerted by the external."

These norms that comprise the 'within-school forces' (Byung-kee Huh 2011) are not easily described and vary from school to school, however, they are always grounded in the teachers' own experiences and expectations of what should and should not be taught, and what pedagogy is and is not desirable. In this regard the uptake of a major curriculum change, mandated by external forces, can be problematic if the school's leadership is unable to find ways to enable teachers to understand and accept change to school norms.

The successful uptake of major educational reform by schools, therefore, depends very much upon having a school site leadership that is able to make sense of the reforms for their staff. In this regard, 'sense making' refers to how the reform is interpreted by teachers (and others) in regards to their existing values and understanding of what constitutes 'good' educational practice. If a major curriculum reform is to be effectively implemented, than the school's teachers have to embed new practices into their array of classroom activities, programs and assessments. To do this they need to understand what is being asked of them. At one level, this means having a framework for understanding the knowledge shifts that are required to accommodate the curriculum reform.

In this paper, Jurgen Habermas' knowledge constitutive interests (Habermas 1971) is used as a framework for 'making sense' of the educational reform and therefore to enable school leadership to define the change needed to be made by teachers at the site level.

According to Habermas knowledge is shaped and used in three ways; in technical ways for instrumental reasons, in practical ways for socio-cultural reasons, and in emancipatory ways for reasons that relate to a critical theory. But before applying this framework, a description is provided of the impact of the educational reform at the school and classroom level, the "paradigm shift in learning, teaching and assessment" (Cheng 2009 p.75).

## Impact of the Educational Reform on Schools

While it has become an axiom to say that 'change is a constant', and teachers in the main have come to expect ongoing curriculum change, nevertheless the size and extent of the NSS curriculum reform would be unprecedented in the career of most secondary school teachers.

In a nutshell the reform brings in a "334" New Academic Structure (NAS) which in addition to 6 years of primary education, means 3 years of Junior Secondary education (S1-S3), 3 years of Senior Secondary education (S4-S6) and 4 years of University education. This New Academic Structure implements a change from 9 years to 12 years of compulsory education in HK. At the Secondary School level it has reduced 7 years of schooling to 6 years with the introduction of a wholly new curriculum, the New Senior Secondary (NSS). It replaces two senior secondary examinations with just one examination, the new HK Diploma of Secondary Education (HKDSE). The NAS and NSS constitute a major education reform, not just because of the change in the length of schooling, but because it is an attempt to shift the culture of secondary education from a very examination oriented school system, in which students focused on the two traditional streams of science and the humanities/arts classes, to an education that encourages more

student focused, inquiry based education with greater student choices and whole person education (Chan 2010).

This culture shift has presented the most challenging aspect of the reform agenda for teachers and school leaders at the school level. A current HK principal described the change this way, "There is a need to shift teaching from 'drill and kill' to 'inquire and inspire'. Students can no longer sit and wait for teachers to 'drop nuggets of gold' on their desk for them to memorize for their exams, they have to actually actively engage in learning – and the most underprepared person in the classroom for this at the present time is the teacher." (Chan 2011)

This comment highlights the need for a paradigm shift away from the culture of examination focused education that tended to cast students in a passive mode, emphasizing strong teacher centred classroom practices, and explicit teaching, to a culture that focuses less on examinations and more on student centred learning and constructivist approaches.

Poon & Wong (2008) say that the reason a strong culture of examination focused learning exists in Hong Kong, can be explained in terms of its history and traditions. In Hong Kong education is seen as a means of achieving social mobility, of gaining economic

opportunities and for improving life standards of living. Chinese students strive hard to make their way through the school system because traditionally families see education as a way in which everyone can gain wealth and become important. For about 1,300 years, from 1905, mandarins (powerful bureaucrats) in China were selected by merit through an extremely rigorous imperial examination system. Likewise civil servants in more recent British colonial Hong Kong were required to do well in public examinations and pass a series of civil service entry examinations.

Poon & Wong (2008) also note that besides the strong examinations focus of the pre-NSS system, another characteristic of Hong Kong classroom practice was rote learning.

Traditional teaching methods required students to reproduce verbatim what was taught rather than to analyse and reconstruct or question. Perhaps a reason for this can be found in the need to memorize vast numbers of characters in order to be able to read or write. Chinese ideograms. In the knowledge age of the 21st Century, it is a widely accepted view that knowledge is too rapidly changing for memorization to be an effective learning skill.

This was recognized by the HK Education Commission who noted that Hong Kong has the need to transform from an industrial society to an information society, and a knowledge-based society needs talented individuals 'who are good learners, articulate,

creative, adaptive', critical and capable of life-long learning (Education Commission, 2000).

The required reform was described by the Permanent Secretary for Education, Ms Fanny Law as:

Everywhere, educational reformers are seeking ways to provide young people with an education that equips them to succeed and be good citizens in an information age, which requires the ability to access, select, interpret, analyse, and use information for making decisions. The skills and competencies required to succeed in today's workplace are changing as well, with an increasing emphasis on thinking skills and personal qualities, including the ability to work with people, selfmanagement, integrity and honestly. The learning goals of education must change accordingly to reflect the community expectations and demands in the workplace. Our students need to be exposed to a thinking curriculum that fosters problem solving and creativity. They also need a more general education that provides a broad knowledge base. Narrow specialization will only serve to limit their horizons and lateral thinking. (Law 2006)

Cheung (2010) Principal Assistant Secretary for Education describes the change in terms of the new goals of the NSS which are:

To be biliterate and trilingual with adequate proficiency.

- To acquire a broad knowledge base and be able to understand contemporary issues
  that may impact on one's daily life at personal, community, national and global
  levels.
- To be an informed and responsible citizen with a sense of global and national identity.
- To respect pluralism of cultures and views, and be a critical, reflective and independent thinker.
- To acquire IT & other skills for being a lifelong learner.
- To understand one's career/academic aspirations and develop positive attitudes towards work and learning.
- To lead a healthy life style with active participation in aesthetic and physical activities.

Of these outcomes arguably the one that best represents the major difference between the old and the new in terms of teacher's work, is "to respect pluralism of cultures and views, and be a critical, reflective and independent thinker". For this to be achieved requires a major shift in pedagogical practice in classrooms.

Drilling down on the reform, key aspects of the NSS change at the school and classroom level are briefly summarized in the following table (Table 1).

# A Summary of the Impact on teacher's work of the NSS

The New Senior Secondary Curriculum (NSS)	Statement of impact on teachers at the school level
Six years secondary schooling is now compulsory (Secondary Form 1 - form 6).  Previously only approximately a third of all students progressed from Secondary Form 5 (CEE examination) onto the last two years of schooling (Form 7 ALE examination).  Under the NSS all students will now progress to the Form 6 Diploma of Secondary Education examination.	Teachers have to plan new programs suitable for the needs of students who previously would have left secondary school. New <i>Elective</i> choices have to be offered and different teaching-learning strategies have to be adopted.  There are major implications for what constitutes minimum knowledge standards for passing the Diploma of Secondary Education.  Senior secondary teachers who previously would have only taught academically able students (as the others were 'filtered' out by the Form 5 CEE examination), will now have to teach all students (12 years of 'compulsory' education).
The curriculum in secondary school has reduced from 7 years to a 6 year program. This is made up of 3 years Junior Secondary and 3 years Senior Secondary (NSS). Previously the secondary was divided into 3 years junior, 2 years 'middle years' (CEE), and 2 years senior secondary (ALE)	Teachers in all senior secondary subject areas need to revise the content and outcomes of their teaching programs. They need to change their scope and sequence documents as well as assessment regimes. They also have to reduce time commitment without sacrificing coherency.  Some teachers will have difficulty in 'casting' off knowledge and content that is no longer covered in the new curriculum, because they may believe it is 'essential' to their teaching of a particular subject and the linear development of the inherent knowledge of the key learning area.
The change from two examinations (Form 5 CEE and Form 7 ALE) to only one examination (Form 6 DSE).  Previously students sat for two examinations, one at the end of Form 5 and the other at the end of Form 7. As previously noted, only about a third of students progressed from the Form 5	Teachers who were used to 'teaching to the examination' – with two key exit points, now only have one examination at the end of secondary. This is a deliberate attempt by the EDB to reduce the pressure generated from public examinations.  This requires a change in attitude to teaching with a move away from 'teaching

to the examination' and 'rote learning' skills, to other more student centred pedagogical practice.  This in turn opens up the forms of knowledge that can be covered in programs (previously the only knowledge 'taught' was that assessable by examination).
Teachers now have to use School Based Assessment. In some cases this is up to 25% of the student's overall assessment.  This requires the development of new assessment policies, new assessment practices, and most importantly it requires a change in teachers thinking from 'teaching to the exam' to teaching that focuses on non-examination assessed outcomes.
The introduction in many subjects of individual enquiry projects (student investigations) is a major shift for many teachers who may have no previous experience in this before.  Importantly, many teachers may in fact have never actually engaged in one themselves as a student at school or in teacher's training programs.
The overall shift is away from what was traditionally accepted by secondary schools, that students would choose between two streams, the Sciences or the Arts Streams. Now the emphasis is on greater Elective choice and greater flexibility in learning pathways, as well as 'whole person education'.  For many teachers this has had an impact on what subjects they are required to teach. For instance in a typical secondary school of a 1060 students there is a need for about 16 Liberal Studies teachers. These teachers

	History, etc) who are 'retrained' to be LS teachers.
A new curriculum syllabus statement in every subject area. The HK Examinations Assessment Authority (HKEAA) has worked with the EDB and other bodies to develop new syllabus statements in all NSS Subjects.	Aligned with the overall change there is a new curriculum syllabus released for each secondary subject (e.g. NSS Chemistry, NSS History, etc). The introduction of new curricula always means a great deal of work for teachers. The development of programs, teaching notes, assessment banks, lesson plans etc, requires time, resources, and intensive professional development.  The NSS curriculum statements also embed the new rationale of engaging students in becoming critical, reflective and independent thinkers.

This table illustrates the major impact on teachers' work that has come about because of the implementation of the NSS.

Unfortunately the impact on teachers has been deepened by the coinciding of the change with a major decline in student numbers in HK. The Education Bureau in information to schools regarding what is commonly referred to as the 'optimization policy' (memo No. 43/2010 and No 190/2010) predicts a drop of more than 30% in secondary age students by 2014. This has caused some teachers to have serious concerns for their job security and the resulting drop in school morale has implications for the willingness of some to engage in the work needed to implement major curriculum change.

Equally, for school leadership, the decline in student numbers has resulted in a great pressure to put their time and energy into attracting enrolments and this means less time for the implementation of educational reform. As Bottery et al (2008) note, "the market consequences now have become a lot of the drive of most schools in Hong Kong and this is because they have to survive. The key to attracting enrolments is the most important thing is that when you work, you must do very well, and then everyone knows your school is a good school...it's the results more than anything else..." (p. 65). During this time of decline some secondary schools will continue to emphasis success in examinations as their most critical goal over and above such reform considerations as Other Learning Experiences and whole person education, because it attracts parents to enroll their children.

## Analyzing the Impact on Teachers of the NSS Curriculum Reform

In order to implement curriculum change effectively, teachers in schools need to understand or make sense of what is required of them by the educational reform. School leaders play an important role in interpreting reform in ways that are meaningful at the school and classroom level.

Jurgen Habermas' theory of knowledge constitutive interests (Habermas, 1971) provides a means for analyzing and interpreting the NSS curriculum reform. Grundy (1987) says that

Habermas' theory of knowledge-constitutive interests is useful in informing three styles of curriculum:

- a rationalist/behaviourist "curriculum as product" view of the curriculum revealing the "technical" knowledge-constitutive interest;
- a humanistic, interpretative, pragmatic "curriculum as practice" view of the curriculum, embodying the hermeneutic knowledge-constitutive interest;
- an existential, empowering and ideological-critical view of the "curriculum as praxis" embodying the emancipatory interest.

Grundy (1987) found in his research that most educational reform efforts address only the first of these two knowledge interests. Yet at least in its rhetoric - that HK senior secondary students should become "more critical, reflective and independent thinkers" (From the goals of the NSS, Cheung 2010) - the NSS has implications of an emancipatory or critical interest, in which knowledge would contribute to the emancipation of students from self-imposed and external constraints, and conditions of distorted communication.

Emancipation, from Habermas' point of view, is reflective action. The emancipatory interest is defined as empowerment for students (and teachers) to engage through the curriculum in autonomous, purposeful social action. The acquisition of critical knowledge is aimed at producing a transformation in the self, or in the personal, social, or world situation or any combination of these (Ma, 2010). This is, in effect, the desired paradigm shift sought in the goals of the NSS, or at least of its stated intention.

It can therefore be interpreted that the education reform of the new NSS curriculum, involves teachers in undertaking a major shift from the technical to the practical interest and the adoption of a more critical interest in their classroom practice.

The technical interest can be seen in the widely accepted view of the HKCEE and HKALE secondary curriculum, that it was highly examination focused and tended to cast students in a passive mode, emphasizing explicit teacher instruction. This style of teaching is of an empirical analytic science, where the teaching and learning can be described as instrumental action, where knowledge is arranged in "never ending series of facts often accepted in a priori fashion which are than plugged into a hierarchical chain of deductive reasoning" (Aber 1991, p.126).

The practical interest is knowledge that comes through hermeneutics of interpreting meaning, of people and culture. It comes through enhanced communication and its interest is in knowledge that enhances mutual understanding that makes human interaction meaningful. Practical interest is concerned with relating and communicating and the development of mutual understanding. It is an interest in interpretation and the study of meaning. The practical interest is therefore linked to constructivist approaches to teaching

and learning, where the notion of conceptual change is more important than recall of facts or the application of knowledge through accepted rules and regulations.

Aber (1991) describes the difference between the technical and the practical as:

"If the technical interest is concerned with the 'how' (How can we grow more crops on the

Great Plains? How can we get students to do what professional writers do?) Than the

practical interest is concerned with the 'what' (What do the farmers think about the

national agricultural policy? What does our students experiences contribute to the way

they feel about writing?) (Aber 1991, p.127).

Habermas' critical or emancipatory interest is an interest in knowledge to achieve self-knowledge and self-reflection to effect a cognitive, affective and practical transformation (Aber 1991, p.127). For Aber it is about the how, what and why, where the why leads to social change.

Expanding on the example of Geography, as used by Aber (1991), the educational reform of the NSS is illustrated in the following table:

## Habermas' Knowledge Constitutive Interests and Geography

Knowledge	Example taken from	Comment
Constitutive	Senior Secondary	
Interests	Geography	

Technical Interest	How can more food crops be grown on the Pearl River Delta Region in China?	The pre-NSS curriculum was based on explicit teaching and was highly examination focused with a great reliance upon the memorization of information. And 'scientific' interpretation of presented data. It was of a strong technical interest.
Practical Interest	What do the farmers think about the Chinese National Agricultural Policy in regards to the Pearl River Delta Region?	An "Issue-enquiry approach" has been adopted in the CEE and ALE Geography curriculum since the late 1970s (CDC 2007, p. 2) The inquiry approach is of a practical interest. It is based on the interpretation of data in regards to specific questions and of shared and mutual meaning, it did not extend to issues of a critical theory.
Critical Interest	Why do the farmers of the Delta have to abide by this policy? Why is the quality of life of HK people affected by this policy and what can HK people do about it?	NSS educational reform leads to "more critical, reflective and independent thinkers" Independent Enquiry Studies and inquiry based learning is about student centred investigations and in questioning socially relevant and contemporary issues that impact on the students' 'real' lives. It is about teachers facilitating the development of student voice.

The NSS – if achieved in its intended form - would serve student empowerment both in content and process, developing participatory democracies, engagement, and student voice. While not normative within systemic educational reform it can be seen to have implications for interpreting current NSS reform in HK, particularly in regard to developing student voice.

The importance of 'student voice' is not a new construct for as far back as Dewey's (1899), educators have envisioned students providing their experiences and ideas and having a dialogue with teachers in order to set up new lines of thought and inquiry. Student voice has existed but has been rare in secondary classrooms of pre-NSS HK education.

Developing student voice is definitely an intended strategy of HK educational reform, particularly in the development of School Based Assessment and Independent Enquiry Studies. Furman and Calabrese Barton (2006) see developing student voice as in keeping with an emancipatory/ critical interest – where learners are allowed to create their own meanings and "become authors of their worlds, demanding that students assume a proactive role in planning, implementing and evaluating their learning" (p. 667).

#### A warning and an opportunity

At the time of writing the NSS is in its second year of implementation with the first cohort of HK DSE students to graduate in twelve months. At this time the question can be asked; is the educational reform in fact leading to a paradigm shift from a technical and practical to the adoption of a critical interest, or is it just mere rhetoric? In other words, is the educational reform genuine in its intention of schools developing HK citizens who are critical, reflective and independent thinkers?

Koo Hok-chun (2002) says that Habermas sees in the development of curriculum the need for education to maximise generalisable interests and to serve the furtherance of equality in society, the rejection of a narrowly instrumentalist education coupled with the need for education to serve democracy, liberty and equality reinforces the need for citizenship education (p 71). Habermas' views are fruitful in suggesting such curriculum aims as:

- the need to develop students' empowerment and freedom,
- the need to develop communicative competence,
- the need for education to promote equality and democracy,
- the need to develop flexibility and democracy, and
- the need to develop negotiated learning." (2002, p. 71)

As Ma (2010) notes, emancipatory knowledge comes by exploring the issues of power in the classroom, reflecting upon how and by whom knowledge is constructed, looking at whose knowledge is considered valid and reliable, and exploring ways to draw upon student's own knowledge. Critical reflection is the vehicle for transforming a learner's understanding. It has the effect of a change of knowledge, a change of awareness, and even a change of consciousness. The questioning of basic assumptions and making connections between the students and their context (personal, academic, professional, and so on) are key to integrating and generalising the learning of concepts, courses, program, and disciplines in current and future careers and personal situations (Ma 2010, p. 90)

Like any educational reform, the NSS will not be without its distracters and critics, there are those who will warn that the NSS is not emancipatory, but that the changes are

illusionary because the distortions created by the large central bureaucratic system of the Education Bureau, will always be barriers to any real change.

Others will also argue that it is not possible for any school reform – regardless of where it is sited - to achieve a truly emancipatory interest in Habermas' terms, given that all school systems will be bound by the limitations and barriers created by the hegemony they serve.

Perhaps there is something naïve in daring to suggest that systemic educational reform in Hong Kong is anything but an example of decentralization and marketization as espoused in neo-liberalism (Choi, 2005). Chan (2010) notes "we could observe that the 'Myth' of educational reform will not bring us multi-purpose solution that could solve various society problems like anti-poverty and unemployment. In fact, as the slogan of the NSS educational reform stated that: Learning for Life, Learning through Life is crucial to cater to learners' differences and their diversity (actual needs of students). It should be learners' centered and adding value to them. Under the NSS structure, all students will complete 6 years of free but compulsory secondary school studies instead of previously 3 years. Even though the students do not want to or were not capable to complete their studies, they have no choice. Is this doing good to the students? Will the less able students learn and develop themselves during the compulsory time (3-3-4) spent in school?" (Chan 2010, p. 27).

Yet regardless of this debate, the intent of the reform has been stated and, from my experience as a principal at the school site level, the pressure on teachers to adopt a more critical interest (if not truly emancipatory) is very real indeed. As a school leader it makes good sense to me to interpret the educational reform as having at least the intent to shift teaching and learning from a strongly technical to a practical and critical knowledge constitutive interest. In this interpretation of events – however naïve – it is possible to share a vision with teachers of reform of real worth to the future education of Hong Kong.

#### Conclusion

In this paper a brief description has been provided of the impact on the work of teachers in secondary schools of the NSS educational reform. Habermas' (1971) notion of knowledge constitutive interests has been used to provide an analysis of these changes and it has been suggested that the main paradigm shift in curriculum can be described in terms of a change from a technical to a practical and a more critical knowledge constitutive interest.

Habermas' theory provides a framework by which school leaders can make sense of the reform for their staff, it is a way of interpreting the reforms in terms of teachers existing values and understanding of what constitutes 'good' educational practice and a vision of what the reform can possibly achieve. This is essential to setting an effective change agenda.

Whether a more emancipatory curriculum and pedagogical practice will result is as yet unknown, but the vision of a more critical approach to teaching and learning in HK schools, is a goal worth pursuing. Not all teachers may agree that the abandoning of 'examination focused' practices for more student centred, inquiry based and reflective practices is desirable, but all teachers do need to become enlightened as to the fundamental interests which constitute knowledge and they do need to engage in critical debate, and praxis, for the purpose of transforming the reality of schools.

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