

# Proposed Framework of Education Statistics

## Consultation Document



Education Commission  
Hong Kong Special Administrative Region of  
The People's Republic of China

June 2003



## Preamble

As various Education Reform measures are implemented progressively, those concerned about the development of Hong Kong's education have posed a question to us and the question is "what sort of changes do the reform measures bring to Hong Kong's education?"

The Education Reform has been put into practice for over two years. The Education Commission (EC) considers that it is now opportune to develop a framework of education statistics to reflect the current state of education in Hong Kong. We should be able to understand the current state of education, and assess the changes and impacts brought about by the Education Reform through analysing changes in the data and comparing Hong Kong's data with those of other countries and regions.

In formulating the education statistics framework, we will try to make use of readily available data to avoid inducing additional data collection work on the part of schools. The statistics in the framework are intended for long term use. There will also be a mechanism to review the identified statistics and if need be, statistics would be added to or deleted from the framework.

We must emphasise that the purpose of establishing the framework is not for assessing individual schools' performance. Rather, the framework is to give a portrayal of the overall situation of Hong Kong's education through various statistics. In addition, as far as improving the quality of education is concerned, reference to the statistical data is very important. Nevertheless, we need to pay attention to the fact that statistics have their own limitations. They do not reflect the whole picture.

After some preliminary deliberation, the EC has drawn up a proposal on the education statistics framework. We would like to seek the views of the education sector before finalising the framework. This consultation document summarises the proposed framework.

We look forward to receiving your constructive views so that we could devise an appropriate and effective education statistics framework.



Rosanna Wong Yick-ming  
Chairman  
Education Commission



## Background

1. To meet the needs of society in the new millennium, the Education Commission (EC) in September 2000 submitted a series of recommendations to reform the education system with a view to raising the overall quality of education in Hong Kong. In his Policy Address delivered in October the same year, the Chief Executive endorsed all the recommendations. The implementation of the Education Reform commenced immediately thereafter. Over the past two and a half years, a number of reform measures were put in place progressively, including inter alia, curriculum reform, the Primary One Admission and Secondary School Places Allocation Systems reform, as well as a number of measures to strengthen support for schools and enhance teachers' and principals' professional competence.
2. The EC sees a need to formulate a framework of education statistics to reflect the current state of education in Hong Kong, and assess and evaluate the changes brought about by the Education Reform. The EC considers that it is now opportune to start developing such a framework taking into account the experience of implementing the reform measures over the past two years. The overriding purpose of the proposed framework is to identify a small number of meaningful statistics that can characterise quality education in Hong Kong and give a reliable approximation of its development over time as reflected through changes in the data or in Hong Kong's comparison with other countries. It is hoped that a framework could be established through consultation and consensus-building. The framework is designed for the long term. Inevitably, new issues arise that need to be addressed, and there will be a mechanism to review the identified statistics to refine and update them. The mechanism should be able to accommodate additional statistics as the need arises and eliminate those no longer relevant. While there will be a cycle of renewal, the basis will be a regular set of statistics used over an extended period in order to monitor changes and track trends.
3. The proposed framework will not set new targets or standards. The information collected will serve as useful reference for the interim reviews on various reform measures taken, and possibly evidence supporting the continuation of the Education Reform. It should be noted that the framework is not intended for assessing individual schools' performance. Rather, the framework should reflect the aggregate status of the relevant attributes.



## Basic Criteria for Statistics Selection

4. The key statistics should be -
  - (a) Reflective of the current state of education in Hong Kong;
  - (b) Simple and easy to understand;
  - (c) Collectable and preferably readily available; and
  - (d) Agreeable to the public.

Overall speaking, the number of statistics to be included in the framework should be kept to a minimum in order to retain its communicative ability. Care should also be taken of the potential signalling effect (and hence behavioral implications) of some statistics.



## The Proposed Initial Framework of Statistics

5. Having listened to the key stakeholders' views (including some primary and secondary school heads, parent-teacher associations, academics and the business sector) on the key elements constituting quality education in Hong Kong, and made reference to the Organisation for Economic Co-operation and Development (OECD) framework and the Education and Manpower Bureau's (EMB) framework on Quality Assurance (QA), we have come up with a three-domain framework with a total of 30 statistics. The framework on QA and our proposed initial framework are at Tables 1 and 2 respectively.
6. The initial framework is modelled on the current QA framework which comprises four domains, viz.
  - management and organization;
  - learning and teaching;
  - support for students and school ethos; and
  - student performance.

Information on these four domains may be further stratified into four levels, namely student, school, territory and international levels. Data on the first two levels are largely used at the individual school level for self-evaluation. **For the proposed framework, only data on the territory and international levels, including student performance, systemic data and aggregated school data of the relevant attributes (highlighted in Table 2) will be included.** The management and organisation, learning and teaching, and support for students and school ethos domains in the QA framework are grouped under the aggregated school data category in our proposed framework. Therefore, the proposed framework has three domains, viz. student performance, aggregated school data and systemic data.

7. Hong Kong has been participating in projects whereby students' performance can be benchmarked to some international standards such as the Programme for International Student Assessment (PISA), Third International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study. These statistics are presented at the international level.
8. While students' education in the moral, physical, intellectual, social and aesthetic domains is an integral part of education and whole-person development, and the community at large generally agrees that to attain all-round development in these domains is one of the aims of education in Hong Kong for the 21st century, we have not included any statistics that measure students' moral development or higher-order thinking

ability in the framework. The main reason for this is that information on these aspects is difficult if not impossible to measure and collect. For example, it is a trying task to measure a student's creativity in an objective manner. If, for example, the community considers students' creativity an indispensable element constituting quality education in Hong Kong, then we will need to identify or invent an instrument to measure it. Obviously, it will take time before such an instrument could be worked out and data collected. Therefore, at the initial stage, we do not propose to include attributes that are difficult to measure into the framework.

## Data Collection

9. For the first publication of the education statistics in 2004, it is proposed that only statistics that are readily available and that either the EMB or the Census and Statistics Department is already collecting on a regular basis should be included. This will require no additional effort on the part of students, teachers and schools. The proposed statistics for the first batch of reporting scheduled in 2004 are in Table 3.

## Data Publication

10. The statistics will be published annually for public consumption.

## The Way Forward

11. It is vital that the EC develops a framework of statistics reflecting the current state of education in Hong Kong with a view to assessing and evaluating the progress of the Education Reform. In view of the amount of change expected as a result of implementing various Education Reform measures, it is particularly important to have reliable ways of understanding the current state of play and tracking progress over time. As the advisory body on education matters, the EC will hammer out an initial framework for discussion by the education sector and monitor changes brought about by the Education Reform.
12. We welcome your views on the proposed initial statistics framework. Please send them in writing by post, fax or e-mail to the EC Secretariat on or before 31 October 2003 -

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213 Queen's Road East, Wanchai, Hong Kong.  
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For enquiries, please call 2117 7464. This consultation document is uploaded to the EC's website [www.e-c.edu.hk](http://www.e-c.edu.hk).

**Table 1: Framework on Quality Assurance and Some Key Performance Measures**

Level	Management & Organization	Learning & Teaching	Support for Students & School Ethos	Student Performance
Student	<ul style="list-style-type: none"> <li>• School facilities</li> <li>• Provisions of resources e.g. library books</li> </ul>	<ul style="list-style-type: none"> <li>• Process of learning &amp; teaching</li> </ul>	<ul style="list-style-type: none"> <li>• Student support measures</li> <li>• Learning environment</li> </ul>	<ul style="list-style-type: none"> <li>• Academic</li> <li>• Non-academic</li> <li>• Physical development</li> </ul>
School	<ul style="list-style-type: none"> <li>• Composition of School Management Committee</li> <li>• Teachers' professional development</li> <li>• Teachers' qualification and experience, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of active school days</li> <li>• Lesson time for the 8 Key Learning Areas</li> <li>• Students' reading habit, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Destination of exit students including early exits</li> <li>• Teachers', students' and parents' views on school culture</li> <li>• Parents' views on home-school partnership, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Hong Kong Attainment Tests</li> <li>• Hong Kong Certificate of Education Examination (HKCEE)</li> <li>• Hong Kong Advanced Level Examination (HKALE)</li> <li>• Basic Competency Assessment (BCA)</li> <li>• Students' attendance</li> <li>• Students' physical development, etc.</li> </ul>
Territory	<ul style="list-style-type: none"> <li>• School performance data at territory level</li> </ul>			<ul style="list-style-type: none"> <li>• BCA</li> <li>• Affective &amp; social outcomes</li> </ul>
International				<ul style="list-style-type: none"> <li>• TIMSS</li> <li>• PISA</li> </ul>

Information Source: Education and Manpower Bureau

**Table 2: Proposed Framework of Education Statistics**

Level	Systemic Data	Aggregated School Data	Student Performance
Territory	<ul style="list-style-type: none"> <li>• Expenditure on education</li> <li>• Learning opportunities</li> <li>• Learning environment</li> </ul>	<ul style="list-style-type: none"> <li>• Aggregated data at school level to reflect on key aspects that shape student performance such as utilization of resources, school governance, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Academic</li> <li>• Non-academic</li> <li>• Physical development</li> <li>• Employability of university graduates</li> </ul>
International	<ul style="list-style-type: none"> <li>• Expenditure on education</li> <li>• Learning opportunities</li> <li>• Learning environment</li> </ul>	Not applicable	<ul style="list-style-type: none"> <li>• Academic</li> <li>• Non-academic</li> </ul>

Note: Readily available data and statistics are included in the proposed initial framework to (i) reflect the current state of the school education system, (ii) compare with statistics in other countries, and (iii) compare against international benchmarks wherever possible. Only when there is an absolute need will we include new statistics that necessitate the conduct of survey.

**Table 3: Proposed Statistics for 1<sup>st</sup> Batch of Reporting in 2004**

Level	Domain	Statistics
Territory	• Student performance	<ul style="list-style-type: none"> <li>• Results of the Secure Hong Kong Attainment Tests</li> <li>• Percentage of students awarded grade E or above in the HKCE and HKAL Examinations</li> <li>• Percentage of students awarded grade E or above in the subjects of Chinese Language, English Language and Mathematics in HKCEE</li> <li>• Physical development of pupils (i.e. body weight, height, etc.)</li> <li>• Computer usage by students</li> <li>• Pupils' participation in social and voluntary services</li> <li>• Pupils' reading habit (i.e. average reading time per week, average number of books borrowed every two weeks or more, etc.)</li> <li>• Students taking practical/technical/cultural subjects in HKCEE</li> <li>• Pupils taking part in inter-school and inter-port sports events<sup>1</sup></li> <li>• Pupils taking part in Music, Speech, Drama and Dance Festivals</li> <li>• Employers' overall satisfaction of university graduates</li> </ul>
	• Aggregated school data	<ul style="list-style-type: none"> <li>• Number of schools with parent-teacher associations</li> <li>• Number of schools that have put in place staff performance appraisal system</li> <li>• Number of schools that have formed management committees that align with school-based management</li> </ul>
	<ul style="list-style-type: none"> <li>• System                             <ul style="list-style-type: none"> <li>- Expenditure on education</li> <li>- Learning opportunities</li> <li>- Learning environment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Ratio of government expenditure on education to GDP</li> <li>• Government expenditure on education as a percentage of total government expenditure</li> <li>• Student enrolment in post Secondary 3 craft courses, subsidised senior secondary classes, and senior secondary schools with non-mainstream curricula</li> <li>• Student enrolment in post-secondary education</li> <li>• Number of teachers with degree qualification or above, and recognized training</li> <li>• IT competency of teachers (i.e. general computer skills, capability to operate readily available educational software or higher-level IT tools, etc.)</li> <li>• Range of class size at different levels of education</li> <li>• Pupil-teacher ratios at different levels of education</li> </ul>
International	• Student performance	<ul style="list-style-type: none"> <li>• The reading, mathematics and science literacy of 15-year-old<sup>2</sup></li> <li>• The mathematics and science achievement of students at the age of 9 and 13<sup>3</sup></li> <li>• The reading literacy of students at Primary 4 level<sup>4</sup></li> </ul>
	<ul style="list-style-type: none"> <li>• System                             <ul style="list-style-type: none"> <li>- Expenditure on education</li> <li>- Learning opportunities</li> <li>- Learning environment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Educational expenditure per student at different levels of education (i.e. annual student unit cost)</li> <li>• Total public expenditure on education</li> <li>• Participation in continuing education and training in the adult population</li> <li>• Ratio of students to teaching staff at different levels of education</li> <li>• Use and availability of computer at school and in the home</li> </ul>

Note: 1. Inter-port sports events were organised in alternate years starting from 1998/99 with other nearby regions including Macau, Guangzhou and Fuzhou on sports like badminton, hockey, swimming, volleyball, table tennis, etc.  
 2. Data are to be collected from the Programme for International Student Assessment.  
 3. Data are to be collected from the Third International Mathematics and Science Study.  
 4. Data are to be collected from the Progress in International Reading Literacy Study.