



# 幸福医药黎用冠慈善基金资助

香港幸福医药黎用冠慈善基金培训课程系列  
2013年度西部高校青年教师教育行政与政策研究  
暑期研讨班  
(2013.8.4-2013.8.12)

主办单位

西安交通大学高等教育研究所

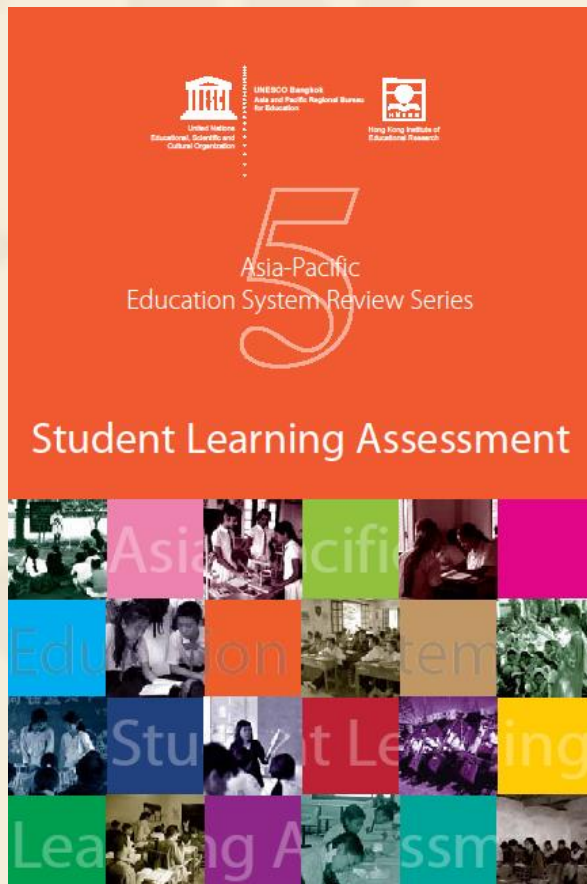
# Institute of Higher Education Xi'an Jiaotong University

## International Perspective in Monitoring Education Quality 从国际視域監控教育素質

何瑞珠

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10-15/08/2013

# UNESCO – Student Learning Assessment (Ho, 2013)



在中国，  
學生學習評估甚么？  
那些核心能力值得评价？  
如何評估？  
評估結果有甚么用途？

# Network for Monitoring Education Quality

## 教育素質评价網絡



### Quality of Education

UNESCO Bangkok

unesco.org

UNESCO » Bangkok Office » Education » Quality of Education » NEQMAP » Activities and Events » NEQMAP Inaugural Meeting

#### Quality of Education

Teacher Policies

Curricular Resources

Learning Assessments

#### NEQMAP

About-NEQMAP

► Activities and Events

Resources

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### Network on Education Quality Monitoring in the Asia-Pacific Region (NEQMAP)

## Newly established



UNESCO Bangkok has established a regional platform for networking and information exchange among countries in the Asia-Pacific region on the issue of monitoring educational quality in the region. This platform, known as the **Network on Education Quality**

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#### NEQMAP NEWS

31.07.13:

**Seminar: Education Development & Cooperation in Asia-Pacific**



UNESCO Bangkok and the Korean Educational

Development Institute (KEDI) are once again bringing together stakeholders in education for their annual Regional...

31.07.13:

**Nomination Call for UNESCO-Hamdan Prize 2013-2014**

30.07.13:

**PISA for Development: Expanding PISA to the Developing World**

#### NEQMAP KEY DOCUMENTS

• NEQMAP Brochure

• Inaugural Statement

• Terms of Reference

• NEQMAP Members

<http://www.unescobkk.org/education/quality-of-education/neqmap/activities-and-events/neqmap-inaugural-meeting/>

# NEQMAP

- ❖ UNESCO Bangkok has established a regional platform for networking and information exchange among countries in the Asia-Pacific region on the issue of **monitoring educational quality** in the region in 2013.
- ❖ This platform, known as the **Network for Education Quality Monitoring in Asia and the Pacific (NEQMAP)**, will provide a forum for exchanging of expertise, experiences and lessons **to improve the quality of learning in education systems of countries in Asia-Pacific, with the eventual aim of influencing policy reforms.**
- ❖ **Activities of the Network:** Focus on **research, knowledge sharing and capacity building** among all stakeholders of the network and beyond.

# NEQMAP

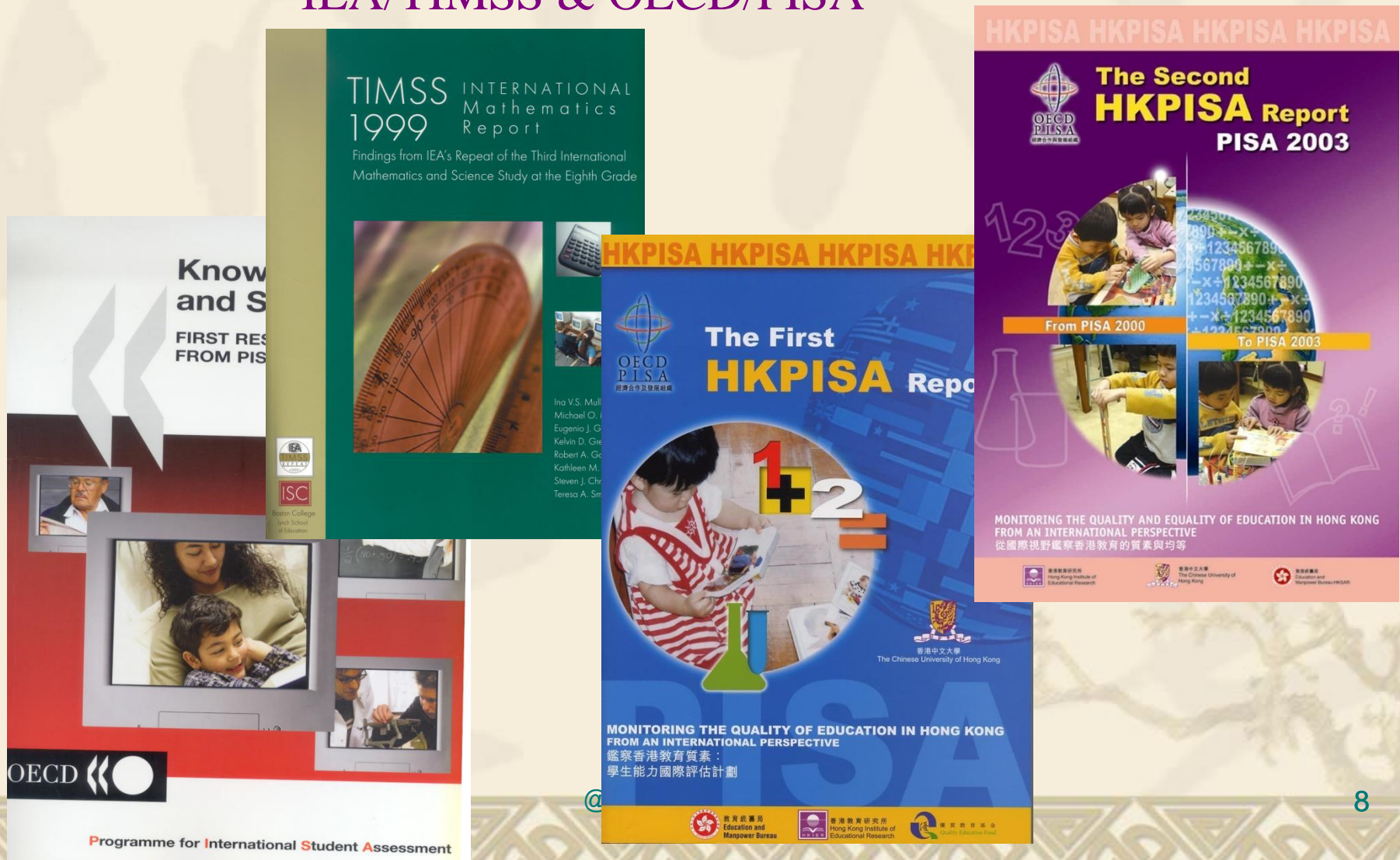
- ❖ An initial meeting: 27-28 March 2013 in Bangkok
- ❖ 1<sup>st</sup> **Steering committee** meeting: 20 Sept 2013 Bangkok. The Steering Group will consist of approximately five (5) members representing the various sub-regions of the Asia-Pacific (including **Central Asia, East Asia and the Pacific & South and West Asia**).
- ❖ The Steering Group should be made up of recognized experts in the area of educational quality with experience in **leading international/regional/national assessment programmes**.

# 多層次監控教育素質

1. International Assessments 国际评估
2. National Assessment 国家评价
3. Public Examination 公开考试
4. School Based Assessments 校本评价

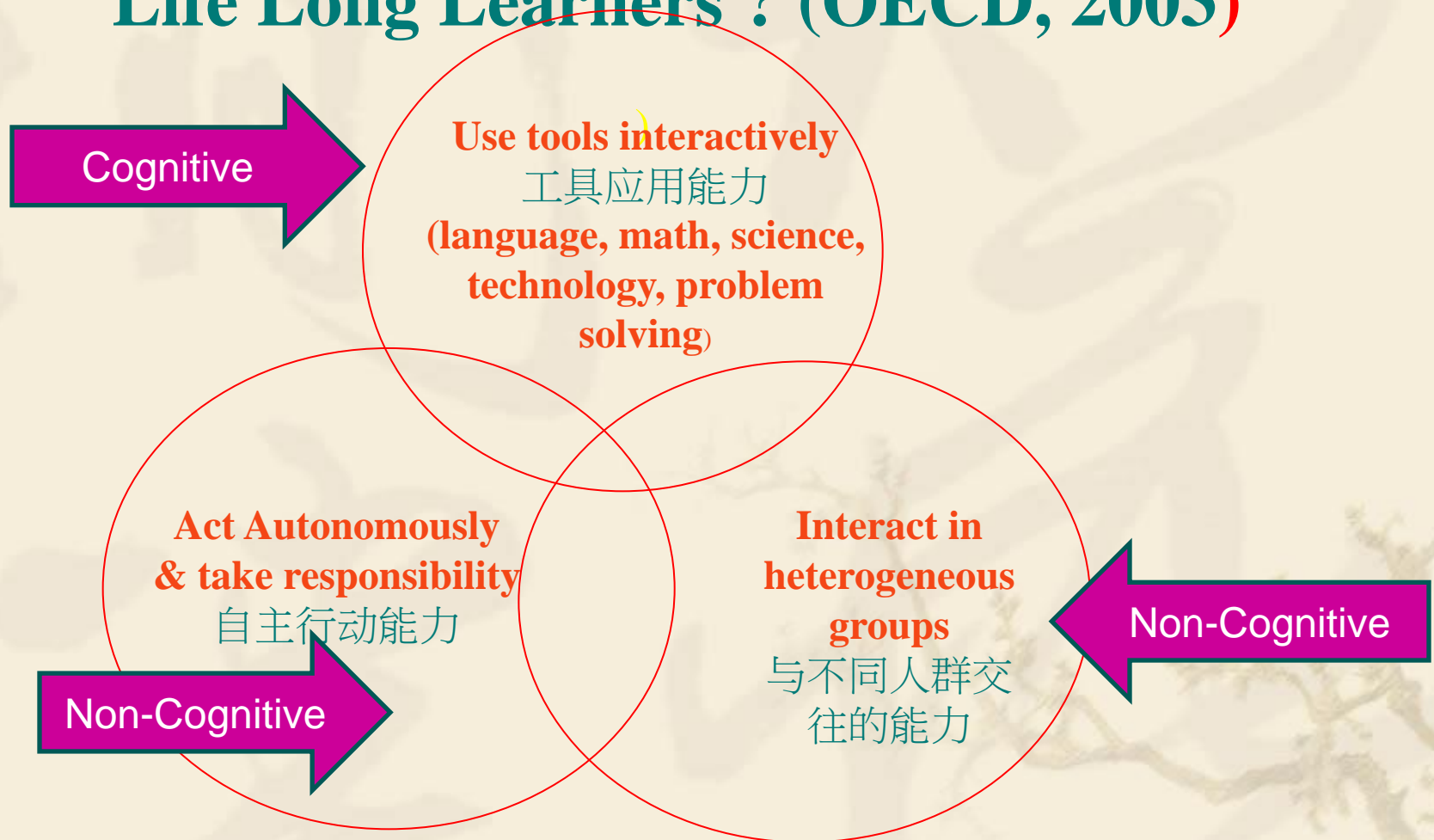
# 1. International Assessments 国际评估:

## IEA/TIMSS & OECD/PISA



# 核心能力评价体系

## What competencies do students need as Life Long Learners ? (OECD, 2003)



# PISA 概念架構

領域	數學能力	閱讀能力	科學能力	解難能力 (PISA 2003, 2012) 2015 Collaborative PB
定義	<p>區別及理解數學在世界上所起的作用、作出有理據的判斷並投入數學活動，從而迎合個人生活的需要，成為一個關心社群和有反思能力的公民。</p>	<p><u>理解、運用及反思</u>文章內容，從而達至個人目標，增進知識及發展潛能，並參與社會。</p>	<p><u>運用科學知識、區別問題及提出有證據的結論</u>以便理解自然界及幫助人類抉擇使自然界轉變的行為。</p>	<p>運用認知方法面對及解決現實中<u>跨學科的情境</u>，而當中的解決方法並不直接，而且測試範疇及學科並不屬於數學、科學或閱讀之單一領域</p>

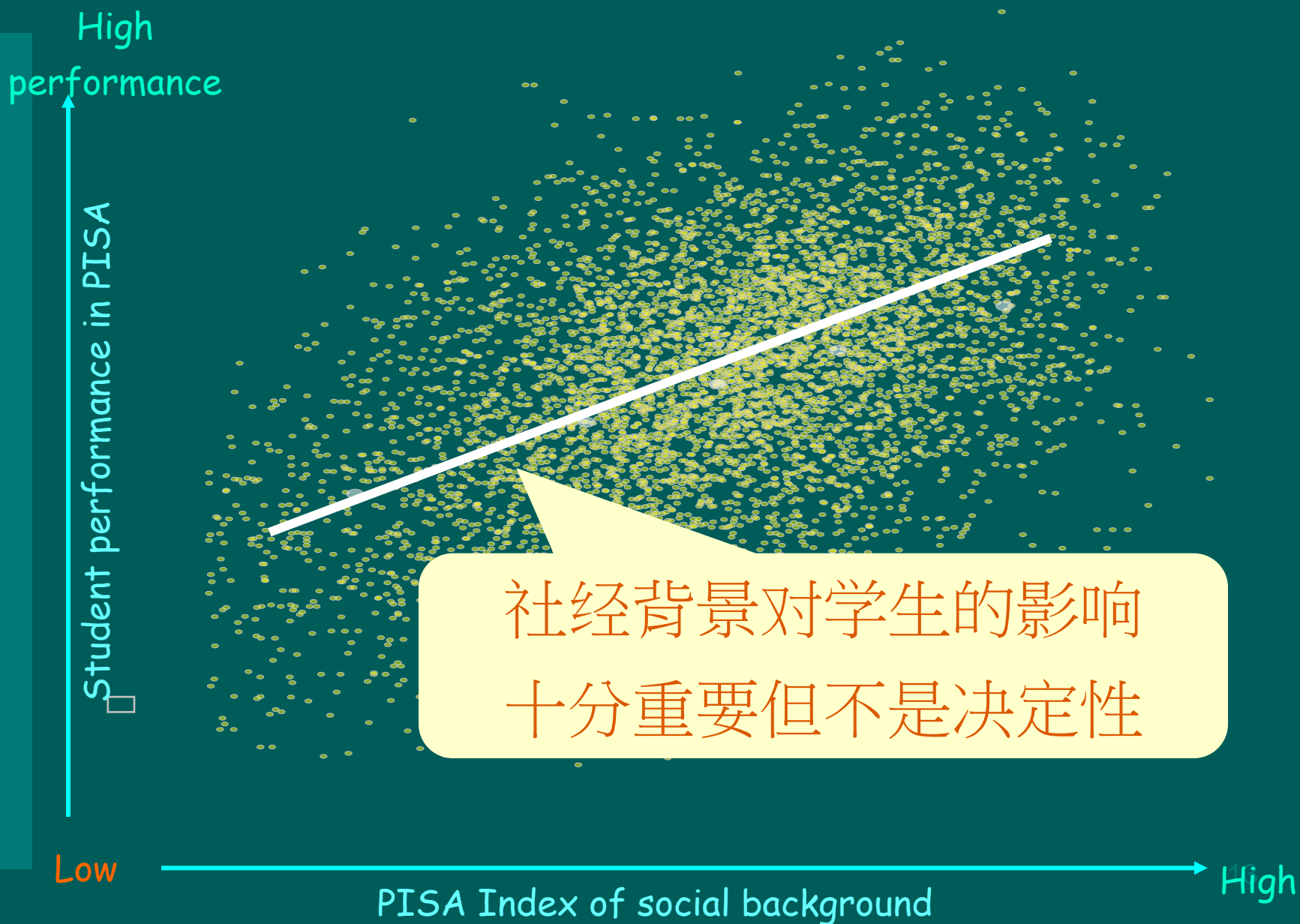
# PISA2009前十名

閱 讀		數碼閱讀 <sup>1</sup>		數 學		科 學	
國家/地區	平均分	國家/地區	平均分	國家/地區	平均分	國家/地區	平均分
中國上海	556	韓國	568	中國上海	600	中國上海	575
韓國	539	紐西蘭	537	新加坡	562	芬蘭	554
芬蘭	536	澳洲	537	中國香港	555	中國香港	549
中國香港	533	日本	519	韓國	546	新加坡	542
新加坡	526	中國香港	515	中華台北	543	日本	539
加拿大	524	冰島	512	芬蘭	541	韓國	538
紐西蘭	521	瑞典	510	列支敦士登	536	紐西蘭	532
日本	520	愛爾蘭	509	瑞士	534	加拿大	529
澳洲	515	比利時	507	日本	529	愛沙尼亞	528
荷蘭	508	挪威	500	加拿大	527	澳洲	527

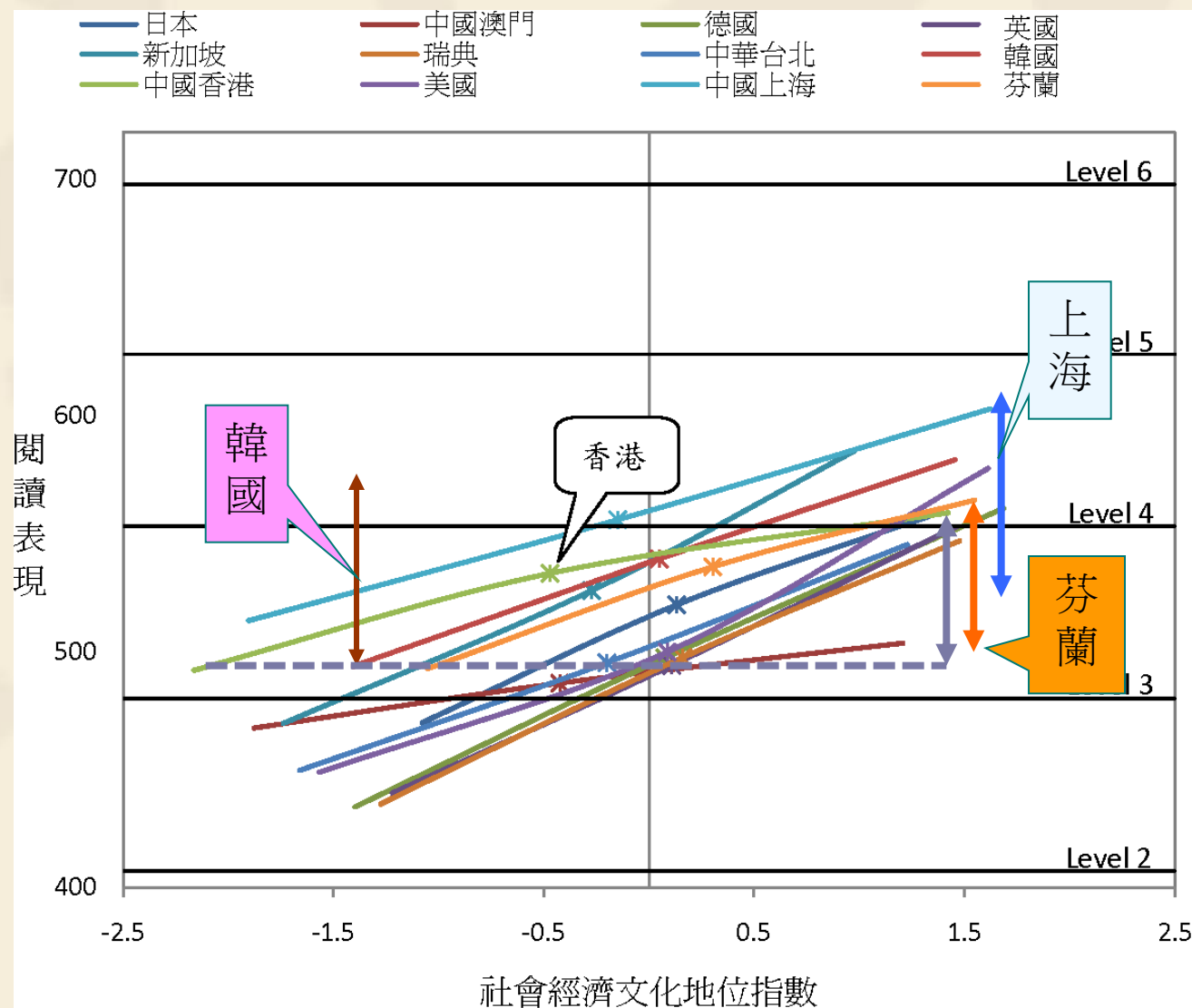
# PISA 2009東亞及其他國家 閱讀成績排名

國家/地區	PISA 2009 名次 (平均分)	PISA 2006 名次 (平均分)	PISA 2003 名次 (平均分)	PISA 2000+ 名次 (平均分)
中國上海	1 (556)	-	-	-
韓國	2 (539)	1 (556)	2 (534)	7 (525)
芬蘭	3 (536)	2 (547)	1 (543)	1 (546)
中國香港	4 (533)	3 (536)	10 (510)	6 (525)
新加坡	5 (526)	-	-	-
加拿大	6 (524)	4 (527)	3 (528)	2 (534)
紐西蘭	7 (521)	5 (521)	6 (522)	3 (529)
日本	8 (520)	15 (498)	15 (498)	9 (522)
中華台北	23 (495)	16 (496)	-	-
中國澳門	28 (487)	21 (492)	16 (498)	-

# 均等指标: 社经背景与学生表现



# 基礎教育的均等程度

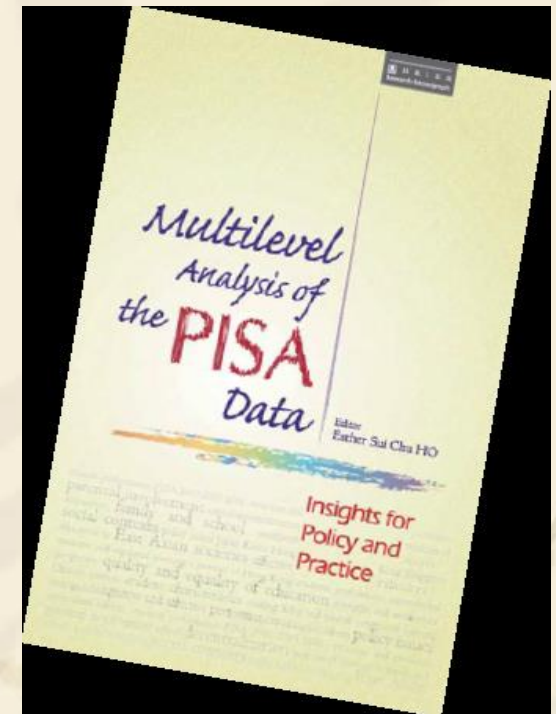


# Lessons learned from International assessment

- ❖ First, International assessment, it helps countries to re-define student learning outcomes beyond the traditional academic achievement (Non-cognitive outcomes).
- ❖ Second, IA concerns of both quality and equality. For instance, the concept of **social gradient** put emphasis on how student achievement distribute among students with different socio-economic background, which helps to construct common language to discuss about the **quality and equality** in defining ideal schooling system across and within nations/regions.

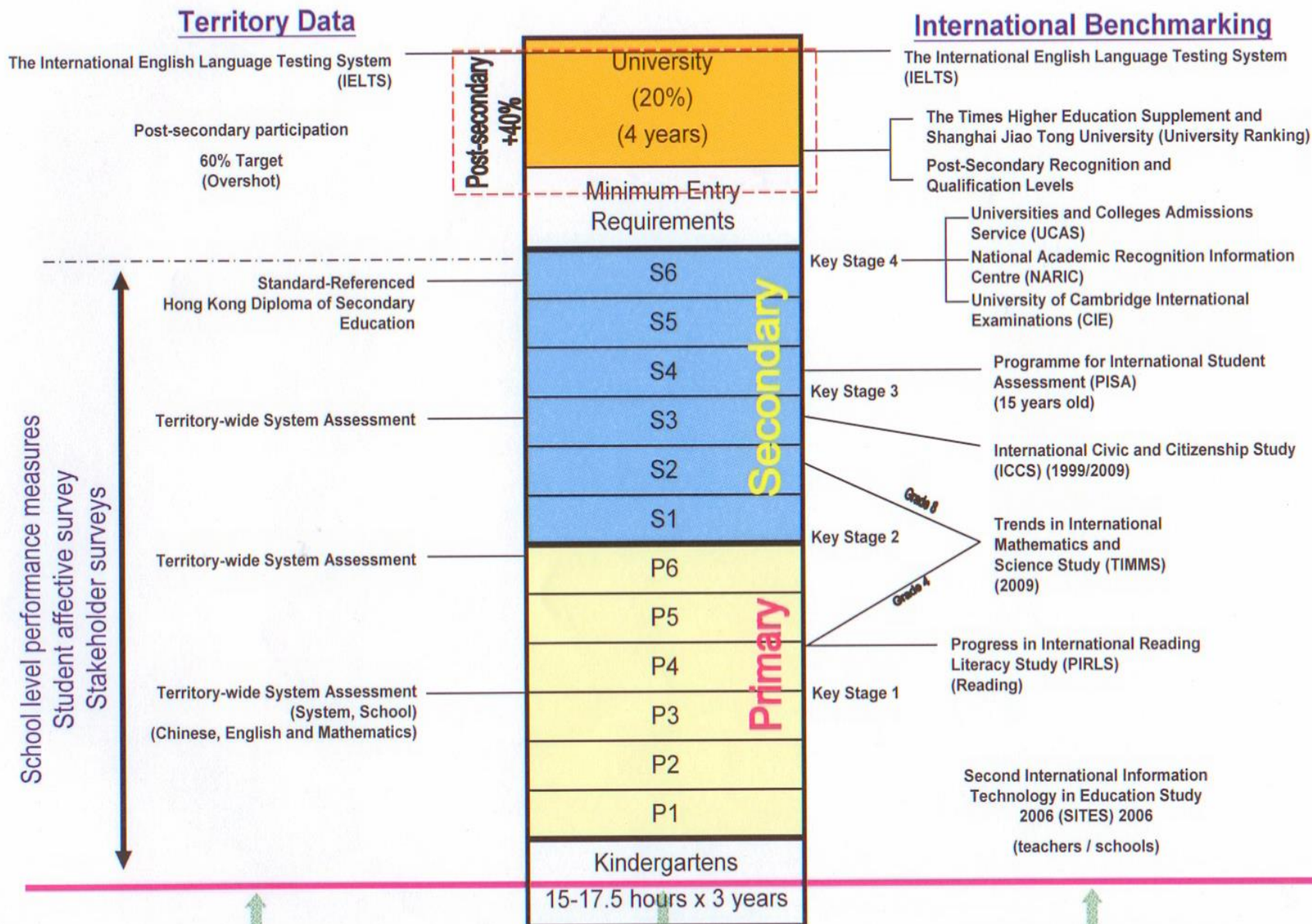
# Lessons learned from International assessment

- ❖ Second, international assessment helps to **benchmark** school performance against the **international standards**
- ❖ Third, international assessments also facilitate the **transfer of technology of assessment**
- ❖ Finally, international assessment helps to identify **multi-level factors** related to student and school performance as **to inform Policy makers and Educators.**

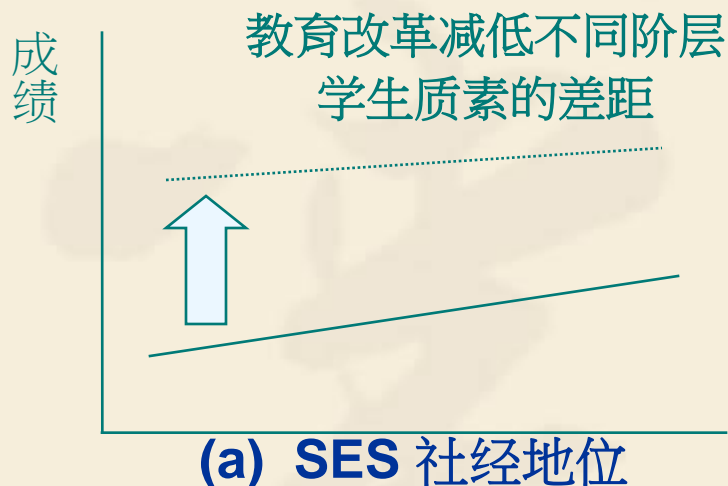
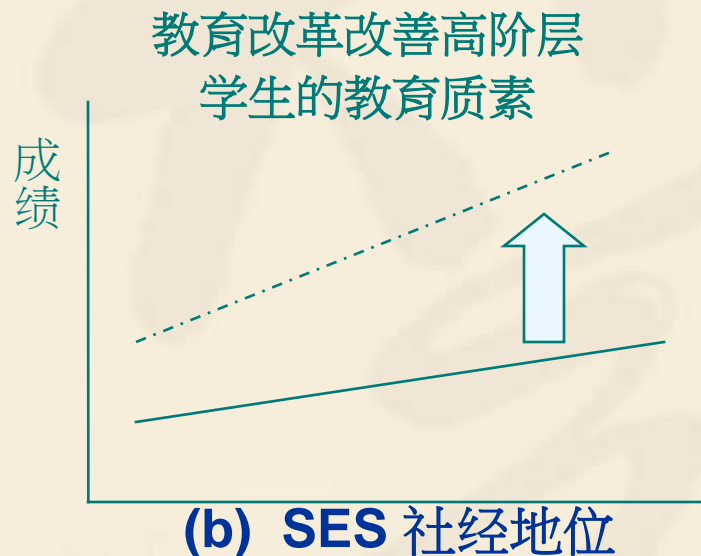
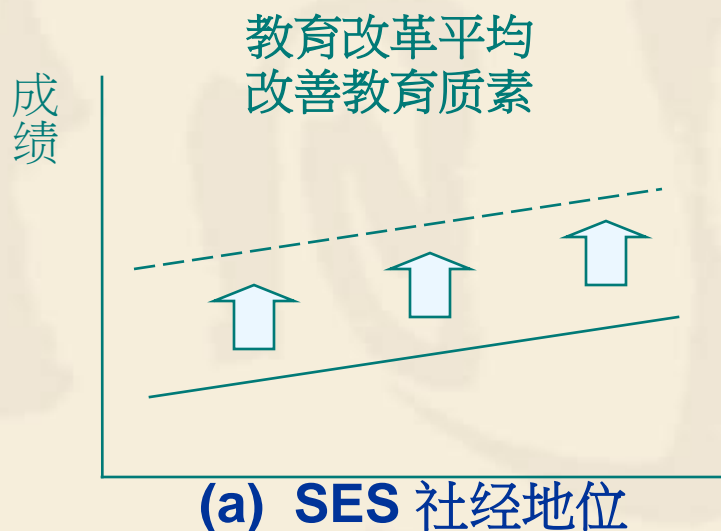


# Multi-level model to monitor students' learning outcomes

## Progress Map for Hong Kong Education – Benchmarking Education Outcomes



# 教育改革政策对质量与均等的影响



## 2. National Assessments 国家评价

A 'national assessment' is a survey of schools and students that is designed to provide evidence about the levels of student achievement in identified curriculum areas (for example, in the areas of reading and mathematics) for a whole education system or for a clearly defined part of an education system (such as Grade 4 students or 11-year-olds).

### 国家（或地区）评价

全国(区域)范围内进行的大规模评价，用于描述特定地区的学生学业成就，并对整个教育系统内某个年龄段或年级的整体学业水平进行评价。

# National Assessments

Country	Name or description of assessment study	Organization	Grade	Curricular subjects assessed	Year
<b>Cambodia</b>	Learning Assessment System	MOE; World Bank	Grade 3	Khmer, math	2006
			Grade 6	Khmer, math	Planned for 2007
			Grade 9	Khmer, math	Planned for 2008
<b>Japan</b>	National Assessment of Learning Outcomes	NIER	Grade 5,9,12 [Variable]	Japanese, English, math, sci, soc sci, geography, history, civics	2002, 2003, 2004
	National Assessment of Student Performance	MoE; NIER	Grade 6,9	Japanese, math	2007

# National Assessments

<b>Singapore</b>	Core Research Program	Centre for Research in Pedagogy and Practice	Pre-school to secondary	Lan, math, sci, ICT	2003
<b>Hong Kong-China</b>	Territory Wide Assessment	Examinations and Assessment Authority	Grade 3,6,9	Chinese, English, Mathematics	Annually since 2000
<b>Shanghai-China</b>	NA for several provinces, including Shanghai	MoE & Educational Monitoring Center in Beijing Normal University	Grade 4, 8	Chinese for G4 Chinese and Science for Grade 8	2003

Hong Kong – TSA  
in P3, P6, S3

2006 年全港性系統評估  
Territory-wide System Assessment 2006  
學校報告  
School Report

機 密  
CONFIDENTIAL

TSA

級別 Level: 中三 Secondary 3

科目 Subject	完成紙筆評估 的學生人數 Number of students completing written assessment (A)	已達基本水平 的學生人數 Number of students achieving Basic Competency (B)	學校已達基本水平的學生 百分率 School percentage of students achieving Basic Competency (B/A x 100%)	全港已達基本水平 的學生百分率 Territory-wide percentage of students achieving Basic Competency
中國語文 Chinese Language	195	186	95	76
英國語文 English Language	195	195	100	69
數學 Mathematics	195	195	100	78

### 3. National/Public Examinations 公开考试

Vis-à-vis national assessment, national examination – mainly public examinations are **high-stake** serves for certification and selection, playing a crucial role in **directing students' learning and future career**.

National examination is also an important part of **monitoring school performance in many countries**. Hill (2010) suggested that National examination in Asia-Pacific Region serve three main purposes: **selection, certification, and accountability** (Hill, 2010: 4-5).

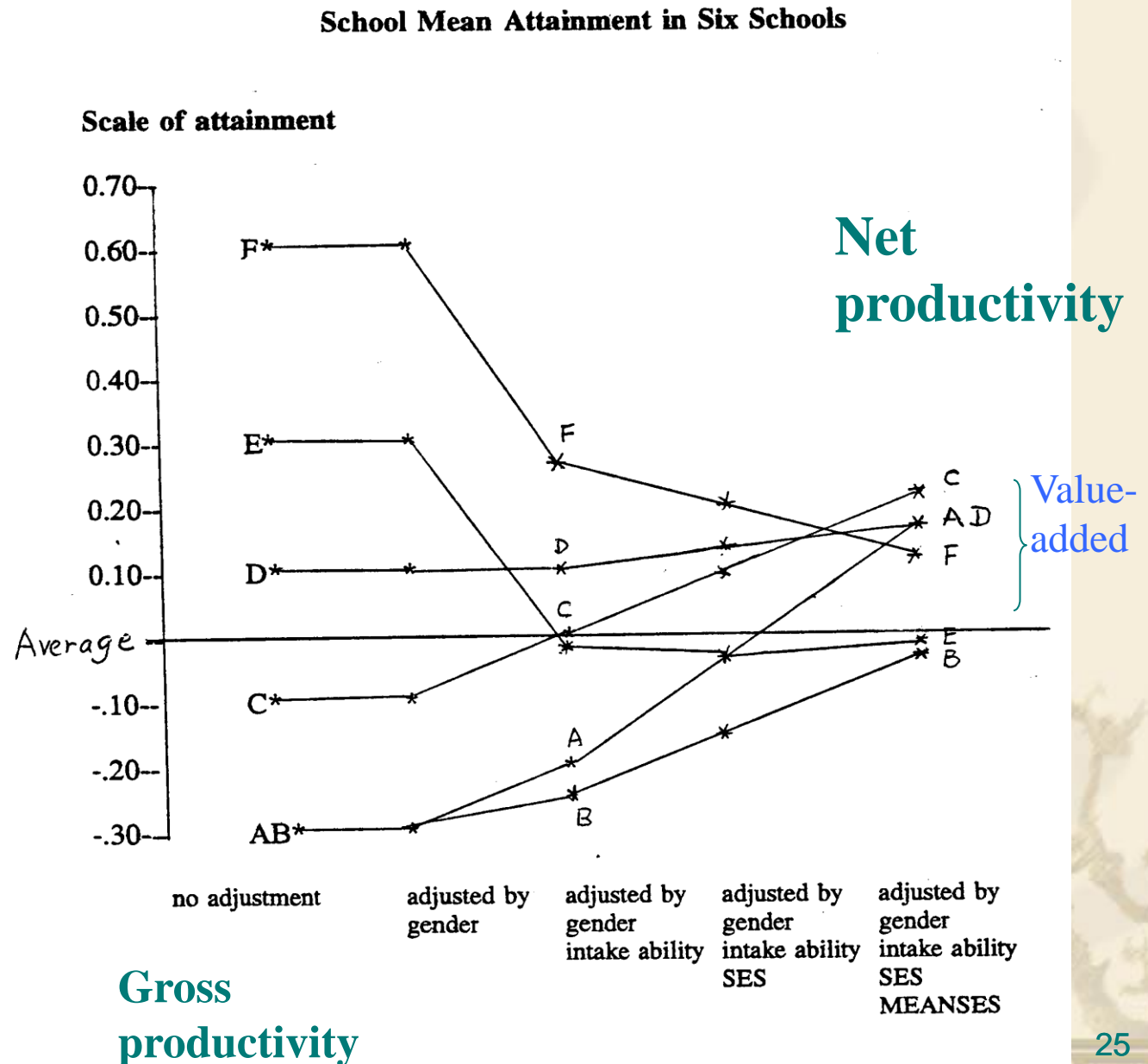
**公开考试**：为鉴定或选拔学生而进行的特定考试，一般包括学校课程的主要科目。通常，这种考试是特定年龄段或年级所有学生都必须参加的（一般在高中结束时进行）。

# National Examinations

Country	Examination	Candidature & Purpose	Examining Body
<b>Cambodia</b>	National Examination for Lower-Secondary Education Certificate	End of Year 9 (completion of lower secondary and entry to upper secondary)	Examination Office of the General Secondary Education Department, Ministry of Education, Youth and Sport
	National Examination for Upper-Secondary Education Certificate	End of Year 12 (completion of upper secondary and entry to higher education)	
<b>China</b>	National Higher Education Entrance Examination	End of Year 12 (entry to higher education)	National Education Examinations Authority, Ministry of Education

# School Mean Attainment in Six Schools

Notes: Rank order can be Misleading!!!



# Control Variables in Multilevel Model

## STUDENT LEVEL FACTORS

- Gender
- Academic ability
- Number of different schools attended (for S1-S5 cohort only)
- Change of schools at S3-S4 (for S1-S5 cohort only)

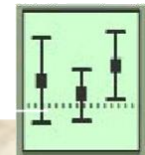
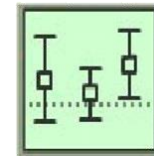
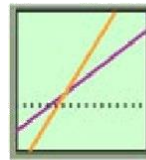
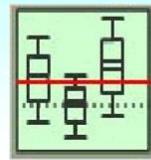
## SCHOOL LEVEL FACTORS

- Average academic ability
- All Girls
- All Boys

# Currently available information for value-added measurement (By EMB)

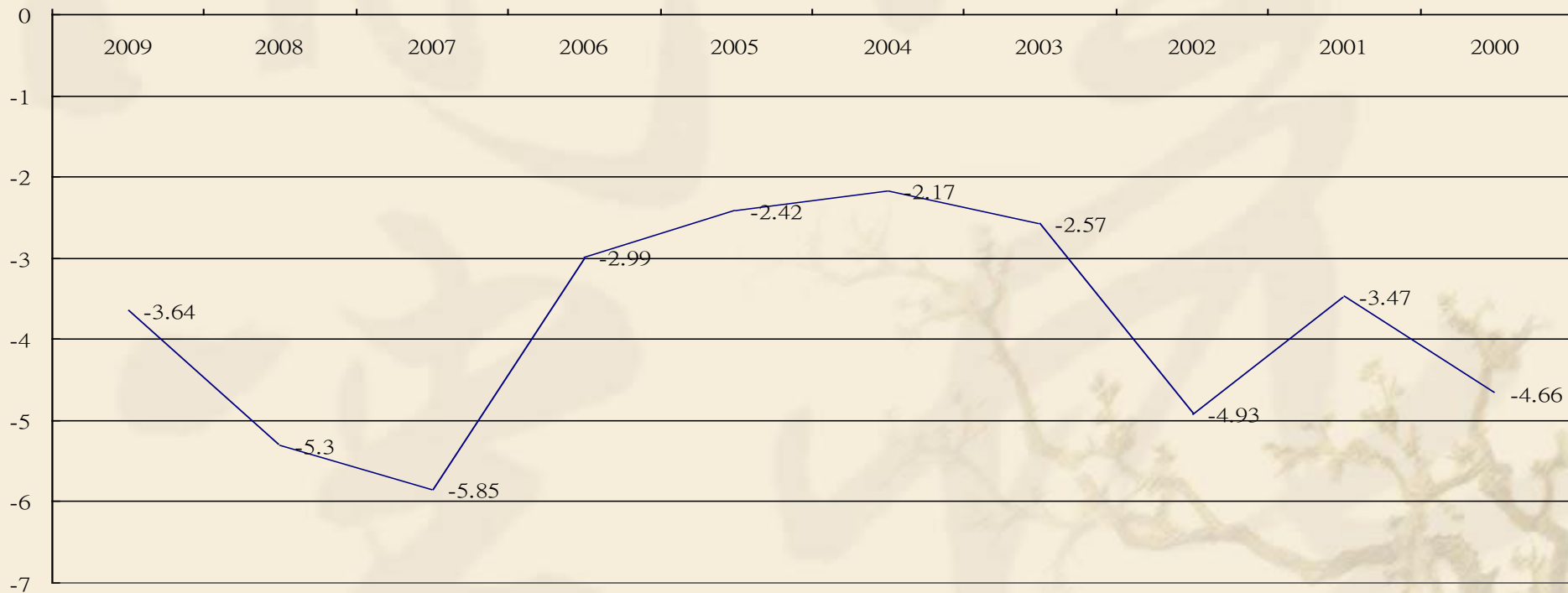
❖ End of P6	AAI/PS1	}	S1-S5
❖ End of S5	HKCEE		
❖ End of S7	HKALE	}	S6-S7

# Study the value-added reports



# Trend of school performance over 10 years

Value addedness of Best 6 subjects



## 4. School Based Assessment 校本评价

- ❖ In order to reduce examination pressure and enhance the **authenticity of public examinations**, school-based assessment (SBA) is increasingly being adopted in many countries in the region, including Australia, Hong Kong of China, New Zealand and Singapore.
- ❖ Making **SBA an integral part of public examination** enables the assessment of **students' abilities that could not be otherwise easily assessed** through written tests (for example, some key competencies such as ability to organize, communicate and work with others)

校本评价：学校自行实施的、并由教师主导的评价。在某些国家，这种校本评价的分数可加总到学生外部评价或公开考试，计入总成绩。

# SBA of Hong Kong

- ❖ In 2009, the HKCEE and HKALE have been replaced by the Hong Kong Diploma of Secondary Education (HKDSE) in 2012. School-Based Assessments (SBA) has been widely applied to more subjects in the new public examination in 2012.
- ❖ SBA in Hong Kong refers to in-school assessments graded by teachers, then moderated by public examination scores that contribute around 15-25%, a relatively small part, of the total examination score of a given subject.

Chinese Language	35→30%	Compulsory Part: Coursework and Other Language Activities combined. Marks to be submitted reduced from 10 to 4
English Language	30→20%	Elective Part: Reduced to one mode only (oral assessment) and number of tasks reduced from 3 to 1
Maths	15%	Number of assessment tasks reduced from 3 to 2
Liberal Studies	30→20%	Course performance deleted
Economics	20→15%	Internal test/exam deleted
Geography	15%	
Chinese History	30→20%	Internal test/exam deleted
ERS	30→20%	Continuous assessment deleted
History	30→20%	Course performance and internal test/exam deleted
THS	30%	Test/exam deleted, weighting on elective part adjusted to 20%, course performance replaced by two course assignments
Biology	20%	Min. number of practical related tasks (Area A) reduced from 4 to 3
Chemistry	20%	Min. number of non-practical related tasks reduced from 4 to 1

Physics	20%	Min. number of non-practical related tasks reduced from 2 to 1
Science	20%	Min. number of practical related tasks (Area A) reduced from 3 to 2. Min. number of non-practical related tasks reduced from 4 to 3.
BAFS	20%	Course test/exam deleted. Enterprising Experience now optional. Group assessment cancelled.
ICT	25→20%	Core skills assessment incorporated into project work
DAT	40%	
HMSC	30%	
T&L	30%	Number of lab report/practical tasks reduced from 3 to 1
Chinese Lit.	35%	Compulsory part: Number of creative writing pieces reduced from 6 to 4, reading reports reduced from 3 to 2
Lit. in Eng	20%	
PE	30%	
Visual Arts	50%	
Music	20%	

**Hong Kong Diploma of Secondary Education**

This is to certify that

**CHAI TAI MAN**

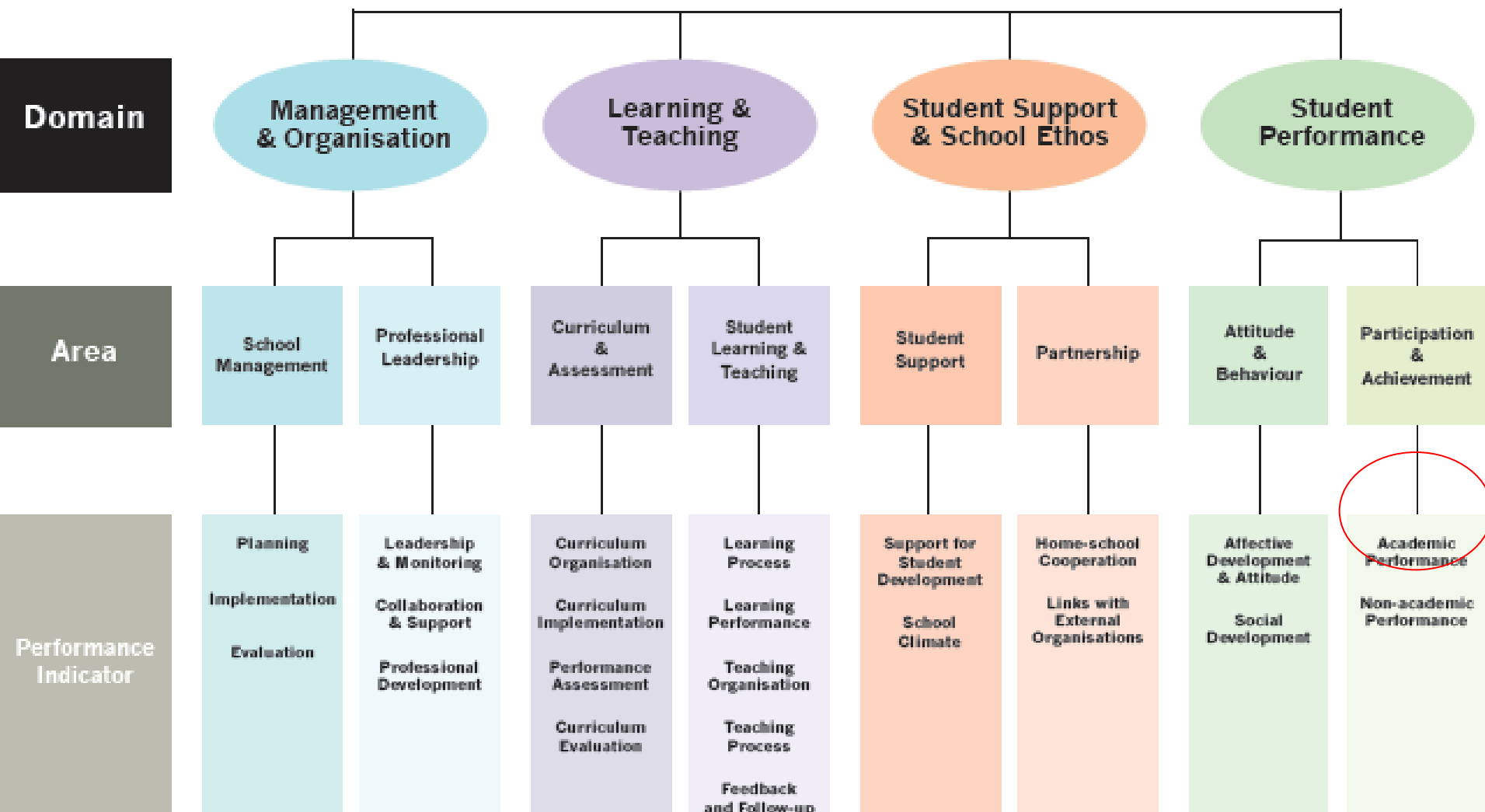
achieved the following results in the 2012 Hong Kong Diploma of Secondary Education:

	Subject	Component/ Elective
Chinese Language	5	
Reading		5**
Writing		5*
Listening		5
Speaking		4
Integrated Skills		5
English Language	4	
Reading		5
Writing		4
Listening		4
Speaking		4
Liberal Studies	4	
Independent Enquiry		4
Mathematics	5**	
Mathematics – Calculus and Statistics	5*	
Economics	4	
Computer Networking	Attained	
French	B	

Draft

# School Monitoring System (KLM)

Figure 1 : Performance Indicators Framework



# 重要发现和启示 1

## 1. Regional Trend of monitoring system in education: Multilevel approach

监测教育系统的地区趋势：多层次评价

- ❖ The focus of monitoring systems has shifted from the **input to learning outcomes** of students, such as adequate knowledge, skills, behavior and attitudes needed to succeed in adult life for the 21<sup>st</sup> century.
- ❖ 教育系统的监测重点已经从系统**投入**(如基础设施、学习材料、师资队伍和资历等)转移到系统**输出**(成功必备的知识、技能、行为、态度等具体学习结果)。

## 重要发现和启示 2

- ❖ The outcome-based and competence-based approach to education expanded the scope of existing assessments beyond hard skill-cognitive domain to soft skill-non-cognitive domain. For example, 3 key competencies in DeSeCo and 10 skills in ATC21S
- ❖ 这种结果导向或能力导向的评价方法将教育评价从简单的知道是什么、知道怎么做这样的“硬技能”(Hard skill)转向了诸如良好沟通、批判思考、解决实际问题、与各种背景的人合作、创新、信息和技术素养之类的“软技能”(Soft skill) (ATC21S, 2009; DeSeCo, 2003; Froumin, 2007)。

# 重要发现和启示 3

- ❖ Yet, **caution** needs to be taken to prevent **the international** assessment from becoming a dominating force – **dictating the various forms of local assessments**. Van Der Gaag and Adam (2010: 5) warned that, “the measurement instrument that were developed for industrialized countries often exhibit “**floor effects**” when used in developing countries...possibly due to either the **extremely difficulty of** the test or the **lack of local relevance** of the exam content.”
- ❖ 这些年，大型国际评价项目已在全球教育系统中产生了重大影响。然而，值得注意的是，这些本为国际评估量身定制的技术**不能全盘地照搬到当地评价实践**中，特别是发展中国家更应该注意这种喧宾夺主的可能性。Van der Gaag和Adams(2010)曾指出：“这些在工业国家中发展起来的评价工具通常在发展中国家具有‘地板效应’ (Floor effect).....要么是因为**题目太难**，要么是因为**考试内容跟当地的教育实践相关度很低**。” (第5页)。

# 重要发现和启示 4

- ❖ Uses of Assessment: to move toward improving the quality of education, further investigations are needed to study **how strong performing countries utilise assessments' results** to inform stakeholders, to support decision making in instruction and to monitor teachers, principals and schools.
- ❖ 如果监控系统的终极目标是**问责和改进学校**，那么，我们就应该进一步探究评价结果在学校层面的应用。OECD(2011)最近的一份题为《教育系统中的典范与成功改革》(Strong Performers and Successful Reformers in Education)的报告指出，学校一般将评价结果用于如下几个方面：**1. 制定标准 (Benchmarking)并向利益相关者汇报；2. 改进学校的措施依据；3. 考核教师、校长和学校的表现。**

# PISA 2009 学校数据反馈

- ❖ 笔者以2009年的PISA的数据做进一步分析，发现几乎所有学校都将数据反馈给家长和学生，OECD国家中平均98%的学校都是这样做的，在表1所列的教育强国中也有近似的比例。
- ❖ 77%的OECD国家也同时利用数据结果来识别教学与课程中的薄弱环节，而在教育强国中，这一比例达到83%-98%。
- ❖ 这个发现说明了，相对于OECD的平均水平而言，教育强国更倾向于将评价信息用作学校改进的依据。

# Use of assessment results across selected countries participated in PISA2009 (Percentage reported by principals).

Table 1. 2009 年 PISA 参与国对评价结果的利用情况（由校长提供的百分比）

	OECD 均 值	香港	上海	韩国	日本	新加 坡	新西兰
标准参照和信息反馈							
1.向家长报告学生学习进展状况	98	99	92	95	100	100	99
2.参照国家/地区标准评估学校水平	59	36	69	78	24	95	94
3.参照学区标准评估学校水平	53	34	60	75	22	93	92
4.学校间比较	46	22	64	62	20	82	83
5.参照国家或地区标准评估学生水平	52	14	47	79	84	88	78
6.张榜公布	37	48	1	4	33	89	78

# 2009年PISA参与国对评价结果的利用情况 (由校长提供的百分比)

	OECD 均值	香港	上海	韩国	日本	新加坡	新西兰
<b>影响教学的教育决策</b>							
7.识别需改进的教育教学和课程要素	77	97	97	88	83	97	98
8.学生升学或留级的依据	76	99	46	37	91	88	77
9.对学生分组教学	51	80	43	78	42	95	91
10.据此决定学校资源分配方案	32	49	34	4	39	72	68
<b>评价教师、校长和学校</b>							
11. 逐年跟踪学校办学进展	76	95	86	83	61	99	97
12. 评价教师教学效能	46	76	83	66	78	85	61
13. 考核教师业务表现	43	55	80	24	45	41	48
14. 评估校长治校水平	33	17	45	9	28	63	50

# 以香港为例

- ❖ 香港一直致力于在“对学习进行评价”(Assessment of Learning, AOL)和“为学习进行评价”(Assessment for Learning, AFL)两者之间寻找平衡，前者用于报告、筛选和问责，后者用于监测教育系统的改进情况(James, 2010)。
- ❖ 就国际评估而言，香港参加过许多国际评价研究，包括PIRLS(测试对象为小学4年级学生)、TIMSS(测试对象为小学4年级和中学2年级学生)、ICCS(测试对象为中学3年级学生)和PISA(测试对象为15岁的学生)。
- ❖ 就当地评价而言，香港所有小学3年级、6年级和中学3年级学生都要参加全港性系统评估(Territory-wide System Assessment, TSA)，同时还有新出台本地公开考试，香港中学文凭考试(Hong Kong Diploma of Secondary Education, HKDSE)将于2012年开始进行，对象是中学6年级学生(即新高中的毕业生)。2012年部分的考试科目都会计入校本评价的结果。

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# HKPISA Centre

Thank You !

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