

Topic Session: Innovation-led Economy and Efficiency- “Education and skills to make a difference”

Challenges to Existing Paradigms

Key Drivers for the Paradigm

1. “More” ICT and computers/ tablets
2. “More” inspection and audit
3. Learning begins at the primary school level.

Debate

- Preference or “**To Be**”: diversity and creativity
- Practice or “**As Is**”: Uniformity and compliance

Why the gap exists

- More Teaching → More Learning
- More Inspection → Better School Quality
- More Tests → More Motivation for Learning

Aprox. age	Aprox. grade	Education Level		Degree
24	19+	Doctoral degree study		Ph.D. or advanced professional degree
23	18	Master’s degree study		Master’s degree
22	17	Undergraduate program	Higher vocational education	Bachelor’s degree
21	16			
20	15			Diploma
19	14	Upper secondary education	Vocational secondary school	Basic Education
18	13			
17	12	Lower secondary education	Compulsory education	
16	11			
15	10			
14	9	Primary education		
13	8			
12	7			
11	6			
10	5			
9	4	Pre-primary education		
8	3			
7	2			
6	1			
5				
4				
3				



Fact: Computers ALONE '*do not improve*' pupil results, says OECD

1. The results show "*no appreciable improvements*" in reading, mathematics or science in the countries that had invested heavily in information technology.
2. Investing heavily in school computers and classroom technology does not improve pupils' performance, says a global study from the OECD.
3. Preparing the teachers to change the pedagogy with ICT integration is more effective than merely providing computers and tablets to the students.

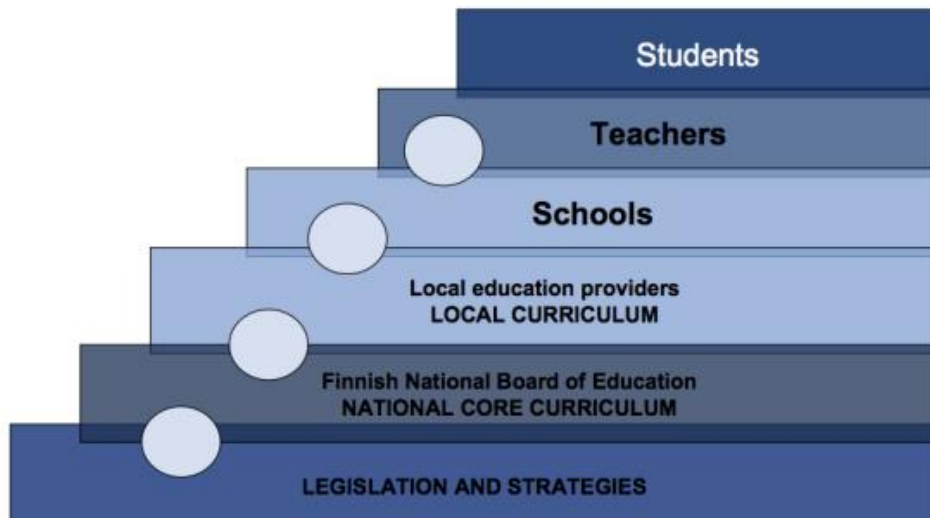


Source: <http://www.bbc.com/news/business-34174796>.

Fact: Quality of learning is impacted the most by the teachers



Leadership matters – Teachers do it



1. Improving school-time learning identified by the study depended on “what a teacher did in the classroom.”
2. Structural change, and more inspection and test have had minimal long-term impacts. It is how a classroom is conducted- how the students learn and how the teachers teach matter the most.
3. Class sizes and streaming by ability make little or no difference to whether children learn.

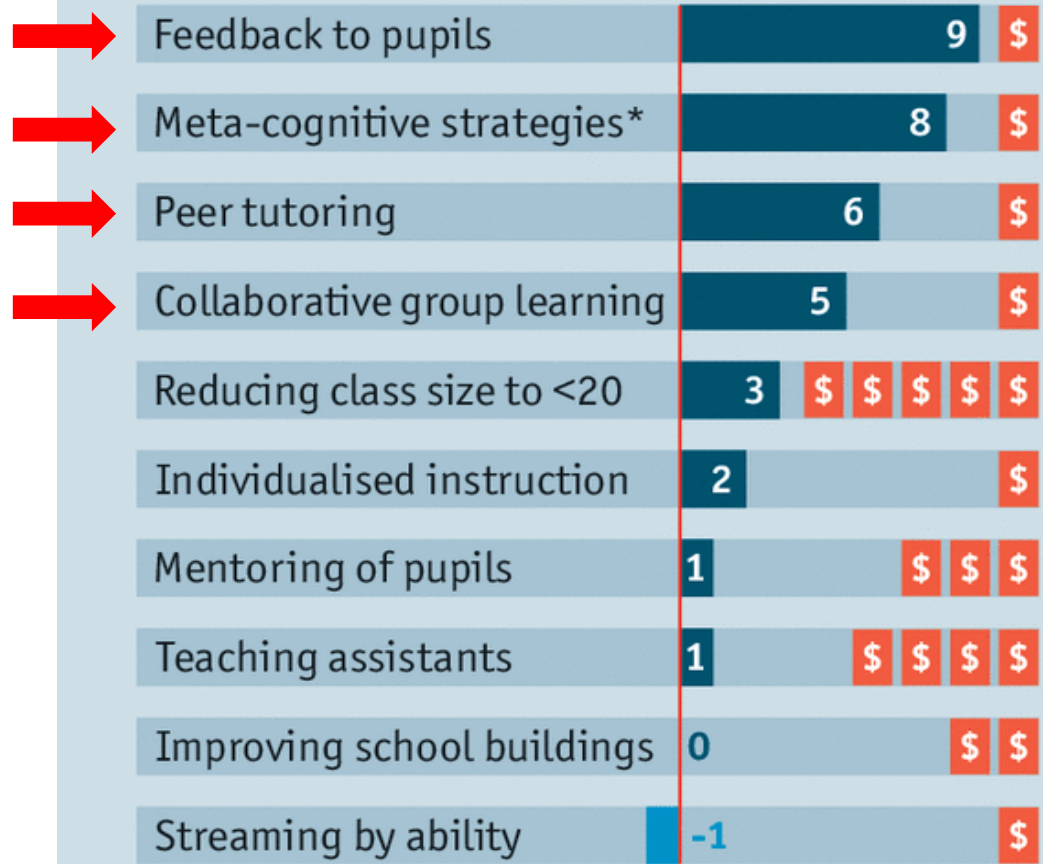
Source: <http://www.economist.com/news/briefing/21700385-great-teaching-has-long-been-seen-innate-skill-reformers-are-showing-best?frsc=dg%7Cd>

What works, at what cost

Effectiveness and cost of education strategies

Effect in additional months' progress

Relative costliness
 5x \$ = most expensive



Source: Education Endowment Foundation

* Helping pupils think about their own learning more explicitly

Change of Mindset in “In-service Teacher Training”

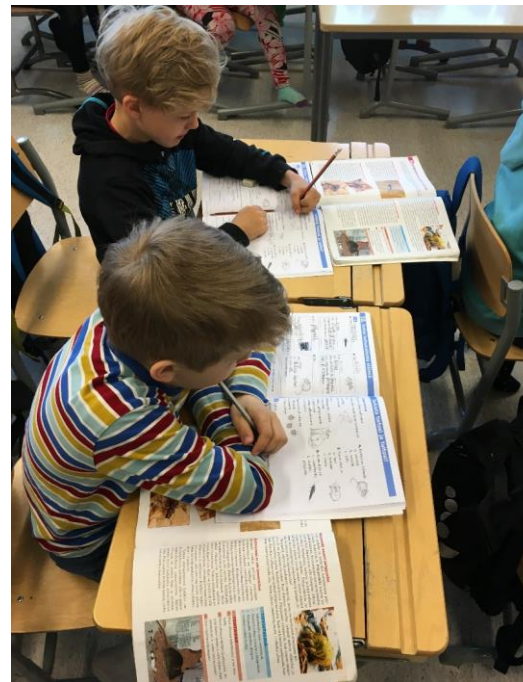
- ❑ Teachers should be encourage to teach alongside another teacher, observed another or given feedback.
- ❑ Teaching is still “a closed-door profession”, adding that teaching unions have made it hard for observers to take notes in classes.

Highlights:

- **JFCCT** has encouraged the teacher to conduct more **peer-training** instead of relying entirely on university professors.
- **JFCCT** has viewed that peer-training can succeed with **less bureaucratic control** through a **local government or municipality.**

Coordinated/ integrated lesson plan (Co-teaching)

- Social study with geography, arts, and ICT
- Enhancing life skills on sharing, presentation, and communication
- Peer training is the foundation for co-teaching.





  **JFCCT ร่วมกับโรงเรียนมัธยมสุวิทย์เสรีอนุสรณ์ กรุงเทพมหานคร**

การทำ Inservice ตามหลักการออกแบบพัฒนาต้นตอ
และตรวจการออกแบบ Eco school

โรงเรียนสังกัดกรุงเทพมหานคร





“Learning” means seeing, speaking, touching, playing, interacting, engaging, observing, and of course listening!



Without changing the **pedagogy**, relying on listening will lead to ???

Classroom Jobs

THE NORSSIN PERHEILTÄÄN
Keskiviikko 20.4.2016
Kello 10-20

The month is April

No School	3	4	5	6	7	8	9	No School
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
	cloudy	rainy	cloudy					

Maanantai 4.4.2016 +2°C	Helga Konsta
Tiistai 5.4.2016 +2°C	Konsta Neea.Tu
Keskiviikko 6.4.2016 +3°C	Neea.Tu Kia Sebu Konsta
Torstai 7.4.2016 -1°C	
Perjantai 8.4.2016 +2°C	

*Kommu...
ke 6.4.
kello 12
...
...
...
...
...*

No School
3
Sunday Monday
cloudy

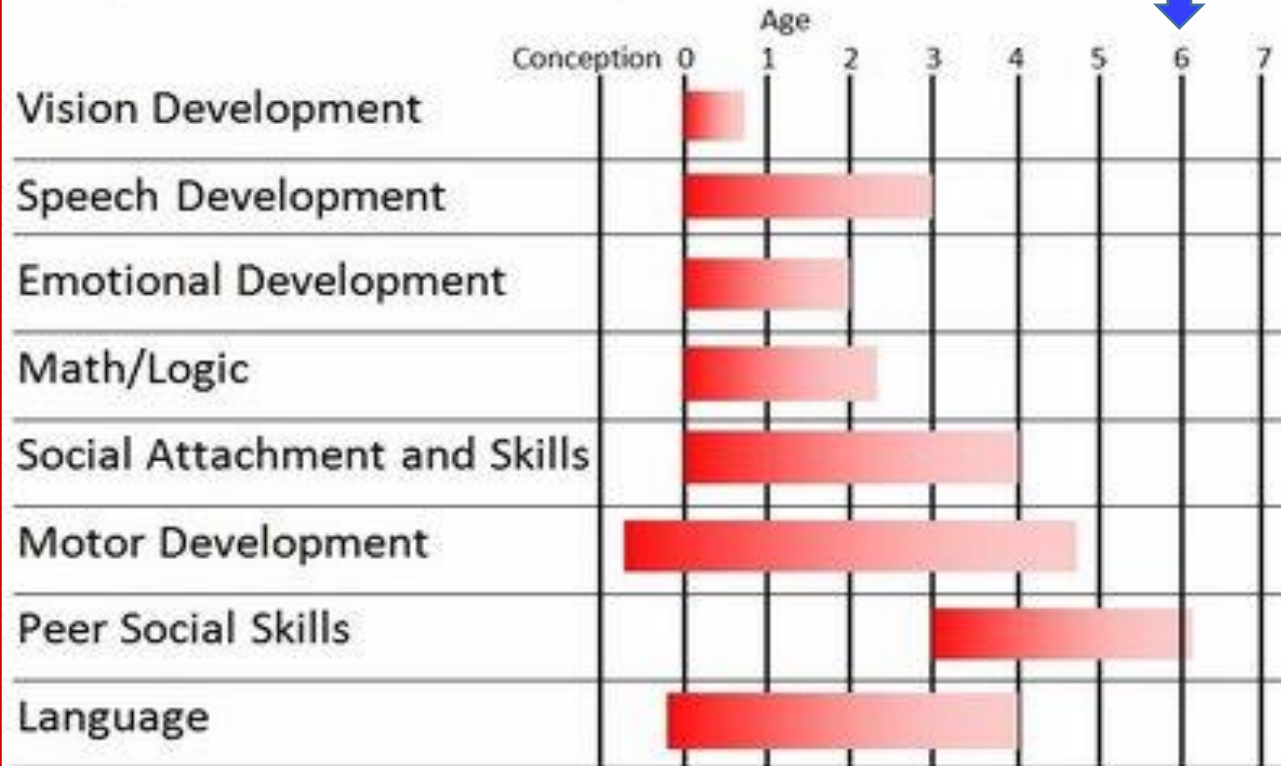
Fact: Early childhood education is the foundation for knowledge and skill development.

Highlights:

- Health and human services belong to a **local government**.
- Potential **public-private partnership or PPP** for **social infrastructure- learning and development for early years**.



Stages of Brain Development in an Infant



Before age 5

90% of a child's brain development happens

90%

Brain development before age 5



10%
Brain development after age 5





PPP for Social Infrastructure: *Lack of know-how and restriction on public procurement*

- Architecture design of a building- functionality
- Psychology- light, color, etc.
- Usability- noise, safety, etc.



Final Thought on Higher Education- more regulation OR deregulation of higher education

- Emergence of “**Corporate university**” and other new forms of higher education such as **P- Tech by IBM** (Pathways in Technology Early College High School or “**Hollege**”- Grade 9-12 + 2 years)
- **Urgent** needs of university graduates on **Science and Technology** as many companies from the Eastern Seaboard era have reached the end of production S-technology → **R&D workforce shortage**
- Re-profiling some of the existing higher education institute to play the roles in ‘**adult**’ training and education

