

How the world's best-performing school systems come out on top

The Institute for Policy and Strategy
The Lauder School of Government, Diplomacy and Strategy
The Interdisciplinary Center Herzliya



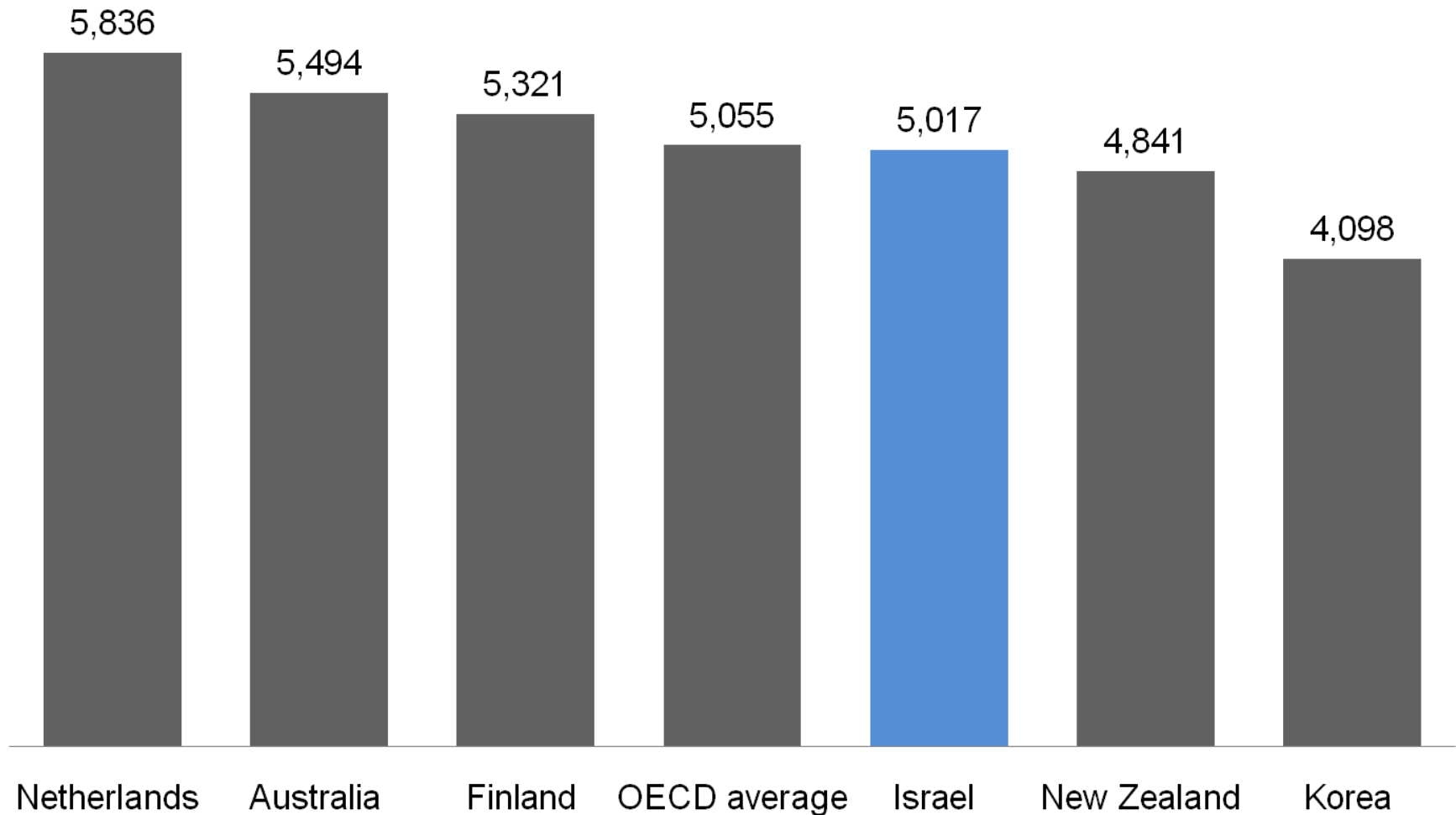
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Theme 1: The Challenge

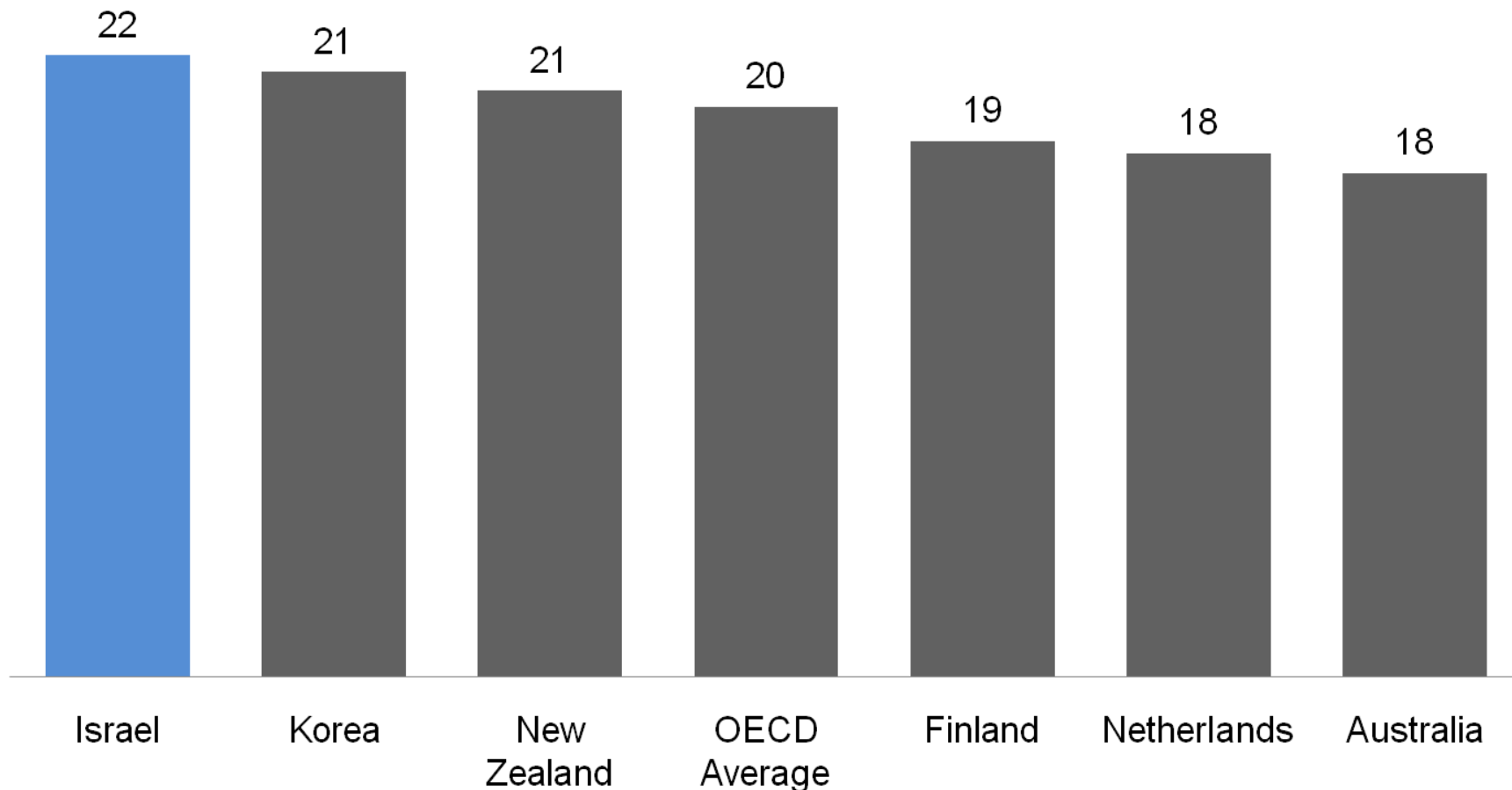
Israel's education spending is in line with OECD average ...

Spend per student in primary education, US\$ 2004



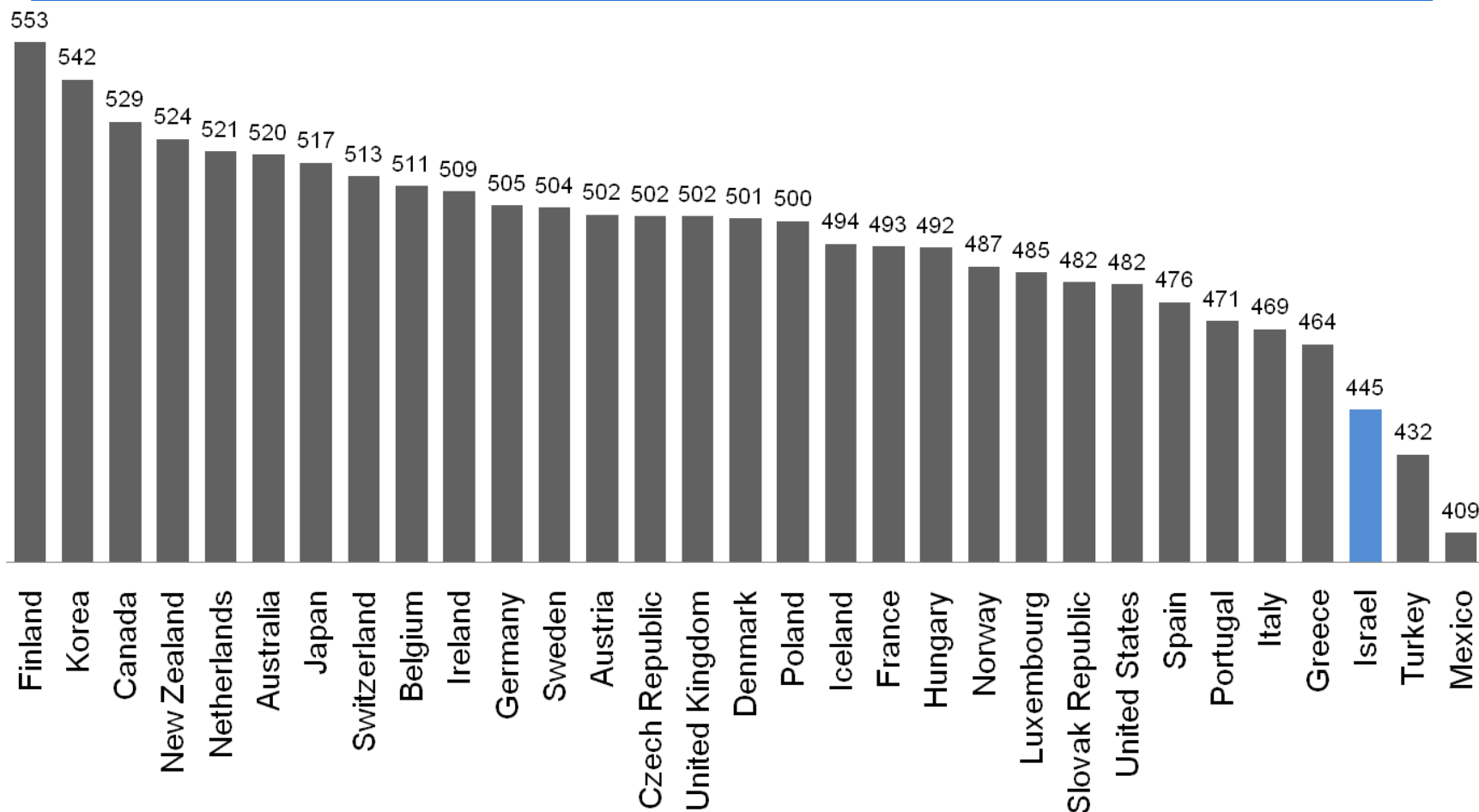
... And above when calculated relative to GDP per capita

Spend per student in primary education, % of GDP per capita



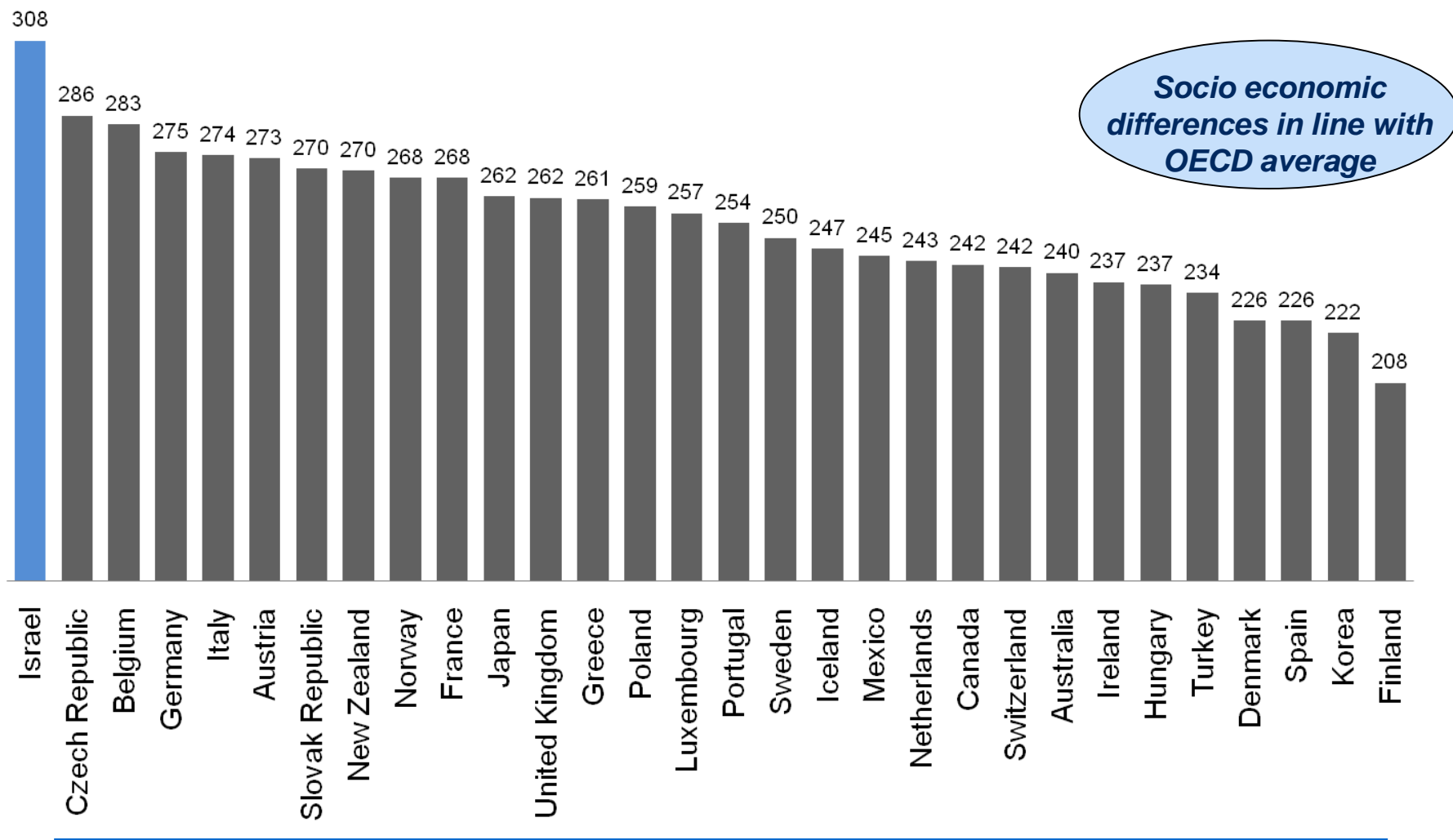
But Israel's education performance is poor ...

Average score in PISA 2006



... with a wider variation than any OECD country

Score point difference between 10th & 90th percentiles (Math, PISA 2006)

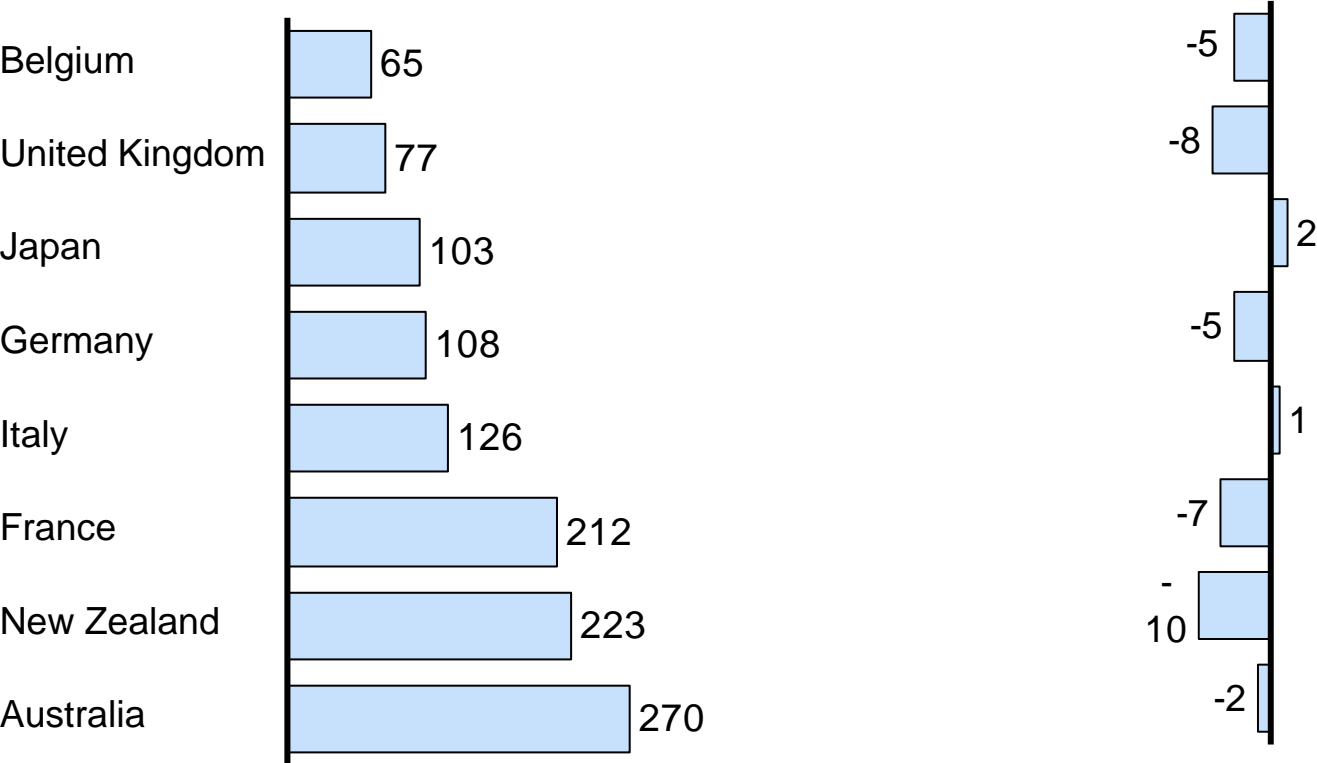


In any event, money does not guarantee success

Increase in real expenditure per student*
(1970 – 1994)

Increase in student achievement**
(1970-1994)

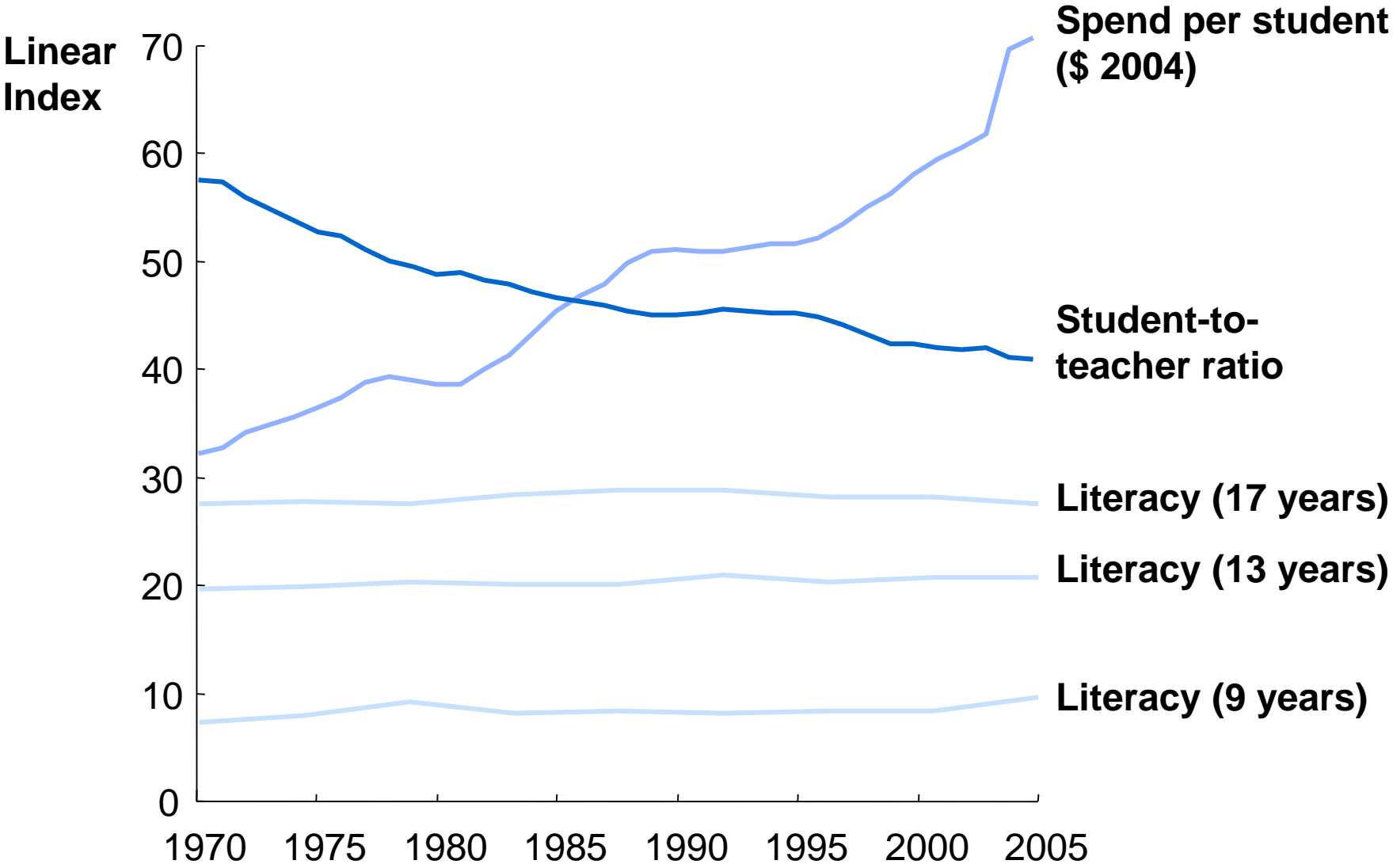
Country



* Real expenditure, corrected for the Baumol effect using a price index of government goods and service

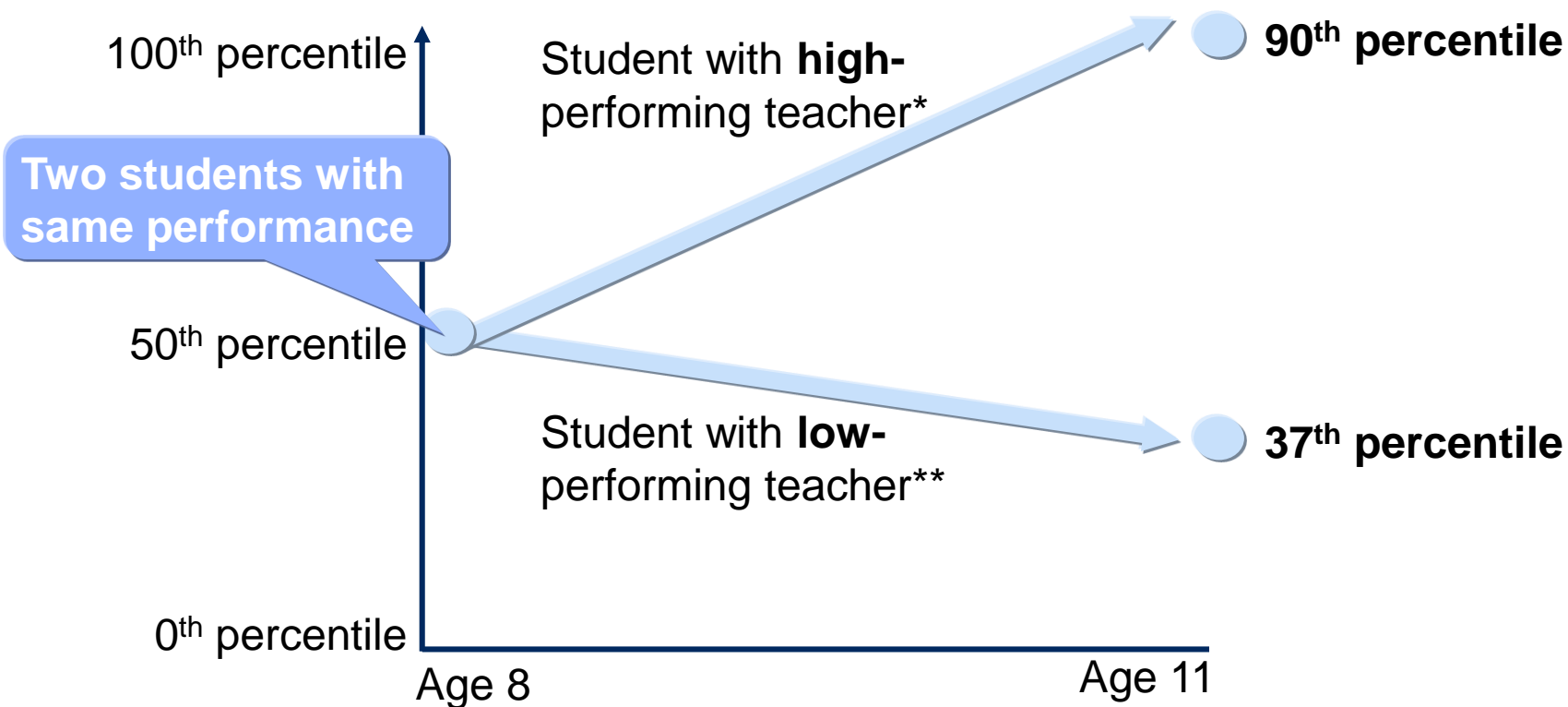
** Maths and Science

Nor does smaller class sizes



Consistent quality of teaching is by far the most important factor driving performance and is missing in most systems

Student performance



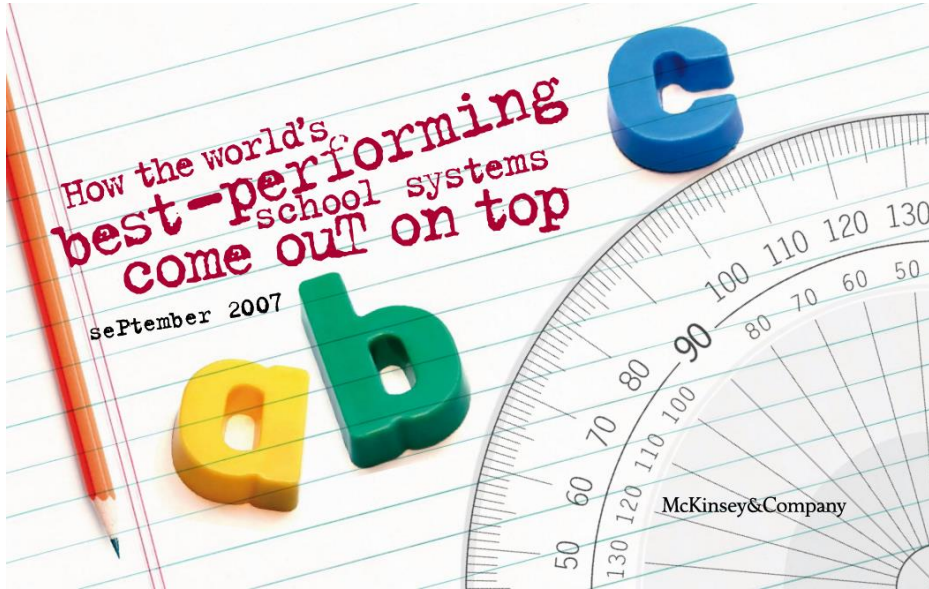
* Among the top 20% of teachers

** Among the bottom 20% of teachers

Source: Sanders & Rivers *Cumulative and Residual Effects on Future Student Academic Achievement*

Theme 2: The Evidence

This is the theme of our recent publication: 'How the world's best-performing school systems come out on top'



The Economist, Oct 18, 2007

How to be top

What works in education: the lessons according to McKinsey

THE British government, says Sir Michael Barber, once an adviser to the former prime minister, Tony Blair, has changed pretty much every aspect of education policy in England and Wales, often more than once. "The funding of schools, the governance of schools, curriculum standards, assessment and testing, the role of local government, the role of national government, the range and nature of national agencies, schools admissions"—you name it, it's been changed and sometimes changed back. The only thing that hasn't changed has been the outcome. According to the National Foundation for Education Research, there had been (until recently) no measurable improvement in the standards of literacy and numeracy in primary schools for 50 years.

We benchmarked 20 school systems, including 10 of the world's top performers

Systems in the top ten in the OECD's PISA (2003) ¹

- Alberta
- Australia
- Belgium
- Finland
- Hong Kong
- Japan
- Netherlands
- New Zealand
- Ontario²
- Singapore³
- South Korea

Systems with strong improvement trajectory ⁴

- Atlanta
- Boston
- Chicago
- England
- Jordan
- New York City
- Ohio

1. OECD's Programme for International Student Assessment, examination every three years of reading, math, and science skills of 15-year olds. Liechtenstein and Macao also scored in the top ten in 2003 but were excluded for technical reasons.

2. Canada scored 5th overall on PISA; Alberta and Ontario were included as representative provinces

3. Singapore did not participate in PISA; Singapore scored top in both science and mathematics in TIMSS 2003

4. Systems with high improvement rates according to the US National Assessment of Educational Progress (NAEP) or TIMSS scores. In addition, Boston and New York have been consistent finalists of the Broad Prize for Urban Education

Source: PISA, McKinsey

Lesson 1

“The quality of an education system cannot exceed the quality of its teachers.”

Great systems attract great people into teaching

- **Korea** The top **5** percent of graduates
- **Finland** The top **10** percent of graduates
- **Singapore** The top **30** percent of graduates

**As the war for talent intensifies,
rising to this challenge becomes ever more difficult**

Top-performing systems are rigorous about teacher recruitment: Finland

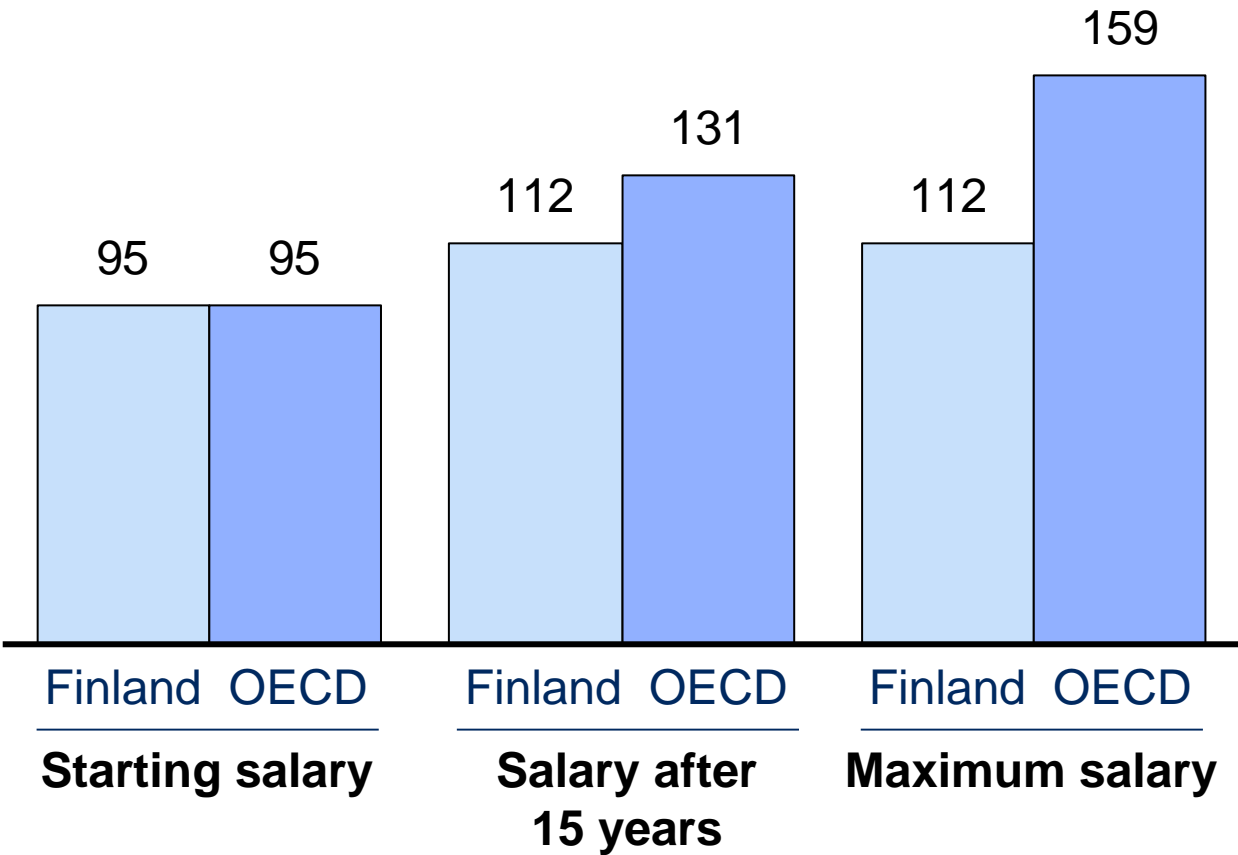
National screening	<ul style="list-style-type: none">• Check for strong intrinsics
Assessment tests (university)	<ul style="list-style-type: none">• Check overall academic ability and literacy
Interviews (university)	<ul style="list-style-type: none">• Check suitability for teaching
Group work (university)	<ul style="list-style-type: none">• Check suitability for teaching
Recruitment by school	<ul style="list-style-type: none">• Candidates are recruited by individual schools

Only 1 in 10 applicants is accepted to become a teacher*

* Varies by university

Top-performers paid good salaries, but not great salaries

Primary teacher salary as % of GDP per capita



Other systems are stepping up teacher recruitment

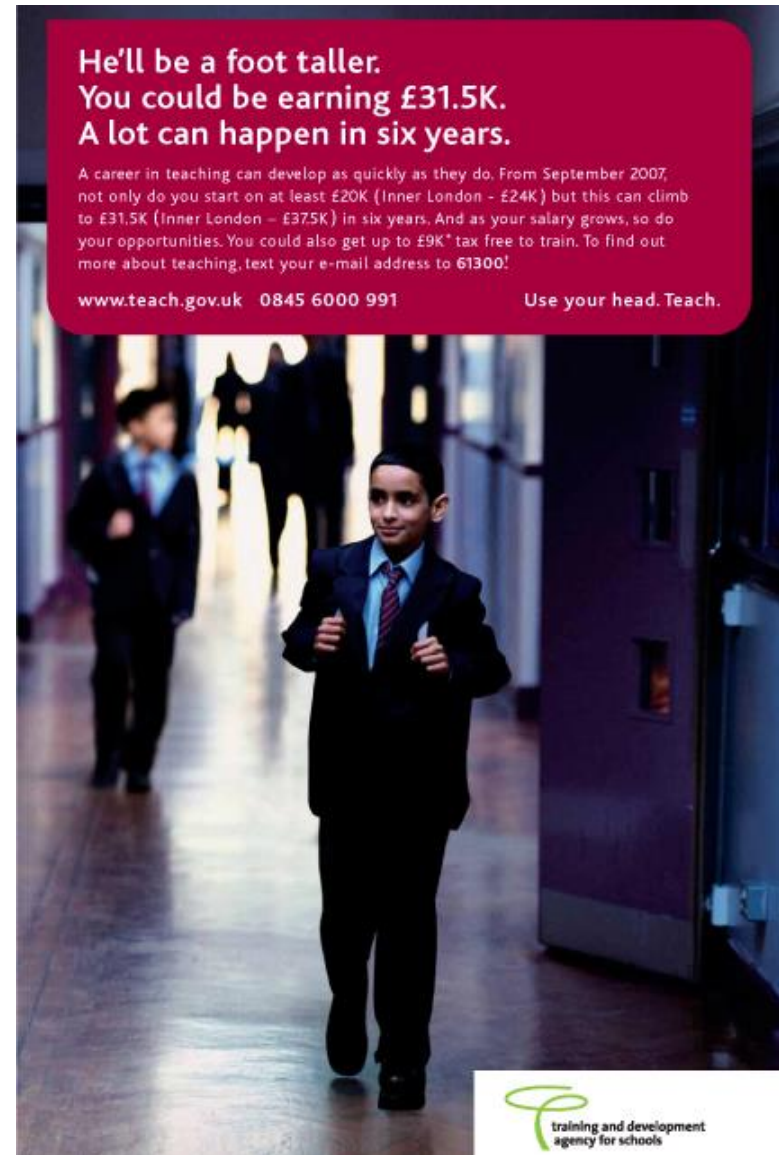


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Lesson 2

“The only way to improve outcomes is to improve instruction.”

Top-performers take professional development inside the classroom and make it routine

Professional development in Shanghai and Japan

Peer observation:

All teachers in Shanghai are required to visit and observe at least eight lessons by colleagues each term

Lesson study:

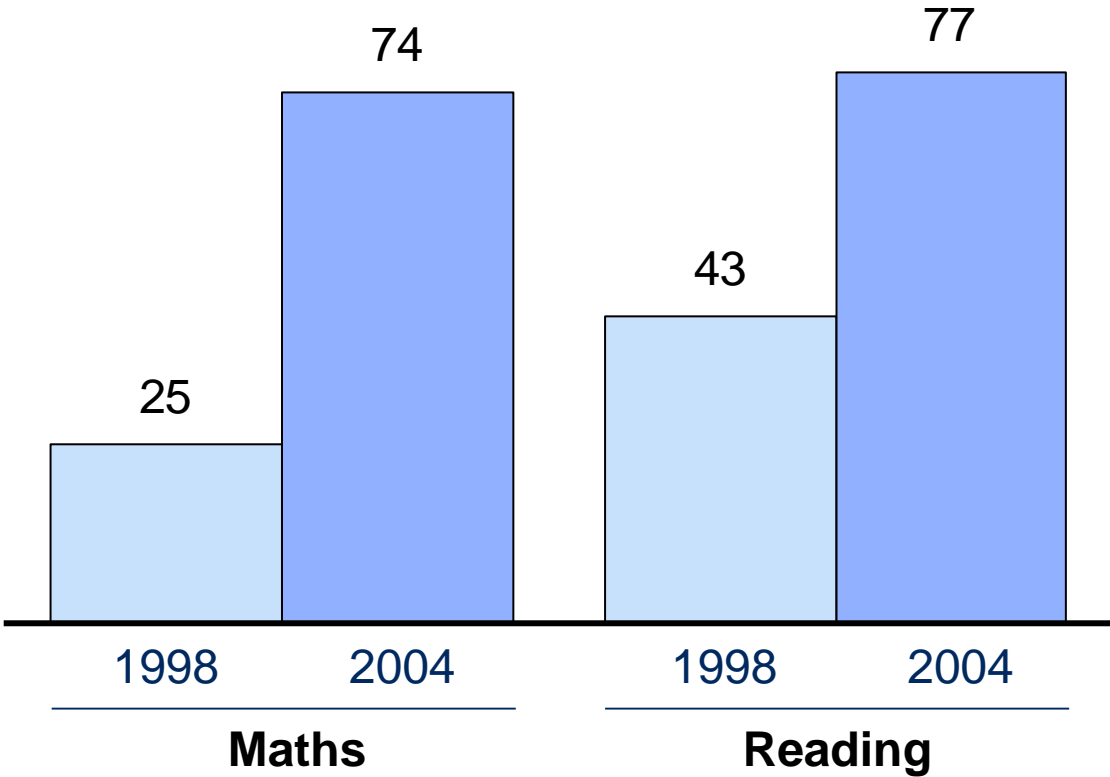
Teachers in both Shanghai and Japan work in teams to analyse and develop model lessons

Demonstration lessons:

Teachers demonstrate excellent practice to a wider group of instructors, followed by discussion and feedback sessions

Reforms which focus on teacher quality improve outcomes (1/2)

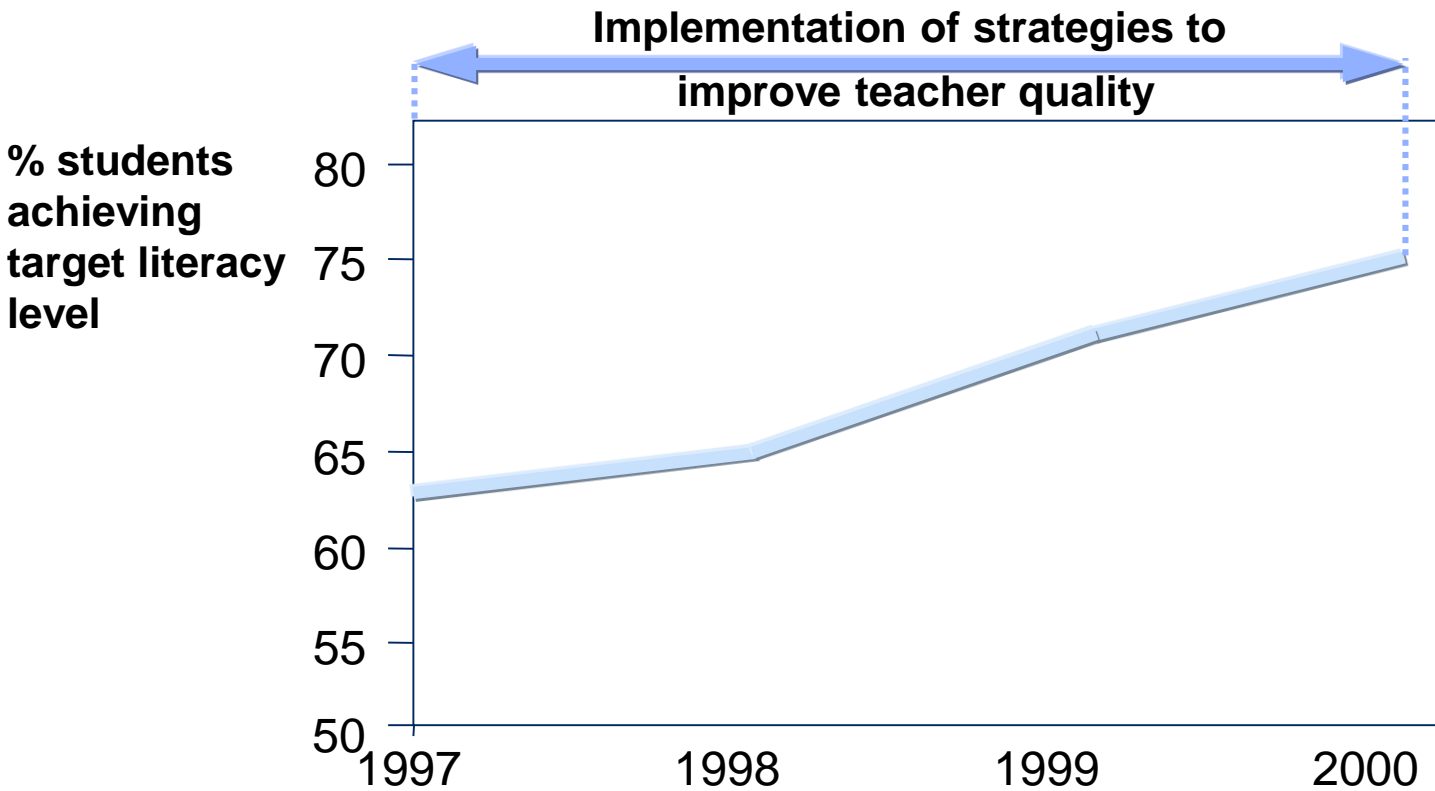
*% of Boston students meeting the target standard in Grade 10 MCAS**



* Massachusetts state assessment exam
Source: Boston Public Schools

Reforms which focus on teacher quality improve outcomes (2/2)

The impact of the National Literacy Strategy in England

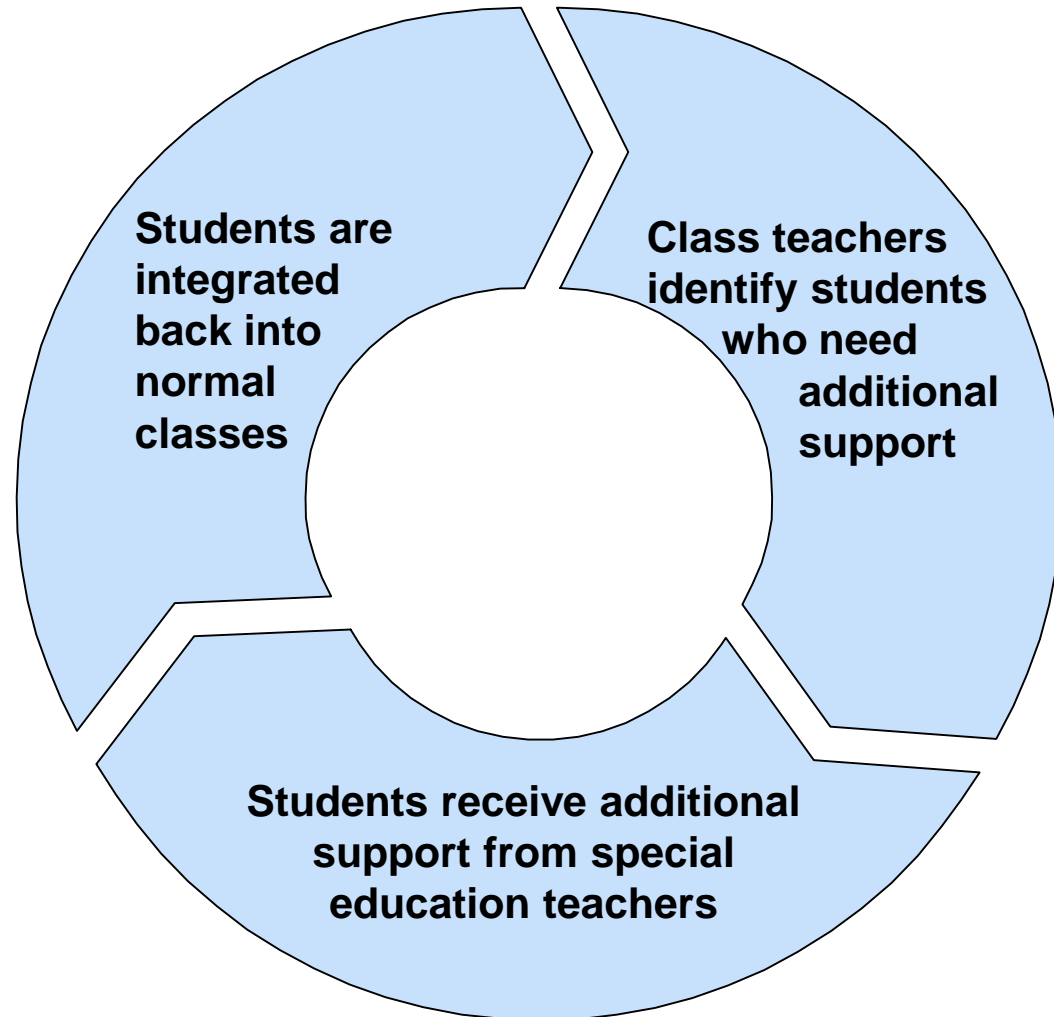


Lesson 3

“High performance requires every child to succeed.”

Finland relies on 1-1 interventions to help those falling behind

- Additional 1-on-1 or small group tuition to support those who are falling behind
- 30% of all students benefit during any given year
- Focus is on Mathematics and Finnish language
- ‘Special education’ teachers receive an additional year of training and are paid slightly higher salaries
- They work with a wider support team – psychologists, nurses, special needs advisors – to provide a comprehensive support



Lesson 4

“Great leadership at school level is a key enabling factor.”

Top-performers recruit and train excellent school leaders

“We train our teachers and vice-principals to apply best practices; we train our principals to create them”

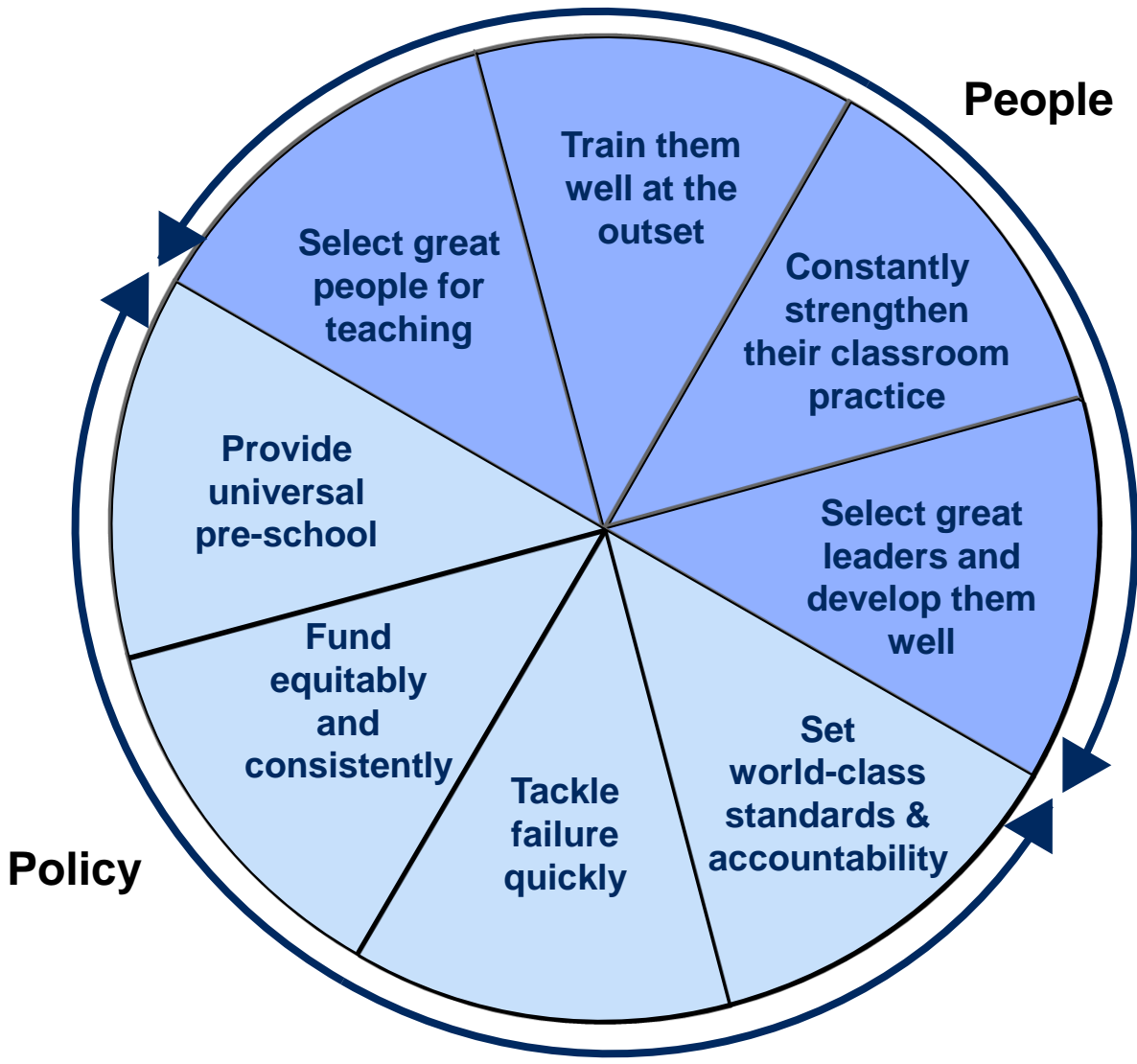
NIE Singapore

Singapore’s 6 month programme to develop new principals

- **Management and leadership courses** taken from leading executive training programmes
- **One day a week in schools** where candidates are assigned to develop innovative approaches to the toughest problems
- **Group projects** where candidates work in teams
- **2-week overseas placement** with a major corporation (e.g., IBM, HP, Ritz Carlton), where they shadow top private-sector executives
- **Rigorous evaluation** – only candidates who demonstrate the required competencies will succeed

Theme 3: The “Roadmap”

Eight ingredients of great systems



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