

On Education Systems, Teaching and Student Learning

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Reimagining Teachers and Teacher Education for our Futures

University of Helsinki

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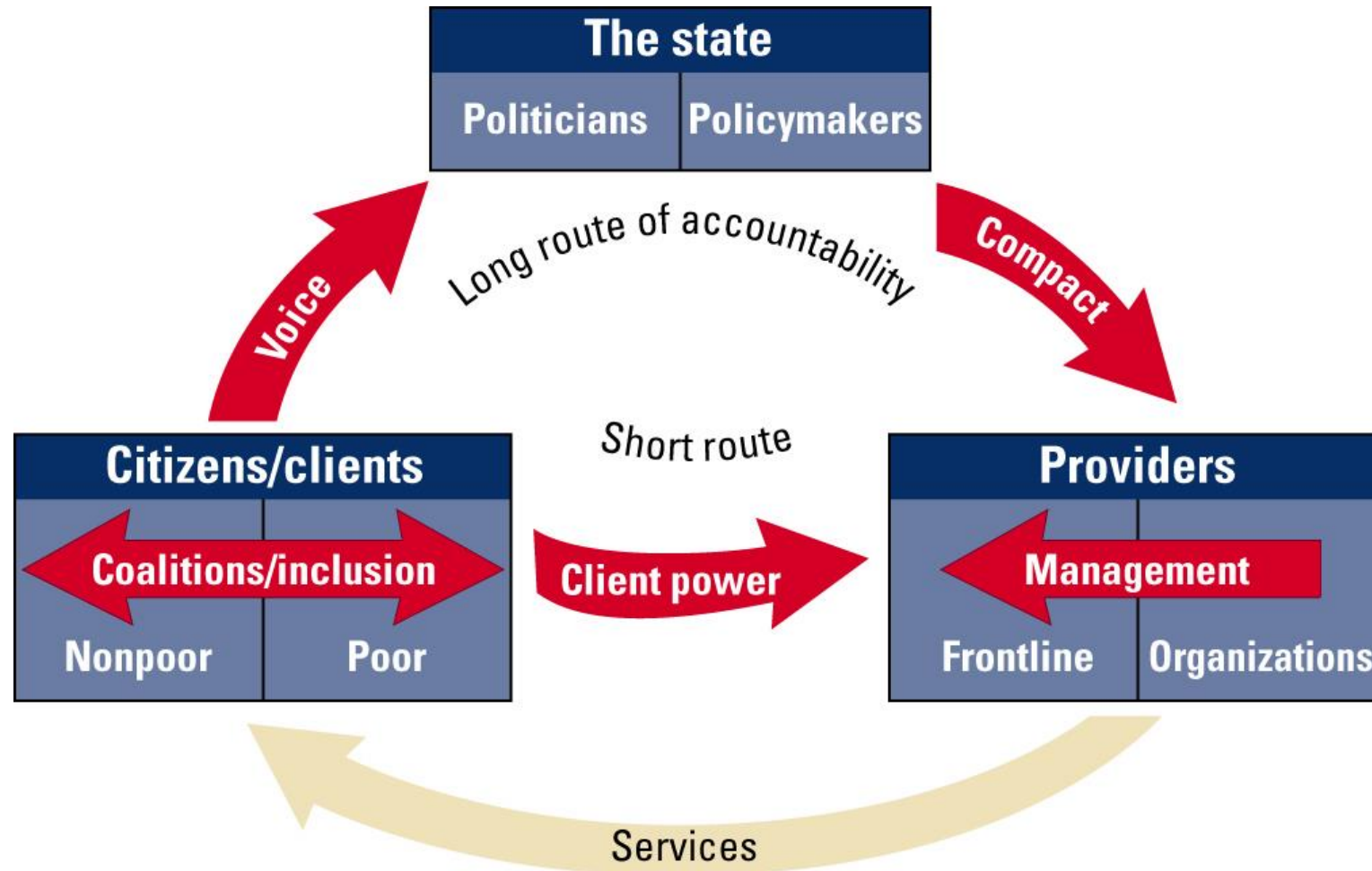
Access to schooling is a global success



In the mid-20th century, the biggest challenge for universal foundational learning goals around the world was improving access to schooling.

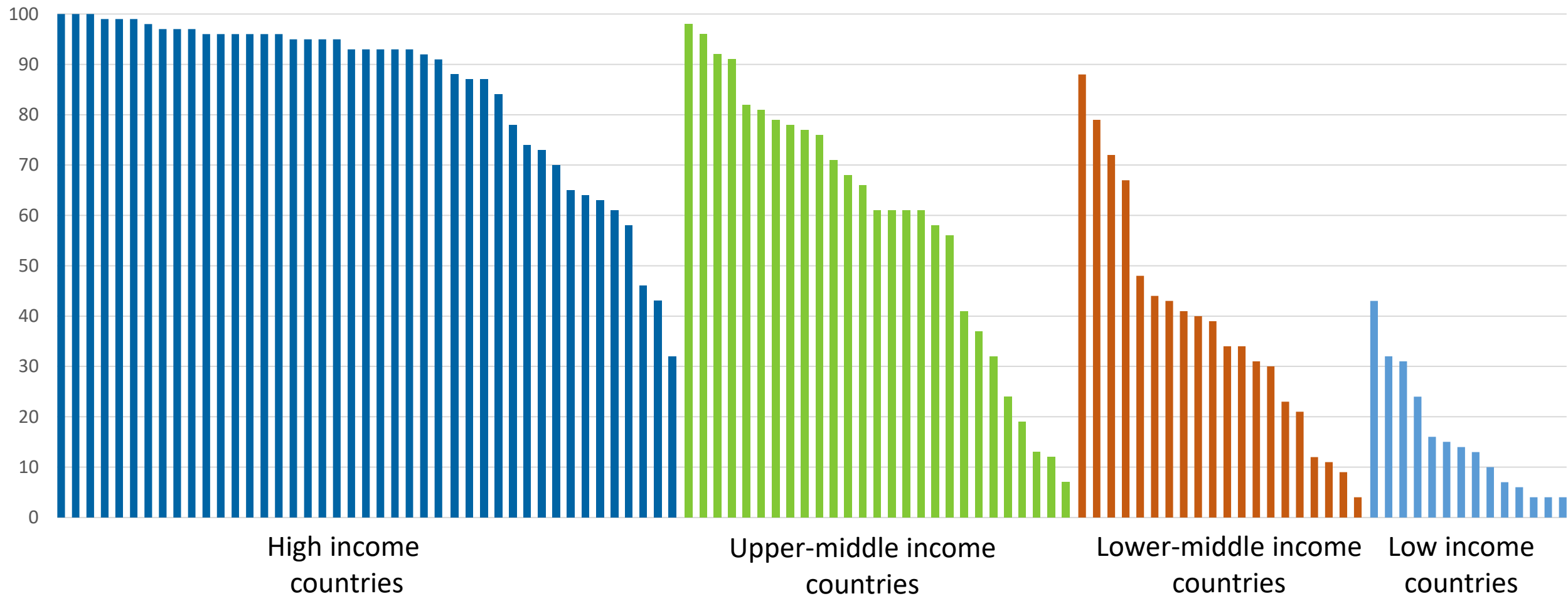
Today, the biggest challenge for cultivating foundational learning for all children is helping them to learn more with each year they spend in school.

What is the system of service delivery?



Symptoms of the Learning Crisis: A global perspective

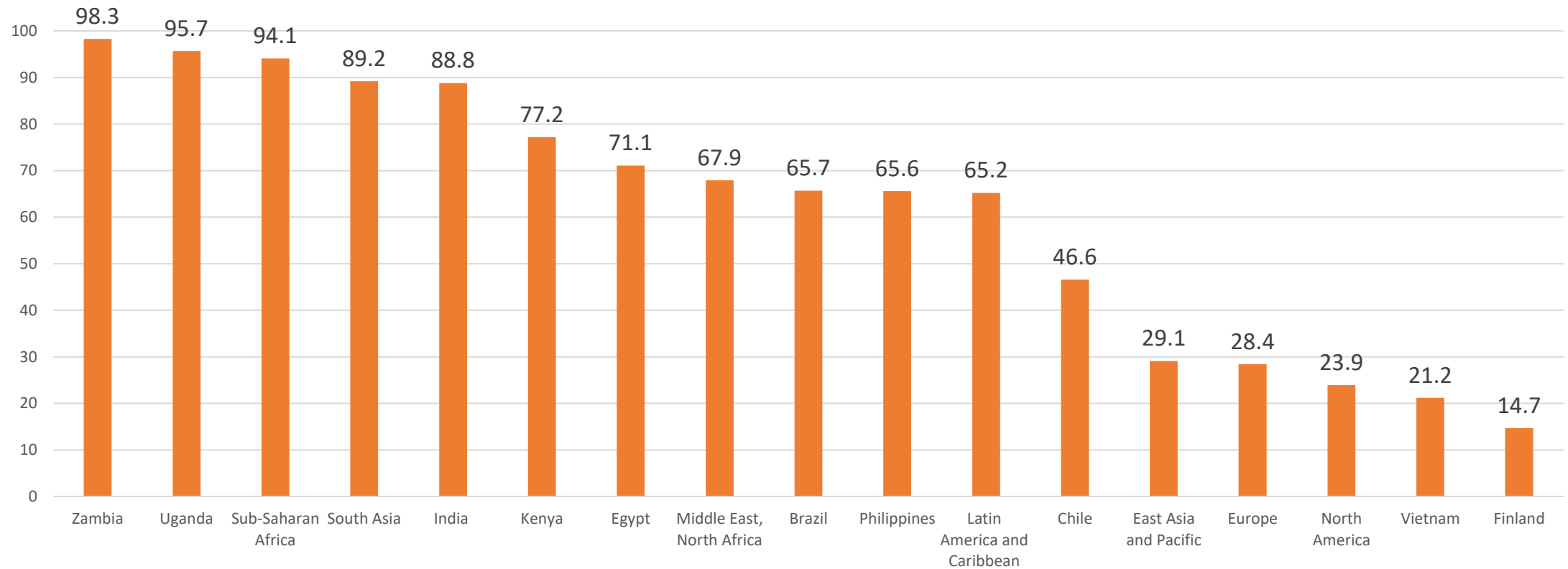
Percent of end-of primary students who meet a minimum proficiency threshold for learning in math



Large gaps across regions and countries in the share of youth reaching basic skills

(akin to SDG4 minimum learning level)

*Percent of all children **NOT** reaching basic skills*





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Regular Article

Global universal basic skills: Current deficits and implications for world development[☆]

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ABSTRACT

How far is the world away from ensuring that every child obtains the basic skills needed to be competitive in a modern economy? And what would accomplishing this mean for world development? We provide new approaches for estimating the lack of basic skills that allow mapping achievement across countries of the world onto a common (PISA) scale. We then estimate the share of children not achieving basic skills for 159 countries that cover 98% of world population and 99% of world GDP. We find that at least two-thirds of the world's youth do not reach basic skill levels, ranging from 24% in North America to 89% in South Asia and 94% in Sub-Saharan Africa. Our economic analysis suggests that the present value of lost world economic output due to missing the goal of global universal basic skills amounts to over \$700 trillion over the remaining century, or 12% of discounted GDP.

A system diagnostics at the school level

Best Schools

- ◆ In top deciles of teacher presence and subject knowledge, & in bottom decile of pupil/teacher ratio

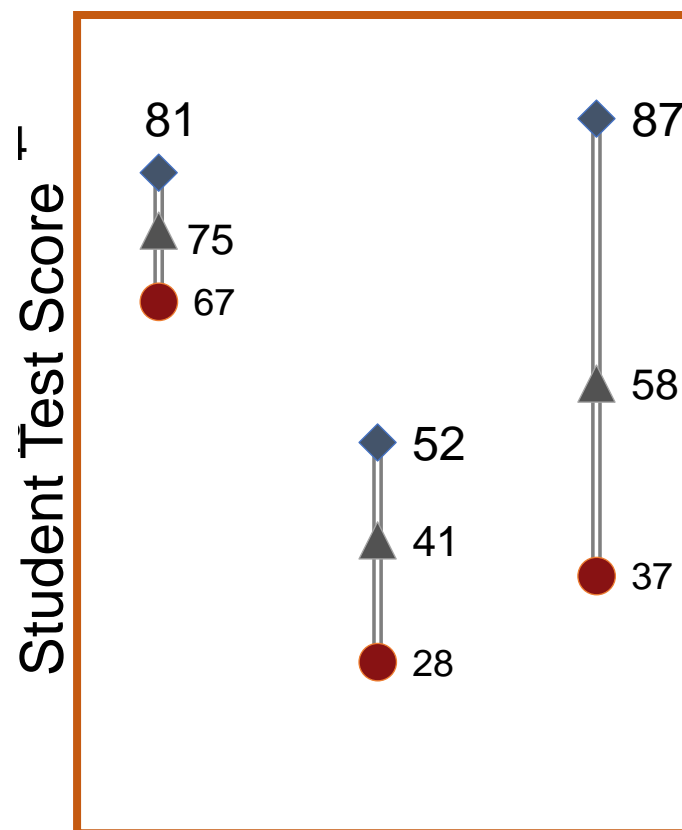
▲ **Average schools**

In 45th-55th percentile of teacher presence and subject knowledge, & pupil/teacher ratio



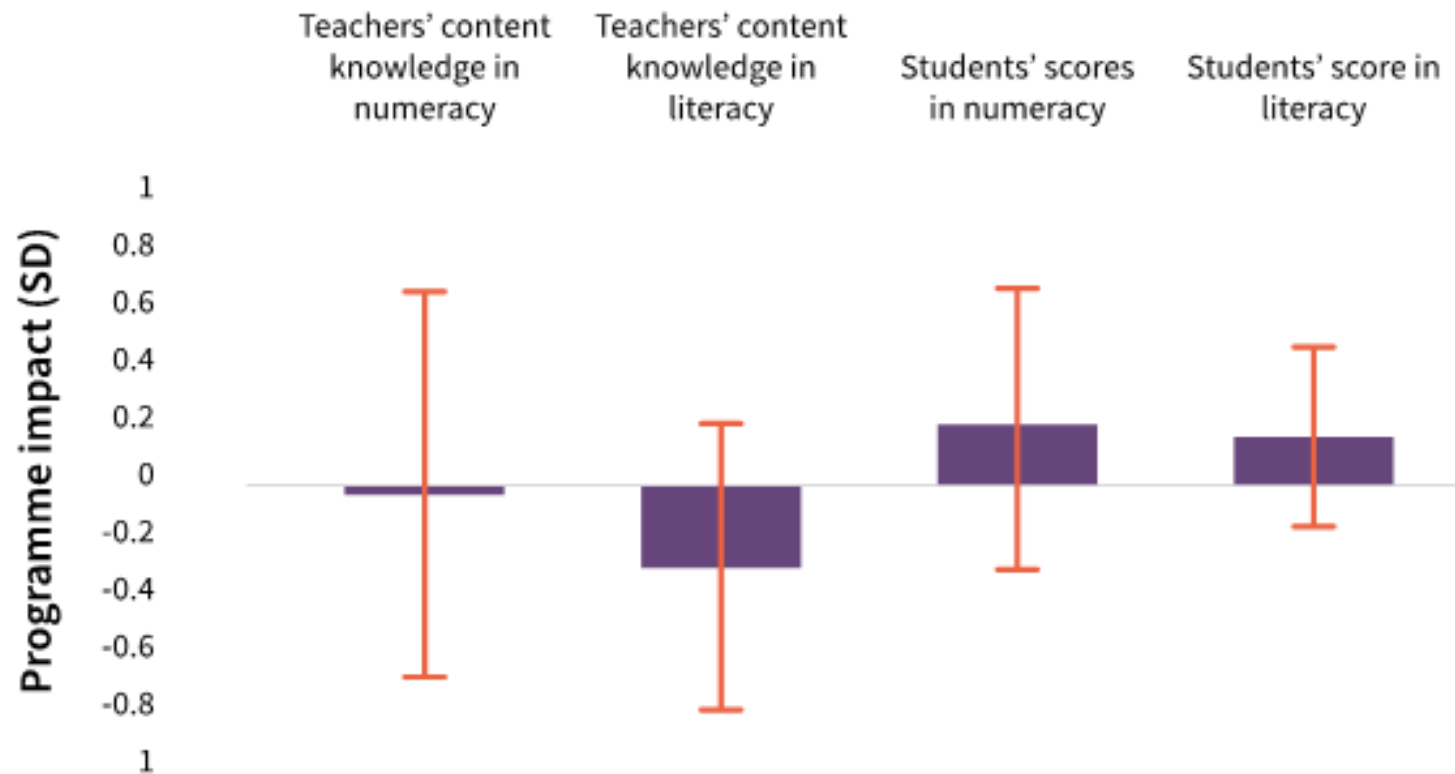
Worst Schools

In bottom deciles of teacher presence and subject knowledge & in top ventile of pupil/teacher ratio.



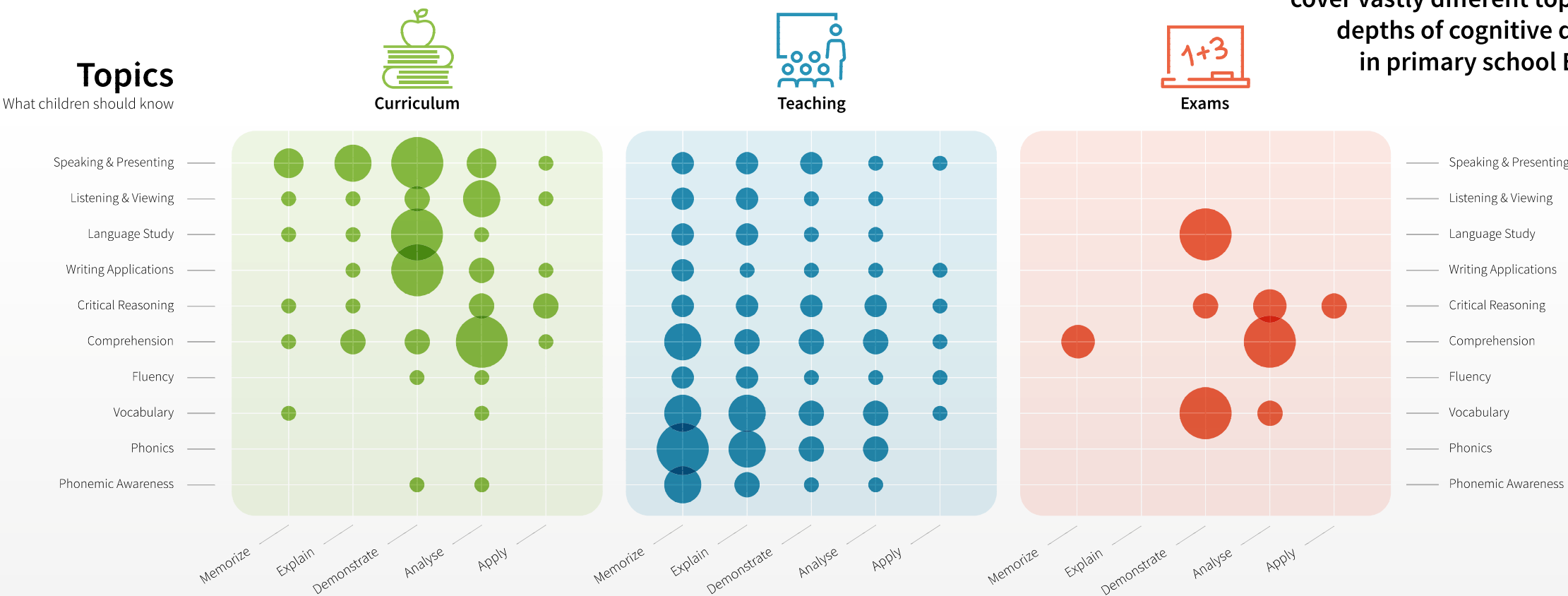
In many education systems teacher training programs may not lead to more learning

In Indonesia, a one-year pre-service teacher education programme had no impact on either teachers' or students' learning.



Curricula, classroom teaching, and exams are often poorly aligned

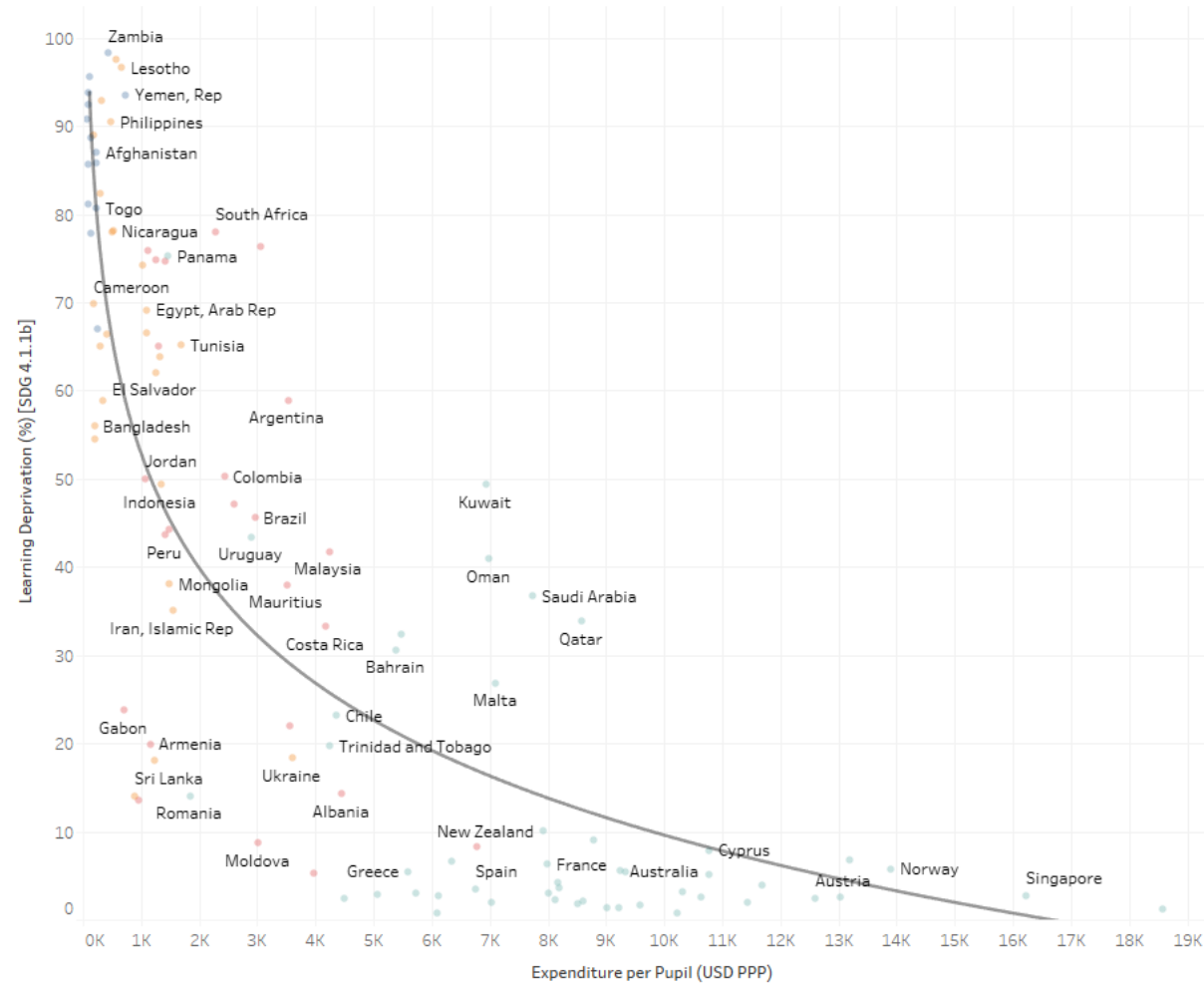
In Uganda, the **national curriculum**, **classroom teaching**, and **exams** cover vastly different topics and depths of cognitive demand in primary school English.



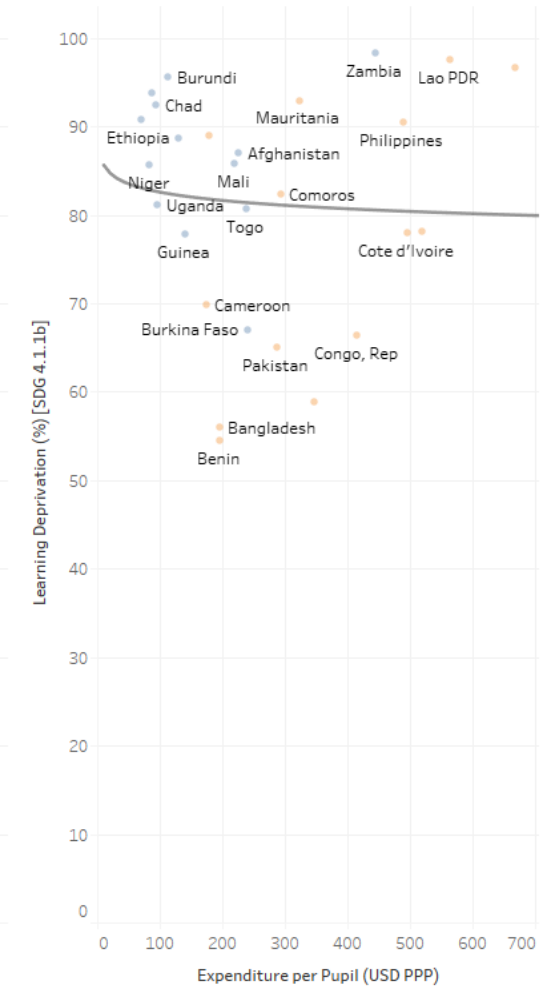
Therapeutics: Finance is necessary but not sufficient

Relationship between learning deprivation and expenditure per pupil

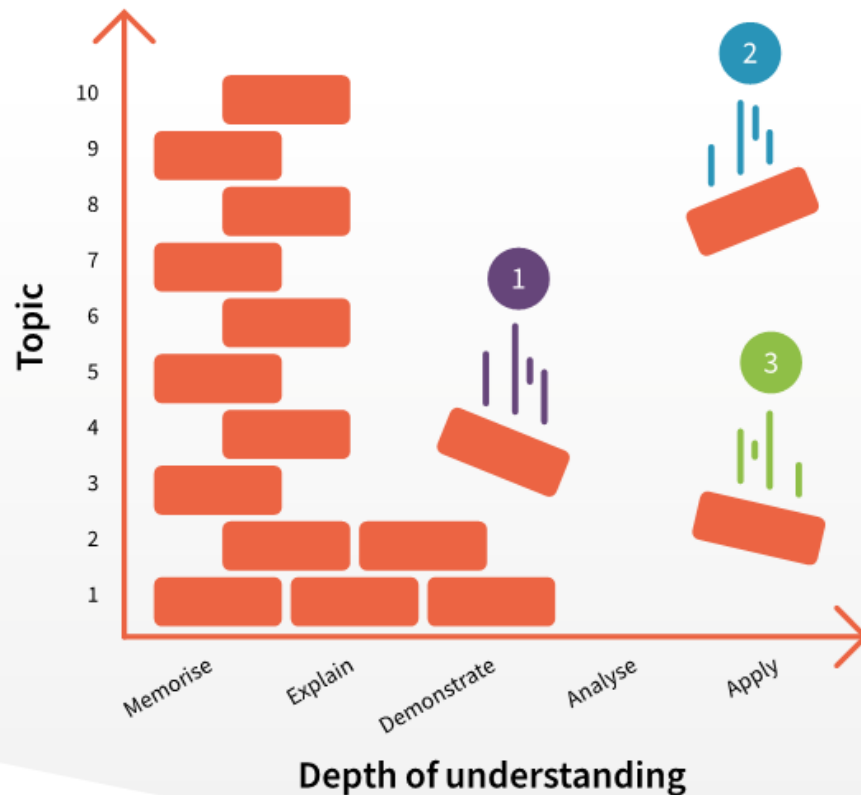
(a) Full Sample



(b) Sub-sample: 43.0 to 666.3 expenditure



Foundational learning is key



Without strong foundations, children and youths ...

1

... cannot progress:

In 2014, less than a quarter of 12th graders in Indonesia could correctly answer " $\frac{1}{3} - \frac{1}{6} = ?$ "

2

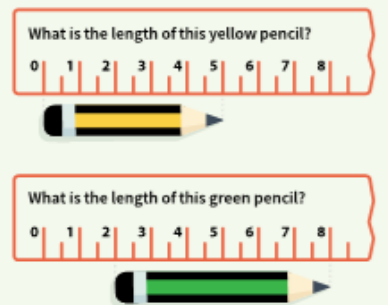
... cannot master competency-based tasks:

Among the 7 middle-income countries participating in the PISA-D assessment, an average of 36% of 15-year-olds scored below Level 1c (the lowest category of PISA competencies).

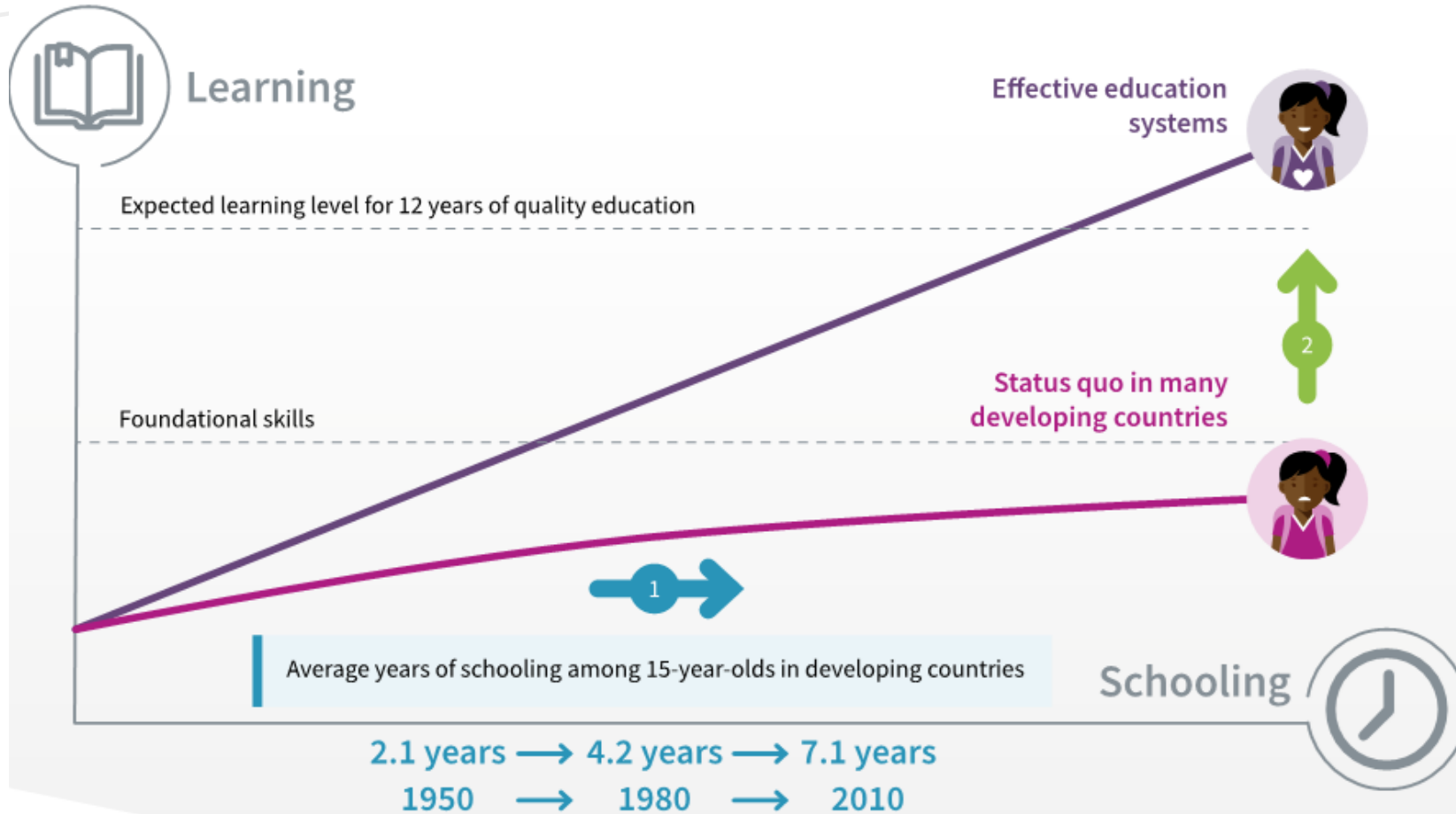
3

... cannot move beyond memorisation:

While 86% of Indian youths could correctly state the length of the yellow pencil, less than 40% of them could correctly state the length of the green pencil.



Therapeutics: More learning per year of schooling needed



1

There has been huge progress in schooling attainment in developing countries.

2

However, in many countries, the pace at which children master new learning per year of schooling is just too shallow—such that many children complete basic schooling without achieving foundational learning.

To overcome this, education systems need to help children learn more each year.



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Thank you!