A systems approach to teacher careers: Choose and curate toward commitment to capable and committed (CCCCC) teachers

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Classroom teaching is complex — and so are the challenges facing it in low-performing education systems.
In many developing countries, education systems fail to cultivate learning for many children, even those in school.

**10-year-olds** in all low- and middle-income countries:
- Enrolled in school and able to read and understand a simple text, 47.3%
- Enrolled in school but unable to read and understand a simple text, 44.0%
- Out of school, 8.7%

**15-year-olds** in 7 low- and middle-income countries:
- Enrolled in grade 7 or above, above PISA level 2, 9.1%
- Enrolled in grade 7 or above, below PISA level 2, 33.5%
- Out of school or enrolled below grade 7, 57.4%

World Bank, Learning Poverty (2015)

**Gaining years in school with some progress in learning**

**Gaining years in school without progress in learning**

**Out of school or far below expected grade level**

Sources:
- Pritchett & Viarengo (2021), [https://doi.org/10.35489/BSG-RISE-WP_2021/069](https://doi.org/10.35489/BSG-RISE-WP_2021/069)
This is partly because education systems are failing to cultivate and support capable and committed teachers.

In SACMEQ 2007 for South Africa, 74% of 6th-grade teachers had completed senior secondary school or above … but only 21% of these teachers demonstrated mastery of the maths content they were supposed to be teaching.

Across the 8 African countries surveyed in the SDI, an average of 40% of randomly selected teachers were absent from classroom during an unannounced visit.

Note: mean of country-level absence rates in Kenya, Madagascar, Mozambique, Nigeria, Senegal, Tanzania, Togo, Uganda.

To fix these complex, entrenched, large-scale problems, we need to think about teacher careers as systems (that are embedded in other systems)
One level of systems thinking: the interaction between different design elements and phases of teacher careers

<table>
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<th>Design elements of teaching careers</th>
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Note: Adapted from the RISE framework. See Pritchett (2015), [https://doi.org/10.35489/BSG-RISE-WP_2015/005](https://doi.org/10.35489/BSG-RISE-WP_2015/005)
Another salient level of systems thinking: the interaction between different sources of teacher motivation

- **Finances**: Money
- **Material Circumstances**: Stuff that money can buy
- **Personal Satisfaction**: Goal fulfilment & identification with a larger cause
- **Social Validation**: Respect & appreciation
Some teacher reforms prioritise finances over all else—but other factors also shape motivation and performance

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- **Finances**
- **Material Circumstances**
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The CCCCCC principles:
Choose and curate toward commitment to capable and committed teachers
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Note: hypothetical example illustrating one of many possible instantiations of CCCCC. Adapted from Pritchett & Pande (2006).
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Choose **and curate** toward commitment to capable and committed teachers

**Note:** Hypothetical example illustrating one of many possible instantiations of CCCCC. Adapted from Pritchett & Pande (2006).
The CCCC principles accentuate the complex interactions between elements and phases of teacher careers

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As things now stand, most education sector plans create more fragmentation and less coherence; they address teacher policy dimensions only partially and do not systematically include all the major determinants of learning success linked to teachers, i.e. recruitment; initial education; balanced deployment; continual professional development; decent salaries; career prospects; and working (teaching/learning) conditions …

Why curate? Because indicators from outside of the classroom might not encapsulate teacher capability and commitment.

A panel data study in Pakistan found that standardised indicators did not encapsulate much about teacher value-added …

Although effective teachers increase learning substantially, observed teacher characteristics* account for less than 5 percent of the variation in TVA.

*Bau & Das (2020), p. 62

(open-access working paper version: https://doi.org/10.35489/BSG-RISE-WP_2017/016)
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… but schools and headteachers on the frontline could identify and reward effective teachers.

… a 1 SD increase in TVA is associated with (at least) 49 percent higher wages in the private sector. Even in the absence of a formal testing regime, TVA is observable and can be rewarded, but the public sector does not have a mechanism to do so. Finally, the TVA of public sector teachers on temporary contracts … was at least as high as that of permanent teachers …

*Bau & Das (2020), p. 64

(open-access working paper version: https://doi.org/10.35489/BSG-RISE-WP_2017/016)
Why commitment? Because continuous curation is costly—for ministries, schools, teachers, and students. Teacher turnover affects the production of student learning not only indirectly, through the stock of teachers’ skill and motivation, but also directly, because it introduces frictions in the allocation of teachers to schools. … head teachers faced with staffing shortages may be forced to allocate teachers to subjects outside of their areas of specialty, resulting in a patchwork of teaching assignments that adversely affects learning outcomes.

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Why choose and curate? Because a commitment-only approach misses key opportunities to build professional standards

“A probationary period on entry to teaching should be recognized both by teachers and by employers as the opportunity for the encouragement and helpful initiation of the entrant and for the establishment and maintenance of proper professional standards as well as the teacher’s own development of his practical teaching proficiency. … the conditions for its satisfactory completion should be strictly related to professional competence …”

ILO/UNESCO (1966), Recommendation Concerning the Status of Teachers, para. 39
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At the **core** of CCCCC (and of any effective organisation) is **purpose** and **technical capability**
Effective organisations are effective from the inside out—from their core purpose + technical practices advancing the purpose.
If an organisation loses its core, it might continue functioning as a doughnut, but it will likely get co-opted for other goals.
The CCCCC principles do **not** imply that a core-less system can be fixed just by fixing HR (or other support functions) …

> There is a lot of documentation work. We have to make a work plan and then upload it, get it printed. **There is so much paper work that** by the time some teachers figured that out they **had forgotten what was Shaala Siddhi itself**. I do all the documentation work at home because I have no time in the school.

*Headteacher at a school that was designated as an effective implementer of Shaala Siddhi in Madhya Pradesh, India; quoted Muralidharan & Singh (2020), p. 18, https://doi.org/10.35489/BSG-RISE-WP_2020/056*
... but if HR and other support functions aren’t coherent with the core, the core purpose has to compete with other priorities
Why **capable** and **committed**? To give the core (technical quality + purpose) the priority that it warrants

**Choose and curate toward commitment** to **capable** and **committed** teachers

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**Pre-service teachers**

**Novice teachers:**
Fixed, lower pay scale (and lighter teaching load)

**Experienced and veteran teachers:**
Higher pay scale, with annual increments based on performance reviews, and an early retirement option

**Master teachers:**
Top-performing veteran teachers can apply to become master teachers, who mentor and coach their peers

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Note: hypothetical example illustrating one of many possible instantiations of CCCCC. Adapted from Pritchett & Pande (2006).
Purpose is fundamental—at every level of the system.
We can identify elements of teacher careers that look very different on the surface, but similarly reflect aspects of \textbf{choose-and-curate-toward-commitment-to-capable-and-committed} teachers:

- **Finland**
  - \textbf{Choose}: intensive, two-stage screening for entry to pre-service training

- **Brazil**
  - \textbf{Committed}: municipal authority to tailor some elements of teacher careers to local prioritise (e.g. Sobral)

- **Peru**
  - \textbf{Capable}: national-level test of teacher knowledge and accreditation of pre-service training

- **Singapore**
  - \textbf{Curate}: ‘compulsory untrained teaching stint’ prior to pre-service training

CCCCC is a set of principles—which can (and should!) be implemented differently in different contexts.
Thank you very much!

Stay in touch:

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