Role of Learning Outcomes in Education Governance

Monitoring Child Progress for School Accountability and Reducing Information Asymmetries for Parents

Draft Blueprint

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Executive Summary

The crisis of learning outcomes in Indian elementary education is not news to anyone who has followed the findings of multiple assessments by the Annual Status of Education Report (ASER) and National Assessment Survey (NAS). The different assessments offer similar findings: learning levels are low, and even declining in some cases. In 2005, 40% of grade 8 children could not divide a three digit number by a one digit number; In 2018, 56% cannot. NAS cycle 3 and 4 results for grade 5 show that 19 out of 31 states/union territories that participated in both cycles show a decline in language and math outcomes in government schools (ASER Centre 2016). The outcomes are low across all categories of schools, although the problem is particularly acute in government schools with Budget Private Schools (BPS) performing slightly better than government schools on average (Rajagopalan and Agnihotri 2014).

What is the cost of this failure to deliver outcomes? It take the average student 14.3 years just to master basic techniques in arithmetic, and 18.7 years to master basic language skills at this pace. The relationship between how long children are in school with what they actually learn is so flat that achieving universal schooling of 12 years would not even result in universal learning equivalent to grade 2 education (Filmer 2010).

There is piling evidence that economic growth is not a factor of number of years of schooling but what students actually learn.

While there are many reasons and many ways for us to reform the system, a fundamental challenge is the paucity of information on school performance and child learning and its use in governance and parental choice. There are plenty of reports that bring aggregated data on comparisons between school types, states and sub-populations. But we cannot distill the information to say which school is performing better than others. The latest modification to NAS allows comparison across districts but what can we say about performance across villages, blocks and schools?

A 2014 study by Educational Initiatives notes that "the government category itself cannot be viewed as a single system. The differences between the top and bottom performing districts in each class and subject are very large with a range of 1.0 SD to 2.0 SD effect size."

Taking note of the crisis and recent developments, this brief urges the government to use the power of information to strengthen its ability to hold individual schools accountable, parents' ability to choose, and schools' ability to improve. We have identified three gaps and recommended policy reforms for each:

- First, we do not have assessments to measure child progress, for diagnostic or accountability purposes. Both ASER and NAS are sample-based assessments. If the question of interest is "What proportion of children of primary school leaving age (at the district, state or national level) are functionally numerate?" it can be answered by a sample survey of students. But if the question is: "Which schools are most effective in using resources to achieve or improve learning outcomes?" or, "Has every child achieved grade appropriate learning level?" there is need for a census or school-based assessment.
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Birdsall, Bruns, and Madan (2016) note that "It is eventually desirable to conduct census-based assessments. The latter generate the school-level feedback on learning progress that is essential for parents and communities to hold school directors and system officials accountable for results."

• Second, our management information systems capture 'thin' indicators but say nothing about teacher practices or class climate. The government has data on the number of schools, children enrolled, children retained, number of toilets and classrooms but not on student background, student-teacher interaction or parental involvement in schools. The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE) 2009, the first legislation to mandate government recognition of all private schools¹, only evaluates compliance with bright-line input rules. Similarly, the U-DISE report for elementary education has 114 indicators and only two are about outcomes, i.e., examination results in grade 5 & 8 (NUEPA 2017).

We recommend school self-evaluation of teaching practices and classroom climate, validated by a third party (government or private). One such example in India is the work done by Adhyayan Quality Education Services that judges a school on six Key Performance Areas (KPA), benchmarked against "what good looks like" internationally.

- Third, we worry about parents' choice of schools but not about the paucity of information in which they make these choices. Information can be a powerful tool for parents to choose and monitor schools and for state to regulate. There are two routes to accountability: one where the school is accountable to the parent or second, where the state acts as a mediator between the parent and the school. We suggest:
 - For establishing direct accountability of school to parents, the simplest accountability tool is generating public profiles of schools in an easily digestible form, with consequent action left to parents. Public reporting can take multiple forms and several countries such as the UK, Australia and Dubai have implemented it.
 - To make sure that all schools meet minimum benchmarks of performance and reporting, the state can verify whether a school meets the specified requirements minimally, satisfactorily or excellently. This requires moving away from the current binaries of recognised/unrecognised or aided/unaided encouraged under the RTE Act to a system that categories schools according to performance and classroom practices.

Each recommendation is not a solution or an intervention but an enabler. It raises questions for further research and avenues for bolder states to experiment, revise and implement at scale.

^{1.} The norms for recognition apply to government schools, however, without a penalty for noncompliance. Private schools, under section 18(5) of RTE 2009, can be subjected to a penalty of upto one lakh or ten thousand rupees per day.

Background and context: Consistently low learning outcomes, signs of systemic disease

Learning outcomes in Indian primary education are consistently low. NAS and ASER have echoed similar findings. ASER (ASER Centre 2017), based on a sample of schools in all rural districts, shows that 75% of grade 5 children from rural India cannot do simple division problems. This learning gap worsens with age. For example, the percentage of students who can correctly do a three digit to one digit division problem reduced from 68% in 2010 to 43% in 2016. NAS cycle 3 and 4 for grade 5 shows that 19 out of 31 states/union territories which participated in both cycles show a decline in language and math outcomes in government schools (ASER Centre 2016)

The outcomes are low across all categories of schools, although the problem is particularly acute in government schools with BPS performing slightly better on average. High feepaying private schools achieve significantly better outcomes than both school types but lower than international averages (Rajagopalan and Agnihotri 2014).

The 'single biggest factor associated with test scores was whether students found school 'boring and not useful' (average test score 40.6) or 'fun and useful' (average test score 56.4)' (ibid.). Desai et al. 2008 found that positive interactions between teacher and child are minimal. In less than a third of all classrooms did the student ask questions and less than 20% of teachers smiled or joked with the students. Negative perception of their own learning and the experience of school results in drop outs or poor performance (Bhattacharjea, Wadhwa, and Banerji 2011).

The abundance of data pointing to low learning outcomes has changed the dominant narrative: learning is now seen as different from schooling. The undertones of government documents reflect a change in focus from inputs to outcomes. The NITI Aayog Action Plan 2017-19, for instance, suggests that the most important goal is to improve outcomes.

NITI Aayog has also introduced a state-level School Education Quality Index (SEQI) to 'institutionalise the focus on improving education outcomes' and provide insights into states' strengths and weaknesses. Learning outcomes account for 36% of all indicators and are sourced from NAS.

While the conversation has changed, there is no concrete action plan on how the information will be used to improve outcomes or if is sufficient to bring change at a village, block or school level. The government uses district and teachers as the unit of administration and finance, when it should be concerned with the school and child. The unit of assessment, regulation and financing should be the school. The system, however, is set up such that regulation is done school-wise, financing is district-wise, and assessment is sample-based, making existing information redundant for any meaningful exercise.

The brief aims to fill this gap by identifying the challenges and generating recommendations on the appropriate use of information on learning outcomes and classroom practices in education governance. We focus on information reforms that can empower parents and can also feed into the states' accountability systems.

Recommendations based on an examination of the system

There is a globally synchronised movement away from governance by rules and directives towards governance by results and goals, although the details of such systems vary across countries and states. One principle that all top-performing systems recognise is that they cannot improve what they do not measure (McKinsey & Company 2007). This has taken different forms, for e.g., privately administered standardised tests in the US, national census-based student assessment in Uganda, and league table ranking of schools in Dubai, Singapore and the United Kingdom. Setting clear expectations for students, schools and system and monitoring progress through assessments form the cornerstone of such systems.

Pritchett (2013) explains: "without standards, there can be no measurement, and without measurement, there is no evaluation of success or failure." Standards and measures may not be sufficient to produce gains but is necessary to understand where we stand today. Information only on standards and not on processes, however, may lead to perverse actions. Therefore, we need the the right kind of information, measured in appropriate and cost-effective ways that should be used to create incentives that drive performance and student well-being.

Based on this premise, we propose three recommendations that leverage school data to improve outcomes, teacher practices and classroom climate.

Learning outcome assessment for school account-1 ability

Gap: We do not have assessments to measure child progress in elementary education, for diagnostic or accountability purposes.

'To take learning seriously, start by measuring it,' recommends the World Bank (2018). Data on learning outcomes in India is currently limited to reports by ASER, NAS or occasionally by independent researchers. ASER has been brought out annually since 2005, with the exception of 2015. NAS results are available periodically since 2001. The results from both these studies make for dismal reading, with Filmer 2010 finding that it would take the average student 14.3 years just to master basic techniques in arithmetic, and 18.7 years to master basic language skills at this pace. The student's learning profile, or the relationship between how long children are in school with what they actually learn, is so flat that achieving universal schooling of 12 years would not even result in universal learning equivalent to grade 2 education.

As a result of this flat learning profile, 'children learn too little each year, fall behind, and leave school unprepared' (Pritchett 2013).

Even after 15 years of measuring learning outcomes, why does the crisis persist? Partially because the gap in outcomes is not visible to all stakeholders. Parents, teachers, school

leaders and administrators sense low learning levels but there is no systematic information on individual schools or students.

Table 1: Comparison of two large scale national assessments—National Achievement Survey and Annual Status of Education Report

	ASER	NAS
Conducted by	Pratham, a non-governmental organisation (NGO)	National Council of Educational Research and Training (NCERT)
Objective	"Provide annual, reliable, current and actionable evidence relating to enrollment and basic learning outcomes of children in rural India."	"Monitor improvement in children's learning levels and periodically assess the health of the government education system as a whole" Provides information on sub-groups such as comparison between urban and rural population, girls and boys, and different social categories.
Assessment	Basic reading and arithmetic ability for 5-16 years old	Grade-level competencies for standard 3,5, and 8
Period	Annually since 2005	Periodically since 2001 (Five cycles)
Coverage	Aims to cover all rural districts each year ASER 2018 surveyed 5,46,527 children aged 3-16 years.	Aims to cover all rural and urban districts in 36 states and UTs; varies according to grades and cycle. NAS 2017 covered 21,21,173 Std III, V and VIII students from 1,16,534 schools.
Sample	Household based survey: Villages are selected in each district and then 20 households from each village are randomly selected. This allows ASER to include students enrolled in government, government aided and private schools. It also includes out of school children.	School-based survey: Schools are chosen with districts.
Intended use	Provides 'annual information regarding foundational abilities of children across all elementary grades.'	'Help the districts to develop evidence based programmes for improving the quality of education'

Both ASER and NAS are sample-based assessments, with district as the unit of sampling. ASER samples students from all school types: NAS only covers government and government aided schools. NAS is intended to design policy and pedagogical interventions to improve the learning outcomes at district, state and country level (Senapaty 2018). It, however, leaves out private unaided schools that account for one third of all elementary education enrolment and are, therefore, important for improving outcomes for all children.

While district level information is useful for temperature check of the system, it is not sufficient for government to regulate schools, for schools to improve outcomes, or for parents to choose schools. Bruns, Filmer, and Patrinos 2011 note that 'When parents and students have little information about the performance of their schools or about the inputs those schools are entitled to receive, their position relative to service providers and governments is weak. They have limited ability to hold schools and teachers accountable for either effort or efficiency in the use of resources, and they have a limited empirical foundation to lobby local or national governments for greater (or better) public support to their schools.'

One of the outcomes envisaged from NAS is the 'participation of parents and members of school management committee in discussions, planning and monitoring of activities to be undertaken for enhancement of learning outcomes.'

The moot question is: How can parents hold schools accountable without hard evidence on learning outcomes? While involvement of parents is a worthy outcome, it is not clear how parents can do it without information. There is limited research on how information from NAS has been used to design and implement pedagogical interventions and the response from schools in the take up of such interventions.

Birdsall, Bruns, and Madan (2016) note that 'It often makes sense for assessments initially to be sample-based, while school systems develop the implementation capacity to ensure the integrity of test administration and results. However, it is eventually desirable to conduct census-based assessments. The latter generate the school-level feedback on learning progress that is essential for parents and communities to hold school directors and system officials accountable for results.' A census is free of sampling errors and can provide relevant evidence to parents. While the former can be achieved with better sampling techniques but if the imperative is to provide information to parents, it can only be achieved through a assessment of all schools.

Recommendation 1: Design assessment, test suitability and apply en-masse

Improving learning outcomes requires identifying the objectives of schooling that go further than just getting kids into school. Learning goals have to be measured in terms of student capabilities, which is a combination of basic capabilities outlined by a core curriculum with variations based on local circumstances.

Define learning goals for grades and system. Goals include content and performance standards. Content standards refer to what students should be able to do by the end of each grade or level (primary, upper primary, secondary). Performance standards correspond to the level of attainment expected for each outcome (basic, proficient, advanced). Learning goals are short-term with respect to the child, such as counting objects from 1-9 in grade 1, rather than long-term objectives with respect to higher education or labour market outcomes. Consistently measuring progress on short-term goals and adjusting to meet them at the school (child) level serves as the foundation for achieving long-term macroeconomic outcomes.² The Human Resource Development (HRD), in 2017, amended rule 23(c)(2) of RTE 2009 mandating states to develop class-wise, subject-wise learning outcomes. States can refer to NCERT draft document on outcomes for standard 1-8.³

The goals and targets for student and school achievement must guide local and national targets. National targets can also be rank/score targets in international assessments such as the Programme for International Student Assessment (PISA). Australia, Denmark, Thailand and Brazil are some of the countries that have such targets. India's plan to participate in PISA in 2021—11 years since it first participated through schools in Tamil Nadu and Himachal Pradesh—is a positive step to induce international competition and debate on education policy. However, without national and international targets and clearly defined means to achieve those, the progress chart remains unclear.

Measuring Outcomes: If the goal is to improve outcomes for each student, step one is to assess outcomes for each. This necessitates investment into an assessment system to develop indices to evaluate performance. Some questions for consideration include:

- What kind of tests are best suited for different purposes such as diagnosis and accountability?
- How much of the current education budget is allocated to assessments? Is there a need for reallocating resources to assessments?
- What is a cost effective way of assessing all schools? Can the cost be shared between schools and the government with privately administered tests? Can technology be leveraged for such assessments?
- Should assessment be done in-house by the state or is there a role for third parties to provide independent research?
- How have we used NAS findings to improve outcomes thus far? How can its use be optimised?

Scope of assessment: Identifying the purpose behind large-scale assessments is a key to the design process. If the purpose is to answer: "What proportion of children of

^{2.} There is a trend toward including non-academic parameters globally. In the US, for example, the Every Student Succeeds Act requires schools to be evaluated on at least one "non-academic" parameter. There are several foundations within India working to expand research on and scope for including softskills in outcomes. Refer to work done by Centre for Science of Student Learning, Dream a Dream, and India School Leadership Institute.

^{3.} This blueprint does not evaluate the suitability/appropriateness of the draft learning outcomes; what constitutes learning outcomes and what must be the short and long term goals of education is a question worthy of debate and discussion.

primary school leaving age (at the district, state or national level) are functionally numerate?" it can be answered by a sample survey of students. NAS, for example, is a sample-based assessment which allows comparison of learning between sub-populations, such as boys and girls, government and private, or rural and urban.

On the other hand, if the question is: "Has every child achieved grade appropriate learning level?" there is need for a school- or census-based assessment. A census-based assessment provides a standardised diagnostic test to place and teach each student according to her current level of ability.

Designing a game-proof assessment tool: Assessments that have any stakes for schools are vulnerable to unintended consequences such as an excessive focus on subjects that are tested (at the cost of other subjects) and selective intake of students based on ability. Despite the unintended consequences, experts argue that tests should remain a part of monitoring and accountability systems in absence of other alternatives (Koretz 2017). This is partially because standardised test is the only way to provide insights on performance of students across schools, income brackets and social classes and answer important questions on effectiveness and efficiency of the education system.

Listed below are some of the ways to mitigate the unintended consequences:

- Refrain schools from selecting students based on ability: Schools may increase intake of 'able' children, thereby changing the emphasis from what the school can do for the child to what the child can do for the school (Ball, Bowe, and Gewirtz 1995).
- Leave no child behind: Preventing segregation of students based on ability within the classroom requires assessment of each student. In absence of this, schools or teachers may 'selectively sample' students that perform better or are more likely to show higher returns.
- The test should reflect what we want to achieve: Au (2007) summarised 49 studies on the impact of No Child Left Behind (NCLB)—the US law that holds schools accountable based on performance—to find that it limits scope of curriculum only to what is tested. Schools with an 'alternative' curriculum or disadvantaged schools serving poor areas face greater pressure and are split between responding to external demands and attending to children needs. Such schools have a higher tendency for teaching for the test (Diamond and Spillane 2004). For this reason, it is important for tests to reflect the breadth and depth of content and skills we want a child to learn. That is, the quality and content of the test should be designed such that even if it leads to teaching for the test, it should be desirable.

Assessments should be done with care as the use of any assessment for decision making prompts corrupt practices. The tool should be checked for reliability and validity before it is used at scale.

Even though the tests serve as a useful reference point to evaluate school performance, they should not be the only source for information. Test scores should be balanced with information on other parameters, especially teaching practices and classroom climate. This leads us to the next question: What are the other important metrics and how should THEY be measured?

2 Mandate self-evaluation of teaching practices and classroom climate, validated from a third party

Gap: Our management information systems focus on thin factors but say nothing about teacher practices or class climate

The current Education Management Information Systems (EMIS) is proficient at tracking inputs or 'thin' factors which are easy to track. Learning outcomes, teaching practices and classroom climate, on the other hand, are 'thick' factors assessing which is important to estimate the value-add by a school to a student. Our education system is geared toward extensive measurement of the former and insufficient focus on the latter. The government knows the number of schools, children enrolled, children retained, number of toilets and classrooms but there is no systematic information on student background, student-teacher interaction or parental involvement in schools.

The RTE 2009, the first national legislation to mandate government recognition of all private schools⁴, only evaluates compliance with bright-line input rules such as student-teacher ratio, norms for school building, and minimum working hours per week clocked by teachers to grant recognition.

U-DISE, the EMIS under Sarva Shiksha Abhiyan (SSA), is a reflection of an overall uniform input-based approach to assessment of school quality. Parameters under 'quality indicators' include teacher-pupil ratio, blackboard and building, students classroom ratio, availability of drinking water and common toilet and girl's toilet in school. The report for elementary education has 114 indicators and only two are about outcomes, i.e., examination results in grade 5 & 8 (NUEPA 2017). Information on inputs that does not have a 'clear causal connection to outputs and outcomes does not help—and can hurt through distracting efforts' (Pritchett 2018).

As part of the school monitoring exercise, officials from education department and the SSA visit schools to inspect infrastructure, classroom practices, accounts and teaching methods. Officials and government schools' head-teachers fill multiple forms ('as many as 480 formats had reached the Block for just the 48 schools'); however, the information collected and processes followed are inconsistent. Moreover, the information is rarely used to follow up. 'Even a simple review of schools, throws up several interesting facts, which should be fodder for policy, but because they do not get recorded have fallen by the wayside' (Bhatty and Saraf 2016).

If an input rule is coherent with the objective of providing quality education to all children, it may be encouraged or mandated but not otherwise. The Act, for example, specifies that each school must have a library with newspapers, magazines, and books on all subjects,

^{4.} The norms for recognition apply to government schools, however, without a penalty for non-compliance. Private schools, under section 18(5) of RTE 2009, can be subjected to a penalty of upto one lakh or ten thousand rupees per day.

including story-books. While a library is desirable, it cannot be a necessary condition for a school to be recognised, especially since research shows a weak link between outcomes and access to a library (Borkum, He, and Linden 2013).

Bhat (2017) finds that while RTE had a positive effect on public school infrastructure and teacher absence rates, it had a negative impact on most measures of literacy and numeracy skills for government school students. Further, the Act has led to closure of over 2,000 private schools and issue of closure notices to over 12,000 schools until September 2018—all of this without an objective evaluation of learning outcomes or teaching practices (Centre for Civil Society 2018b).

Learning outcomes are important but how we get there is an equally important aspect of it. Classroom climate and teacher practices to ensure student well-being is an essential goal in itself but also leads to positive change in learning outcomes. A study of classroom practices in 5 states found a strong relationship between child friendly classrooms and student learning outcomes, in both grade 2 and 4. However, 40% of classrooms surveyed had zero of the six child-friendly practices⁵ and another 40% had one or two.

Policy-makers and bureaucrats need to go beyond appearances and prejudices. Unless education policy and school evaluators shift focus to indicators that matter, we will have shiny buildings but empty classrooms and shallow results.

Recommendation 2: School should evaluate inputs and processes; validated by third party

Governments globally have moved away from a prescriptive strategy for school improvement. There are a few reasons for this. Improvement means different things for well-to-do schools and struggling schools (Stoll 2009). Prescriptive regulation relies on a one-sizefits-all approach and is not adjusted for differences in school resources and challenges. It frustrates the schools that already know how to improve and may not be relevant for schools that lack the capacity to initiate improvement. It is, therefore, important that schools play an important role in defining and bringing change.

One of the ways in which the school can be placed at the centre of evaluation is through embedding self-evaluation practices. The primary focus of self-evaluation is improvement as opposed to inspection that focuses on accountability. Inspection forces improvement, making a partnership between the regulator and the regulated difficult. Given the focus of inspection on accountability, schools attempt to hide shortcomings and put the best face forward, defeating the objective. Relying solely on self-evaluation, however, without any third party verification or inspection raises questions on credibility of the evaluation. Given these tensions, a fine balance is required between inspections and self- evaluation to create a culture of accountability and improvement within schools (Chapman and Sammons 2013).

^{5.} The six include: 1) Did the teacher smile, laugh or joke with at least some students?; 2) Did students ask the teacher questions?; 3) Was children's work displayed in the classroom?; 4) Did the teacher use local information to make academic content relevant?; 5) Did the teacher use any TLM other than the textbook?; 6) Did the teacher ask children to work in small groups or pairs?

Countries that adopt school self-evaluation, as part of their monitoring framework, follow three logics (ibid.):

- Economic considerations: Limited state capacity to fund individual school inspections and a need to transfer costs to schools.
- Accountability: Schools should give an account of performance to government, parents and other stakeholders.
- Improvement: Schools should adapt to changes in economic and social environment and respond to parental demands to avoid becoming complacent.

While many countries have a mix of self-evaluation practices and inspections, the details vary. Hong Kong, for example, delegates the task of evaluation entirely to the school which then follows the HK Education Bureau (EDB) standards, indicators and tools. The EDB conducts external reviews to validate this assessment. In contrast to this, schools in Victoria (Australia) develop a charter with school aims, goals and improvement plan in consultation with parents but within the stated guidelines. There are two phases of internal assessment followed by an external assessment where the school presents its report and the verifier advises on priorities, which leads to the development of charter for the next cycle. While the system followed by Hong Kong has been criticised by stakeholders for its inflexibility, the latter is appreciated for creating a balance between the three logics (Chapman and Sammons 2013).

Adhyayan Quality Education Services is one such organisation working in this space in India (Centre for Civil Society 2017). It judges a school on six Key Performance Areas (KPA), benchmarked against "what good looks like" internationally. The six areas include:

- 1. Leadership and management;
- 2. Teaching and learning;
- 3. Child;
- 4. Curriculum;
- 5. Community and partnerships; and
- 6. Infrastructure and resources.

Assessment is conducted by stakeholders including school leaders, teachers, non-teaching staff, students, and parents and is validated by peers. Each KPA has three question and each question has three sub-questions. Each sub-question has three statements. The multiple stakeholder team rates each of these statement on a four-point scale of "Out-standing", "Good", "Variable", and "Needs Attention". The school self-review teams, first, conduct self reviews, followed by external reviews for validation using the same tools and methods. This is followed by a discussion between the school and the external review team and trainings. While the work by Adhyayan is a useful starting point, consensus needs to be built on several questions before a policy is rolled out.

The binary of recognised and unrecognised is not sufficient and does not capture the

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factors parents consider important while choosing schools (Ohara 2012). Introducing school self-evaluation (in addition to standardised assessments) is a low cost alternative to the current inspection system that is driven entirely by the state and relies almost entirely on 'thin' indicators. However, consensus needs to be built on the questions raised below, before such a system is rolled out:

- What is the purpose of self-evaluation? How can accountability be balanced with improvement?
- Should the process be internally driven by the teacher and parent community, or should it lie outside of the school?
- Should the evaluation format be developed organically or be mandated by the state/central government?
- How do you reduce probability of collaboration between any third party/inspectors and the school?
- What are the parameters for evaluation? Which of these should be standardised for enabling comparison schools?
- How can the voice of parents and students be included in school evaluation?

The solution depends on the schools' capacity to adopt a bottom-up internally driven program, to bring change without supervision and on the degree of trust between the regulator and the school.

Counter information asymmetry by dissemination 3 to stakeholders

Gap: We worry about parents choice of schools but not about the paucity of information in which they make choices.

The shift to BPS reflects presence of parents who are quality conscious "alert clients" of education. 75% of parents who choose private schools do it for better environment of learning (55%) or due to dissatisfaction with the quality of education at government schools (20%).⁶ Parents collect information on fee, teacher attendance, facilities, environment and medium of instruction to choose from different school options (Srivastava 2007). Unfortunately, this does not include an objective consideration of a school effort, quality or value for money. Raising this issue, Banerjee (2014) notes: "Parents can easily discuss issues of access to schooling and debate and argue about inputs and entitlements that their children are supposed to receive as a result of going to school. But discussions focused on learning are neither easy nor automatic."

A large scale survey carried out between 2003-7 in Punjab, Pakistan (Andrabi et. al 2009) showed that distribution of report cards to parents resulted in significant improvements in 'bad' private schools that performed below the median score initially. The intervention also reduced fees charged by 'good' schools. The intervention, however, brought relatively

^{6.} National Sample Survey 2014

small improvements in *government* schools, suggesting that 'information alone will not be sufficient to bring about large quality changes in the public sector.'

Muralidharan and Sundararaman (2010), in a study in Andhra Pradesh, found that providing teachers with assessment results and written feedback did not generate learning outcomes gain, despite an increase in effort by teachers. The study posits that increase in effort could either be a genuine increase throughout the year or only a temporary increase while the teacher is observed. The difference can only be checked through learning outcome gains. Given that learning outcomes did not improve, it is likely that the teacher put in higher effort only when observed. In a parallel initiative, feedback report coupled with performance pay, and thus a change in incentives, did have a positive effect on learning outcomes.

In conclusion, while provision of information is likely to induce a change in private schools, it may not be sufficient for government schools where teachers do not face the risk of losing funds if students exit.

Absence of credible information on schools limits the positive effects of school choice. As long as school effort is unobservable by parents, schools may under provide effort (Ferreyra and Liang 2012). 'Performance pressure' induces poorly performing schools to improve at the risk of losing students. Performance, as parents see it, is not just limited to learning metrics but include values, student-teacher relationships and school environment (Pritchett 2013).

Despite the global adoption of policies oriented toward measuring learning outcomes, there is limited evidence evaluating existing accountability mechanisms and its impact on outcomes. Structural changes create the conditions necessary for change to happen and their effect on schools cannot be easily separated from changes in other policies. As Viteritti writes (2009, p. 9), 'structure is not a solution; it is an enabler'. Even when robust information on impact of accountability structures on outcomes is available, for example in US,⁷ this is not directly relevant to India, due to the 'massive' learning gap between these countries (Pritchett 2013).

Recommendation 3A: Government should make information on all schools publicly available

There are two reasons why a school may underperform. It can be due to lack of effort on the school's behalf or scarcity of information on practices and resources that can bring outcome gains (Darling-Hammond 2004). While self-evaluation partially solves the question how to improve, complacent schools can be incentivised by establishing clear

^{7.} Dee and Jacob (2009) single out the impact of No Child Left Behind (NCLB) on outcomes. They found significant large and statistically significant results on math for 4th graders, especially for students at the lower level of performance, and moderately positive impact on 8th graders. It had no impact on reading level for 4th or 8th grade students. The No Child Left Behind (NCLB) Act, signed in 2002, introduced annual student assessments linked to state standards, to identify public schools do not make adequate yearly progress towards the stated goal of "having all students achieve proficiency in reading and math by 2013-14." School performance and yearly progress was linked to sanctions and rewards. Other studies that found a positive impact of accountability on test scores include Carnoy and Loeb 2002; Hanushek and Raymond 2003, 2005; and Loeb and Strunk 2007.

accountability of the school to the parents, and where necessary, to the state. Parents may assume, in absence of credible information, performance of a school to be adequate when it is not the case or be swayed by other markers of performance. With the right information, parents are empowered to voice their concerns and choose schools with caution. The information also opens channels for the community and experts to push the government to improve schools.

A recent study (Azim Premji University 2018) critiquing school choice concludes that parental choice is not always well-informed. The study finds that 'significant mismatches between parental perceptions of specific school characteristics and school realities with reference to the same characteristics, for most parents sending their children to private schools.' The problem, however, is not school choice, but rather the low-information environment in which parents make decisions.

Several countries have resolved such gaps by a simple accountability tool: public profiles of schools in an easily digestible form. Public reporting can take multiple forms. It can either be a ranking of schools such as the league tables in the UK or a portal, such in the Myschool portal of Australia that provides school-wise information across different parameters including but not limited to performance.

The Australian portal only compares performance to schools that have students with similar backgrounds and students who were at the same learning level in the beginning, ensuring a fair comparison of school with different resources. Since a sizable number of Indian schools are privately funded by parents and fee levels vary significantly, it is not proper to rank schools having better resources with low-fee schools. Moreover, it is important to keep in mind that student learning depends on various factors beyond the school such as home environment and parent's socioeconomic status. Therefore, these differences should be accounted for before information is made public.

Recommendation 3B: Modify school recognition system based on learning outcome assessment and school evaluation

The second recommendation is to redefine the school recognition system and thus, encourage entry of different schools to match parental requirement. We need to move away from the binaries of recognised, unrecognised, government schools, government aided or private schools and create a system of recognition based on learning outcomes and internal processes.

The current school recognition framework has several shortcomings: it is based entirely on compliance with inputs, the standards for recognition are unevenly applied to schools, and the benchmark for recognition is not minimum but aspirational leaving many low-fee schools or schools with alternative philosophies to operate in the shadows. Parents are not concerned with the recognition status of a school but rather with quality of teaching, presence of teachers, and possibility of transition from primary to government school (Ohara 2012) which the binary of recognised and unrecognised fails to answer.

The World Development Report (2018) highlights, 'The key challenge for policy makers is to develop a policy and regulatory framework that ensures access for all children, protects families from exploitation, and establishes an environment that encourages education innovation. Managing a regulatory framework to achieve this is difficult: the same technical and political barriers that education systems face more generally come into play.'

The regulatory framework for private schools requires a fine balance between accountability and autonomy. The current recognition framework includes practices that go against international best practices, such as the World Bank's Systems Approach for Better Education Results (SABER). Private schools, for example, have little autonomy over teacher qualification and pay—the government specifies the minimum benchmarks for teacher qualification and requires private schools to pay state determined salaries. Besides this, states also interfere in the fee private schools can charge (Centre for Civil Society 2018a).

The schools should be held accountable based on performance and an evaluation of school processes. To ensure that schools are improving (and keeping in mind that high stakes increase the likelihood of corruption), we recommend use of minimum requirements for recognition.

For a school to be recognised by the state, a proportion of its children must meet the minimum benchmark. Benchmark could be a mix of absolute level of performance (e.g., 50% students to reach minimum proficiency level) and/or average gains in performance (e.g., school should show a 5% gain annually). An example of this is the Gujarat Elementary Education Rules, that accords 70% weightage to learning outcomes for recognising schools of which 30% weight to absolute learning levels and 40% to gains in learning.

The weight assigned to absolute performance and value add impacts how the system responds. For example, assessments that give a higher weight to absolute outcomes create incentives to focus on better-performing students, whereas a value-added method increases the focus on lower-performing students (only if the teachers believes the student can show a high rate of improvement).

Office of Standards for Education (Ofsted) from the UK works along these lines. It generates league tables and offers judgement on schools from outstanding, good, requires improvement to Inadequate. The judgement is on four parameters: effectiveness of leadership and management; the quality of teaching, learning and assessment; personal development, behaviour and welfare; and outcomes for pupils.

Ofsted has been criticised, something for India to keep in mind, for acting as a food critic instead of being the hygiene inspector (Waldegrave and Simons 2014). The judgement on whether a school is outstanding or not should left to parents and independent observers. A school need not be 'outstanding' in the eyes of the regulator but in the eyes of the stakeholders.

The role of the regulator is to ensure that schools maintain the minimum standards in performance and the processes that lead to such outcomes. A better way to frame this challenge is to ask: whether a school meets the minimum requirements minimally, satisfactorily or excellently.

Establishing benchmarks for the variety of schools requires an empirical and unbiased investigation into where we stand today. Some questions for deliberation are:

- Should state recognition of schools be compulsory or optional?
- What should be the balance between weightage accorded to self-evaluation (validated by third party) and performance on learning outcomes for school recognition?
- How different are schools today? What should be the minimum necessary for a school to be recognised?
- How does the fee charged by a school tie to the minimum benchmarks? Should it vary for different fee brackets?

Closing Remarks

The debate on low learning levels has spurred several actions by the state. India has enrolled to participate in the 2021 round of PISA. The NCERT has defined grade level learning outcomes for languages (Hindi, English, Urdu), mathematics, environmental studies, science and social science up to the elementary stage. NITI Aayog is developing an index to 'institutionalise the focus on improving education outcomes' including learning, equity and access based on information generated by NAS, the largest national assessment survey in the country. NAS coverage has been expanded to include government aided schools and the sampling unit is changed from state to district level. The moot question is: Are these reforms sufficient to bring improvement across schools or are we still just tinkering at the edges?

While many have spoken about the 6% goal of education spending, we still do not have a well-defined quality target for the system. We debate on the merits and demerits of private education, but not about the lack on information to inform such debates. Even after years of low performance, we do not have a basis to say: Which schools, irrespective of ownership, are the most effective and efficient in using resources to improve learning outcomes? We speak of local governance but do not worry about the district administrator who may know that his district is under-performing but not which villages, blocks or schools to target? How does the government regulate private schools without data? How does the state fund schools?

One of the expected outcomes of NAS is 'Participation of parents and SMC members in the discussions, planning and monitoring of activities to be undertaken for enhancement of learning outcomes.' We have comparative information at national, state and district level. While this model is popular with schools professionals as there are no unintended consequences on schools or teachers, will it be sufficient to achieve desired outcome gains? If a district underperforms in Math, will all schools increase instruction in math?

If we want to improve learning outcomes, we have to take measurement seriously. The quote on the education system of Peru (Cotlear 2006) is relevant in this context:

'The need to create standards is related to the need to develop a culture of evaluation in Peru. There is currently a pervasive fear in Peru's education sector of anyone being evaluated. This creates a vicious cycle. The fear of failure creates a fear of evaluation, but the lack of evaluation condemns almost all efforts to failure, because there is no serious way to detect when anything is going wrong.'

This brief is an urge to the central and state governments, who have the will and the courage go beyond tinkering, to create information loops between schools, parents, and policy makers through development of a robust assessment system and institutionalising school self evaluation practices.

We have put forward three recommendations:

- 1. Learning outcome assessment for school accountabiltiy.
 - Rationale: If the goal is to improve outcomes for each student, step one is to assess outcomes for each. School regulation or parental choice cannot be based on aggregated data at the district level. The government is concerned with district and the teacher as its units of administration while it should be concerned with the school and the child. This necessitates investment into an assessment system to develop indices to evaluate performance.
- 2. Mandate self-evaluation of teaching practices and classroom climate, validated from a third party.
 - Rationale: Our management information systems focus on thin factors. The government knows the number of schools, children enrolled, children retained, number of toilets and classrooms but does not know anything about student background, student-teacher interactions or parental involvement in schools. Students and their learning experience is one of the strongest factor associated with learning outcomes. Self-evaluation allows for collection of information on indicators that define a child's learning experiences while keeping school improvement at the core of the exercise
- 3. Counter information asymmetry by dissemination to stakeholders.
 - Make information on all schools publicly available: We worry about parents' choice of schools but not about the paucity of information in which they make choices. Parents or policy makers currently have no way of objectively judging a schools performance. Just reporting information on outcomes have positive impact on outcomes (Cotlear 2006)
 - Modify school recognition system based on learning outcome assessment and school evaluation. The current school recognition framework is based entirely on compliance with inputs. Parents, on the other hand, are concerned about the quality of teaching, value for money and the learning environment (Ohara 2012). We recommend redefining benchmarks for schools, taking into consideration the different fee levels, and establishing whether a school meets the government's floor targets minimally, satisfactorily or excellently.

The task before the education department is enormous: Finding the balance between trust and control, protecting families from exploitation, overcoming school inertia but without inhibiting innovation. Information can solve many of these challenges, however, what we need is political will, not political fixes, to implement reforms that transform.

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