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The 2017 Annual Status of Education Report 1: India's Learning Crisis¹

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The 2017 Annual Status of Education Report released in January 2018 revealed that while India has achieved near universal enrollment, the quality of learning in schools has not only been poor, but has also deteriorated over the years. After eight years of schooling, more than a quarter of the children are unable to read a Standard 2 text, and nearly three out of five are not able to solve a simple three-digit by one-digit division sum. The learning deficiencies have widened over the past 10 years, raising serious questions about the value imparted by Indian primary and secondary schools, and the cognitive skills, capabilities and prospects of its youth as they enter an increasingly uncertain and demanding workforce. This paper attempts to delineate the reasons behind the poor performance and its consequences.

¹ This paper draws extensively upon the 'Annual Status of Education Report 2017: Beyond Basics', produced by the ASER Centre and Pratham, and the World Bank's 2018 World Development Report themed "Learning to realize Education's Promise". It is the first of two reports addressing the challenges (Part 1) and policy interventions (Part 2) to deal with the learning crisis.

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1 Introduction

In January 2018, the Annual Status of Education Report (ASER) Centre released the 13th ASER report entitled ‘Beyond Basics’. This was the first year that ASER extended the scope of the survey to include the 14-18 aged cohort. The reports, hitherto, had assessed learning outcomes among children in primary school from the ages of 6 through 14, covered by the 2010 Right to Education Act (RTE) that mandated free and compulsory education for all children in that age group.

2 Pratham and the ASER

Pratham is an “innovative learning organization created to improve the quality of education in India. As one of the largest non-governmental organizations in the country, it focuses on high-quality, low-cost, and replicable interventions to address gaps in the education system. Established in 1995 to provide education to children in the slums of Mumbai, it has grown both in scope and geographical coverage. It is the first major organization to achieve lasting, wide-scale success in India's educational landscape.”³

The ASER Centre was “established in 2008 as an autonomous assessment, survey, evaluation and research unit within the Pratham network.”⁴ ASER reports on learning outcomes among primary school children from Standards⁵ I through VIII. It focusses exclusively on schools in rural areas across the country. For the 2017 ASER, the ASER Centre covered 30,532 youth across 25,726 households in 1,641 villages from 28 districts in 24 states. Thirty-five partner organisations, including universities across the country, provided over 2,000 volunteers to assist with the surveys.⁶ Over the short span of a decade, ASER has evolved into the definitive report on the state of school education in India. Backed by a globally qualified team of researchers, ASER findings and related research, including a series of Randomised Control Trials conducted by Abdul Latif Jameel Poverty Action Lab (J-PAL), are reported and analysed in an extensive series of publications in the top-rated journals in the world. As

³ Pratham website <http://www.pratham.org/>

⁴ ASER website <http://www.asercentre.org/>

⁵ ‘Standard’ is the term used to state the year in school, for example, Standard 1 refers to the first year of primary schooling.

⁶ Pratham: Annual Status of Education Report (Rural) 2017, 16 January 2018.

an illustration, the ASER survey is extensively quoted in the Economic Survey, the flagship document on the state of the economy produced by the Indian Ministry of Finance. Pratham and ASER research provides an important input for the formulation of education policies by the state and federal governments. Drawing upon its research, Pratham has developed multiple low-cost learning interventions at the grassroots level across the country. Over the years the ASER surveys have generated a series of questions in the Indian parliament, with ministerial answers often drawing upon data generated by ASER surveys. ASER provides the only annual survey on the state of school education that has been consistent and comprehensive in scope over the years, based on several thousand interviews across the country.

3 Raison d'être for Beyond Basics

For the first time, the 2017 survey focussed on youth in 14-18-year age group.⁷ This included the first cohort of children, aged six in 2010 (when the RTE Act came into effect) who turned 14 in 2018 and have moved out of the ambit of the RTE Act. The 14-18-year-old cohort is close to the income earning age. By 18 they are considered adults. The broad question posed by ASER is whether these children adequately prepared for adulthood. The ramifications of neglecting this group extend far beyond employment. The report focuses on this older age group and looks 'beyond basics' to explore a wider set of traits extending beyond foundational skills.

The question is important as one out of every 10 Indians, or 125 million youth, are currently in the age group of 14-18 (*Census 2011*) – an integral part of the vaunted 'demographic dividend'. Understanding and enhancing the skills and capabilities of this generation may be integral to assessing Indian workers' ability to adapt to a rapidly changing workplace and the ability to earn meaningful livelihoods for the tens of millions entering the workforce every year.

⁷ Elementary education in India encompasses primary school for 6-10-year olds, upper primary for 10-14-year olds, while secondary education covers 14-16-year olds, and higher (or senior) secondary 16-18-year olds.

To assess this cohort's capabilities, ASER 2017 focuses on four domains:⁸ the activities, abilities, awareness and aspirations of these youth.

- Activity: enquires into what the youth are doing, whether they are enrolled in school, college or a vocational institute, and whether they are working.
- Ability: entails an assessment of literacy and numeracy aptitude, whether they can conduct simple day-to-day functions.
- Awareness: addresses familiarity with digital, audio-visual and print media, and common financial and digital instruments.
- Aspirations: enquires into their educational and career goals.

4 ASER 2017: Findings of 'Beyond Basics'

The RTE Act has yielded impressive results. India has achieved near universal enrolment at the primary school level. Coupled with the policy of automatic promotion through elementary school, more children than ever before complete elementary schooling. Most 14 to 18 year olds are enrolled in the formal education system. The enrolment in Standard VIII doubled in the decade between 2004-05 and 2014-15, from 11 million to 22 million.

Only 14.4 per cent of this cohort are not enrolled in either a school or a college. The dropout rate widens with age, as does the gender gap. At age 14, 5.3 per cent are not enrolled; by age 17, the proportion increases to 20.7 per cent, with a sharp increase to 30.2 per cent by age 18. The gender gap, nearly absent at age 14, widens by 18, when 32 per cent females, compared to 28 per cent males, are not enrolled in school or college.

Despite a substantial increase in the number of vocational training institutes in the country and increased resources, just 5.3 per cent of youth in age group 14-18 are enrolled in

⁸ Based on the World Bank's 2018 World Development Report "Learning to Realize Education's Promise" World Bank, Washington, DC.

vocational courses; of those not enrolled in school, surprisingly, the proportion is only marginally higher at 6.2 per cent. Amongst those enrolled in vocational institutes, there is a strong preference for short-term courses (34 per cent) or three months or shorter duration, with another 25 per cent enrolled in courses of 4 to 6 months duration.

Forty-two per cent of youth in 14-18 age group work, regardless of whether they are enrolled in a formal education institution. Nearly four-fifths of these work in agriculture, almost wholly on the family farm. Over three quarters of all youth, including 77 per cent of males and 89 per cent of females, help with household chores every day.

The analysis of ASER data reveals an expected correlation between socio-economic characteristics and school dropout rates. Most youth dropping out of formal education are from disadvantaged backgrounds – 37.2 per cent of them live in pukka (permanent or made of brick and mortar) homes as compared to 54.1 per cent youth enrolled in formal education who do so. The differences in parental education achievement are stark. In the case of 70.7 per cent out of youth who dropped out from school, the mothers had never attended school, the comparable number for the fathers was 46.1 per cent, while for 41.8 per cent of school dropouts, both parents had not attended school. The comparable numbers for youth enrolled in schools are 39.2 per cent, 21.8 per cent and 17.3 per cent. The presence of a mother who attended school clearly has a strong bearing on the likelihood of a child continuing in school. Surprisingly, only 25 per cent of youth not attending school mentioned financial constraints as the reason for opting out of formal education. This suggests that the RTE Act has enabled many of the poor, who otherwise may not have been able to afford to do so, to attend school.

Table 1: Socioeconomic Characteristics of Dropouts from Formal Education in the 14-18 Age Group⁹

	Not Enrolled in Schools (In Percent)	Enrolled in Schools (In Percent)
Living in ‘pukka’ (permanent) houses	37.2	54.1
Mother never been to school	70.7	39.2
Father never been to school	46.1	21.8
Both parents never attended school	41.8	17.3
Financial constraints	25.0	

Source: Data from ASER 2017.

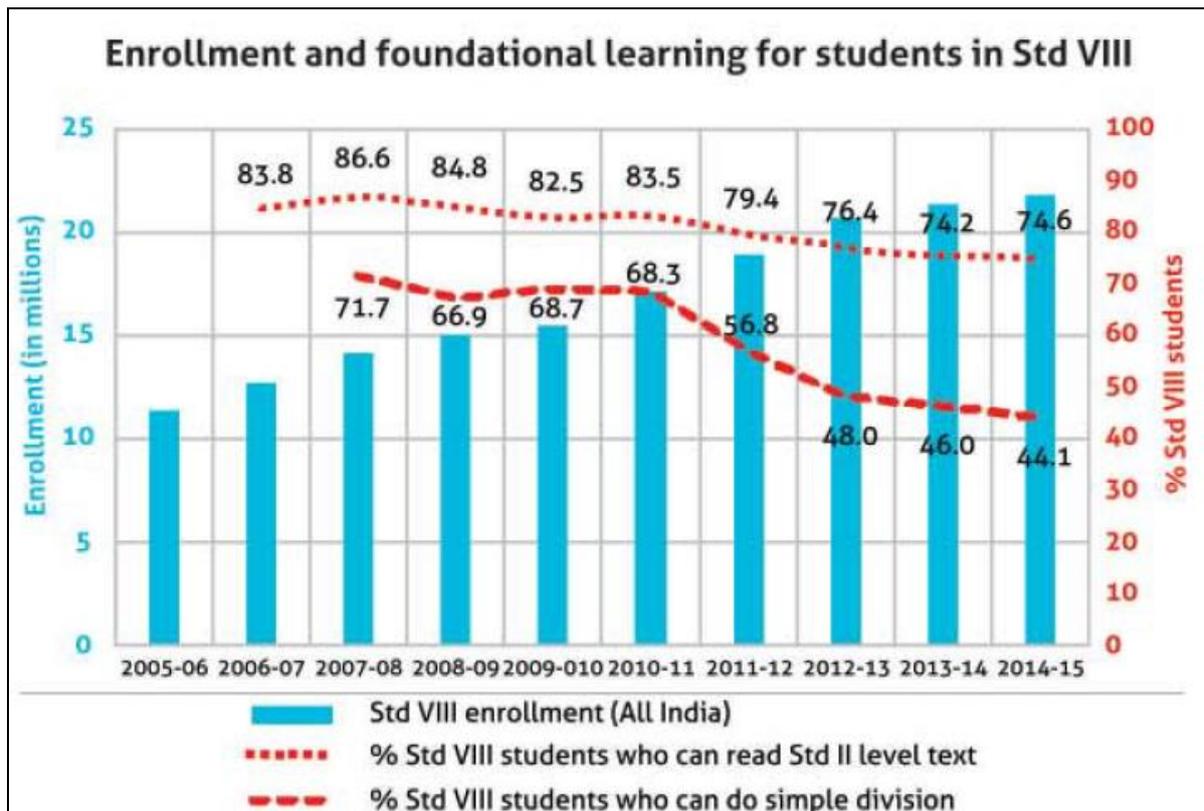
Foundational Skills

Notwithstanding the achievements in enrolling children at the primary school level, ASER findings have brought to the forefront the disquieting state of learning in primary schools in rural India. A large cohort of children lacks numeric and literacy foundational skills. What are the consequences?

While enrolment in Standard VIII has risen from 50 per cent to nearly 85 per cent between 2006-07 and 2014-15, the percentage of students in Class VIII who can read a Standard II-level text and do simple division has fallen from 83 per cent to 74.6 per cent and from 72 per cent to 44 per cent. By 2016, barely half of Standard V students could fluently read Standard 2 texts which included simple sentences in the local language. In rural India, just below three-quarters of students in Standard III were unable to solve a simple two-digit subtraction such as 89-37; by Standard, 50 per cent were still not able to do so.

⁹ Table culled from data in ASER 2017, January 2018.

Table 2: Foundational Skills over the Years



Source: ASER 2017 page 3 NUEPA, UODISE, ASER 2006-2014

An Organisation for Economic Co-operation and Development (OECD) report¹⁰ reveals, at 28.7 per cent, upper secondary attainment among 25 to 64-year-olds in India is one of the lowest among the OECD and partner countries with available data. These numbers are indicative of poor cognitive skills amongst a large cohort of the population well into working age.

After the period of compulsory education, why does the dropout rate accelerate? What does it indicate about primary education? The single most important determinant of the decision to attend school, college, or enter the vocational education stream is the boost it imparts to earnings and career prospects. This is reflected in returns to investment in education of that demographic segment. Returns on investment in education are low – reflective of the low premia placed in primary education

¹⁰ “Education at a Glance 2017: OECD INDICATORS, OECD, 2017. The report covers all 35 OECD countries and several partner countries (Argentina, Brazil, China, Colombia, Costa Rica, India, Indonesia, Lithuania, the Russian Federation, Saudi Arabia and South Africa).

5 Consequences of ASER Findings

ASER findings indicate that Indian children are going through schooling without learning. Schooling is not the same as learning. The learning crisis heightens inequality, severely constraining disadvantaged youth most in need of the benefits from a good education. As students with poor learning move to senior classes, the learning deficit accumulates. This underscores the need for intervention in the early years. Students should be incentivised to stay on in school because it is beneficial for them to do so.

Research at ASER indicates that:

1. To develop foundational skills, schools need to attract, nurture and retain children from the earliest years in primary school. Failure to do so results in children progressing through the years with severe learning deficits that carry forward from primary school on to 14 to 18-year-olds and from adolescence to adulthood. ASER indicates that, while language abilities improve over time, the proportion of youth with inadequate math skills at 14 is the same as that for 18-year olds.
2. Foundational skills and learning levels in Standard VIII are good predictors of transition to secondary school.¹¹ Staying in school is beneficial. Learning levels of those dropping out of school are significantly below those continuing with school, for example, 81.7 per cent of enrolled youth could read a Standard II level text, while only 44.5 per cent of dropouts were able to read a similar text. Though these results are not surprising, they do underline the significant benefits of just attending school. The difference in math ability is far worse, with only 11 per cent of school dropouts being able to do simple division compared to 48 per cent of those continuing in school.
3. Basic foundational skills are even more powerful indicator of performance. A child living in a mud house with parents lacking any educational attainment, but having learned to read, is far less likely to drop out. Conversely, regardless of family background, poor reading and math skills remain strong predictors of the probability of dropping out of school. Poor reading abilities constrain prospects in formal employment and even in the

¹¹ “A Study of access, transition and learning in Secondary Schools”, ASER Research and Policy Brief, 2017, ASER and Kusuma Trust.

informal sector when engaging with any entity that requires the use of basic reading and writing skills.

4. Quite predictably, learning deficits result in a lack of interest in school. Each year, as the deficit accumulates, the children's abilities to cope with the curriculum become more challenging. A large cohort of drop-outs finds school 'not interesting'. Learning deficits are observed in all classes and accumulate with each year in school. Without basic reading and mathematics skills, it becomes extremely difficult to cope with science, algebra or geography in Standard VIII.
5. More than poverty, it is the learning crisis that keeps children out of school. When parents, including the poor, perceive education to be of low quality due to poor learning outcomes, they are less willing to make sacrifices to keep their children in government schools. There is a strong demand for private schools, as they are believed to impart education with better learning outcomes.

6 Why do we have these Outcomes in India?

Spending

Over the decades, India has neglected education, spending far too little than countries at comparable levels of development. Government expenditure on education as a percentage of gross domestic product (GDP) has been falling since 2013 (3.1 per cent of GDP). In 2014-15, it fell to 2.8 per cent, and to 2.4 per cent in 2015-16, with a marginal revival in the past two years to 2.6 per cent, but still far below the six per cent threshold recommended by a government commission (Kothari Commission) on education reforms. Investments have focused on higher education, neglecting primary and secondary education. Although spending has gone up marginally over the past two years, the allocation to primary and secondary school education remains low, but more pertinently, the emphasis has been on meeting quantitative targets, rather than assess how children are faring over the years.

Education falls in the concurrent¹² list. The 14th Finance Commission recommended greater dissolution of powers to the state governments. States have responded by trying to enhance the effectiveness of policies and allocated increased amounts to education.

Health

There is a link between health and education: 38.7 per cent of children in India are stunted, while 15.1 per cent suffer from wasting.¹³ Sixty-five million children, including a quarter of those from the richest 20 per cent of households,¹⁴ suffer from stunting. Stunting severely impairs learning and cognitive abilities. The odds of a child suffering from stunting due to malnutrition or endemic water-borne diseases till the age of three, experiencing normal intellectual development, are low. Children come to school ill-prepared to learn. Illness, malnutrition, low parental investments in education and the harsh environments stemming from poverty weakens the potential for learning. Severe deprivation has long-lasting effects because it impairs the development of an infant's brain. A child below the age of three who has experienced malnutrition will suffer from poor development foundations and be unable to fully benefit from schooling. The probability of such children lagging in school from the first day is disconcertingly high.

Quality of Teaching

Teachers are, of course, the most important agents for determining learning outcomes. However, teacher training continues to be neglected, resulting in a lack of skills or the motivation to be effective. Instances of teachers being poorly trained and ill prepared for primary school are well documented in the media and in research literature. Orthodox training conducted through teacher training schools results in perpetuation of learning by rote, stifling children's interest in school. Teachers have often been found to lack subject knowledge and pedagogical skills. Conversely, research shows that good teachers can help accelerate learning and motivate students to go further. Despite rising salaries in government

¹² The Indian constitution demarcates areas that are the responsibilities of the states alone or the federal government, and those that fall under the Ministry of Education.

¹³ Data from "Rapid Survey of Children (RSOC) National Report 2013-14. (2014) Ministry of Women and Child Development, Government of India and UNICEF.

¹⁴ "Socioeconomic Inequalities in Childhood Undernutrition in India: Analyzing Trends between 1992 and 2005", Malavika A Subramanyam, Ichiro Kawachi, Lisa F Berkman, S V Subramanian. PLOS One June 2010.

schools, teaching does not attract strong applicants, as options for career progression are limited and the academically brighter students prefer to move to better paying options, and closer to their career paths.

Governance and Administration of Schools

Despite increasing expenditures on education, monitoring the efficient allocation of funds remains a challenge. Inputs, including books and stationery often do not reach classrooms. Teacher absenteeism is rampant. A J-PAL study of teacher attendance showed that, on any given day, 23 per cent of teachers were absent. Devoting sufficient resources to education is crucial, and in India, as in other developing economies, governments have not committed resources to keep up with the sustained increase in school enrolment.

However, resource constraints are one dimension of the learning crisis. The governance and administration of schools falls far short of what's needed, leading to poor outcomes. Effective leadership of schools can result in improved teaching and learning, and, thus, better utilisation of resources.

Unintended Effects of Policy

The principle of automatic promotion to the next grade policy till Standard VIII results in poorly prepared children moving onto the next class. Teachers are expected to complete the syllabus for the year. To do so, they must target the brightest children in the class. Children who lag, find classes every more challenging. Learning deficits accumulate and widen over the years. This may help explain the poor results as children move on to senior classes. While the automatic promotion policy is well-intentioned as it seeks not to hold back children who come to school ill-prepared due to socio-economic reasons, there is no mechanism for remedial initiatives to help children who are not adequately prepared. The problem is compounded for children from disadvantaged socio-economic backgrounds who do not have resources to go for private tuition nor can they get help at home.

7 Concluding Observations

The learning crisis is not confined to India alone. The 2018 World Bank's World Development Report 'Learning to Realise Education's Promise' reveals how, in many low and middle-income countries, schooling without learning is far more widespread than believed. This paper abstracts from wide differences across states. However, as ASER 2018 reveals, the problem of poor learning is serious in the richer states as well, warranting an aggregative national analysis.

Poor learning outcomes widen social gaps instead of narrowing them. Education is an important vehicle for mobility; conversely disparities in provision of education accentuate inequality. Half of the poorest quintile of the population are illiterate, barely two per cent graduate from high school. Conversely, among the richest quintile, nearly 50 per cent are high school graduates, while barely two per cent are illiterate.

ASER holds a useful mirror to the education system. Learning deficits are caused by immediate as well as systemic factors. Identifying these gaps is critical to any attempt to address the learning deficits afflicting India's children, especially those in rural areas. Indian states and the federal government have increased spending on education, the physical infrastructure has improved substantially in recent years, as has enrolment, providing the bedrock for reforms and initiatives in schooling. It is in recent years that attention has shifted to learning, partly engendered by globalisation and mobility of skilled labour and professionals, and by investors. Micro-level studies such as those conducted by ASER provide policymakers and other stakeholders with actionable information, enabling them to experiment with and design initiatives that are relevant to the local or regional context. As the World Development Report put it, "Acting effectively requires first understanding how schools are failing learners and how systems are failing schools¹⁵."

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¹⁵ 2018 World Development Report "Learning to realize Education's Promise", World Bank.