

# Basics and Beyond: The case of Middle School Children in India

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The pandemic brought with it distress, disruptions and discontinuities that affected all aspects of life. All of education came to a sudden halt in March 2020. Elementary schools were closed for an indefinite period of time, ultimately opening only after almost two years. The long-run consequences of this prolonged period of school closure are still not fully understood. While there were many worries related to children's current health and wellbeing as well as their future prospects, two major concerns dominated discussions on education. First, given that many families faced serious economic difficulties, there was deep-seated fear that children, especially older girls, would drop out of school to assist adults in the family with work and/or with chores at home. Second, there was a great deal of anxiety about "learning loss" and missed opportunities. With schools shut for many months, there were attempts to deliver instruction remotely, but most students, at least at the elementary stage and in government schools did not have the luxury of attending online classes. Since there was hardly any classroom teaching, students did not have the opportunity to cover new curriculum content or material as they would have normally done. It also seemed likely that without ongoing practice and frequent interactions, children may have forgotten what they used to know earlier.

ASER 2022 enables us to empirically assess both these fears. Data from ASER 2022 can be compared with ASER 2018, which is when the last nationwide household survey was conducted. ASER covers rural districts. In 2022, across India, the ASER effort reached 616 rural districts and covered 699,597 children aged 3 to 16. Since one of the main concerns during the pandemic centred around older children, let us look at what the recent ASER data tells us about the current situation for children of upper primary/middle school age and explore any possible shifts since 2018. Changes between 2018 and 2022 can also be placed against the longer-run pattern of educational transformations in the last decade to understand the extent to which the COVID years were different.

There is another reason to focus specifically on this age group. The National Education Policy 2020 gives high priority to the acquisition of foundational literacy and numeracy skills by young children. "NIPUN Bharat" mission (National Initiative for Proficiency in Reading with Understanding and Numeracy) is the flagship program of the government that is designed to translate policy into practice. NIPUN Bharat implementation plans focus entirely on early grades in primary school.<sup>2</sup> Since policymakers, planners and practitioners are paying focused attention to early grades, it may be useful to gauge the current status of children who are already beyond ten years of age and understand the challenges that such children may be facing.

## Schooling trends over time: Are children staying in school?

During the pandemic, there were several efforts by ASER teams in 2020 and 2021 to understand what was going on with children's education. Two nationally representative surveys were done in 2020 and 2021 but these were phone surveys. However, in three major Indian states, field surveys were carried out in 2021. These data provide an early glimpse of shifts in enrollment during the pandemic period. The first one was done in Karnataka in February 2021 just before the second wave of the pandemic. Karnataka data shows that government school enrollment for the age group 6 to 14 rose from 69.9% in 2018 to 72.6% in 2021. The second field survey was done in Chhattisgarh in Oct-Nov 2021. Here too, there were clear increases in government school enrollment, from 76.4% in 2018 to 82.9% in 2021. The third field survey from West Bengal (December 2021) also indicates similar patterns; government school enrollment went up from 88.1% in September-October 2020 to 91.5% in December 2021. Despite schools being closed, there was



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**Table 1: % Children enrolled in school: All India (rural) - 2018 and 2022**

| Age group and sex | ASER 2018 | ASER 2022 |
|-------------------|-----------|-----------|
| Age 11-14: Boys   | 96.7      | 98.4      |
| Age 11-14: Girls  | 96.0      | 98.0      |
| Age 15-16: Boys   | 87.4      | 93.0      |
| Age 15-16: Girls  | 86.5      | 92.1      |

girls or boys older than ten, or even for those older than fourteen. Across all age groups, for boys and girls, school enrollment has actually gone up between 2018 and 2022.

Along with rising overall enrollment in the period 2018-2022, in practically all states and for all age groups, there has been a significant shift in enrollment away from private schools into government schools. For the country as a whole (all India rural), the percentage of all children aged 11 to 14 who are enrolled in government schools has risen from 65% in 2018 to 71.7% in 2022. For boys, the shift to government schools has been from 61.6% (2018) to 69.2% (2022) and for girls, the proportion enrolled in government school grew from 68.4% (2018) to 74.1% (2022).

The rise in government school enrollment can be attributed to several possible contributing factors. For example, if family income goes down or becomes more uncertain, it is likely that parents may not be able to afford private school fees. Hence, they are likely to pull their children out of private schools and put them in government schools, where at least until the end of the compulsory stage, education is free (till Grade VIII). A second reason may have to do with the fact that in rural areas, most private schools are of the low cost or “budget” variety. Many such schools had to shut down during COVID because it was not economically viable to retain the staff. Finally, it is also conceivable that thanks to the efforts of many state governments (ranging from availability of mid-day meal rations, teaching-learning materials being sent via phone, worksheet and textbook distribution), families saw the benefits of remaining connected to, or attaching their children to government schools, so as to be able to access entitlements.

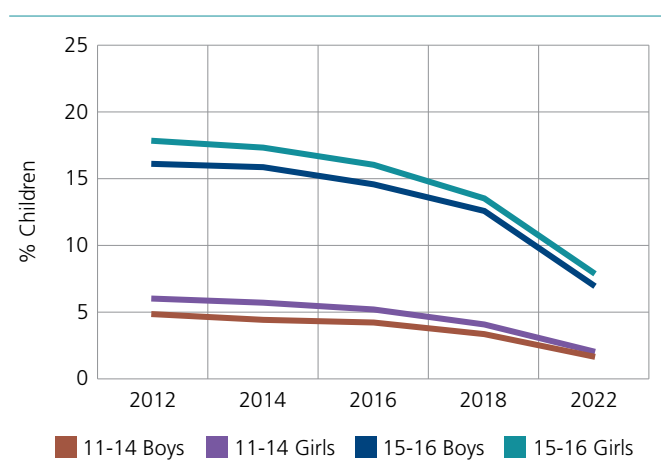
Looking back over the last decade, the steadily improving upward trend for enrollment across all age groups is clearly visible. While it is well known that India is close to universal enrollment for the elementary school age group, what is less known is that across all age groups, including older age groups like 11 to 14 and 15 to 16, enrollment has steadily gone up over the last decade and also continued to rise even during the period of school closures in the COVID years (Chart 1).

Underlying these developments is a major demographic shift in the educational profile of India’s youth. The last Census in India was carried out in 2011. Census 2011 figures indicate that there are roughly 25 million children in each single-year age group in India (for example, 25 million 10-year-olds, 25 million 14-year-olds, etc). UDISE, the government’s official school education data source, indicates that in 2007-2008, student enrollment in Grade VIII was about 13 million. A decade later in 2020, the same figure reached close to 22 million. This implies that any child who enters Grade I today is likely to stay in school till Grade VIII and most likely beyond.<sup>5</sup> Hence not only are almost all children in India enrolling in school but they are also staying enrolled for the full elementary school cycle.

a decline in the proportion of non-enrolled children (age 6 to 14) from 2% in 2018 to 1% in 2021.<sup>3,4</sup>

Pre-COVID, the last national ASER rural field survey was conducted in 2018. That year, the all-India enrollment figure for the age group 6 to 14 was 97.2%. The 2022 data shows that this number has increased to 98.4%. Table 1 shows the all-India numbers for students aged 11 to 14 and also 15 to 16 for the two years. This evidence indicates that at least as far as school enrollment is concerned, the pandemic-induced school closures did not lead to widespread dropout for either

**Chart 1: % Children age 11-14 & 15-16 currently not enrolled in school: All India (rural) - 2012 to 2022**



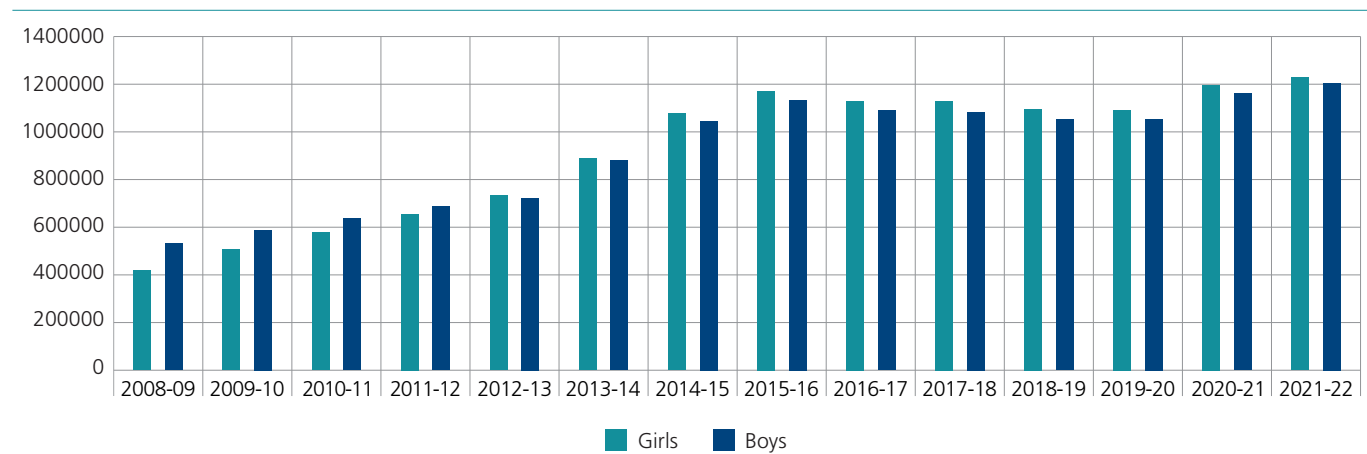
<sup>3</sup> The 2021 ASER reports for Karnataka, Chhattisgarh and West Bengal are available on [www.asercentre.org](http://www.asercentre.org).

<sup>4</sup> Further, an ASER type field survey was conducted in 5 districts in Odisha. These were districts with large tribal populations. In these districts, enrollment levels in March 2022 were very similar to those in September 2018 (ASER 2018). See Odisha Tribal Study 2022 on the ASER Centre website: [asercentre.org](http://asercentre.org)

<sup>5</sup> ASER 2017 was an “alternate year” survey focusing on the age group 14 to 18. One or two districts were sampled from each state. It found that overall enrollment level for this age group was close to 86%, indicating that most students remain connected to some kind of educational institution well beyond the compulsory schooling stage. Even at age 18, 70% of the sample was enrolled in some kind of school or college. See the ASER 2017 report on the ASER Centre website: [asercentre.org](http://asercentre.org)

As an example, Chart 2 shows trends from Bihar, where 15-20 years ago, the proportion of children not in school (especially among older girls) was very high. Grade VIII enrollment has increased substantially over time. In fact, there is not much difference in enrollment between boys and girls; if anything, there are now slightly more girls enrolled in Grade VIII than boys.

**Chart 2: Grade VIII enrollment in Bihar - 2008-2021 (UDISE data)**



What do these trends imply over time? Rising enrollment trends can be seen both as a “plus” and a “minus”. High and steadily rising enrollment means that potentially more students can benefit for longer and sustained periods of time from schooling. Completion of the entire cycle of eight years of schooling for each cohort of 25 million students is no mean achievement in a country of India’s size and diversity. On the other hand, with more and more students going through the middle school pipeline, attending secondary schools is also causing increased competition for post-secondary opportunities. These have not expanded to keep up with the massive tide of elementary school completers. Board examinations continue to be gatekeepers allowing or preventing students from moving to the next stage. Acute examination stress and anxiety (sometimes ending in suicide), grade inflation in high school leaving examinations, difficulties of gaining admission into college, lack of appropriate jobs for school leavers are all consequences of high enrollment and completion rates.

### Student achievement: What about trends in children’s learning over time?

What about the second concern during COVID: how much learning loss occurred due to prolonged school closures, and how much have children recovered?

Since its inception, ASER has measured foundational skills in reading and arithmetic. The highest reading task on the ASER tool is reading a text at Grade II level of difficulty. In math, children are asked to recognise numbers (1-9, 11-99), solve a simple numerical 2-digit subtraction problem with borrowing,<sup>6</sup> and do a numerical 3-digit by 1-digit division problem.<sup>7</sup> The assessment is done one on one with each sampled child in the household. The child is marked at the highest level that she/he can comfortably reach. The same tasks are used for all children aged 5 to 16.

Using available ASER data, for children who are in Grade V to Grade VIII we focus on two skills – the ability to at least read a Grade II level text fluently and do the three-digit by 1-digit division problem – and track changes, first over the last few years and then over the last decade.

Comparing data from ASER 2022 and ASER 2018, we can see that there indeed has been a decline in learning levels even for basic skills like reading and arithmetic. Interestingly, the drop in arithmetic levels is less than the loss in reading, with children in lower grades suffering more loss than older children.

Table 2 also shows that even in 2018, basic skills of children in upper primary grades left a lot to be desired. Less than a third of all children in Grade V and less than half of those in Grade VIII could do division in pre-COVID times. These

**Table 2: % Children in Grade V to VIII who can do division and read basic text fluently - 2018 and 2022**

| Grade | % Children who can do division |      | % Children who can read Grade II level text |      |
|-------|--------------------------------|------|---|------|
|       | 2018                           | 2022 | 2018  | 2022 |
| V     | 27.8                           | 25.6 | 50.4  | 42.8 |
| VI    | 34.7                           | 31.7 | 59.8  | 52.8 |
| VII   | 39.0                           | 37.8 | 67.7  | 62.1 |
| VIII  | 43.9                           | 44.6 | 72.8  | 69.5 |

<sup>6</sup> By the end of Grade II, children are expected to be able to do this kind of subtraction problem.

<sup>7</sup> In most states, children are expected to solve this kind of division problem by Grade IV.

worryingly low levels have declined further between 2018 and 2022.<sup>8</sup> In fact, as Chart 3 suggests, basic learning levels of middle school children have remained low and stagnant for over a decade.

### Putting the schooling and learning pieces together: Thinking ahead

For children aged ten and above, the experience of the last few years is symptomatic of a longer-run problem plaguing the Indian school system. On the one hand, the story of schooling is an encouraging and continuously improving one at least as far as enrollment is concerned. On the other hand, the situation with learning is not at all rosy. Basic reading and math skills have remained persistently low over the years; with some decline seen in the COVID years. In the last decade, much has changed in the world in terms of opportunities opened up by technology, new knowledge domains, and new ways of operating. But within our structured school systems, in most states, the learning trajectories of successive cohorts have not been very different from those of previous ones. A majority of children are reaching Grade VIII without being sufficiently equipped with foundational literacy and numeracy skills, let alone higher level capabilities.

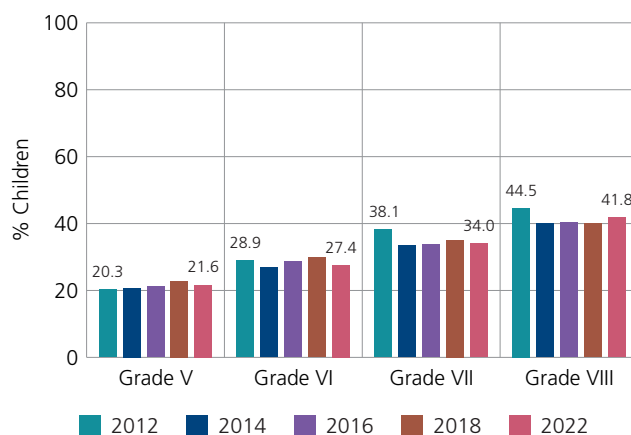
Much of the country's efforts in school education today are focused on ensuring strong foundations for children in early years through programs like NIPUN Bharat. But at the same time, it is critical that we remember that middle school children also urgently need support for learning recovery and "catch up". In fact, the National Education Policy 2020 states that "...to achieve universal participation in school by carefully tracking students, as well as their learning levels, in order to ensure that they (a) are enrolled in and attending school, and (b) have suitable opportunities to catch up and re-enter school in case they have fallen behind or dropped out" (NEP 2020 p.10).

NAS 2021 provided a glimpse of where children were before schools opened. The overall view from the NAS data of November 2021 also was that, based on specified academic criteria, majority of students were at "basic" or below "basic" level rather than at "proficient" or "advanced" levels. For ASER 2022, data was collected six or more months after schools reopened. For middle school age children, ASER is a "floor" test; children are asked to do very basic tasks. Even then, data can be helpful in pointing educational policymakers, planners and practitioners to what needs to be done urgently.

However, longer trends visible in ASER data over the last 10-15 years force us to think about deeper structural issues.<sup>9</sup> First, unless children have strong foundational skills, they cannot acquire higher level skills or develop content knowledge. ASER data over the years shows that an "overambitious" curriculum and the linear age-grade organisational structure of Indian schools leave in their wake, a vast majority of "left behind" children. This happens early in their school career. In the absence of structured, in-school mechanisms for "catch up", children fall further and further behind academically. In India's competitive school environment, where individual excellence is recognised and rewarded, not being able to cope with grade level expectations is often accompanied with low motivation to learn and lack of self-confidence. By the time children reach Grade VII, they have already spent half a dozen years in school but have skills that should have been acquired in 2-3 years. At the same time, the more years a child spends in school, the higher the parental and family aspirations become for the child's future. Misalignment between aspirations and reality can have serious and negative implications. Anger at and feelings of betrayal by the education system are not uncommon among youth.

"Catch up" interventions are urgently needed. Learning losses incurred during the school closure period highlighted the need for remedial programs in a way that was not as urgently felt before. Concerted action is seen in some states after schools reopened in early 2022 with learning recovery programs being designed and implemented across the board and also specially for upper primary grades. There are variations in how far states have been able to go in terms of articulating goals, putting aside time and ensuring intensity of effort in the classroom to help children recover their foundational skills. Usually this has involved a deliberate putting aside of the grade level curriculum and implementing a clear set of pedagogical

**Chart 3: % Children enrolled in govt schools in Grades V-VIII who can do division: All India (rural) - 2012 to 2022**

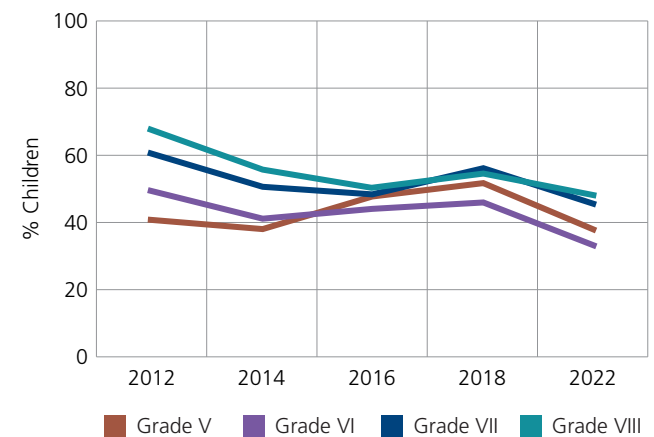


<sup>8</sup> Declining learning levels are also visible in the school based National Achievement Surveys conducted by the government. For example, National Achievement Survey (NAS) conducted in 2021 shows that scale scores for both language and math across all grades and subjects have declined since NAS 2017, especially in higher grades.

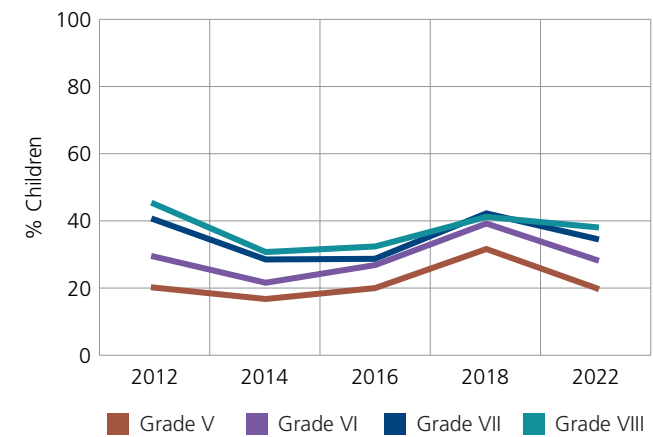
<sup>9</sup> See Banerji (2018), "Betrayal or benefit". Seminar No. 706, June 2018. This article has a longer discussion of other studies done by ASER Centre with middle school children.

activities focused on building or rebuilding basic skills. As far as the upper primary stage is concerned, noteworthy efforts include Delhi Government’s “Mission Buniyaad”, Government of Karnataka’s “Kalika Chetarike” and Andhra Pradesh Government’s “teaching-at-the-right-level” program.<sup>10</sup> Interestingly, older children are able to catch up faster. “Catch up” efforts are low hanging fruit – when children progress quickly, it unleashes positive energy for the entire system.

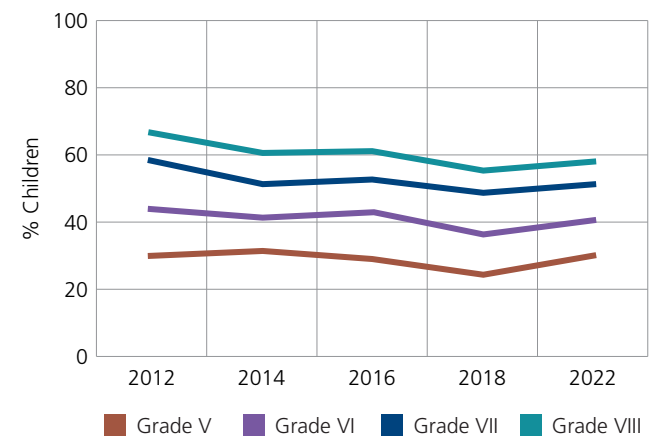
**Chart 4A: Himachal Pradesh: % Children enrolled in govt schools who can do division - 2012-2022**



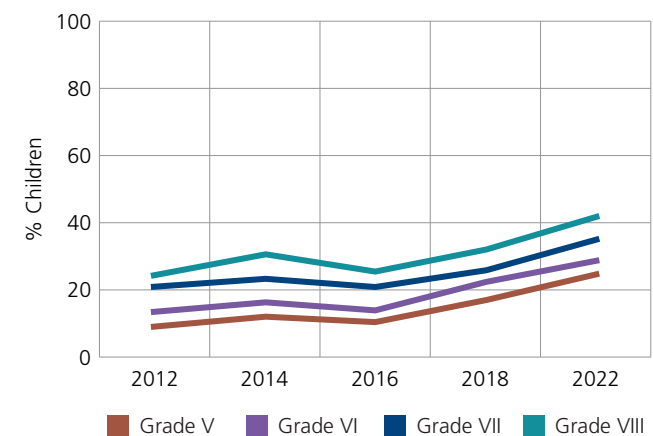
**Chart 4B: Maharashtra: % Children enrolled in govt schools who can do division - 2012-2022**



**Chart 4C: Bihar: % Children in govt schools who can do division - 2012-2022**



**Chart 4D: Uttar Pradesh: % Children enrolled in govt schools who can do division - 2012-2022**



The ten-year “looking back” exercise with ASER data from 2012 to 2022 vividly illustrates why the context of each state has to be understood in order to plan ahead. Chart 4 captures the experiences of middle school children in four selected states – Himachal Pradesh, Maharashtra, Bihar and Uttar Pradesh. The ability of children to do division calculations is taken as a proxy for basic math levels.

Himachal Pradesh had high math levels in previous years that declined during the pandemic (67.7% Grade VIII children in 2012 could do division, as compared to 48.2% in 2022). But the gradewise distinctions in Himachal Pradesh are blurry – Grade VIII level in 2022 is not very different from the 2016 Grade V level. Bihar had similarly high levels in the initial years which have fallen less steeply (66.4% in 2012 to 58% in 2022). Over this 10-year period, grades have remained distinctly different from each other. Maharashtra has seen ups and downs in this period. Uttar Pradesh has the most interesting trend over time. While in 2012 only a quarter of all children in government schools in Uttar Pradesh could do division, this number in 2022 is close to Himachal Pradesh. Overall, the evidence shows that “one size” cannot “fit all”. Each state must look at its own current context, history, and data to decide the appropriate path forward. Progress needs to be tracked closely if a vigorous campaign is being waged. Course corrections in instructional practice may be needed if children are to make rapid progress.

<sup>10</sup> See documented accounts of learning recovery and analysis. For example, Sukrita Baruah’s articles in Indian Express where she traces a Grade V class in a Delhi school. <https://indianexpress.com/article/education/in-this-class-5-maths-class-how-numbers-start-to-add-up-to-hope-8342742/> (December 25 2022 in The Indian Express).

Also, see Anurag Behar’s analysis of variations in the recovery effort across states (Dec 7 2022 in Mint). <https://www.livemint.com/opinion/columns/schoolgoers-can-recover-covid-learning-losses-if-we-get-it-right-11670435078920.html>

Beyond “catch up” efforts, it is also time to rethink what should be taught in middle school and how. Much of our school system is driven by requirements and preparations for Board examinations in Grade X and XII. High academic content, dominated by textbook knowledge that is often out of reach for most children leads to rote learning. The way that academic content is designed and transacted in schools implicitly assumes that students are being readied for college. However, the reality is that a college degree is neither relevant nor possible for most students who finish secondary school. It is also not clear that a college degree will lead to the prized white collar jobs that most students (and their families) are aspiring for. In the rush for academic learning that accelerates from the middle school stage onwards, students do not develop the ability to apply what they know to solving real world problems. ASER 2017, which was a special ASER focusing on the age group 14 to 18 showed that children’s ability to solve everyday math problems (for example, calculating time, comparing discounts, computing percentages, etc.) was worryingly low.

Now that schools are open and have stayed open for most of this school year, now that most children are back in school, now that the urgency of dealing with “learning loss” is acknowledged, now that we have the National Education Policy that speaks of “critical thinking”, “contextualized material”, “experiential learning” and “flexible pathways through school”, it is time to rethink and rework the “why”, “what”, “how”, “when” and “who” of what happens with our children once they grow past the foundational and preparatory stages of schooling.

