

Equity in learning?

Wilima Wadhwa¹

This year, ASER visited all rural districts and assessed children on foundational reading and math after a gap of a year. And, the slight signs we had seen of a resurgence in government school learning levels in 2016 seem to have taken root! Learning levels are up in most states in Std III and Std V - this is good news indeed!

Between 2005 and 2014 - the first 10 years of ASER - there were 3 main trends that emerged from the data: First, learning levels were low and slow to change till 2010. There was very little change in learning levels at the all India level till 2010 and a slight decline after that. The decline, post 2010, was coming entirely from government schools, with learning levels in private schools holding up or improving slightly. Second, while children did learn as they progressed through school, these learning trajectories were fairly flat. Even in Std VIII close to a fourth of the children were not fluent readers. And, third, there was a year on year increase in private school enrollment. By 2014, almost a third of all rural children were enrolled in private schools.

ASER data from 2016 and now 2018 suggest that two of these trends seem to be changing since 2014. First, the year on year increase in private school enrollment seems to have stopped. Between 2006 and 2014 private school enrollment increased steadily from 18.7% to 30.8%. Since then, it has remained at about the same level, i.e. 30.6% in 2016 and 30.9% in 2018.

Second, the decline in learning levels observed in government schools after 2010 is slowly reversing, at least in primary grades. Between 2010 and 2013, ASER estimates showed indications of a decline in learning outcomes in government schools. In 2014, it seemed that this trend was arrested and learning levels seemed to stabilize. In ASER 2016, for the first time since 2010, there was an improvement in government school learning levels, even though it was only observed in Std III. This year, not only do we continue to see an improvement in government schools in Std III but also in Std V. In Std III the percentage of children who are at grade level (those who can read a Std II level text) fell from 17.4% in 2009 to 15.9% in 2013. This proportion subsequently increased to 17.2% in 2014, 19.3% in 2016 and now stands at 20.9% in 2018. In Std V, on the other hand, the percentage of children who could read a Std II level text fell steadily from 50.7% in 2010 to 41.7% in 2016. But finally this figure shows an improvement in 2018 at 44.2%.

Two points should be noted here: First, while at the all India level these changes may seem small, they are not insignificant; there is a lot of variation across states with some states showing gains of close to 10 percentage points in 2018. Second, even though the declining trend in learning outcomes of government schools seems to have been arrested and even reversed, it is important to remember that we are talking about foundational abilities. There is still a long way to go to bring children up to grade level.

In the early years of ASER, the fact that learning levels were low and unchanging always needed defending. When learning levels began to decline in 2010, initially that was also viewed with scepticism. However, today there is general acceptance of the fact that India is in a 'learning crisis' requiring urgent action. Since 2014, the government has initiated a variety of learning assessments; NAS is being done more regularly and results are now available at the district level. The ASER 2018 results seem to indicate that there have been changes in teaching-learning in schools as well.

However, the debate has always been around learning levels and whether they have moved up or down. But what about equity? In the context of education, we can think about inequality across three dimensions. First, we can use the lens of school type to examine differences in outcomes. There is a substantial body of literature looking at the differences between government and private schools - in terms of access, facilities as well as learning outcomes. Second, we can look at the entire distribution of learning outcomes. Here, while we know something about the mean of the distribution, there has not been that much discussion on its spread. The spread of the distribution is equally if not more important, because the mean could be increasing for a small proportion of children, thereby pulling up the mean of the entire distribution, with little or no change in the outcomes of the majority of the population. The ideal situation, of course, is one where the mean is rising and the dispersion is falling, so that learning outcomes are improving both overall as well as for all children. And, third, we can use the lens of geographic location to look at inequality across states. The all India figures move slowly, but hide a lot of variation across states.

¹ Director, ASER Centre

First, let's look at the evidence on the differences in learning outcomes of government and private schools. On the face of things, private schools consistently perform better than government schools. However, this is not a fair comparison because of the self-selection associated with children who attend private schools. It is well known that children who go to private schools come from relatively affluent backgrounds and tend to have more educated parents. This affords them certain advantages that aid learning. These advantages are not available to children who are from less advantaged families and are more likely to attend government schools. Once we control for these factors that affect learning, the gap in reading or math levels between children attending different types of schools narrows considerably.

Be that as it may, between 2009 and 2014 the gap between the government and private school outcomes was increasing, even after controlling for other factors outside the school. Government school learning levels were declining and private school outcomes were holding steady or improving. As rural India became more prosperous, parents began to shift their children to private schools, reflected in rising private school enrollments. The pool of children that government schools were drawing their students from thus became steadily more disadvantaged.

Since 2014, however, with outcomes in government schools improving, the gap between government and private schools has narrowed or remained constant. This is true for both reading and math in Std III and Std V. In addition, the contribution of home factors to children's learning outcomes, which had increased between 2009 and 2014, has also remained about the same since then. So, while children in private schools continue to outperform their government school peers, at least the gap between the two seems to have stabilized. From an equity point of view this is certainly a step in the right direction.

We turn now to the second point regarding the distribution of learning outcomes. With 70% of rural children still attending government schools, and the government's continued commitment to the Right of Children to Free and Compulsory Education (RTE), the distribution of learning outcomes in government schools becomes extremely important. The RTE was envisaged as a tool to guarantee access to education to all children in the country, thereby levelling the playing field and removing disadvantages associated with poverty, caste and gender. To a large extent it has been successful in achieving that goal. Even though enrollment in the 6-14 year age group was already over 96% in 2010 when the RTE came into effect, there were still large numbers of children out of school in the 11-14 year age group, especially among girls. In 2010, close to 6% girls in this age group were out of school and 9 major states had numbers in excess of 5%. Today the overall number has decreased to 4%, and there are only 4 states where it is more than 5%. Therefore, the RTE, as an overarching legislation, has also reduced the inequalities in access between states. By and large, this is also true for school facilities. In the last 8 years, as states have beefed up infrastructure in government schools to comply with RTE norms, not only has mean compliance gone up but dispersion across states has also gone down for most indicators.

How has this push towards universalization affected the distribution of learning outcomes in government schools? The fact that learning levels fell after the RTE came into effect in 2010 is well documented now. The observed decline in learning outcomes could be due to a variety of reasons, but one possible explanation could be a direct consequence of bringing children who had never enrolled or had dropped out back into school. These children, understandably, would have had lower learning levels and needed supplementary help to be at par with their peers. If teachers were unable to provide this extra help, the result would lower the average learning levels in government schools. Over time, as these children caught up and progressed through the system, we would expect learning levels to start rising.

But has this happened? Consider children in Std III of government schools. In 2014, there was a slight increase in learning levels for this grade for the first time after 2010, which was sustained in 2016. This year we see an increase in Std III and Std V, suggesting that the 2016 Std III cohort sustained their learning gains and there was value added for the new Std III cohort as well. But did all children gain in the system? If so, we should observe a fall in the dispersion of the Std III learning outcome distribution, at least in the last two years. Instead, what we find is that the standard deviation of the distribution which was unchanging between 2006 and 2010, rose sharply till 2014, increased marginally in 2016 and seems to have stabilized in 2018, albeit at the high 2016 level. So, during the period when learning outcomes were falling, the dispersion was also increasing; and this trend has so far, not been reversed.

This is not surprising since there is a lot of variation across states not just in the level of learning outcomes but also how they have changed over time. For instance, when the overall proportion of Std III children who could read at grade level fell from 16.8% in 2010 to 14.7% in 2011, there were states like Punjab and Gujarat that posted increases of close to 6 percentage points; Meghalaya, Mizoram and Arunachal Pradesh gained 9 percentage points or more. At the other end of the spectrum, in Haryana and Rajasthan this proportion fell by 5 percentage points and in Bihar by 9 percentage points. This large variation across states is evident not just in 'bad times' but also in 'good times'. This year, when most states have shown an improvement, in Rajasthan the percentage of Std III readers fell by 5 percentage points; and in Tamil Nadu the drop was even greater, at over 8 percentage points. This seems to suggest that there is no tendency towards convergence in learning levels across states.

When we look at the dispersion of learning outcomes over time within states, the pattern is similar with most states showing an increase in dispersion between 2010 and 2014. The pattern is less clear in 2016 and 2018. For instance, in Uttar Pradesh dispersion increased in both years; it fell in both years in Himachal Pradesh; it went down and then up in north-eastern states like Arunachal, Mizoram and Manipur; and it went up and then down in Rajasthan. This means that changes in learning levels have been jumpy within states as well.

It is not surprising, therefore, that there was no sustained trend in learning outcomes between 2010 and 2014. Even after 2014, when overall learning levels have shown a slight upward trend, there are very few states where the process has been sustained. For instance, Rajasthan had a big jump of 5 percentage points in 2016, but an equally large fall in 2018, bringing it back to the 2014 level. Telangana is another case in point with a 3 percentage point increase in 2016 and a similar fall in 2018. Just a handful of states have shown a sustained and significant increase in learning outcomes post 2014. Only 4 states showed an improvement of 3 percentage points or more in both 2016 and 2018 - Punjab, Haryana, Gujarat and Maharashtra.

This rising dispersion is reflected in longer tails of the learning distribution over time. This is evident particularly in the left tail. In Table 1 we present the distribution of reading in Std III from 2010 to 2018. While the distribution has shifted to the right, its tails, particularly the lower tail has also become longer. In 2010, while there were only 16.8% children in Std III who could be said to be at grade level (i.e. able to read Std II level text), there were also only 6.5% children who were unable to read even letters. By 2014, this number had more than tripled to 19.2%.

	Not even Letter	Letter	Word	Std. 1 text	Std. 2 text	Total
2010	6.5	19.9	31.2	25.7	16.8	100
2011	10.1	25.3	29.4	20.5	14.7	100
2012	14.8	29.3	23.6	15.7	16.7	100
2013	15.9	28.7	22.8	16.7	15.9	100
2014	19.2	28.8	20.3	14.5	17.2	100
2016	17.1	27.8	20.3	15.5	19.3	100
2018	15.7	26.0	21.5	15.9	20.9	100

Between 2014 and 2018, while the bottom end of the distribution has moved up a little bit, we are still far from where we started in 2010. This is an extremely worrying trend from an equity point of view because it suggests that in each successive cohort more and more children are getting stuck at the bottom end of the distribution. Addressing their learning deficits is not only going to be more difficult as they progress through the system but also of paramount importance if we are to achieve sustained improvements in learning.

In the last few years, the focus has clearly shifted from enrollment to learning in education. The

governments - state as well as Central - have instituted their own learning assessments. In 2017, an amendment to the RTE required all states, except Jammu and Kashmir, to prepare "class-wise, subject-wise learning outcomes for all elementary classes" and to also devise "guidelines for putting into practice continuous and comprehensive evaluation, to achieve the defined learning outcomes." Just a few days ago, the second amendment to the RTE did away with the no-detention policy in Std V and Std VIII, giving states flexibility to detain students if they did not pass the relevant examinations. But, as states embark on achieving the goals of RTE 2.0, they must ensure that all children participate and gain from the process.