

RTE NORMS AND LEARNING OUTCOMES

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The Right of Children to Free and Compulsory Education Act (RTE) came into effect in 2010. It was a much awaited and much debated piece of legislation which not surprisingly has come under attack from various quarters. With enrollment levels already as high as 90% in most states, many feel that the government has done too little too late. Proponents of “low cost” private schools feel that it imposes an unnecessary burden, in terms of infrastructure norms, on these schools. Notwithstanding all the criticism, most would agree that guaranteeing free education to all children in the age group of 6 – 14 years is a “good thing”.

This year ASER collected data on those RTE norms for which compliance can be easily observed, during the school visit.¹ The RTE specifies clear norms for enrollment, access, school infrastructure, teacher appointment, TLM and pupil teacher ratio (PTR). Most of these are easily observable, or data can be collected to check if they are being adhered to. However, where the RTE norms are fuzzy is in the area of children’s learning achievement. Phrases like “building up child’s knowledge, potentiality and talent” and “development of physical and mental abilities to the fullest extent” are used. In many ways, the RTE continues the tradition of focusing on inputs rather than outcomes.

Inputs are necessary and are easier to target and monitor. But if we believe that “education” entails more than just being enrolled in school, then at some level we have to have a set of outcomes that we expect the education process to lead to. The outcome is “learning”, defined in some manner, and its necessary pre-requisite “attendance” of both teachers and children in school. Unless children and teachers attend school and instruction takes place, learning, however defined, will not take place no matter how many classrooms, toilets and playgrounds are built. Unfortunately, the RTE falls short in specifying expected outcomes of a child being enrolled in school.² In this note, we look at compliance of rural government schools on RTE infrastructure and PTR norms and try to establish how these indicators relate to learning outcomes in these schools.

ASER’s 2010 school observation recorded data on school RTE infrastructure variables, apart from the usual data on school enrollment, teacher and children enrollment and attendance. 13021 rural government schools were visited in 522 districts. Of these 59% were primary schools and 41% were upper primary schools with primary classes.³ This information was used to generate a composite RTE infrastructure indicator for each school based on the availability of the following 7 variables:

1. At least one classroom for every teacher
2. Office cum-store-cum-head teacher’s room
3. Separate toilets for girls and boys that are usable⁴
4. Safe and adequate drinking water facility
5. A kitchen where mid-day-meal is cooked in the school
6. Playground
7. Arrangements for securing the school building by boundary wall or fencing

Thus, a school having all 7 facilities would have a composite score of 7 and one with none of these facilities a score of zero. The distribution of schools is given in Table 1. Only about 1.5% of the schools had a composite score of zero. On the other hand, only 3.7% had all seven facilities. About 50% schools had more than 4 facilities indicating a fair degree of compliance with RTE norms in the first year of the Act.

Table 1 also gives the distribution of the composite score by school enrollment. Since about 60% of the schools visited had an enrollment in excess of 120, we would expect the larger schools to reflect the overall distribution of facilities. However, while about 30% of the low compliance (score \leq 1) schools were small schools (enrollment \leq 60), only 10% of the high compliance schools (score \geq 6) were small schools. Thus, compliance increases with size, which is to be expected since bigger schools are likely to have more facilities.

¹Every alternate year, ASER surveyors visit a government primary or upper primary school in each sampled village. The school information is recorded either based on observations (such as attendance or usability of the facilities) or with information provided by the school (such as grants information). School observations have been conducted in 2005, 2007 and 2009. In 2010 a school visit was included in ASER since this is the first year of the RTE and estimates of compliance can be generated as a baseline to monitor future progress of RTE implementation.

²The RTE does specify that teachers “maintain regularity and punctuality in attending school” but “regularity” and “punctuality” are not clearly defined.

³This analysis is based on data from the 15 major states that form 91% of the total sample.

⁴The RTE specifies provision rather than usability of toilets.

Table 1: Distribution of the School Infrastructure Composite Index

Infrastructure Score	% Schools	School Enrollment				
		≤60	61-90	91-120	>120	Total
0	1.45	28.04	16.82	9.35	45.79	100
1	3.61	29.40	11.81	14.96	43.83	100
2	8.26	23.09	14.51	14.94	47.46	100
3	17.3	18.59	12.25	11.45	57.71	100
4	25.46	16.59	11.82	12.18	59.41	100
5	25.75	13.16	11.03	11.89	63.92	100
6	14.43	11.79	10.58	11.21	66.42	100
7	3.72	10.84	14.6	12.39	62.17	100
Total	100.00	16.15	11.87	12.13	59.84	100

The RTE also gives very specific norms regarding PTR. For schools with less than 200 enrolled students these translate to a PTR of 30 or less and for schools with greater than 200 enrollment a PTR of 40 or less. About 40% schools had PTRs which were according to the norms. However, in schools that did not comply with the norm, the average PTR was almost 3 times that in the compliant schools – 66 compared to 24, resulting in an average PTR of 49. So, compared to infrastructure, schools have a much longer way to go to meet the RTE norms of PTR. This is also evidenced by the fact that only about 30% of the larger schools meet the RTE prescribed PTR compared to 70% of the smaller schools. Recall that these larger schools form the bulk of the school population.

What about learning levels in schools that perform better or worse on these RTE norms? We can study the relationship between school characteristics and learning levels because in the year government schools are visited, ASER also records whether the tested child is enrolled in the visited government school.⁵ We concentrate on learning levels in Stds 1, 3 and 5 in primary schools. The learning outcomes we study are:

- Std. 1 – ability to read words or more;
- Std. 3 – ability to read a Std. 1 level text or more; and
- Std. 5 – ability to read a Std. 2 level text or more.

The relationship of PTR to learning levels is not a mystery – one would expect a negative relationship. Indeed, that is exactly what the ASER numbers indicate. All three learning outcomes are significantly higher in schools with PTRs in accordance with RTE norms. For instance, in Std. 3, 46% children could read at least a Std. 1 level text in PTR compliant schools as compared to 39% in non-compliant schools.⁶

Table 2 shows learning levels in schools at different levels of RTE infrastructure compliance. Learning levels in Std. 1 are about the same, with about 20% of the children being able to read words or more, till one reaches schools which have all 7 facilities. Here learning levels are significantly higher.⁷ However, in Stds 3 and 5 the relationship gets reversed with learning levels falling with greater compliance. In Std. 3 for instance while 45% of the children in schools with no facilities can read a Std. 1 level text, only 43% can do so in schools with all 7 facilities. Except for schools with 2 facilities, none of these differences are statistically significant though. So at best, learning does not seem to be correlated with the number of infrastructure facilities a school has, and is negatively correlated with the PTR.

⁵Since 2005, every year the ASER report presents estimates of enrollment and basic reading and arithmetic learning outcomes for every district in rural India. Every year the core set of questions regarding schooling status and basic learning levels remains the same. However a set of new questions is added for exploring different dimensions of schooling and learning in the elementary stage. ASER 2010 brings together elements from various previous ASERs. From 2009, questions on paid tuition, parents' education, household and village characteristics are retained. In addition, this year ASER tests mothers on their numeracy skills. For the first time, ASER 2010 introduces questions on critical thinking for children in Std. 5 and above. These questions are based on simple mathematical operations that appear in Std. V textbooks.

⁶In all 3 classes the difference is statistically significant.

⁷The highlighted cells indicate a statistically significant difference from the base category of zero facility schools.

Table 2: School Infrastructure and Learning Outcomes

Infrastructure Score	% of children at the selected learning level for:		
	Std 1	Std 3	Std 5
0	20.59	45.24	50.53
1	19.94	40.13	50.92
2	17.48	38.27	42.75
3	17.76	39.5	49.28
4	18.9	41.7	51.03
5	18.48	42.41	49.4
6	20.82	43.72	52.78
7	26.64	43.34	56.25

Even this correlation disappears once we control for other factors. Learning, after all depends on many other things apart from PTR. Among school characteristics it will primarily depend on quality of teaching and classroom environment. Unfortunately, ASER does not have variables to control for teacher quality. In the absence of teacher quality controls, we control for teacher attendance, children’s attendance, school size, and whether the school had a library which was being used, apart from PTR and availability of facilities.⁸ We also control for the child’s characteristics like age, gender, whether the child gets supplementary help in the form of paid tuition and household characteristics like parents’ education, proxies for household affluence like type of house, assets like television, mobile phone, etc. Finally, we control for the presence of reading material in the home to capture whether the child’s home environment is conducive to learning.

In a linear probability model, the learning outcome in all 3 classes is not correlated with any of the school infrastructure variables and neither is it correlated with the school PTR.⁹ Among school characteristics what seems to matter is child and teacher attendance and our only control for TLM – presence of a useable library. Parents’ education and tuition are highly significant as are some of the proxies for affluence. More importantly, even a crude indicator for home learning environment like presence of reading material, significantly affects learning levels.

This is not to say that well-functioning schools with good facilities are not a desirable outcome. They will certainly encourage attendance which will result in better learning outcomes.¹⁰ The point is to make sure that policy makers don’t get mired in chasing targets of school infrastructure and forget about the real meaning of the word “education”. To reap the demographic dividend we need a well-trained and productive labor force which will be possible only if we hunker down today and improve the quality of education in our schools.

⁸One of the RTE norms for TLM prescribes that “there shall be a library in each school providing newspaper, magazines and books on all subjects, including story books”.

⁹Except in the case of Std. 1 schools with all 7 facilities, which have significantly higher learning levels. Similarly in the case of Std. 5, PTR is negatively and significantly correlated with learning levels.

¹⁰ASER data indicates that better infrastructure is positively correlated with attendance.