

Quality of School Education in Odisha and in Different Districts of the State

By

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Abstract

Government, as the primary custodian of providing educational services in the country, has done a reasonably good job of providing access to education for all. The weaknesses in the form of poor physical infrastructure, unavailability of trained and committed headmaster and teachers and weak governance and management system result in poor quality of education. In this paper, the learning outcomes realised at district and state level are discussed based on the findings from the Annual Status of Education Report, 2018.

1. Introduction

The Annual Status of Education Report (ASER, 2018) indicates the quality of school education in rural Odisha, covering all the 30 districts. For each district, ASER 2018 Team selected 30 representative villages of the district and 20 households from each such village. Altogether 660 households in a district were surveyed. The Team also visited one government primary school in each sampled village. For the entire state, it covered 812 schools (360 Primary and 452 Upper-Primary). Primary schools have classes from Grade I to Grade IV/V and Upper-Primary have classes from Grade I to Grade VII/VIII.

According to the study, the proportion of government run Primary schools with student enrolment less than or equal to 60, increased from 38.2% in 2010, through 46.5% in 2014 and 57.8% in 2016 to 60.7% in 2018. The proportion of government run Upper Primary schools (Std I-VII/VIII) with student enrolment less than or equal to 60, increased from 3.9% in 2010, through 4.5% in 2014 and 5.6% in 2016 to 8% in 2018 (ASER 2018, pp184). Hence, while there was overall decline in student enrolment in Government run Primary and Upper Primary Schools, it was sharp in the former.

In the age group of 6-14 years, typical age for Elementary education (Grade I to Grade VIII), 88% of children were enrolled in Government and 10.5% in Private schools, leaving 1.5% without enrolment (Table 1). In the age group of 15-16 years, typical age for Secondary education (Grade IX and Grade X), 80.5% children studied in Government and 6.6% in Private schools, with a drop out of 12.7% children. As a proportion of the total number of children in the school (Govt. and Private), there is a decline of 3.1 percentage point of students enrolled in private school for secondary education, vis-a-vis those enrolled in elementary education. Similarly, there is an increase of 3.1 percentage point of students enrolled in Government school for secondary education, vis-a-vis those enrolled in elementary education.

Table 2 indicates the reading levels of the children assessed from Standard I to Standard VIII. 61.3% Grade III students, 41.6% Grade V students and 27.4% Grade VIII students cannot read Standard II level text in Odia.

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Table 1: Child Enrolment in Schools in Rural Area of Odisha (2018)

Age Group (Year)	Govt. (%)	Private (%)	Other (%)	Not-in-School (%)	Total (%)
6-14	88	10.5	0.1	1.5	100
7-16	87.3	9.4	0.1	3.2	100
7-10	86	13.1	0.2	0.8	100
11-14	91	6.8	0.1	2.1	100
15-16	80.5	6.6	0.2	12.7	100

Source: ASER, 2018, pp 179

PRATHAM's reading tool is a progressive tool to measure exclusive categories. Each row shows the variation in children's reading levels within a given grade. For example, among children in Std V, 3.3% cannot even read letters, 9.3% can read letters but not words or higher, 13.5% can read words but not Std I level text or higher, 15.4% can read Std I level text but not Std II level text, and 58.4% can read Std II level text. For each grade, the total of these exclusive categories is 100%.

Table 2: % Children by Grade and Odia Language Reading Level - All children 2018

Standard	Not even letter	Letter	Word	Std I level text	Std II level text	Total
I	39.9	26.7	16.2	7.2	10.1	100
II	18.9	22.2	21.6	13.0	24.3	100
III	8.6	15.7	22.8	14.2	38.7	100
IV	5.9	11.1	17.6	16.2	49.2	100
V	3.3	9.3	13.5	15.4	58.4	100
VI	2.5	6.1	12.6	13.6	65.3	100
VII	1.9	4.6	9.9	14.8	68.9	100
VIII	1.5	3.8	9.4	12.8	72.6	100

Source: ASER, 2018, pp 180

While reading level of private school children have been far higher than that of the Govt. School children in Grades III and V, the gap narrowed down significantly in Grade VIII. It came down from 84% to 10%. Over the 6 years period, the reading level of students increased for both Govt. and Private school children (Table 3).

Table 3: Reading Level Trends Over Time

Students of Different Standards who can read Standard II Text	Type of School/Year	2012	2014	2016	2018
% Children in Std III who can read Std II level text	Govt.	24.7	28.9	31.5	35.0
	Private	53.4	70.8	69.2	64.5
	Govt. + Private	26.5	33.0	35.5	38.7
% Children in Std V who can read Std II level text	Govt.	46.1	49.1	48.8	56.2
	Private	75.7	76.5	81.7	81.1
	Govt. + Private	47.1	50.9	51.6	58.4
% Children in Std VIII who can read Std II level text	Govt.	72.8	74.5	72.0	72.3
	Private	84.5	82.9	85.9	79.8
	Govt. + Private	73.2	74.9	72.6	72.7

Source: ASER, 2018, pp 180

Table 4 indicates the Arithmetic levels of the children assessed from Standard I to Standard VIII. 69.2% Grade III students, 50.1% Grade V students and 37.7% Grade VIII students cannot do Subtraction. 90.6% Grade III students, 74.6% Grade V students and 57.5% Grade VIII students cannot do Division.

PRATHAM's Arithmetic assessment tool is a progressive tool to measure exclusive categories. Each row shows the variation in children's arithmetic skill levels within a given grade. For example, among children in Std V, 3.2% cannot even recognise numbers 1-9, 13.8% can recognise numbers up to 9 but not higher, 33.1% can recognise up to 99 but cannot do Subtraction and Division, 24.5% can do Subtraction but not Division, and 25.4% can do Division. For each grade, the total of these exclusive categories is 100%.

Table 4: % Children by Grade and Arithmetic Level - All children 2018

Standard	Not even 1-9	Recognising Numbers		Subtract	Divide	Total
		1-9	10-99			
I	39.4	32.3	20.9	5.8	1.5	100
II	16.3	32.5	32.2	15.5	3.4	100
III	7.8	24.9	36.5	21.5	9.4	100
IV	4.8	19.2	35.5	24.5	16.1	100
V	3.2	13.8	33.1	24.5	25.4	100
VI	2.6	10.5	31.4	21.9	33.7	100
VII	1.7	8.1	29.7	24.2	36.2	100
VIII	1.0	8.0	28.7	19.8	42.5	100

Source: ASER, 2018, pp 181

The Arithmetic level of private school children have been higher than that of the Govt. School children in all the Standards (III, V and VIII). The gap narrowed marginally at higher class. For Govt. School children the Arithmetic level improved marginally for Standards III and V, but declined for Standard VIII. For Private School, the Arithmetic level for Standard III and V improved between 2012 and 2016 and declined in 2018. Over the 6 years period, the Arithmetic level of students increased for both Govt. and Private school children, in initial classes (Table 5).

Table 5: Arithmetic Level Trends Over Time

Students of Different Standards who can read Standard II Text	Type of School/Year	2012	2014	2016	2018
% Children in Std III who can do at least Subtraction	Govt.	23.9	23.7	29.8	28.3
	Private	59.2	62.9	69.0	49.3
	Govt. + Private	26.2	27.6	33.9	30.9
% Children in Std V who can do Division	Govt.	17.2	19.9	23.8	23.8
	Private	51.0	45.9	57.7	43.2
	Govt. + Private	18.3	21.6	26.6	25.5
% Children in Std VIII who can do Division	Govt.	42.3	37.5	38.7	41.7
	Private	57.0	45.4	63.5	59.4
	Govt. + Private	42.9	37.9	39.6	42.6

Source: ASER, 2018, pp 181

Every subject can be broken into a number of concepts. One possible way to think teaching-learning process as a journey of understanding, practicing, applying and assessing different concepts that constitute a subject. Table 12 indicates the result of assessment of students (capable of doing subtraction) who can solve problems of daily life such as Calculating Time (calculate the duration between occurrence of two events), Applying Unitary Methods (to find out the combination of days and persons required to complete a work), Financial Decision Making (from alternative sale/purchase deals) and Calculating Discount (Sale/Purchase). Assessment has been done for 14 to 16 years age band, which is typical for Grade VIII to Grade X students.

Female students are more capable than the Male students in calculating time difference in all Ages. On an average, compared to Male, Female are 27% better in calculating time. However, only 35.2% Female students from 14-16 years could calculate time.

Male students are more capable than the Female students in applying unitary methods to solve problems, in 14 years and 15 years Age groups. Compared to Female, Male are marginally better in applying unitary method. However, only 33.5% Male students from 14-16 years could Apply Unitary Method.

Male students are more capable than the Female students in Financial Decision Making in 15 year and 16 years Age groups. Compared to Female, Male are marginally better in comparing alternative financial outflow for a particular situation. However, only 28.8% Male students from 14-16 years could do calculation for taking financial decision.

Female students are more capable than the Male students in calculating discounts during sale/purchase for all Ages. However, only 19.6% Female students from 14-16 years could calculate discount.

Table 6: Of All Children Who can do Subtraction but not Division, % Children Who can Correctly Answer by Age and Gender in 2018

Activities	Age	14 Year	15 Year	16 Year	14-16 Year
Calculating Time	Male	28.3	25.2	30.7	27.7
	Female	44.8	26.2	36.2	35.2
	All	37.5	25.8	34.0	32.0
Applying Unitary Method	Male	24.6	35.9	43.7	33.5
	Female	35.5	27.9	32.5	31.7
	All	30.7	31.2	37.0	32.5
Financial Decision Making	Male	25.6	30.3	31.3	28.8
	Female	35.3	16.9	20.1	24.0
	All	31.0	22.5	24.5	26.0
Calculating Discount	Male	13.5	15.5	18.0	15.4
	Female	19.5	18.6	21.1	19.6
	All	16.8	17.3	19.9	17.8

Source: ASER, 2018, pp 182

Table 7 indicates the result of assessment of 14-16 age band students (capable of doing division) who can solve problems of daily life such as Calculating Time, Applying Unitary Methods, Financial Decision Making and Calculating Discount.

Female and Male students are almost equally capable in calculating time difference in all Ages. However, only 47.3% students from 14-16 years could calculate time.

Male students are more capable than the Female students in applying unitary methods to solve problems, in all Age groups. Compared to Female, Male are 20% better in applying unitary methods than the Female students. However, only 62.9% Males students from 14-16 years, who can do Division, could Apply Unitary Method.

Male students are more capable than the Female students in Financial Decision Making in 14 years and 15 years Age groups. As a group in the 14-16 years Age band, they are almost at the same level of competence. However, only 33.3% students, knowing Division, from 14-16 years could do calculation for taking financial decision.

Male students are more capable than the Female students in calculating discounts during sale/purchase for all Ages. Compared to Female, Male are 37% better in calculating discount than the Female students. However, only 38.6% Males students, who can do Division, from 14-16 years could calculate discount.

Table 7: Of All Children Who can do Division, % Children Who can Correctly Answer by Age and Gender in 2018

Activities	Age	14 Year	15 Year	16 Year	14-16 Year
Calculating Time	Male	47.5	48.5	46.4	47.6
	Female	47.6	43.9	50.8	47.0
	All	47.5	46.1	48.8	47.3
Applying Unitary Method	Male	64.3	63.9	58.5	62.9
	Female	49.0	55.7	52.7	52.2
	All	56.6	59.5	55.4	57.4
Financial Decision Making	Male	36.6	33.6	26.1	33.4
	Female	32.5	31.4	37.4	33.2
	All	34.5	32.4	32.1	33.3
Calculating Discount	Male	29.8	44.5	48.5	38.6
	Female	25.6	28.0	33.4	28.2
	All	27.7	35.8	40.4	33.2

Source: ASER, 2018, pp 182

Between 2010 and 2018, average percent of enrolled children present in Primary Schools on the day of the visit of the PRATHAM assessors increased from 71.9 to 82. Similarly for the Upper Primary Schools, the percentage increased from 72.3 to 80.1. In 2018, the average student absenteeism on the day of the visit was 18% and 19.9% for Primary and Upper Primary Schools respectively (Table 8).

Between 2010 and 2018, average teacher attendance on the day of the visit increased from 89.1% to 94.4% in Primary School and 83.8% to 92.7% in Upper Primary School. In 2018, the average teacher absenteeism on the day of the visit was 5.6% and 7.3% for Primary and Upper Primary Schools respectively.

Table 8: Trends Over Time Student and Teacher Attendance on the Day of Visit of PRATHAM Assessor

Description/Year	2010	2014	2016	2018
Number of Primary Schools Visited (Std I-IV/V)	383	378	405	360
% Enrolled Children Present in Primary schools (Average)	71.9	78.5	77.7	82.0
% Teachers Present in Primary schools (Average)	89.1	87.0	90.5	94.4
Number of Upper Primary Schools Visited (Std I-VII/VIII)	358	446	435	452
% Enrolled Children Present in Upper Primary Schools (Average)	72.3	76.3	78.3	80.1
% Teachers Present in Upper Primary Schools (Average)	83.8	82.7	90.0	92.7

Source: ASER, 2018, pp 183

Between 2010 and 2018, percent of Primary Schools where Std II children were observed sitting with one or more other classes increased from 77 to 79.2. Similarly, during the same period, the percent of Primary Schools where Std IV children were observed sitting with one or more other classes increased from 66.8 to 73.9 (Table 9).

Between 2010 and 2018, percent of Upper Primary Schools where Std II children were observed sitting with one or more other classes increased from 69.4 to 78.3. Similarly, during the same period, the percent of Upper Primary Schools where Std IV children were observed sitting with one or more other classes increased from 58.1 to 66.2.

Such high level of multigrade classes, unless properly designed, can lead to poor quality of teaching and learning.

Table 9: Trends Over Time Multigrade Classes

Description/Year	2010	2014	2016	2018
Number of Primary Schools Visited (Std I-IV/V)	383	378	405	360
% Primary Schools where Std II children were observed sitting with one or more other classes	77.0	81.1	82.9	79.2
% Primary Schools where Std IV children were observed sitting with one or more other classes	66.8	72.8	76.7	73.9
Number of Upper Primary Schools Visited (Std I-VII/VIII)	358	446	435	452
% Upper Primary Schools where Std II children were observed sitting with one or more other classes	69.4	74.8	77.3	78.3
% Upper Primary Schools where Std IV children were observed sitting with one or more other classes	58.1	62.0	65.5	66.2

Source: ASER, 2018, pp 183

As far as basic infrastructure facilities are concerned, in 2018, 17.1% schools did not have drinking water facility, 24.4% schools did not have useable toilet, 30.7% schools without useable girls' toilet, 19.7% schools without library and another 26.4% not using, 43.3% schools without electricity connection and frequent interruption where electricity is connected, and

81.3% schools not having computer and another 12.6% schools not using on the day of the study (Table 10).

Table 10: Trends Over Time Infrastructure Facilities

Facilities	Year	2010	2014	2016	2018
Drinking Water	No facility for drinking water	15.2	9.3	9.2	8.0
	Facility but no drinking water available	14.5	9.3	13.1	9.1
	Drinking water available	70.3	81.4	77.7	82.9
	Total	100	100	100	100
Toilet	No toilet facility	15.5	15.7	6.7	3.0
	Facility but toilet not useable	40.1	21.1	17.8	21.4
	Toilet useable	44.4	63.2	75.5	75.7
	Total	100	100	100	100
Girls' Toilet	No separate provision for girls' toilet	30.3	29.1	17.6	9.6
	Separate provision but locked	19.5	7.9	6.7	5.2
	Separate provision, unlocked but not useable	15.5	9.7	10.0	16.0
	Separate provision, unlocked and useable	34.7	53.3	65.8	69.3
	Total	100	100	100	100
Library	No library	34.7	11.8	17.9	19.7
	Library but no books being used by children on day of visit	18.5	22.6	21.1	26.4
	Library books being used by children on day of visit	46.8	65.6	61.0	54.0
	Total	100	100	100	100
Electricity	Electricity connection	-	-	53.0	56.7
	Of schools with electricity connection, % schools with electricity available on day of visit	-	-	78.0	80.3
Computer	No computer available for children to use	92.9	86.1	84.5	81.3
	Available but not being used by children on day of visit	2.7	8.1	9.1	12.6
	Computer being used by children on day of visit	4.4	5.8	6.4	6.1
	Total	100	100	100	100

Source: ASER, 2018, pp 183

In 2018, 7.3% schools did not have physical education period and no dedicated time allotted, 25% schools did not have physical education teacher, 33.5% schools did not have access to play ground either inside or outside school premises and 29.5% schools did not have any sports equipment (Table 11).

From the Schools covered during the PRATHAM study in 2018, it is reported that 96.7% Schools were having an SMC. Further, of all the Schools having SMC, 2.9% Schools had a SMC meeting before July and 48.9% had the meeting between July and September (ASER

2018, pp184). Hence, SMC's involvement in governance and management of most of the Schools needs significant improvement.

Table 11: Trends Over Time Physical Education and Sports Facilities in Schools in 2018

Description/Year	Std I-IV/V	Std I-VII/ VIII	All schools
No physical education period and no dedicated time allotted	11.3	4.1	7.3
No physical education teacher	29.6	21.5	25.0
No accessible playground (Inside and Outside School)	39.9	28.4	33.5
Availability of any sports equipment	61.3	77.8	70.5

Source: ASER, 2018, pp 184

2. Quality of Education at District Level

Table 12 indicates the private school enrolment and learning level of children in the rural areas of different districts.

In Odisha, 1.5% of total eligible children in the age group of 6 to 14 were not enrolled in the sample of schools surveyed in 2018. The percent of unenrolled children in the above age group were very high in Koraput (7.4%), Malkangiri (7.1%), Nabrangpur (5.7%) and Raygada 7.8 (%) (Table 12).

In Koraput, Malkangiri, Sundargarh, Rayagada, Kandhamal, Nabrangpur and Mayurbhanj, less than 5% of the elementary school children are enrolled in Private schools. In Deogarh, Kalahandi, Balangir, Baudh, Gajapati, Baleswar and Nuapada between 5 to 10% children are enrolled in Private schools. In Kendujhar, Sambalpur, Jharsuguda, Bargarh, Bhadrak, Jajpur, Angul, Ganjam, Subarnapur and Dhenkanal the corresponding figures are 10 to 15%. Highest proportion of children attending private schools are in Kendrapara, Nayagarh, Puri, Khordha, Cuttack and Jagatsinghpur, where it is between 15 to 25%.

Table 12: Private School Enrolment and Learning Levels of Rural Children by Districts

District	% Children (Age 6-14) enrolled in private schools	Std III to V: Learning levels		Std VI to VIII: Learning levels	
		% Children who can read Std II level text	% Children who can do at least subtraction	% Children who can read Std II level text	% Children who can do division
Angul	12.2	55.4	41.7	70.2	36.1
Balangir	7.8	30.2	21.4	51.6	20.5
Baleshwar	8.2	50.4	55.3	63.9	51.2
Bargarh	11.1	60.2	38.6	80.8	33.8
Baudh	7.8	34.3	27.7	53.0	23.5
Bhadrak	11.2	55.0	47.3	84.1	47.3
Cuttack	21.7	59.0	41.8	86.5	48.1
Deogarh	6.7	47.6	39.2	64.4	28.2
Dhenkanal	13.4	54.3	43.6	71.4	37.6
Gajapati	7.9	33.6	34.4	50.8	20.2
Ganjam	12.3	68.9	58.0	77.5	48.3
Jagatsinghpur	24.8	64.6	64.2	83.1	57.1
Jajpur	11.8	70.6	58.9	80.6	52.3
Jharsuguda	10.9	58.9	55.1	72.4	53.1
Kalahandi	6.8	42.0	32.8	54.9	27.0
Kandhamal	3.2	35.9	38.7	52.9	26.1
Kendrapara	16.0	66.9	56.6	88.9	54.0
Kendujhar	10.6	38.5	34.1	65.9	41.7
Khordha	21.4	69.9	48.2	84.5	42.2
Koraput	1.4	19.5	12.7	43.5	9.4
Malkangiri	2.6	14.0	16.4	53.2	28.4
Mayurbhanj	4.6	45.2	41.1	63.4	39.8
Nabarangpur	3.4	21.2	15.4	49.7	7.7
Nayagarh	17.0	70.5	63.4	85.7	50.0
Nuapada	9.3	18.1	17.6	44.4	23.0
Puri	18.3	57.1	54.1	80.8	48.8
Rayagada	3.0	15.8	8.5	40.3	5.4
Sambalpur	10.8	43.5	33.3	72.8	38.9
Subarnapur	12.3	48.7	41.6	75.0	52.3
Sundargarh	2.6	36.2	22.9	67.2	16.8
Odisha	10.5	49.0	40.7	68.9	37.4

Source: ASER, 2018, pp 184

Less than 20% of Standard III to Standard V children in Malkangiri, Rayagada, Nuapada and Koraput can read Standard II level Odia text. Whereas, 60% to 70% of Standard III to Standard V children in Bargarh, Jagatsinghpur, Kendrapara, Ganjam, Khordha, Nayagarh, Jajpur can read Standard II level Odia text. Performance of children of all other districts fall in between (Table 13). Malkangiri as least performing and Jajpur as best performing districts, where, respectively, 14% and 70.6% of Standard III to Standard V children can read Standard II level text. More than 50% of Standard III to Standard V children in 16 districts cannot read Standard II level Odia text.

Table 13: Reading Performance of Standard III to V Rural Children of Different Districts

% of Std. III to V Children who can read Std II level text	Districts
Less than 20%	Malkangiri, Rayagada, Nuapada, Koraput
20% to less than 40%	Nabarangpur, Balangir, Gajapati, Baudh, Kandhamal, Sundargarh, Kendujhar
40% to less than 50%	Kalahandi, Sambalpur, Mayurbhanj, Deogarh, Subarnapur
50% to less than 60%	Baleshwar, Dhenkanal, Bhadrak, Angul, Puri, Jharsuguda, Cuttack
60% to 71%	Bargarh, Jagatsinghpur, Kendrapara, Ganjam, Khordha, Nayagarh, Jajpur

Source: ASER, 2018, pp 184

Less than 20% of Standard III to Standard V children in Rayagada, Koraput, Nabarangpur, Malkangiri and Nuapada can do Subtraction. Whereas, 60% to 71% of Standard III to Standard V children in Nayagarh and Jagatsinghpur can do Subtraction. Performance of children of all other districts fall in between (Table 14). Rayagada as least performing and Jagatsinghpur as best performing districts, where, respectively, 8.5% and 64.2% of Standard III to Standard V children can do Subtraction. More than 50% of Standard III to Standard V children in 22 districts cannot do Subtraction.

Table 14: Subtraction Skill of Standard III to V Rural Children of Different Districts

% of Std. III to V Children who can do Subtraction	Districts
Less than 20%	Rayagada, Koraput, Nabarangpur, Malkangiri and Nuapada
20% to less than 40%	Balangir, Sundargarh, Baudh, Kalahandi, Sambalpur, Kendujhar, Gajapati, Bargarh, Kandhamal and Deogarh
40% to less than 50%	Mayurbhanj, Subarnapur, Angul, Cuttack, Dhenkanal, Bhadrak and Khordha
50% to less than 60%	Puri, Jharsuguda, Baleshwar, Kendrapara, Ganjam and Jajpur
60% to 70%	Nayagarh and Jagatsinghpur

Source: ASER, 2018, pp 184

Less than 50% of Standard VI to Standard VIII children in Nabarangpur, Rayagada, Nuapada and Koraput can read Standard II level Odia text. Whereas, 80% to 90% of Standard VI to Standard VIII children in Jajpur, Bargarh, Puri, Jagatsinghpur, Bhadrak, Khordha, Nayagarh, Cuttack and Kendrapara can read Standard II level Odia text. Performance of children of all other districts fall in between (Table 15). Rayagada as least performing and Kendrapara as best performing districts, where, respectively, 40.3% and 88.9% of Standard III to Standard V children can read Standard II level text.

Table 15: Reading Performance of Standard VI to VIII Rural Children of Different Districts

% of Std. VI to VIII Children who can read Std II level text	Districts
Less than 50%	Rayagada, Koraput, Nuapada and Nabarangpur
50% to less than 60%	Gajapati, Balangir, Kandhamal, Baudh, Malkangiri and Kalahandi
60% to less than 70%	Mayurbhanj, Baleshwar, Deogarh, Kendujhar and Sundargarh
70% to less than 80%	Angul, Dhenkanal, Jharsuguda, Sambalpur, Subarnapur and Ganjam
80% to 90%	Jajpur, Bargarh, Puri, Jagatsinghpur, Bhadrak, Khordha, Nayagarh, Cuttack and Kendrapara

Source: ASER, 2018, pp 184

Less than 10% of Standard VI to Standard VIII children in Rayagada, Nabarangpur and Koraput can do Division. Whereas, 50% to 60% of Standard VI to Standard VIII children in Nayagarh, Baleshwar, Jajpur, Subarnapur, Jharsuguda, Kendrapara and Jagatsinghpur can do Division. Performance of children of all other districts fall in between (Table 16). Rayagada as least performing and Jagatsinghpur as best performing districts, where, respectively, 5.4% and 57.1% of Standard VI to Standard VIII children can do Division. More than 50% of Standard VI to Standard VIII children in 23 districts cannot do Division.

Table 16: Division Skill of Standard III to V Rural Children of Different Districts

% of Std. VI to VIII Children who can do Division	Districts
Less than 10%	Rayagada, Nabarangpur and Koraput
10% to less than 30%	Sundargarh, Gajapati, Balangir, Nuapada, Baudh, Kandhamal, Kalahandi, Deogarh and Malkangiri
30% to less than 40%	Bargarh, Angul, Dhenkanal, Sambalpur and Mayurbhanj
40% to less than 50%	Kendujhar, Khordha, Bhadrak, Cuttack, Ganjam and Puri
50% to 60%	Nayagarh, Baleshwar, Jajpur, Subarnapur, Jharsuguda, Kendrapara and Jagatsinghpur

Source: ASER, 2018, pp 184

Considering the skills of Reading of Odia text, Subtraction and Division, districts in the lowest band of achievement in the state include Malkangiri, Rayagada, Nuapada, Koraput and Nabrangpur. In above skill sets, districts in the highest band of achievement include Jagatsinghpur, Kendrapara, Nayagarh and Jajpur.

3. Concluding Remarks

From the sample of schools covered under ASER, in the age group of 6-14 years, typical age for Elementary education (Grade I to Grade VIII), 88% of children were enrolled in Government and 10.5% in Private schools. 1.5% children remain unenrolled. The percent of unenrolled children in the above age group were very high in Koraput (7.4%), Malkangiri (7.1%), Nabrangpur (5.7%) and Raygada 7.8 (%).

In Koraput, Malkangiri, Sundargarh, Rayagada, Kandhamal, Nabrangpaur and Mayurbhanj, less than 5% of the elementary school children are enrolled in Private schools. Highest proportion of children attending private schools are in Kendrapara, Nayagarh, Puri, Khordha, Cuttack and Jagatsinghpur, where it is between 15 to 25%.

In the age group of 15-16 years, typical age for Secondary education (Grade IX and Grade X), 80.5% children studied in Government and 6.6% in Private schools, with a drop out of 12.7% children. As a proportion of the total number of children in the school (Govt. and Private), there is a decline of 3.1 percentage point of students enrolled in private school for secondary education, vis-a-vis those enrolled in elementary education. Similarly, there is an increase of 3.1 percentage point of students enrolled in Government school for secondary education, vis-a-vis those enrolled in elementary education.

Granular study done by PRATHAM shows a very disturbing state of the quality of school education in the state.

In 2017-18, 61.3% Grade III students, 41.6% Grade V students and 27.4% Grade VIII students could not read Standard II level text in Odia. 69.1% Grade III students, 50.1% Grade V students and 27.7% Grade VIII students could not do Subtraction. 91.6% Grade III students, 74.6% Grade V students and 57.5% Grade VIII students could not do Division.

More than 50% of Standard III to Standard V children in 16 districts cannot read Standard II level Odia text. More than 40% of Standard VI to Standard VIII children in 10 districts cannot read Standard II level Odia text. More than 50% of Standard III to Standard V children in 22 districts cannot do Subtraction. More than 50% of Standard VI to Standard VIII children in 23 districts cannot do Division. Considering the skills of Reading of Odia text, Subtraction and Division, districts in the lowest band of achievement in the state include Malkangiri, Rayagada, Nuapada, Koraput and Nabrangpur. In the above skill sets, districts in the highest band of achievement include Jagatsinghpur, Kendrapara, Nayagarh and Jajpur.

Among the students from 14 to 16 Years age group, percentage of children who could calculate time difference, apply unitary methods to solve problems, make simple financial decision, and calculate discounted value during sale/purchase were respectively 32%, 32.5%, 26% and 17.8%.

In 2018, the average student absenteeism, on the day of the visit of the PRATHAM team, was 18% and 19.9% for Primary and Upper Primary Schools respectively. Similarly, the average teacher absenteeism on the day of the visit was 5.6% and 7.3% for Primary and Upper Primary Schools respectively.

Because of the shortage or absence of faculty and/or unavailability of class rooms in many schools, one could observe mixed classes. Between 2010 and 2018, percent of Primary Schools and Upper Primary Schools where, Std II children were observed sitting with one or more other classes, increased from 77% to 79.2% and 69.4% to 78.3% respectively. Similarly, during the same period, the percent of Primary Schools and Upper Primary Schools where, Std IV children were observed sitting with one or more other classes increased from 66.8% to 73.9% and 58.1% to 66.2% respectively. Such high level of multigrade classes, unless properly designed, could lead to poor quality of teaching and learning.

In 2018, 17.1% schools did not have drinking water facility, 24.4% schools did not have useable toilet, 30.7% schools without useable girls' toilet, 19.7% schools without library and another 26.4% not using, 43.3% schools without electricity connection and frequent interruption where electricity is connected, and 81.3% schools not having computer and another 12.6% schools not using on the day of the study.

In 2018, 7.3% schools did not have physical education period and no dedicated time allotted, 25% schools did not have physical education teacher, 33.5% schools did not have access to play ground either inside or outside school premises and 29.5% schools did not have any sports equipment.

Although 96.7% Schools were having an SMC, only 2.9% Schools of them had a SMC meeting before July and 48.9% had the meeting between July and September. Hence, SMC's involvement in governance and management of most of the Schools needs significant improvement.

For improving quality of school education, there is a need for a paradigm shift in our approach to governance and management of schools. Community must be at the centre of ownership and management of schools. School Headmaster and teacher need to be accountable to the parents, through an active Parent-Teacher Association and School Management Committee, with the Government acting as a guide and facilitator for implementing quality processes.

Since children spend two-third of their time outside school, community based, outside school intervention may be systematically implemented to complement and supplement the efforts of inside school interventions. Given the understanding, capability and exposure of the parents of the children from the underprivileged background, well-designed outside school intervention will help in achieving educational quality, possibly with much less investment.

Reference

1. ASER, (2018). *Annual Status of Education Report (Rural)*, Mumbai. PRATHAM.