

CHAPTER 5
EDUCATIONAL INFRASTRUCTURE FACILITIES IN
ODISHA

5.1 Introduction

Infrastructure is an important tool for facilitating quality education in Elementary education system. Realizing the importance of infrastructure, both the central and the state government have undertaken several schemes to improve physical infrastructure of government schools. Sarva Shiksha Abhiyan (SSA) is one of the flagship programs of Government of India, which has been implemented in all the 30 districts of Odisha since 2001 in order to achieve universal elementary education. SSA has been implemented in Odisha with objective to provide elementary education of proper quality with focus on education for life.

Availability of physical Infrastructures are very crucial for providing satisfactory quality in elementary education. These physical infrastructures include provision of building, toilets, drinking water facility, electricity, computers, etc. In order to access the physical infrastructural development, it is important to take into account all the above stated infrastructure indicators separately. However, there is no particular indicator which will represent the infrastructure development of any school.

In order to investigate the available infrastructure related to Odisha, this chapter includes analysis and comparison of different physical infrastructure available state and nation wide; Total Government school, Total Private school, schools with drinking water, schools with playground facility, schools having electricity, schools with computer, schools with boundary wall, schools with common, boys and girls toilet etc for a period of 10 years from 2005-06 to 2015-16, with the help of Tabulation and graphical representation.

5.1.1 Total Number of Government and Private School in Odisha

Table No. 5.1 Total Government School				
Year	Odisha	GR(Odisha)	India	GR(India)
2007-08	53667		1002915	
2008-09	55713	3.81	1035178	3.21
2009-10	53041	-4.79	1048046	1.24
2010-11	57179	7.80	1064604	1.57
2011-12	58023	1.47	1078407	1.29
2012-13	58355	0.57	1086720	0.77
2013-14	58412	0.09	1093969	0.66
2014-15	58573	0.27	1080757	-1.20
2015-16	58476	-0.16	1076994	-0.34

Source: District Information System for Education

Figure No. 5.1 Number of Total Government School

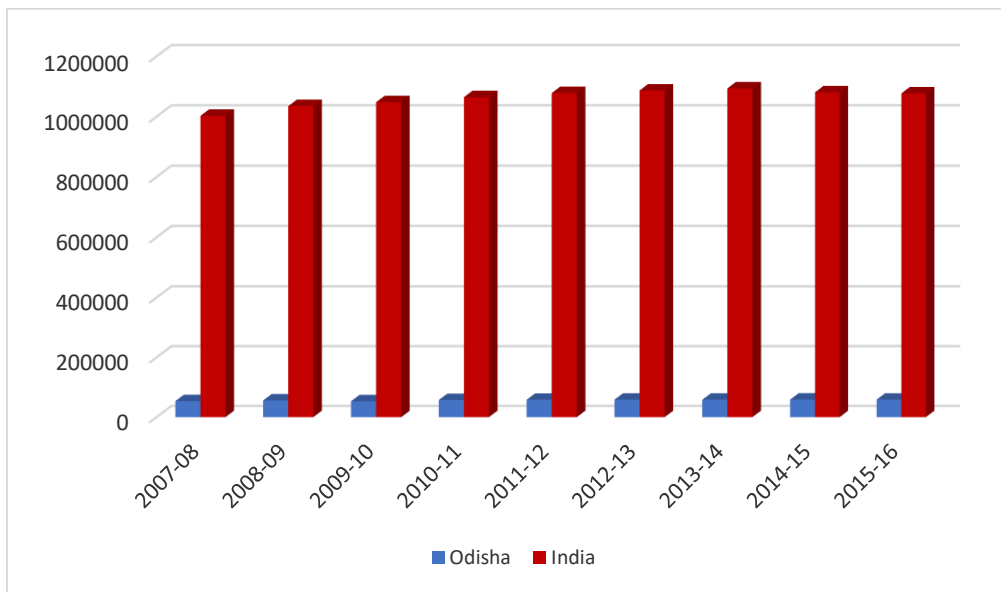


Figure No. 5.2 Growth Rate of Government School

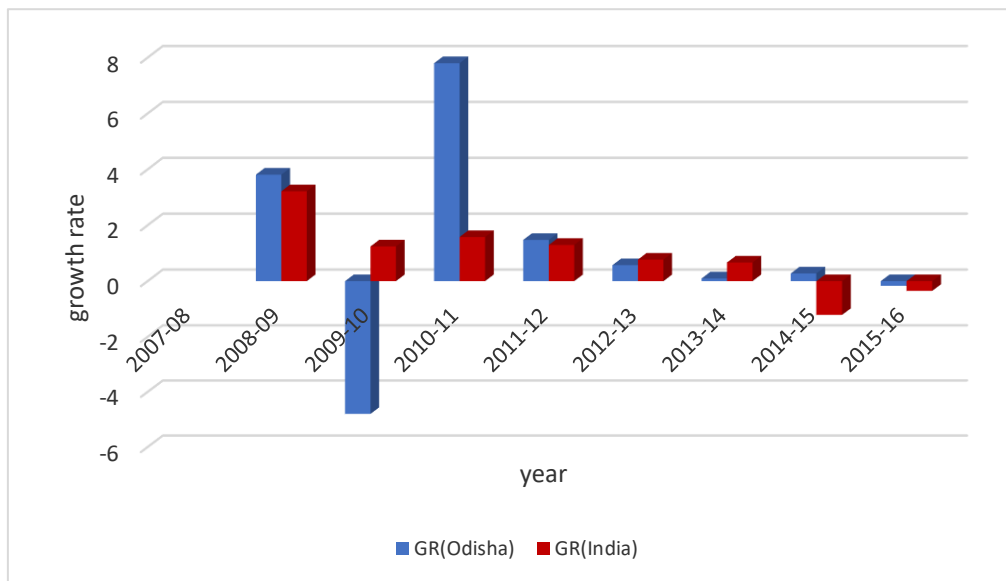


Table No. 5.1, Figure No. 5.1 and Figure No. 5.2 represents the total number of government school and the growth rate of government school both at state and national level. Number of government school in Odisha are increasing as represented in the table i.e. in 2007-08 the number of government school was 53667 which has been increased to 58476 in 2015-16. If we compare the growth rate of having government schools in Odisha with India then, Odisha is

performing well as the growth rate of number of government schools in Odisha is higher than the national growth rate.

Table No 5.2 Total Private School				
Year	Odisha	GR(Odisha)	India	GR(India)
2007-08	5768		243895	
2008-09	6447	11.77	249920	2.47
2009-10	3732	-42.11	254178	1.70
2010-11	7060	89.17	264607	4.10
2011-12	7202	2.01	299357	13.13
2012-13	7418	2.99	307978	2.87
2013-14	7611	2.60	319990	3.90
2014-15	7995	5.04	328845	2.76
2015-16	8537	6.77	334468	1.70
Source: District Information System for Education				

Figure No. 5.3 Number of Total Private School

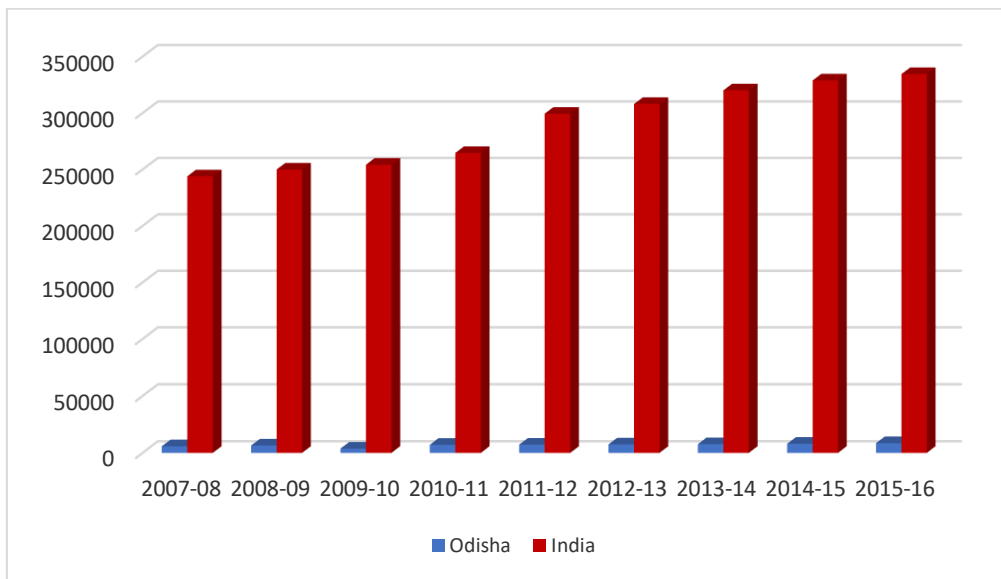


Figure No. 5.4 Growth Rate of Private School

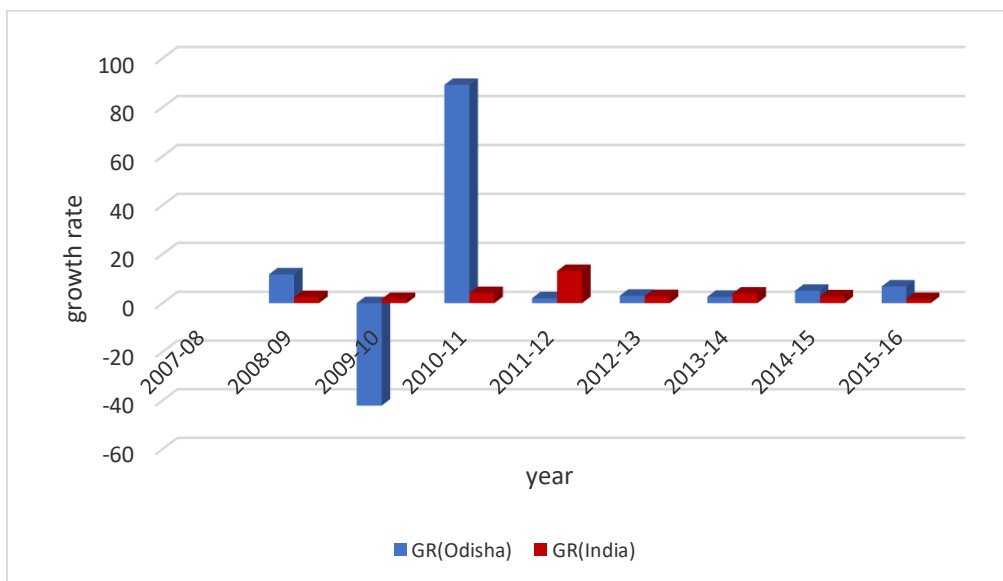


Table No. 5.2, Figure No. 5.3 and Figure No. 5.4 represents the total number of private school and the growth rate of private school both at state and national level. Number of private school in Odisha are increasing steadily as represented in the table i.e. in 2007-08 the number of private school was 5768 which has been increased to 8537 in 2015-16. If we compare the growth rate of private schools in Odisha with India, growth rate of number of private schools in Odisha is higher than the national growth rate. In 2009-10 the growth rate was negative but

in the next year i.e. 2010-11 the growth rate was almost 90%. Increased from 3732 private schools in 2009-10 to 7060 in 2010-11 and 8537 in 2015-16. The growth rate of private schools in Odisha was 6.77% as against the nationwide growth rate 1.70% in 2015-16.

The number of private school is no doubt less than the number of government school, but the rate at which the number of private school growing is faster than the rate of growth of number of government schools which shows the privatisation of education sector in Odisha.

5.1.2 Percentage of Schools with Drinking Water Facility in Odisha

Table No. 5.3 Percentage of Schools with Drinking Water				
Year	Odisha	GR(Odisha)	India	GR(India)
2007-08	85.6	0	86.8	0
2008-09	83.3	-2.3	87.8	1
2009-10	89.1	5.8	92.6	4.8
2010-11	88.7	-0.4	92.7	0.1
2011-12	94.4	5.7	94.5	1.8
2012-13	94.8	0.4	94.9	0.4
2013-14	96.8	2	95.3	0.4
2014-15	98	1.2	96.1	0.8
2015-16	99.5	1.5	96.8	0.7
Source: District Information System for Education				

Figure No. 5.5 Percentage Schools with Drinking Water

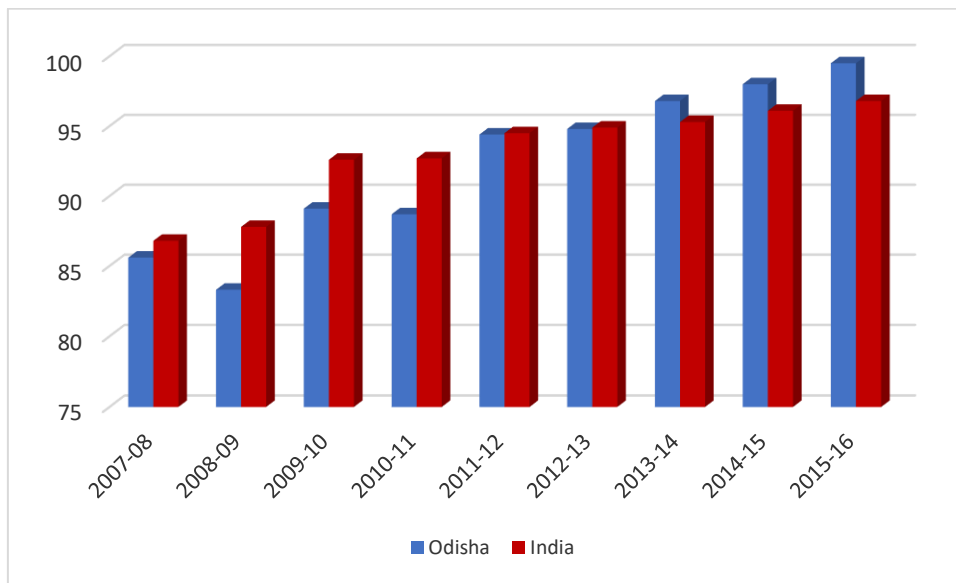


Figure No. 5.6 Growth Rate of Schools with Drinking Water

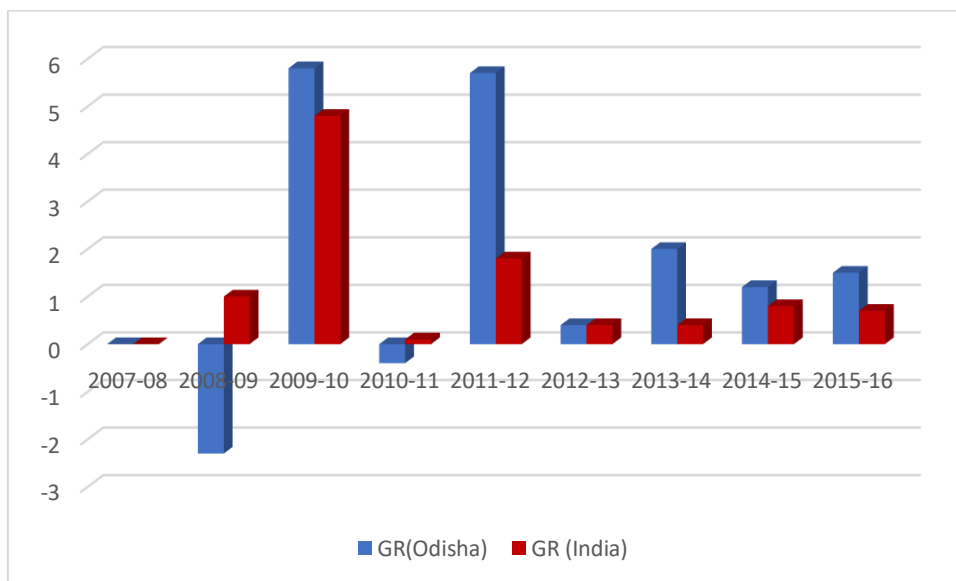


Table No. 5.3, Figure No. 5.5 and Figure No. 5.6 represents the percentage of schools with drinking water facility and the growth rate of schools with drinking water facility both at state and national level. Percentage of schools with drinking water facility in Odisha are increasing steadily as represented in the table i.e. in 2007-08 the Percentage of schools with drinking water facility was 85.6% for Odisha as against India's i.e. 86.8% which has been increased to 99.5% for Odisha and 96.8% for India in 2015-16. If we compare the growth rate of percentage of

schools with drinking water facility in Odisha with India, growth rate in Odisha is higher than the national growth rate. For Odisha, the growth rate of Schools with drinking water facility is 1.5% as against the national growth rate 0.7% in 2015-16.

5.1.3 Percentage of Schools with Playground Facility in Odisha

Table No. 5.4 Percentage of School with Playground Facility				
Year	Odisha	GR(Odisha)	India	GR(India)
2009-10	23.7	0	54.8	0
2010-11	29.3	5.6	55	0.2
2011-12	29.7	0.4	56.1	1.1
2012-13	29.7	0	56.6	0.5
2013-14	29.7	0	58.1	1.5
2014-15	29.6	-0.1	59.8	1.7
2015-16	30.3	0.7	60.6	0.8
Source: District Information System for Education				

Figure No. 5.7 Percentage of School with Playground Facility

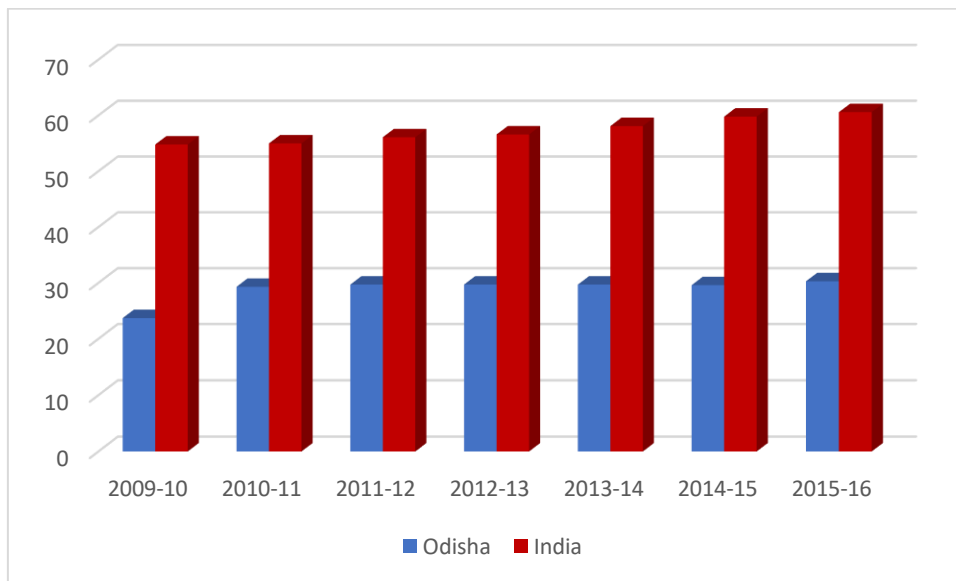


Figure No. 5.8 Growth Rate of School with Playground Facility

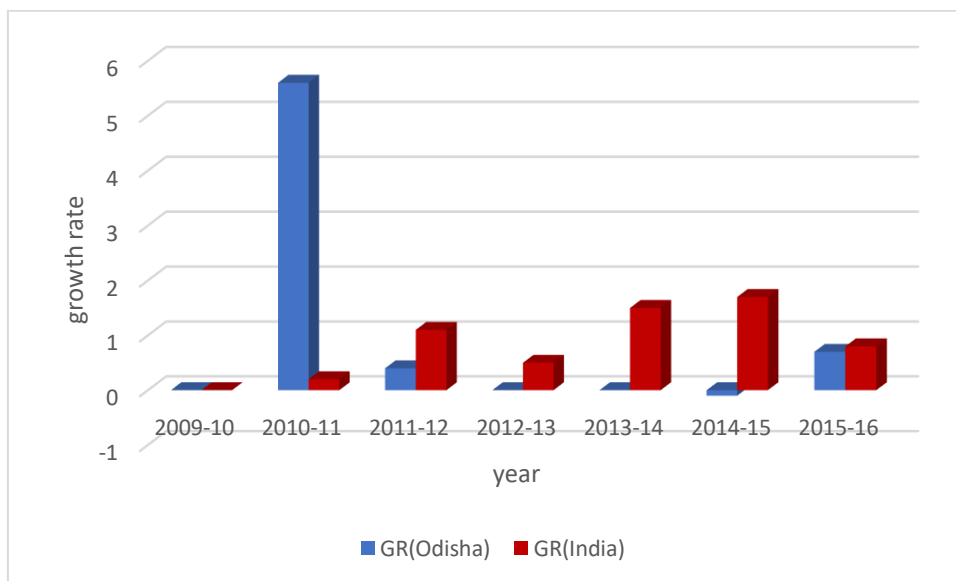


Table No. 5.4, Figure No. 5.7 and Figure No. 5.8 represents the percentage of schools with playground facility and the growth rate of schools with playground facility both at state and national level. Percentage of schools with playground facility in Odisha is rising but not up to the mark as represented in the table i.e. in 2007-08. The Percentage of schools with playground facility is only 23.7% for Odisha as against India i.e. 53.8% for the year 209-10 which has been increased to 30.3% for Odisha and 60.6% for India in 2015-16 which is exactly the double of

Odisha. If we compare the growth rate of percentage of schools with playground facility in Odisha with India, growth rate in Odisha is very low than the national growth rate. For Odisha, the growth rate of Schools with playground facility is 0.7% as against the national growth rate 0.8% in 2015-16. Talking about Odisha, half of the taken year are showing zero or negative growth rate while for India the growth rate is positive and increasing.

5.1.4 Percentage of Schools with Boy's and Girl's Toilet in Odisha

Table No. 5.5 Percentage of Schools with Boys' Toilet				
Year	Odisha	GR(Odisha)	India	GR(India)
2009-10	14.7	0	31	0
2010-11	17.5	2.8	42.6	11.6
2011-12	76.7	59.2	81.1	38.5
2012-13	21.1	-55.6	67.1	-14
2013-14	95.3	74.2	94.5	27.4
2014-15	95.3	0	95.4	0.9
2015-16	93.8	-1.5	97.1	1.7
Source: District Information System for Education				

Figure No. 5.9 Percentage of Schools with Boys' Toilet

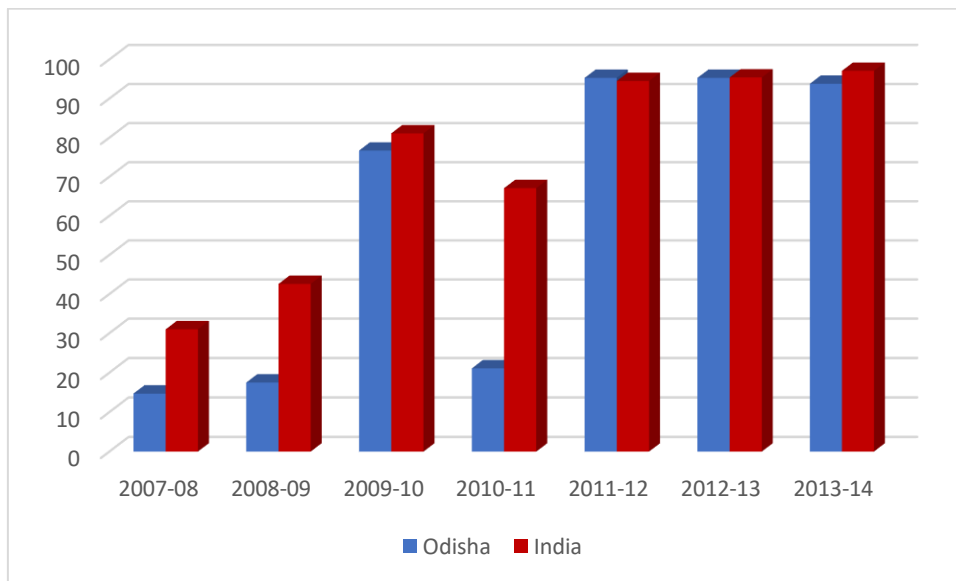


Figure No. 5.10 Growth Rate of Schools with Boys' Toilet

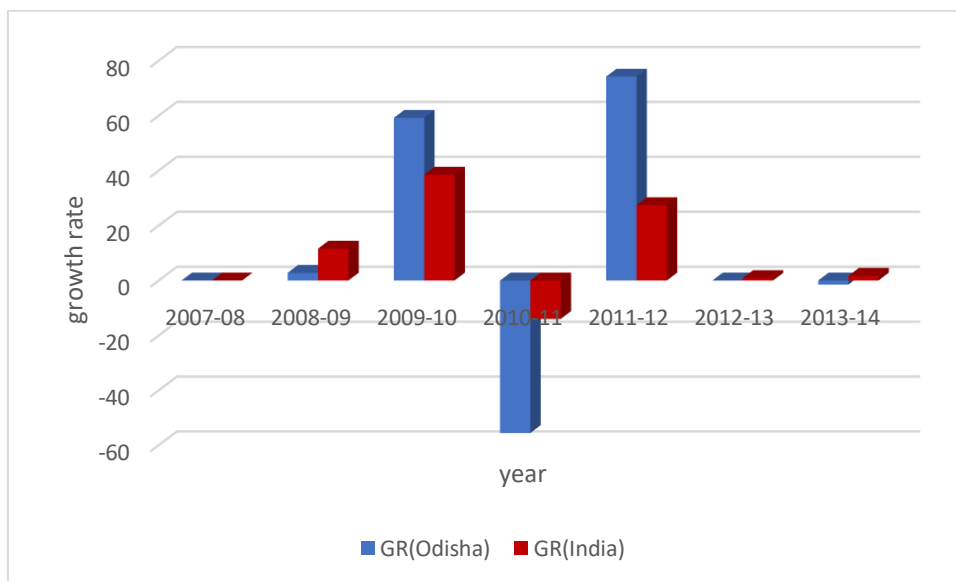


Table No. 5.5, Figure No. 5.9 and Figure No. 5.10 represents the percentage of schools with boys' toilet facility and the growth rate of schools with boys' toilet facility both at state and national level. Percentage of schools with boys' toilet facility in Odisha as well as India has increased rapidly as represented in the table i.e. in 2009-10 the Percentage of schools with boys' toilet facility was only 14.7% for Odisha as against India's i.e. 31% which has been increased to 93.8% for Odisha and 97.1% for India in 2015-16. Growth rate of percentage of

schools with boys' toilet facility in Odisha and India, is increasing and achieved a good growth after 2013.

Table No. 5.6 Percentage of Schools with Girls' Toilet				
Year	Odisha	GR(Odisha)	India	GR(India)
2007-08	28	0	50.6	0
2008-09	34	6	53.6	3
2009-10	37.9	3.9	58.8	5.2
2010-11	38.2	0.3	60.3	1.5
2011-12	41.1	2.9	72.2	11.9
2012-13	68.5	27.4	88.3	16.1
2013-14	68.9	0.4	84.6	-3.7
2014-15	76.8	7.9	87.1	2.5
2015-16	97.1	20.3	97.6	10.5
Source: District Information System for Education				

Figure No. 5.11 Percentage of Schools with Girls' Toilet

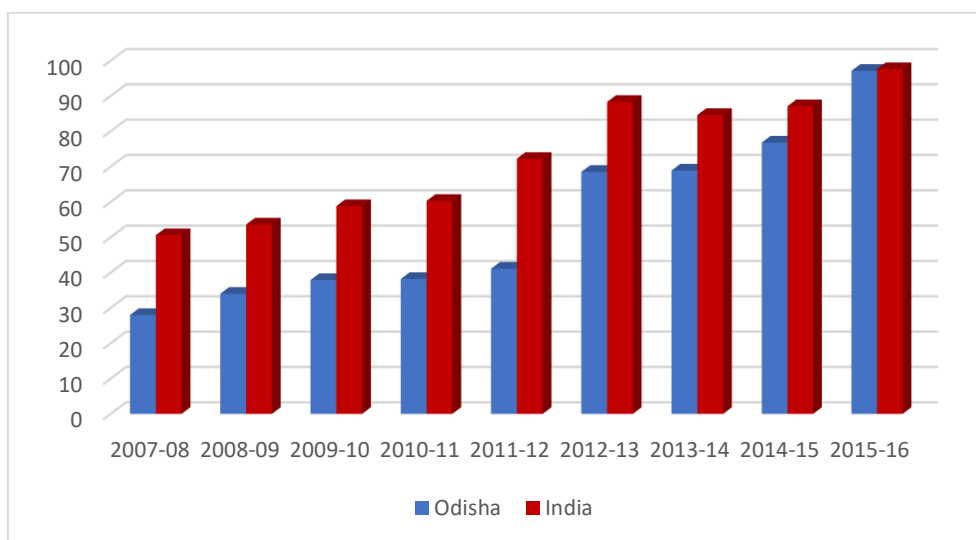


Figure No. 5.12 Growth Rate of Schools with Girls' Toilet

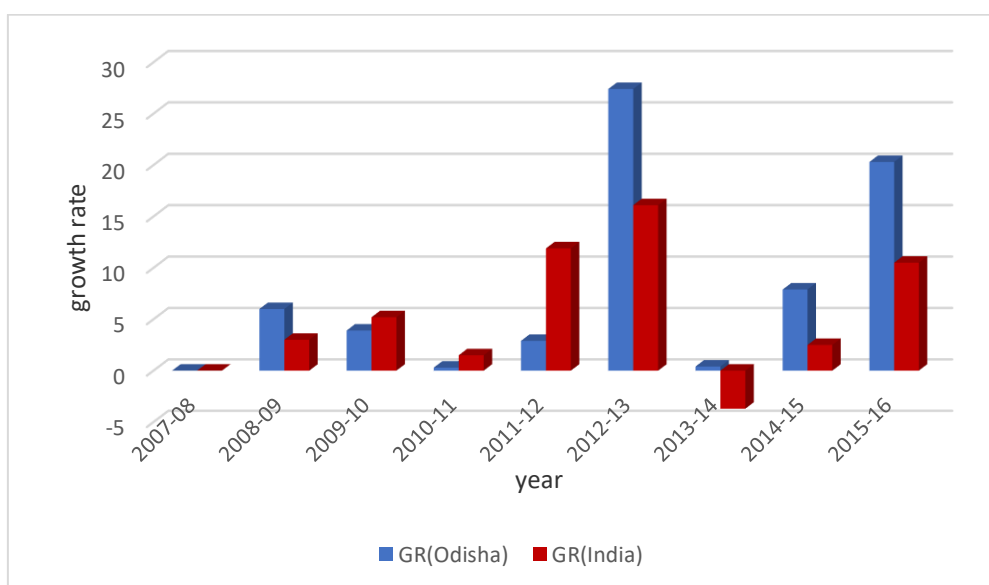


Table No. 5.6, Figure No. 5.11 and Figure No. 5.12 represents the percentage of schools with girls' toilet facility and the growth rate of schools with girls' toilet facility both at state and national level. Percentage of schools with girls' toilet facility in Odisha as well as India has increased rapidly as represented in the table i.e. in 2009-10 the Percentage of schools with girls' toilet facility was only 28% for Odisha as against India's i.e. 50.6% which has been increased to 97.1% for Odisha and 97.6% for India in 2015-16. Growth rate of percentage of schools with

boys' toilet facility in Odisha is increasing and achieved a good growth after till date in comparison with national level.

5.1.5 Percentage of Schools with Electricity Facility in Odisha

Table No. 5.7 Percentage Schools having Electricity				
Year	Odisha	GR(Odisha)	India	GR(India)
2008-09	18.6	0	35.6	0
2009-10	15.8	-2.8	39	3.4
2010-11	20.4	4.6	43.1	4.1
2011-12	21.8	1.4	47.1	4
2012-13	23.9	2.1	49.9	2.8
2013-14	26	2.1	51.7	1.8
2014-15	29.6	3.6	58.9	7.2
2015-16	32.1	2.5	61.7	2.8
Source: District Information System for Education				

Figure No. 5.13 Percentage of Schools having Electricity

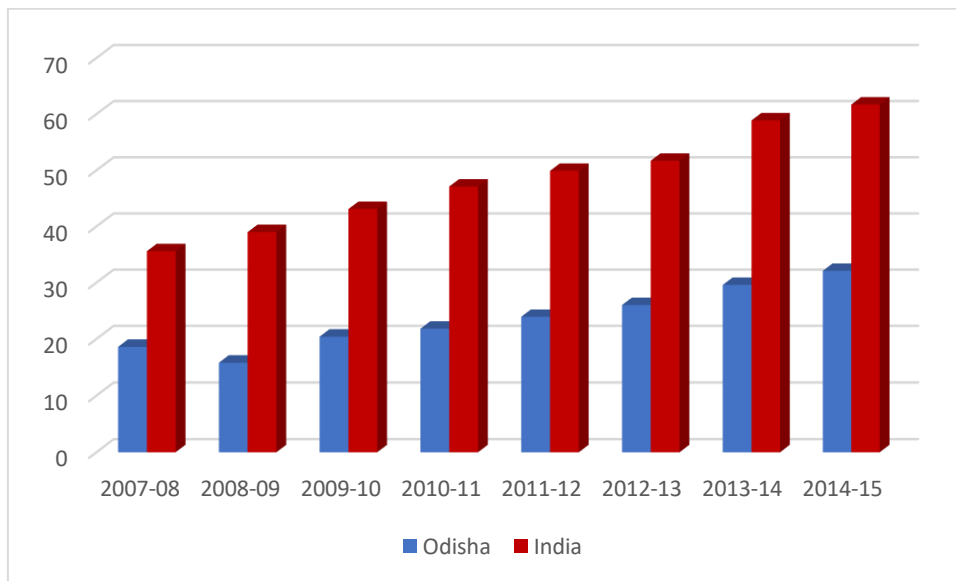


Figure 5.14 Growth rate of Schools having Electricity

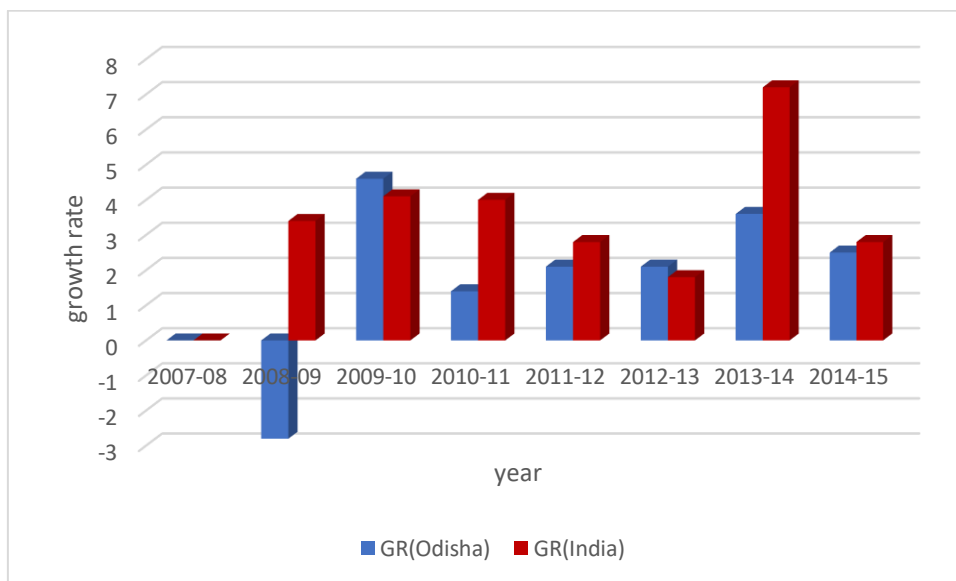


Table No. 5.7, Figure No. 5.13 and Figure No. 5.14 represents the percentage of schools with electricity facility and the growth rate of schools with electricity facility both at state and national level. Percentage of schools with electricity facility in Odisha is rising but not up to the mark as represented in the table i.e. in 2007-08. The Percentage of schools with electricity facility was only 18.6% for Odisha as against India i.e. 35.6% for the year 2008-09 which has been increased to 32.1% for Odisha and 61.7% for India in 2015-16 which is nearly the

double of Odisha. If we compare the growth rate of percentage of schools with electricity facility in Odisha with India, growth rate in Odisha is very low than the national growth rate. For Odisha, the growth rate of Schools with electricity facility is 2.5% as against the national growth rate 2.8% in 2015-16.

5.1.6 Percentage of Schools with Computer Facility in Odisha

Table No. 5.8 Percentage of Schools with Computer				
Year	Odisha	GR(Odisha)	India	GR(India)
2007-08	8	0	14.3	0
2008-09	7.5	-0.5	14.1	-0.2
2009-10	7.3	-0.2	16.7	2.6
2010-11	8.5	1.2	18.7	2
2011-12	9	0.5	20.5	1.8
2012-13	9.2	0.2	22.1	1.6
2013-14	10.6	1.4	23.3	1.2
2014-15	13.6	3	25.2	1.9
2015-16	14.4	0.8	26	0.8
Source: District Information System for Education				

Figure No. 5.15 Percentage of Schools with Computer

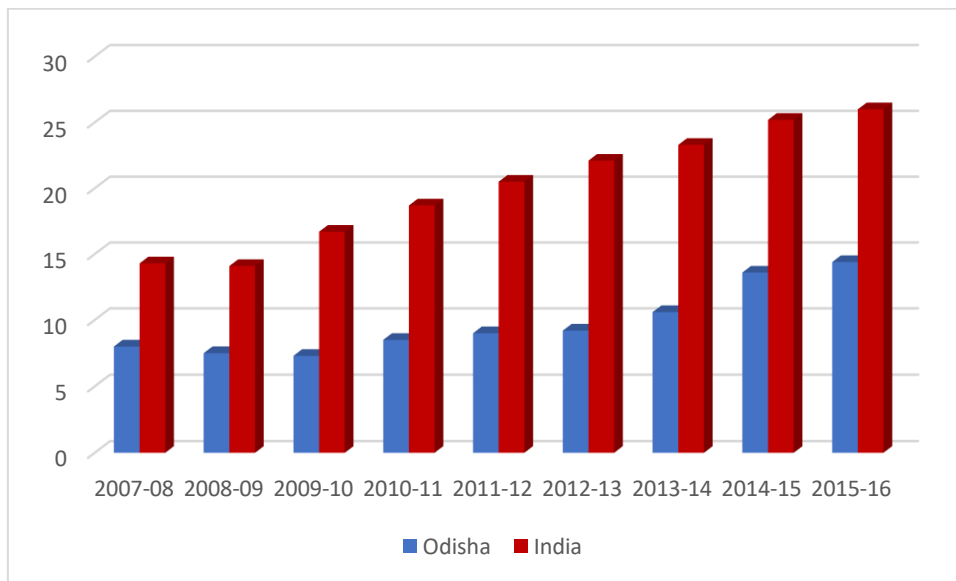


Figure No. 5.16 Growth Rate of Schools with Computer

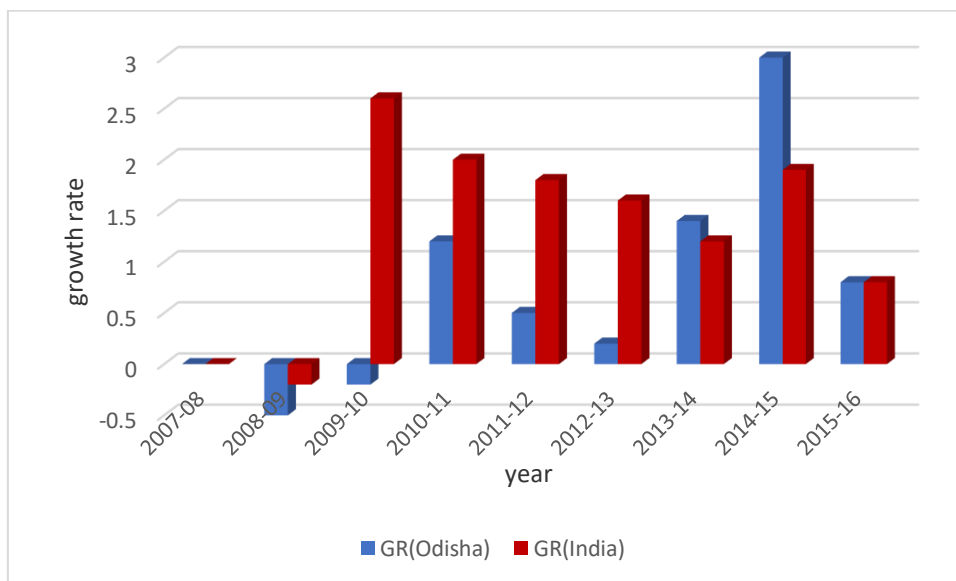


Table No. 5.8, Figure No. 5.15 and Figure No. 5.16 represents the percentage of schools with computer facility and the growth rate of schools with computer facility both at state and national level. This is one of the important factor of educational development we need to concern about when we talk about Digitalisation of India. Percentage of schools with computer facility is rising but neither in India or Odisha it is up to the mark as represented in the table. The Percentage of schools with computer facility was only 8% for Odisha as against India i.e.

14.3% for the year 2007-08 which has been increased to 14.4% for Odisha and 26% for India in 2015-16 which is very less. If we compare the growth rate of percentage of schools with computer facility in Odisha with India, growth rate in Odisha is very low than the national growth rate.

5.1.7 Percentage of Schools with Boundary Wall Facility in Odisha

Table No. 5.9 Percentage of Schools with Boundary wall				
Year	Odisha	GR(Odisha)	India	GR(India)
2007-08	59.6	0	50.2	0
2008-09	59.1	-0.5	51	0.8
2009-10	57.6	-1.5	51.5	0.5
2010-11	58.8	1.2	55.4	3.9
2011-12	62.4	3.6	58.2	2.8
2012-13	64.9	2.5	59.5	1.3
2013-14	65.8	0.9	61.9	2.4
2014-15	67.5	1.7	64.5	2.6
2015-16	68.2	0.7	64.9	0.4
Source: District Information System for Education				

Figure No. 5.17 Percentage of Schools with Boundary wall

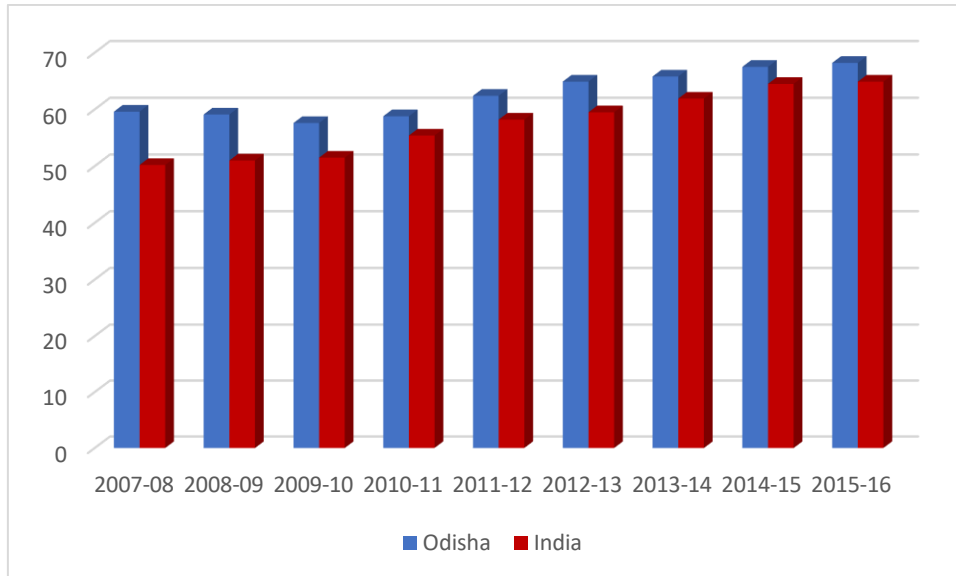


Figure No. 5.18 Growth Rate of Schools with Boundary wall

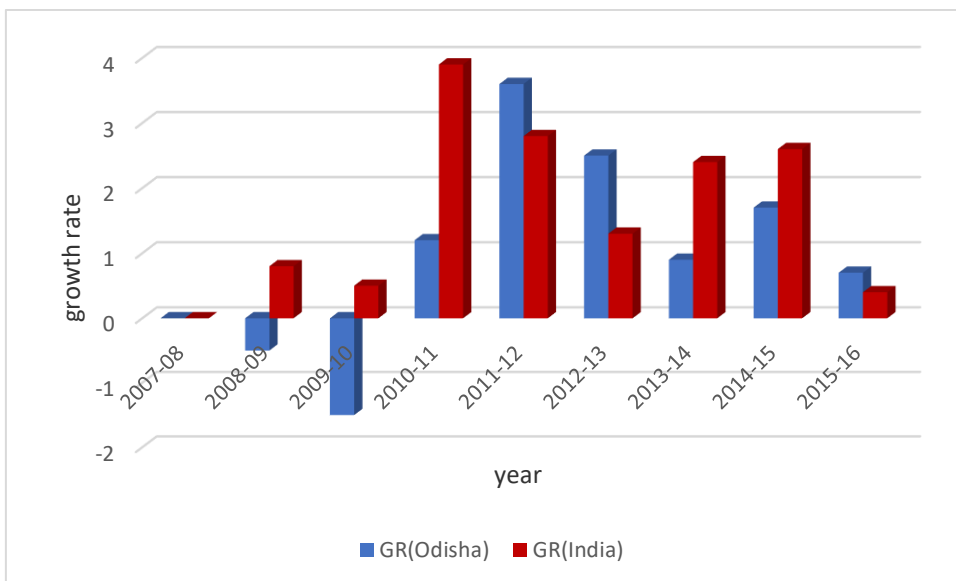


Table No. 5.9, Figure No. 5.17 and Figure No. 5.18 represents the percentage of schools with boundary wall facility and the growth rate of schools with boundary wall facility both at state and national level. Percentage of schools with boundary wall facility is rising in Odisha more steadily in comparison with India as represented in the table. The Percentage of schools with

boundary wall facility was 59.6% for Odisha as against India i.e. 50.2% for the year 2007-08 which has been increased to 68.2% for Odisha and 64.9% for India in 2015-16 which shows the better performance of Odisha if we compare with India. If we compare the growth rate of percentage of schools with boundary wall facility in Odisha with India, growth rate in Odisha was negative initially but captured a steady pace after 2011 which is more or less equivalent to the national growth rate.

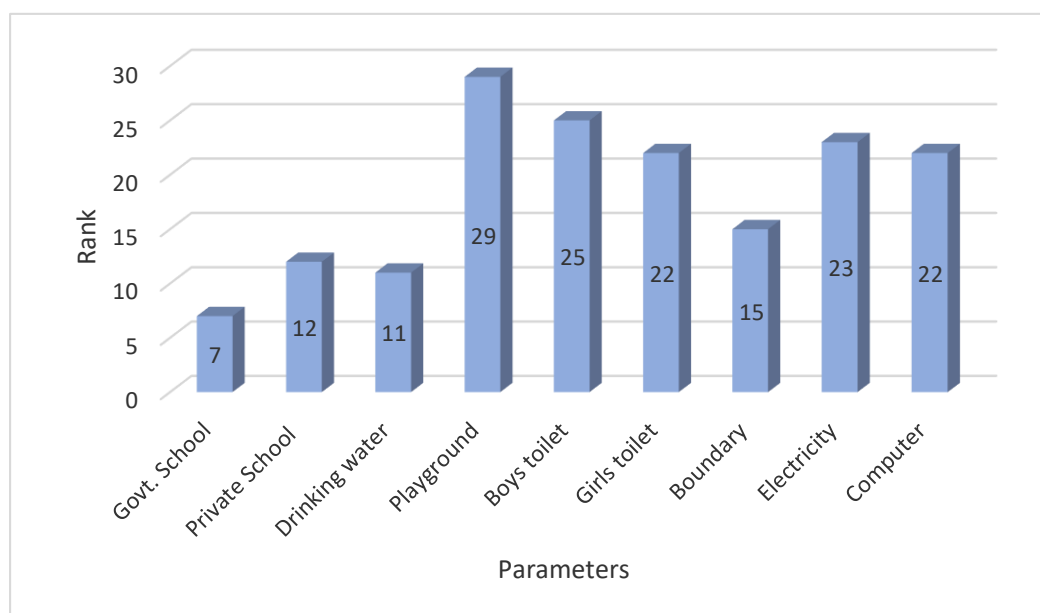
5.2 Rank of Odisha Among Other States at Different Infrastructural Parameters

To trace the progress in different infrastructural development related to education in Odisha the rank order for those parameters has been calculated for the latest period and the earlier period. Which shows the place of Odisha among all 29 states of India.

Table No. 5.10 Rank of Odisha in Different Infrastructural Development, 2015-16		
Parameters	Rank (2007-08)	Rank (2015-16)
Total no. of Govt. School	9	7
Total no. of Private School	13	12
Drinking water facility	15	11
Girls toilet facility	18	22
Boundary facility	10	15
Computer facility	21	22

Parameters	Rank (2009-10)	Rank (2015-16)
Playground facility	27	29
Boys toilet facility	22	25
Electricity	20	23
Source: Calculated by Author		

Figure No. 5.19 Rank of Odisha at different Infrastructural Parameter (2015-16)



The rank of Odisha has been calculated for different parameters as shown in the Table No. 5.10. There is significant improvement in three parameters of infrastructure if we compare the rank of Odisha in 2015-16 with the earliest period namely; Total no. of Govt. School, Total no.

of Private School and Drinking water facility. Remaining parameters showing decreasing rank. States like Goa, Gujarat, Tamilnadu, kerala and so on are performing good in all most all the parameters. The declining rank of Odisha in many infrastructural developments are mainly because of inefficient public expenditure. So, the government needs to be more concern about this issue as those infrastructure developments are the important factors of educational development.

5.3 Conclusion

The analysis of different infrastructural parameter related to education like; total no. govt school, total no. of private school, percentage of school with drinking water facility, percentage of school with playground facility, percentage of school with boys' toilet facility, percentage of school with girls' toilet facility, percentage of school with electricity facility, percentage of school with computer facility, and percentage of school with boundary wall facility concludes that, Odisha is performing well at infrastructural parameters like; drinking water facility, boys' and girls' toilet facility and boundary wall facility. There is a significant development in these four parameters as recorded from the data. But if we talk about playground, electricity and computer facility the state is still lagging far behind if we compare with India and other states. As electricity is the crucial factor for operating computers, the low availability of electricity is obstructing the path of digitalisation. Talking about the number of government and private school, the data shows government schools are losing their enrolment to private schools as the growth rate of private school is more both in case of Odisha and India. So, it is really a matter of concern for the state as well as the central government to look after the government schools, how the enrolment and quality of education can be enhanced, and how students can be facilitated with the availability of electricity, computer and internet which will help with rigorous development in knowledge creation. And these small steps in the sector of education can lead to big achievement in future which will surely beneficial to our nation.