Indian Education System

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Abstract: **India is second largest country in terms of population, but when it comes to education we fall far behind as India's current literacy rate is 74.01%. By year 2020 one-third of Indian population will be between ages 15 years to 35. We require a strong educational infrastructure to increase literacy rate. A systematic review is done in terms of literacy rate, population, present system, infrastructure present.**

Keywords: *Indian education System, Indian literacy, Educational infrastructure, Education Pattern, Education.*

I. INTRODUCTION TO INDIAN EDUCATION SYSTEM

Historically Indian education system was developed to educate the privileged cast boys in order to make them able to read, write and speak. After the British invasion Indian education system has changed, under their rule from 1700 to 1947 they added entrance and advancement in government service with the education system, but due to colonial rule these benefits were still restricted to privileged classes of the society.

In 19th century post primary students were mainly privileged class; because of this they gained special benefits under the British rule. By 20th century many other realized the importance of education in order to acquire power, position and money. Till today majority of student taking education is from privileged class, living in urban areas.

According to census report 2001 India is having largest no of illiterate people in the world, out of every three Indian adult one is illiterate. Also there is a uneven distribution of literacy rate over the states, where few states having literacy rate around 90 percent, few states have literacy rate less than 40 percent.

Another major problem for Indian education system is the use of languages. India has more than 15 major language out of which Hindi is the most spoken Indian language having 30 percent of the speakers. English despite being not an Indian language plays a very important role in Indian education system. Since 1997 English took upward trend in education system.[16]

India contributes second largest of the world's population, after largest share owned by China. Education lays the foundation of every country. More educated people a country have, more developed it is considered. In terms of literacy India stands behind many countries. Following is some world literacy figure in ascending order [2].

According to a census report published in 2016 literacy rate in India is 74.04% in 2011 which makes its rank 30th between Malawi (72.93561) and Mali (49.36653). Despite being the second largest populated country it is not even in the list of top 30 countries in terms of literacy rate. From the above data it is clear that we need to focus on our education Infrastructure.

II. PRIMARY AND SENIOR SECONDARY EDUCATION

As a report published by NCERT Indian education system is divided into four major categories and are as follows[6]
- Primary
- Upper-Primary
- Secondary
- Senior Secondary

A pattern of $5 + 3 + 2 + 2$ is followed. According to a report published by census of India total no of school providing primary education are based on following figure 1. [5]
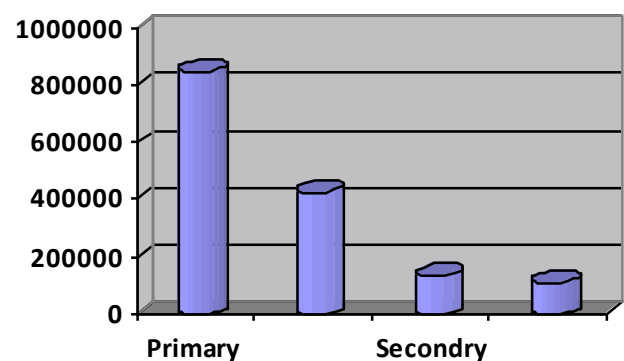

Fig. 1. No of schools in India.

We have in total 15, 16, 865 schools providing education till Senior secondary. Population taking education till senior secondary is based on Fig 2. [2][5]

From the given data total no of students per school can easily be calculated.

TABLE I
Approximation of students per school

Age Group	Students Per school (Approximate)
6 Years-10 Years	155/School
11 Years -13 Years	175/School
14 Years -15 Years	367/School
16 Years -17 Years	409/School

The above prediction is different from the actual scenario since no of schools in every state is different. A significant variation occur while using school data and population state wise. Table 2 shows no of school per state/ union territories
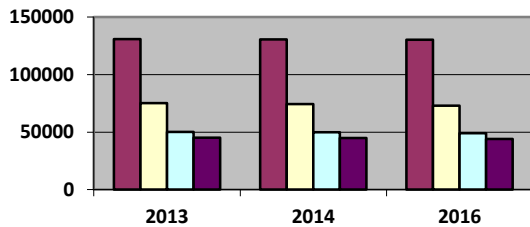

Fig. 2. Students Enrolled year wise.

TABLE II
No of schools per state

S.No.	State/UT	No of Schools
1	Uttar Pradesh	202338
2	Madhya Pradesh	153392
3	Rajasthan	108827
4	Andhra Pradesh	107406
5	Maharashtra	100922
6	Odisha	84824
7	Karnataka	77025
8	Bihar	74832
9	West Bengal	61326
10	Chhattisgarh	56988
11	Gujarat	51357
12	Assam	50795
13	Jharkhand	46937
14	Punjab	30158
15	Jammu & Kashmir	27428
16	Haryana	24448
17	Uttarakhand	23113
18	Himachal Pradesh	17509
19	Meghalaya	13324
20	Kerala	13164
21	Delhi	5067
22	Tripura	4455
23	Tamil Nadu	4433
24	Manipur	4028
25	Mizoram	3894
26	Arunachal Pradesh	3381
27	Nagaland	2720
28	Goa	2157
29	Sikkim	1217
30	Puducherry	714
31	A&N Islands	394
32	D&N Haveli	334
33	Chandigarh	187
34	Daman & Diu	148
35	Lakshadweep	43

Highest no of schools are in Uttar Pradesh, 202338 and lowest no of schools are in Lakshadweep, 73. Despite having lowest no of school, Lakshadweep have second highest literacy rate and Despite having largest number of school, Uttar Pradesh have 29th rank in literacy rate.

The schools in India are governed under school boards. We have total of 32 boards that governs schools. Some boards are Central boards and some are state level boards.

Maximum no of boards for a particular state is 3. This means that for maximum no of school 202338, for Uttar Pradesh is governed by 3 boards only.

III. HIGHER EDUCATION

In order to make a good workforce we need infrastructure for higher education. India is having below average figure for coverage of all the population for higher education. Different types of educational programs offered after 10+2 is diploma, Graduation, Post-Graduation and doctoral. These programs are followed in the above mentioned sequence [4]. Higher education can be provided by Universities. Table 3 shows different types of universities available in India[4].

TABLE III
Type of Universities

S.No.	Type of University	Total No
1	State Public University	329
2	State Private University	197
3	Deemed University-Private	79
4	Institute of National Importance	75
5	Central University	43
6	Deemed University-Government	32
7	Others	13
8	State Open University	13
9	Deemed University-Government Aided	11
10	Institute under State Legislature Act	5
11	Central Open University	1
12	State Private Open University	1

We have total 799 universities offering higher education in India. Table 4 represents universities based on specialization and Table 5 shows university available state wise in descending order [4].

TABLE IV
Specialization offered by universities

S.No.	Specialization	Total No
1	General	459
2	Technical	101
3	Medical	50
4	Agriculture	48
5	Others	43
6	Law	20
7	Veterinary	13
8	Sanskrit	11
9	Language	7
10	Fine Arts	6
11	Sports/Yoga/Physical Education	4
12	Fisheries	3
13	Journalism & Mass Communication	3
14	Oriental Learning	2
15	Rural Development	2
16	Cultural Studies	1
17	Gandhian/Religious Studies	1

TABLE V
No of universities state wise

S.No.	State	No. of Universities
1	Rajasthan	70
2	Uttar Pradesh	67
3	Tamil Nadu	58
4	Gujarat	57
5	Karnataka	52
6	Maharashtra	45
7	Madhya Pradesh	43
8	Haryana	39
9	West Bengal	34
10	Andhra Pradesh	28
11	Uttrakhand	28
12	Delhi	26
13	Punjab	26
14	Himachal Pradesh	25
15	Bihar	22
16	Chhatisgarh	22
17	Assam	21
18	Odisha	21
19	Telangana	21
20	Kerala	20
21	Jharkhand	14
22	Jammu and Kashmir	11
23	Meghalaya	10
24	Arunachal Pradesh	9
25	Sikkim	7
26	Manipur	4
27	Nagaland	4
28	Puducherry	4
29	Chandigarh	3
30	Mizoram	3
31	Tripura	3
32	Goa	2

Highest no of university is 70, present in Rajasthan In UTs of , Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu and Lakshadweep, there are no Universities. Table 6 shows some other institutes other than universities providing higher education over 10+2 (Diploma can be opted after 10) [4].

TABLE VI
Type of colleges

College		38498
Stand Alone Institution	Diploma Level Technical	3845
	PGDM	431
	Diploma Level Nursing	3114
	Diploma Level Teacher Training	4730
	Institute under Ministries	156
	Total	12276

According to census report 2015-16 state wise population seeking higher education is as follows [4].

TABLE VII
No of student in higher education state wise

S.No	State	Population
1	Uttar Pradesh	23718331
2	Maharashtra	13471405
3	West Bengal	10971915
4	Bihar	10428356
5	Andhra Pradesh	10028047
6	Madhya Pradesh	8548106
7	Rajasthan	8267588
8	Tamil Nadu	7766109
9	Karnataka	7401674
10	Gujarat	7115040
11	Odisha	4714554
12	Assam	3629694
13	Jharkhand	3595218
14	Punjab	3422021
15	Haryana	3183982
16	Kerala	3168979
17	Chhatisgarh	2997058
18	Delhi	2118969
19	Jammu and Kashmir	1429023
20	Uttrakhand	1247756
21	Himachal Pradesh	781296
22	Tripura	449750
23	Meghalaya	353135
24	Manipur	298162

25	Nagaland	253903
26	Arunachal Pradesh	166185
27	Goa	154587
28	Chandigarh	145057
29	Mizoram	133891
30	Puducherry	129941
31	Sikkim	80666
32	Dadra & Nagar Haveli	51337
33	Daman & Diu	45963
34	Andaman & Nicobar	42624
35	Lakshadweep	6747

Infrastructure available is not sufficient to cover all the population for higher education.

IV.   INFRASTRUCTURE IN TERMS OF TEACHERS

Teacher plays most important role in a student's life. Without teacher it is impossible for a student to achieve their goals. It is impossible to neglect the role of a teacher in education system. We can use various tools that can assist learning, but classroom learning cannot be replaced. Following data is based on report provided by National University of Educational Planning & Administration [13].

Fig. 3. No of Teachers.

Figure 3 shows the appointed teachers in 2014-15. Also the student teacher ratio from the data provided[13] is shown in fig 4.

Fig. 4. student teacher ratio.

According to Bye laws of CBSE [9] student-teacher ratio should not exceed 30:1. But in case of senior secondary this ratio is not satisfactory. A report was published my MHRD in February 2017 stating ratio for elementary level is 24:1 and secondary level is 27:1

For higher education the Pupil Teacher Ratio Universities and Colleges combine is 25.6. if we include Stand Alone Institutions ratio becomes 24.0.

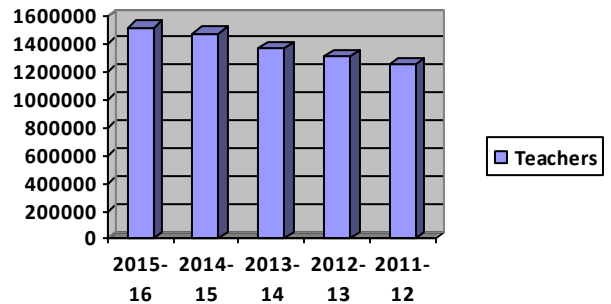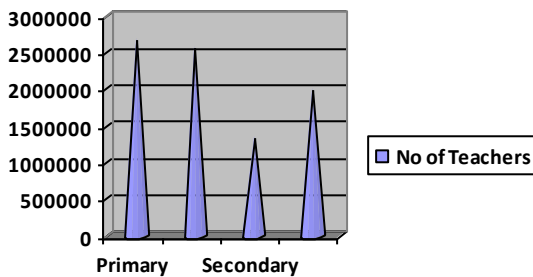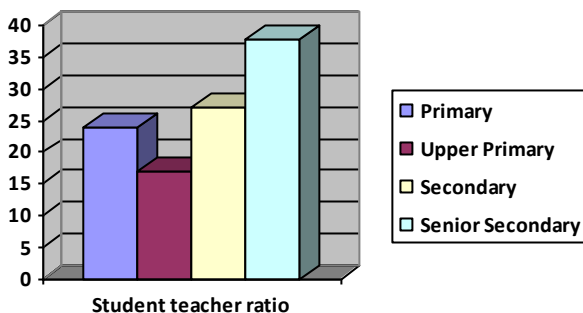Figure 5 shows no. of teacher from 2011 to 2016 [4].

Fig. 5. No of teachers year wise.

Table 8 shows number of teachers in higher education state wise for the year 2011 [4].

TABLE VIII
No of Teacher state wise

S.No.	State	Number of Teachers
1	Tamil Nadu	168959
2	Andhra Pradesh	163906
3	Maharashtra	153467
4	Uttar Pradesh	129967
5	Karnataka	121542
6	Telangana	83213
7	Rajasthan	58066
8	Madhya Pradesh	58019
9	Kerala	44565
10	Gujarat	43831
11	West Bengal	41160
12	Punjab	41011
13	Haryana	40872
14	Odisha	36430
15	Bihar	28412
16	Assam	21948
17	Delhi	17044
18	Chhatisgarh	15073
19	Uttrakhand	12441
20	Jammu and Kashmir	8593
21	Himachal Pradesh	8231
22	Jharkhand	8134
23	Puducherry	5629
24	Manipur	4799
25	Meghalaya	3091
26	Chandigarh	2419

27	Goa	2094
28	Tripura	2063
29	Nagaland	1704
30	Mizoram	1408
31	Sikkim	1163
32	Arunachal Pradesh	898
33	Andaman & Nicobar Islands	168
34	Daman & Diu	163
35	Dadra & Nagar Haveli	124
36	Lakshadweep	59

Highest number of teacher is in Tamil Nadu with 168959 and lowest number of teachers is in Lakshadweep 59 teachers.

V.   CONCLUSION

Education wise India stands at 30th position in the world with literacy rate 74.04 (Highest 93.91 and lowest 63.82) Most populated state is Uttar Pradesh having highest no of schools and universities but its literacy rate is 69.72. Least populated is Lakshadweep but have second highest literacy rate with lowest no of schools and no University.

Further many scholarship schemes by central government UGC etc. are there to promote education but very few are there to promote educational infrastructure.

Having the large Infrastructure is not sufficient, but having the proportionate Infrastructure is required. Educational Infrastructure and other modes of education are required according to population of states/UT, in order to improve literacy rate of India. We also need schemes to promote educational Infrastructure.

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