Quality Primary Education and the Role of Teachers – A study of the scheduled and non-scheduled Area Districts of select States

Executive Summary

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The Backdrop

1.1.The edifice on which nation's future stand is primary /elementary education. It is the very foundation of higher learning and effective participation in vocations and professions in life. The quality of primary/elementary education significantly influences the future learning and life coping abilities of students. The quality of primary / elementary education depends on: (i) the quality of infrastructure, (ii)the quality of teaching and learning material,(iii) the quality of teachers, (iv) the quality of students and ,(v) the process of teaching and learning –that includes methodology, approach and working for expected outcome. The expected outcome depends on: clearly defined expectations in terms of outcome-based education to inculcate and develop identified abilities among students..

1.2 A highly economically, socially and geographically diversified and segmented nation-state requires specific intervention by the state to address the issues of diversification and segmentation. These issues demand different level and depth of state intervention to reach out to students and engage them in outcome-based quality primary /elementary education.

1.3 The understanding of economically, socially and geographically diversified and segmented society requires study of historical and contemporary forces and policy which have to bear on these issues of diversification and segmentation, partly or fully. Historical forces, particularly in the context of education of people in India, have the long background-ranging from the Vedic period to present days. The Vedic period had developed its own language – the Sanskrit and had vast experience and literature on each of the sectors of society and aspects of a life of people. This had the influence on agriculture, architecture, human and animal health, a system of governance and war machinery. The education is a continuum, besides it being imparted through institutions of education, is also passed on to young and old in homes and in social groups orally and in written form. How new forces, particularly during the last 1000 years, have negotiated with past and shaped the present system of education of people has, therefore, to be kept in view while addressing the issues of diversification and segmentation.

1.4 The present day India has the deep influence of past. The past way of life and glory is etched in conscious or not so conscious mind that is passed on to people from generations to generations at home or in the social group or in literature. It has navigated and is navigating through several disruptions often imposed by a power that be in the governance and some time compelled by new energy and from 1st to 3rd industrial revolutions. It is

presently biding to make its place in yet another disruption likely to take place owing to emerging fourth Industrial Revolution.

1.5 A vast majority of the population, particularly in the rural setting, which has not, by and large, yet benefited from 1-3 industrial revolutions, is finding difficult to clearly see the advantage of British given modern education, as it does not offer them solutions to their problems of living and life. It does give some hope that modern education will help them to secure jobs in governance, services, and industries, but they soon get disappointed that not all are able to occupy positions of power or economic wellbeing and the economy does not absorb them productively. Hence they take this education under some pressure, without really owning and aspiring to it.

1.6 The quality of primary education and role of teachers particularly in the stated backward of geographic, economic and social segmentation namely, Scheduled areas and Non- Scheduled area with a large proportion of people from tribes of India is studied on the basis of empirical data of schooling, the role of teachers and the outcome education

2.1Research Questions:

The following research questions are attempted to address::

(i) What are the policies and programmes with regard to the primary education in general and schools in scheduled Areas in particular?

(ii) What are the factors associated with quality primary education in Scheduled areas?

(iii) What are the problems faced by primary school teachers in Scheduled vis-à-vis non scheduled areas?

(iv) What is the role of the teachers in ensuring good quality primary education in Scheduled areas?

(v) Why non-scheduled area districts outperform Scheduled Area districts in many indicators of education?

(vi) How far school-community Linkages play role in ensuring quality education in Scheduled areas

2,2 On the basis of the above broad research questions, the following research objectives are designed for investigation:

(a) To review the policies and programmes on primary education in Scheduled and non-Scheduled areas:

(b) To ascertain the factors associated with quality primary education in Scheduled areas:

3.1 Research Design and Sampling:

3.1.1 Research design and methodology of sampling has been specified and listed the sample of schools within a block, district, and state. It has taken a sample of 168 schools based on random sampling method with the distribution of schools in scheduled and non-scheduled areas in six states of India as per sampling frame given belowl

3.1.2 Method of collection of data/information is clearly spelt out and the process of data processing is specified. It developed relevant instruments for data collection of schools, Teachers. SMCs, PTAs and Village Education Committees.

3.1.3 A new method of assessment of the outcome of learning is developed by spelling out the expected abilities in languages and mathematics from the students at V^{th} standard in Primary Education.

3.1.4 An innovative method of assessment of outcome-based question paper and their assessment has been attempted under this methodology. In languages, seven abilities are specified and a question paper for students was accordingly developed for Hindi/Regional Languages and in the English Language. In mathematics, 10 abilities were specified and a question paper for students was accordingly developed to test these abilities.

The abilities specified for languages namely, Hindi /Regional Languages and English Language are as follows:

Ability: -1 Observe and Write.
Ability: -2 Apply learning through writing a letter.
Ability:-3 Understand, experience and express.
Ability:-4 Read, understand and respond.
Ability:-5 Recall and write.
Ability: 6 Discern and change gender and write opposite objects.
Ability:7 Reasoning through making the relation between two things or objects.

Abilities tested in Mathematics are as follows:

Ability:-1 Addition, with simple to complex ,2- 4 Digits,2-3 rows & Decimals addition .
Ability: -2 Subtraction, simple to complex,2-4 digits.
Ability:-3 Multiplication, Simple to complex, single to double digits.
Ability: -4 Division, simple to complex, 2-4 digits.
Ability:-5 Addition with reasoning.
Ability:-6 Appling the formula (BODMAS) {Bracket of Division Multiplication Addition Subtraction}
Ability:-7 identify the forms/ Shapes.
Ability:-8 Application of maths in daily life.
Ability:-9 Convert words in digits.
Ability:-10 Arrangements of digits in ascending order and descending order

4.1 Sampling: With a view to study quality primary Education in Tribal Sub Plan areas and comparing it with Non – Sub plan areas in the six states namely, Gujarat, Madhya Pradesh, Rajasthan, Orissa, Himachal Pradesh and Telengana , a sample of predominantly tribal school children in 1-5 standards, first sample of districts and block with highest proportion of tribal population was drawn and followed by this schools with highest enrolment of tribal population were randomly selected following stratified random sampling method. The method adopted is described as follows:

4.1.1 Sampling Frame:

The following sampling frame and method of selection of were used:

4.1.2 Selection of Districts:

Two Districts were selected, one Scheduled Area District and another one from Non-Scheduled area district from each State.

4.1.3 Criteria:

1. Scheduled Area District (as defined in the Constitution) for each State. It was appropriate to select a district which is fully declared as a Scheduled Area District. A Scheduled Area District having more than 80% of the tribal population are avoided.
2 .A Non-Scheduled Area district is identified on the basis of tribal population in the district. That is the percentage of tribal population in the district is not more than the average State tribal population

4.1.4 Selection of Block:

Two Blocks were selected from each District.

4.1.5 Criteria:

1, The tribal Population in the Block was the criteria for selection of Blocks. All the Blocks in the District were put into order (either ascending/descending) and Quartile 1 and Quartile 3 Block is selected. This ensures the heterogeneous characteristics of the District

4.1.6 Selection of Schools:

Schools are selected from the selected Blocks. From each Block 4 schools are selected for this study. Tribal student enrolment was the basis of selecting schools. All the schools in the Block are put into ascending order and two upper schools (having higher tribal enrolment) and two lower schools (having lower tribal enrolment) are selected. The same criteria is followed for Non-Scheduled District Block as well.

Sample schools of six states and within states 12 districts and 24 blocks and schools covered were as follows:

4.1.7 Sample state, scheduled and non-scheduled districts and blocks, sample schools, teachers and students.

Sl.No.	*(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Gujarat	Dangs	Ahwa	6	6	134	27	24
2			Subir	6	6	147	24	24
3		Surat	Kamrej	4	4	118	20	16
4			Mahuva	5	5	142	21	20
5	H.P.	Kinnaur	Kalpa	4	4	52	25	16
6			Pooh	1	1	12	3	4
7		Kangra	Rakkar	4	4	60	12	16
8			Rait	4	4	68	12	16
9	M.P.		Meghnagar	11	11	220	26	44
10			Petlawad	17	17	283	38	68
11		Dewas	Sonkatch	6	6	113	27	26
12			Kannod	13	13	266	35	52
13	Odisha	Korapur	Jeypore	6	6	114	32	24
14			Laxmipur	4	4	75	12	16
15		Angul	Athamallik	4	4	63	17	16
16			Banarpal	6	6	142	41	26
17	Rajasthan	Banswara	Anandpuri	11	11	235	29	44
18			Talwara	18	18	312	49	72
19		Jodhpur	Baori	5	5	99	15	20
20			Luni	11	11	276	33	44
21	Telengana	Adilabad	Tanoor	4	4	99	14	16
22			Mamda	4	4	73	13	16
23		Medak	Siddipet	5	5	89	15	20
24			Kondapoor	4	4	61	23	16
			Total	**163**	**163**	**3253**	**563**	**656**

*Column- 1-Name of the State, 2-Name of the District, 3-Name of the Block, 4-Number of Sample School, 5-Number of School DCF, 6-Number of Student to administered the Test(All students of Grade-V), 7-Number of Teacher DCF(All teachers teaching Grade 1-V), 8-Number of DCF for Management @ 4 per school

4.1.8 Sample Coverage: It is found that random sampling method has selected schools in vide and deeper areas in scheduled and non-scheduled districts of sample states. Some of the schools were, besides located far from the district were almost unapproachable by motorable roads. Hence researcher had to walk. In Himachal Pradesh due to heavy rains and landsides researcher had to stay put overnight in the school premises. However, the experience of visiting, seeing and interacting with the Head Teachers, Teachers and Students was very educative of the situation and difficult conditions in which education processes are taking place in our country.

5.1 Profile of Sample Villages

With a view to understand ecosystem of schools analysis of villages of sample school was attempted on the following parameters:

(1)Population Size, (2) Infrastructure,(3) Education Ambiance and ,(4) Economic ambiance.

5.1.1The analysis revealed that: population size, infrastructure, educational and economic profiles of villages of sample schools in scheduled areas present a relatively weak profile as compared to sample schools in non-scheduled areas. However overall profile of villages in sample school is weak as it lacks basic infrastructure like pipe drinking water, all-weather roads, electricity and primary health centres in many villages. It also presents relatively very weak educational ambiance except for Anganawadis. Economic profile in terms of industry and banking is very weak in villages of sample schools.

In this background analysis of quality primary schools, the role of teachers and outcome of learning has been attempted.

6.1 Quality of Sample Schools:

The quality of sample schools has been analyzed from the point of seven parameters.

6.1.1 These parameters include: (1)) General ambiance of schools. (2)Quality of infrastructures: (3) Quality of Educational Resources (4) Educational Material and Processes: (5) Incentives to Students: (6) Educational Management. (7) Students' Enrolment and pass out. Results of analysis of each of these parameters and their sub-parameters have also been summed up under each of these parameters. Findings of these parameters in brief are:

6.1.2 Of the seven parameters, Ambience, Infrastructure of schools – being the basic requirement are in general weak and relatively more weak in schools of scheduled areas. Human Resources and teaching material present a satisfactory situation in schools both in scheduled and non-scheduled areas. Incentive schemes and SSA initiatives, Management of Schools seem to have positively influenced the quality of schools and has positively impacted the enrolment and progress of students given the policy of automatic promotion up to the Primary and Elementary level of schooling. Incentive schemes involvement of SMC, PTA, and VEC seem to have attracted students back to schools, even if they are

dropped out for short period, as revealed from the ratio of students in third and fifth standards is higher than the previous class.

7.1 Role of Teachers in improving quality of Primary Education: This aspect is examined by using five parameters and their relevant sub-parameters. These five parameters are: (1) Education, Social Background and aptitude of Teachers with 13 sub-parameters, (2) Teaching Learning Material and Library Resources and Their Use with their four sub parameters with their sub-sub parameters, (3) Teaching learning process with 16 sub parameters with their sub-sub parameters, (4) Role of Teachers in New Initiatives and Policy Intervention with its four sub-parameters and their sub-sub parameters, (5) Job Satisfaction and Time Spent on other than teaching learning process with its seven sub-parameters and its sub-sub parameters In brief analysis of these parameters reveal the following:

7.1.1 The profile of teachers in terms of: age group, Gender, Social Background, Educational and professional qualification, Years of experience of teaching, years of stay in the same school, regularity of appointment, reading aptitude show a comparable position between teachers in schools of scheduled and non-scheduled areas. However, the proportion of ST teachers, Education Diploma holders, years of stay in school, are relatively higher for teachers in schools of scheduled areas. All of them have a good aptitude for reading in schools both in scheduled and non-scheduled areas. Relatively higher proportion of teachers read newspapers in schools of non-scheduled areas, whereas higher proportion of teachers in schools of scheduled areas read school related textbooks and books for doing activities in schools and story and novel

7.1.2. Teaching material was received by the majority of sample schools in scheduled and non-scheduled areas. However, nearly 40 percent and 28 percent schools respectively in scheduled and non-scheduled areas did not receive teaching material. Most of the students in scheduled as well non-scheduled areas use library books. Most of the students in schools of scheduled and non- scheduled areas use reading books. Very small proportion say less 10 percent said books are used for doing activities. The very small proportion of students takes books to their home for reading. Thus the proportion of school not receiving teaching material was substantial in schools of scheduled areas which probably need them most. Similarly, a new initiative to use books for activities does not seem to have picked up in schools both in scheduled and non-scheduled areas.

7.1.3. **Class Size** is higher in schools of scheduled areas as compared to schools in non-scheduled areas. Teachers on average spent 6-7 hours in teaching. Majority of teachers adopt routine classroom activities of teaching, Most of the teachers' allocated separate time and classroom period for developing writing and computational skills among students. Remedial teaching is done by more than half of the teachers in schools scheduled areas and more than 75 percent of teachers in schools of non-scheduled areas are engaged in remedial teaching to remove learning deficiencies. On average 5-6 hours in a week are spent by teachers on remedial teaching. The approach adopted in remedial teaching is

improving reading and writing skills among students. The very small proportion of teachers engaged in problem solving and storytelling. Special care seems to have been taken by teachers to relate to tribal culture and environment in schools of scheduled areas. Teachers said the tribal students take part in the discussion and show interest in education. They also said contents of textbooks reflect the tribal culture and they give examples of tribal culture in their teaching. With regard to reasons for tribal students dropping out of studies, teachers said that students are engaged in economic activities, household work and lack of interest among parents. They said on average tribal child spend 14 to 20 hours a week **7.1.4 With regard to the role of teachers in the implementation of policy initiatives**, the analysis revealed that more than half of the teachers in schools of scheduled and non-scheduled areas said that they are not using MLE books in their classrooms. The very small proportion of teachers also said the MLE books are useful. Most of the teachers in schools both in scheduled and non-scheduled areas said they have not received MLE books. Nearly half of the teachers are aware of Continuous Comprehensive Evaluation. Nearly one fourth said they are not aware of CCE another one fourth did not respond to this question. There is some ambiguity among teachers about the CCE in schools both in scheduled and non-scheduled areas. More than half of the teachers in schools both in the scheduled and non-scheduled area did not respond to the question of no detention policy. Similarly, a large proportion did not respond to the policy of class-appropriate level of learning. Thus reforms and new policy initiatives have not made much impact on teachers and implementation seems to poor in schools of both scheduled and non-scheduled areas.

7.1.5. Job Satisfaction and Time Spent on other than teaching activities reveal that A teachers are satisfied with their jobs, and they are happy with what they get as salary. They spent time on Mid Day Meal, Administrative and election duties. There is little political and social interference in their work. However, about 17 percent of teachers in schools of scheduled areas and about 9 percent teachers in non-scheduled areas were not satisfied with their jobs. Thus working and service conditions of teachers was satisfactory to most of the teachers in scheduled and non-scheduled areas. Some additional support is needed in schools of scheduled areas to make most of the teachers happy

8.1 Abilities of Students in schools of scheduled and non-scheduled areas-A test conducted on students of Vth standard in sample schools.

8.1.1 A test of seven languages abilities and 10 mathematics abilities conducted on the students of Vth standard in the sample schools in the sample states. The test of abilities was conducted through question paper designed to test the languages namely, Hindi/Regional Language and English and Mathematics. The answer sheets were examined from the point of view of the ability to do a question fully correct and marks obtained by the students even partially correct and fully correct.

8.2 Result of Abilities studies were as follows:

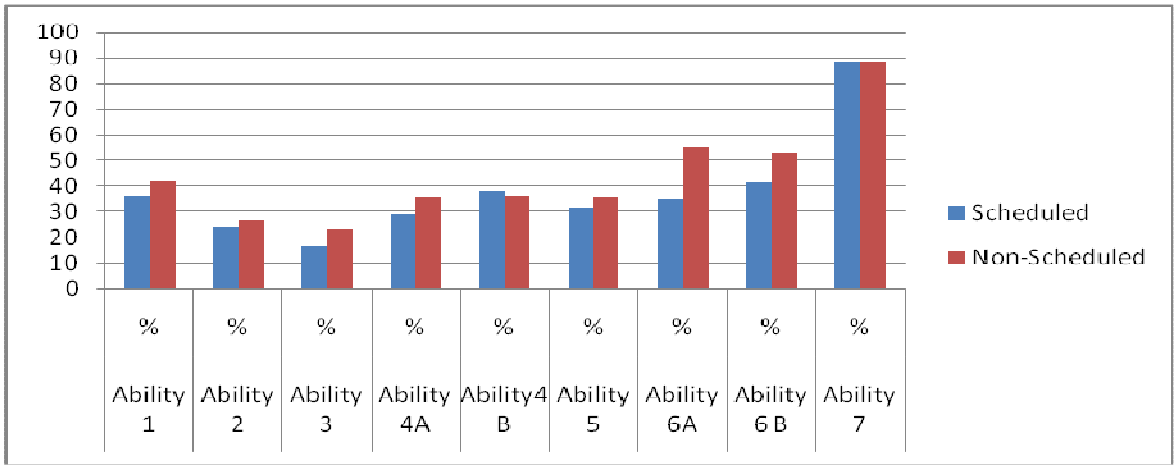
8.2.1 Abilities in Hindi/Regional Languages:

- Ability:-1 Observe and Write.
- Ability:-2 Understand, experience and express.
- Ability:-3 Apply Learning through writing a letter.
- Ability:-4 Read, understand and respond.
- Ability:-5 Recall and write.
- Ability:-6 Discern and change gender and write opposite
- Ability:-7 Reasoning through making the relation between two things or Objects

7 Abilities position in students in scheduled and non –scheduled districts of sample states

8.2.3 A comparative picture of the performance of students on all the seven abilities in language test for students in scheduled and non-scheduled areas shows that the highest performance was for 7th ability i.e. Reasoning through making the relation between two things or objects as a large proportion of students in schools of scheduled and non-scheduled areas did better. Performance of students in schools of scheduled and non-scheduled areas is comparable. Performance of students on other abilities is broadly comparable among students both in schools of scheduled and non –scheduled areas, but performance of students in scheduled areas was relatively poor except for second part of ability 4.

8.2.4 Graph depicting abilities of students in Hindi/Regional Languages in Scheduled non-scheduled areas

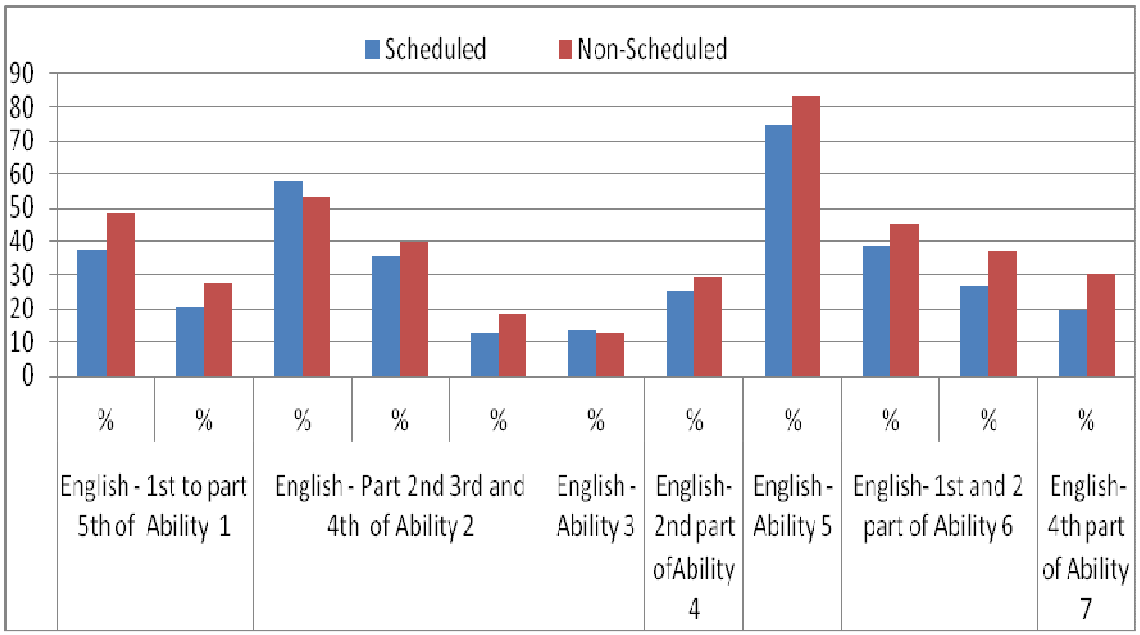


9.1 Abilities in English Language

- **Ability-1 Observe and Write.**
- **Ability:-2 Understand, experience and express**
- **Ability -3 Apply Learning through writing a letter.**
- **Ability -4 Change the Gender and write opposite.**
- **Ability:-5 Reasoning through making relation between two things or objects**
- **Ability-6 Read, understand and answer question**
- **Ability:-7 Recall from memory and write four lines of poems/idiom – order of questions in English is different from Hindi / Regional Language**

9.1.1 A comparative analysis of seven English Language abilities among students of schools of scheduled and non-scheduled areas show that English language abilities among students of schools in scheduled areas is relatively less as compared to students of schools in non-scheduled areas in most of the abilities, except for the fist part of the ability 2 where students of schools in scheduled areas performed relatively better. In general students in schools of scheduled and non –scheduled areas performed poorly, where they were required to show language abilities in terms of writing the languages such as abilities No. 1, 3, 7 where students were required to write

9.1.2. Graph Showing abilities of students in English Language in sample schools in scheduled and non-scheduled areas



10.1Mathematics in the terms of the following 10 abilities

- Ability- 1 Addition , with simple to complex ,2- 4 Digits,2-3 rows & Decimals Addition.
- Ability: -2 Subtraction, dimple to complex,2-4 digits.
- Ability:-3 Multiplication, Simple to complex, single to double digits.
- Ability:-4 Division, simple to complex, 2-4 digits.
- Ability:-5 Addition with reasoning.
- Ability:-6 Appling the formula (BODMAS)
- Ability:-7 Identification of Shapes.
- Ability:-8 Application of maths in daily life.
- Ability:-9 Convert words in digits.
- Ability:-10 Arrangements of digits in ascending order and descending order

10.1.1 Comprehensive pictures of abilities of students in schools of scheduled and non-scheduled areas on 10 abilities with their respective parts reveal that the ability to add decreases when sum in addition become simple to complex. All most all the students in schools of scheduled and non –scheduled areas are able to do two-digit simple additions. But three digits and three-row addition is done by nearly 79 and 84 percent of students respectively in schools of scheduled and non –scheduled areas. Decimal addition is correctly done by 69 and 79 percent of students respectively in schools of scheduled and non-scheduled areas.

10.1.2 Ability to do subtraction was relatively less among the students both in schools of scheduled and non-scheduled areas. Here two digits carry over subtraction and three digits subtraction was done correctly by 74 and 83, and 85, 91 and 62 and 65 percent of students respectively in schools of scheduled and non-scheduled areas. Only 6o and 73 percent of students were able to do the decimal sum of subtraction.

10.1.3 Ability to do multiplication sum also declined from simple to complex multiplication sum. 89 and 96 percent of students respectively in schools of the scheduled and non-scheduled area were able to do simple one digit with two digits. However, only 74 and 82 percent of students could do one digit multiplication with three digits. Only 28 and 43 percent of students respectively in schools of scheduled and non –scheduled areas could do two-digit multiplications with three digits. And only 19 and 20 percent students respectively in schools of scheduled and non-scheduled areas could do little difficult two digit multiplication with four digits.

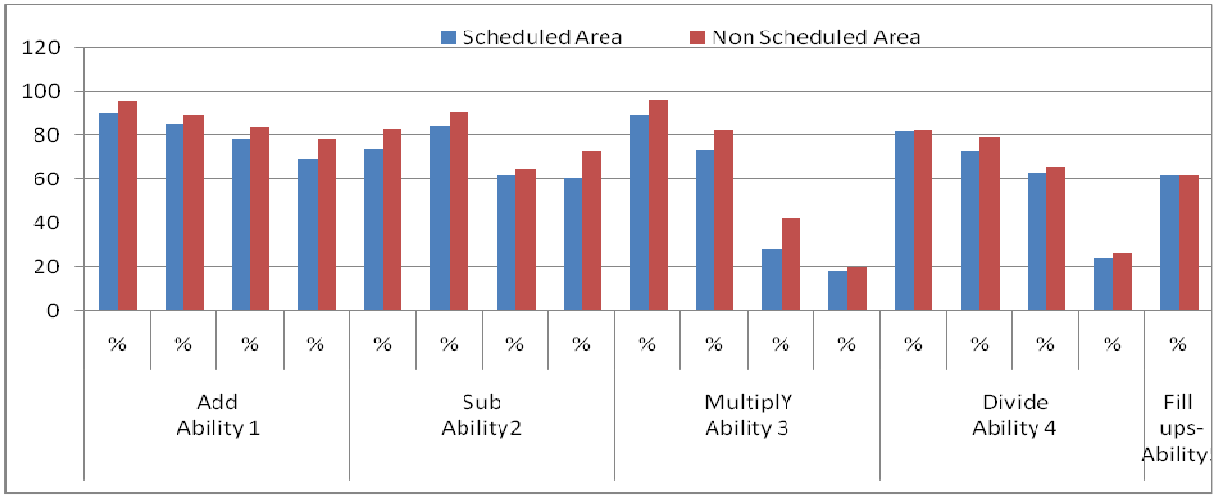
10.1.4 Performance of students in schools of scheduled and non-scheduled areas with regard to division sums was similar to that of multiplication. 82 percent of students in

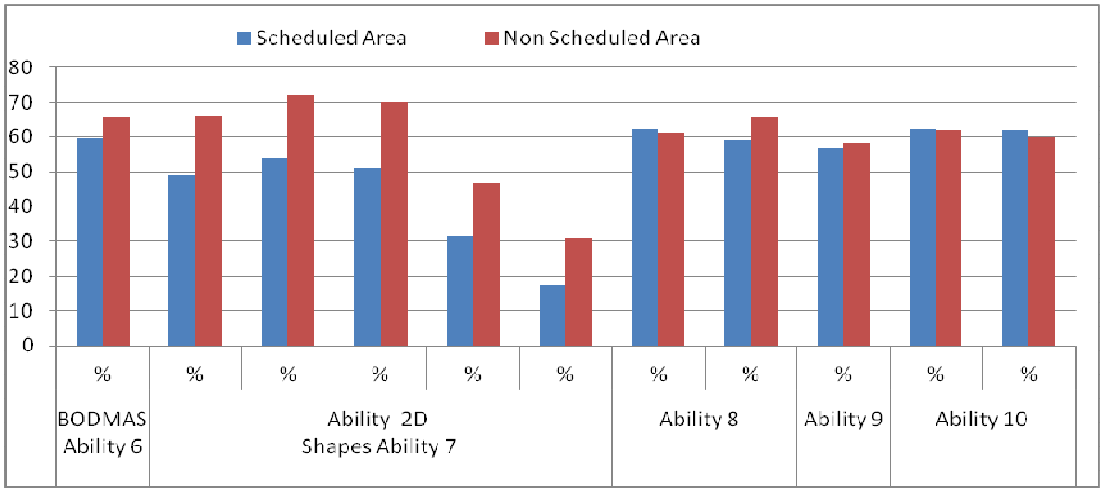
schools of scheduled and non –scheduled areas could do two-digit division with one digit. That 73 and 79 and 63 and 65 percent of students respectively in the school of scheduled and Non-Scheduled areas could do little more difficult division sum. Only 24 and 26 percent of students respectively in schools of scheduled and non-scheduled areas could do two-digit division with four digits. Thus the ability to do simple to complex/difficult sums declines as the difficulty level increases. Performance of students in schools of scheduled areas is slightly less than the students of schools in non-scheduled areas.

10.1.5 Thus it calls for specific attention and new methodology to teach maths subjects of simple addition, subtraction,, multiplication and division.

10.1.6 The ability to do addition with reasoning was found in 62 and nearly 62 percent of students in schools of scheduled and non- scheduled areas. Ability to apply BODMA rule was found among 59 and nearly 66 percent of students respectively in scheduled and non-scheduled areas. That ability to recognize shapes was found in good proportion of students, except for shapes namely Pentagon and Hexagon, here only 31 and nearly 47 percent students respectively in schools of scheduled and non-scheduled areas could recognize these shapes and write their names. Abilities to apply maths in real life situations like, conversion of some amount through particular denomination of note, finding a number of grams in half a kilograms and a number of zeros in a lakh sum as also putting figures in descanting and ascending order was found in a good proportion of students. The proportion of students correctly responding to these three abilities ranged from 55 to nearly 66 percent of students respectively in schools of scheduled and non-scheduled areas.

10.1.7 Graph showing abilities of students in Mathematics in schools of scheduled and non-scheduled areas





11.1 Comprehensive analysis of the performance of students both in terms of abilities and average marks obtained by students in sample schools in sample states reveal that:

11.1.1 Performance of students among all the three subjects namely, Hindi/Regional languages, English and Maths performance of students is relatively better in Mathematics, a proportion of students having set of Maths abilities is higher than the proportion of students having abilities in languages. Within languages abilities performance of students in key language abilities namely, observe and write, express about relations and write four lines of poems or idiom was relatively less as a less proportion of students in all sample states showed these abilities as compared to abilities namely, change the gender of words and write opposite of objects and match the objects and answer the question from passage which required less language competencies. Match objects required least language competency and here a very high proportion of students showed this ability. Similarly, in Maths subject the proportion of students who are able to do multiplication and division sums was relatively less as compared to the proportion of students who were able to do addition and subtraction. The proportion of students who are able to recognize and write the name of Pentagon and Hexagon shapes were also relatively less.

11.1.2 It is also revealed that average marks of students in Maths were relatively higher as compared to average marks in Hindi/Regional languages and English. Average marks in Hindi /Regional Languages is higher than the average marks of students in the English language among students of sample states in India.

11.1.3 Performance of students in schools of scheduled and non –scheduled areas was comparable, but slightly low among students of scheduled areas as compared to students in schools of non-scheduled areas.

11.1.4 Performance of Students of sample schools in Telangana and Odisha was better than students of sample schools in Gujarat, Madhya Pradesh and Rajasthan both in terms of the proportion of students having set of abilities and average marks in all the three subjects. Performance of students in sample schools of Himachal Pradesh was better in languages, but relatively less in Maths both in terms of a set of abilities and average marks in three subjects.

11.1.5 On average only 40 percent of students have acquired language competencies in Hindi/Regional languages

11.1.6 On average less than one-fourth students have acquired competencies /abilities in the English language

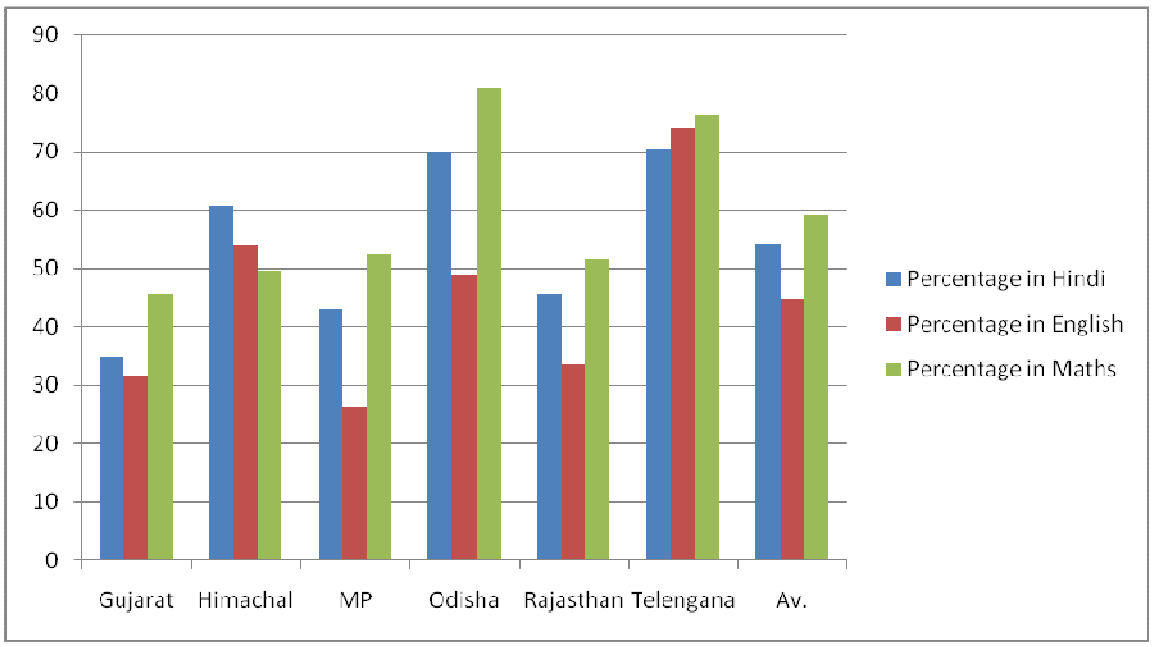
11.1.7 On average more than 50 percent of students have acquired maths abilities.

11.1.8 In terms marks on average students of schools in scheduled and non-scheduled areas blocks were comparable in Hindi/Regional Language and English language, but in Maths it was slightly higher for students of schools of non-scheduled area **blocks.**

11.1.9 Similarly, the performance of students in schools of scheduled and non-scheduled area **districts** was comparable, but for slightly higher marks in Hindi/ Regional language for students of schools in non-scheduled areas. Whereas, average marks for students in schools of scheduled areas was slightly higher in English and Maths as compared to students in schools of non-scheduled areas districts.

12.1 Key findings –comprehensive Analysis –conventional method

Position of percentage marks obtained by students of sample schools in sample states:



12.1.2 On average, Students scored 54.1 marks for Hindi /Regional languages and 44-6 percent marks in English language and 59.3 percent marks in Maths in sample schools of sample **states of India.**

12.1.3Students in sample schools of Gujarat, Madhya Pradesh, and Rajasthan scored less than average marks in all the three subjects among the sample states. The lowest marks were scored by students of sample schools in Gujarat and the highest marks were scored by students of sample schools in Telangana in all the three subjects, except for maths. In this subject students of sample schools of Odisha scored the highest marks.

12.1.4The analysis of achievement test revealed that overall quality of primary schools in the scheduled and non-scheduled areas in the sample states required to be upgraded as the system has not achieved a level of quality primary education in terms of proportion of students acquiring required abilities in languages and Maths as also average marks obtained by students in all the three subjects was low as compared to best performance of students of sample schools of sample state namely, Telangana with average 70,74 and 76 percent of marks respectively in these three subjects within the in sample states.

13.1Policy Recommendations:

13.1.1 **Revisit Model of Education:** The Model of Education: In a larger context and on wider canvas there is need to re-examine the model of education adopted by us after India become free. There was a model of education that was evolved along the development of India. This model got disrupted twice i.e. after Khilzi' Invasion and setting of Mogul rule and the second time it got disrupted during British rule.

13.1.2 Education is a continuum through generations and is imparted through family, folklores, through people educated through an oriental system of education. It has to negotiate with various disruptions and while doing so the vestiges of past keep lingering in minds of people. This lingering creates duality in the process of learning. This duality does not allow the minds of people to fully accept the new changes.

13.1.3 The other aspect is that during British Rule purpose of educating people was to help the colonial masters in governance including Law and Order and External invasion and was much less rooted in the development of people and society. Hence, education became the method of alienating persons from home and hearth. This process was questioned by parents who are mainly engaged in agriculture and local services. They did not appreciate the model of education as it did not help them in their processes of production, distribution, and services at the local level.

13.1.4 After independence, there was an opportunity to overhaul the system of education to suit the local needs and their development. But the model of education and system of governance and those persons engaged in governance (as saw an advantage in the English education system) continued with the same model with little modification here and there,

particularly in contents, processes, and system of evaluation. This was done by ignoring the advice of Father of Nation –Mahatma Gandhi and his concept of Basic Education. As a result of today even after 70 years of independence, the mass participation in education as a source of development from Primary to higher education is a big problem. Time and again the same issues keep recurring and time and again answers are being sought through the same model, with some success and some failures, without reaching to the intended goal of education as a source of development of people and society.

13.1.5 There is a great tug of war between modern (1-3) industrial revolution based education which trains human resources to serve the industrial revolution and the type of education that is needed to develop local resources and people. As the industrial revolution has not taken place in India to engage large masses in economic activities, they continue to be engaged in old vocations and professions or remain unengaged. Hence, unemployment, lack of development and poverty in the large part of society and islands of modern development in the form of metros and some cities engaging some of them and a large proportion of educated workforce is compelled to migrate to other countries to serve them, as education being received by the people in India is linked to their needs and within our country it is more linked to governance, law, and order and external security, which in fact are operating on British model. No wonder, every educated person keeps asking for reservations in these services because of huge un-employment among them and lack of economic activities gainfully engaging them. Therefore, there is dilemma of education of people, particularly at the foundation level- primary and elementary level, that in spite of serious efforts to provide Free and Compulsory Education up to 14 years age and even enacting a law to this effect owning and participation of masses in the system and quality of education is eluding India.

13.1.6 Whereas, this model has now been well accepted by a good proportion of masses, yet the issue of how this is likely to solve the problems of development of large proportion of masses, who are engaged in agriculture and various services at the local level as also their effective participation in democratic process – one of the reasons for making free and compulsory education up to 14 years, remains a mute, but big question. Therefore, it is recommended that there is a need to re-examine model of education and system of its governance so as to benefit people at large, living in rural as well urban habitats in India.

14.1 Policy Planning and Implementation: The Policies of education after independence has been more focused on the expansion of education and reaching out to unreached, particularly those located in remote and backward areas as also sub-plan areas Scheduled Tribes, Scheduled Casts, and Gender Parity. There have been consistent efforts in this direction since independence. Around late 80s quality of education at primary level became an important issue and a scheme of Operation Black Board was launched., This is followed by specific programmes of development of education in backward districts under District Primary Education Project with national and international funding was initiated to plan and

reach out to unreached and institute process of planning and monitoring the progress as also providing resources for improvement of quality. This was further followed by Mission to provide access to quality with adequate inputs of infrastructure, Human Resources and incentives like Mid Day Meal to attract and retain students with national and international funding. This followed by enacting Right to Education Act, 2009. This policy and policy implementation initiatives have greatly helped to reach out to large masses of students as also responding to specific needs of the backward tribal population in sub-plan and non-sub plan areas. Yet the model of planning and management has been top to bottom and centralization with the state, district, block-level participation. Education being in concurrent list and the central government has a role to play and it often plays a big role for right reasons, but it misses nuances of the developmental requirement at the state, district and block level. Some time conflict arises out in the implementation of schemes owing to varying needs of the state and system of financial flow and management. Added to this aspect is politics of position between states and central governments. There is also a serious issue of implementation, as some time, it is stated that resources of education are diverted to other pressing financial needs of the state. As a result best policies and plans remain unrealized to a substantial extent.

14.1.2 Solution to these issues lies in the decentralization of policy, plans, and monitoring with a clear mandate of achieving the objective of quality primary and elementary education given their diversified situations and needs. Since the resources are always a problem, devolution funds between Central and State, being done by Finance Commission, this time it would be 14th Finance Commission to do this job of devolution of funds between center and states. It is recommended that along with decentralization of planning, implementing and monitoring of primary and elementary education- free and compulsory education up to the age of 14 years, devolution of funds between the central government and state governments should include this aspect along with other aspects. In the previous finance commission, this was done.but somewhere this aspect got diluted for several reasons. Whatever may be the reasons, it is recommended that states and within state local units may be made responsible to plan, implement and monitor to achieve objectives. We should re-establish faith in the decentralized process of development as at the end of the day, people should own the system as also its success and failure.

15.1 Strengthen Villages in Scheduled areas: Analysis revealed that profile of villages on several parameters is in general weak and in particular it is relatively weak as compared to villages in non-scheduled areas. Educational development and quality of education in tribal sub-plan areas also reflect the quality of infrastructure, social and economic development of villages. Whereas the development of village may not directly fall under the purview of education, yet it is for the education system to point out the areas of development of villages. It is recommended that villages should be viewed as an integral part of the development of education in the sub-plan area and ***a special plan may be launched to cover basic deficiencies in infrastructures like roads, electricity, drinking water, banking, post***

office and health facilities. Villages in scheduled areas should have upper primary schools and opportunity for the population to engage in production processes, besides employment in agriculture or 100 days employment in MNREGA.

16.1 Improving School Quality:

16.1.1 Of seven parameters of **quality of sample schools**, General Ambiance, and infrastructure – the basic parameters of quality, in general, is poor and relatively poorer in schools of scheduled areas in spite of special effort under SSA. Operation of SSA has been by now more than a decade old, yet its impact does not seem to have been fully realized, even though progress from the earlier time is very good. Although the strength of SSA is effective planning and monitoring, yet the process of implementation is slow. The reasons for it may be found in the system implementation from the central level to state and state to Districts, blocks, and schools. The process needs to decentralize from center to state and from state to district and district to block and block to school. It is worth mentioning that in many cases block headquarter may be miles away. With given road condition and poor banking, facilities implementation gets delayed. With new system management of schools under SMCs, PTA, School Development Committee and Village Education Committee, it would be prudent to decentralize and more dependent on local resources for the development of schools.

16.1.2Human Resources presents a picture of the availability of teachers in the schools with reasonably required qualification, but it is relatively poor in schools of scheduled areas as more diploma holders' area employed than B.Ed. degree holders as compared non-scheduled areas. Yet the class size and teacher-student ratio are on the higher side in schools of scheduled areas as compared to schools in non-scheduled areas. In general teacher-students ratio of 1:40 is on the very high side for classes up to primary level.

16.1.3 It is recommended that **teacher-student ratio** and class size up to primary and elementary level should **not *be more than 20 students* per teacher and per class**. In the event resource crunch, some innovative method of holding classes may be worked out.

16.1.4 It is recommended that the innovative method could be that class size should be 20 students' batches. The time schedule may be so prepared that a batch of 20 students of a class is taught by teachers and batch of another 20 students should be engaged in active learning and reading in the library in the format of self-learning. The Swadhyay- is a great system of learning and works through all levels of education and life. The foundation for this should be laid at the Primary /Elementary level.

16.1.5 Management of schools has considerably changed owing to the implementation of SSA and Right to Education Act, 2009. There greater participation of SMCs including gender participation in the school management activities. Yet the concept of owning the school and educational activities by the community is alluding. It is still not a "Hamara" (our) School, it

is village school, primary and elementary education school. It is recommended to the concept of "Hamara" our schools be initiated through not only slogan but making schools, teachers and students to link it with the needs of village and villagers linking themselves with needs of the school and its education process and outcome.

17.1 Motivate and Train Teachers to implement New Reforms:

The key aspects of quality of primary education are the educational and social background of teachers and availability of teachers in schools, and their contribution to the teaching-learning process. Analysis revealed that educational qualifications and availability of teachers is reasonably good both in schools of scheduled and non-scheduled areas. Proportion ST Teachers in schools of scheduled areas so as to understand the students is also good. Teaching – learning process mainly focuses on the traditional method of teaching namely, reading, writing and computational skill. Teachers also engage in remedial teaching in schools of scheduled and non-scheduled areas. They also felt that students take interest in studies and participate in the discussion. Very few teachers engage in activity-based or storytelling style of teaching. Teachers are also satisfied with their job and remuneration they receive for the same. However, one of the weaker aspects that are revealed is the implementation of reforms of education like Multilingual Educational material, Continous comprehensive Evaluation and clear view on a policy of no detention and automatic promotion to next class. The key reform was as envisaged in SSA and Right to Education Act,2009 was CCE and use of multilingual educational material so that easy transition can take place from mother tongue to regional, national or foreign languages. The concept of CCE was to change from traditional method evaluation of learning of students and continuously work for their progress. This has not really happened. This could be due to several factors, such as: (i) lack of training in the new method of evaluation, (ii) lack of clarity about how to carry out Continuous Comprehensive Evolution,(iii) lack of motivation to adopted the new method and approaches and, (iv) lack of clearly defined parameters that result in acquisition of abilities by students in languages and mathematics. In the absence of all this, old rote learning method got reinforced. And not only that an argument was advanced to change the method of evaluation to old type and detain the students who are not performing. This argument, in fact, reflected the lack of appreciation of a new system of teaching-learning and evaluation of students.

17.1.1 It is recommended that is one of the key areas which needs immediate attention. One of the ways is to train the teachers effectively on the implementation of these reforms particularly CCE. It is also recommended that clearly defined indices of the outcome of learning be developed at every stage in primary and elementary education and spell out how to assess this outcome based indices of learning. This study has attempted to suggest outcome-based indices of learning.

18.1Focus on the outcome-based method of teaching and learning:

The analysis revealed that performance of students in schools of scheduled and non-scheduled areas as also in the sample states fall short of the expected outcome of five years of education. Among the sample states students in sample schools of scheduled and non-scheduled areas in Telangana, Odisha and Himachal Pradesh performed well, but students in sample schools of Gujarat, Madhya Pradesh, and Rajasthan have not performed well. Abilities study showed that key abilities in languages and maths, in general, are not acquired by the students even in schools of well-performing sample states. It is recommended that special attention may be paid to sub-plan as also non-scheduled rural areas of these states for improving the performance of students.

18.1.1 There is in general proportion of students performing correctly declines as the difficulty level in languages and mathematics increases. This happens due to the system of rote learning practiced in schools. Performance of students in the English language is relatively poor as compared to Hindi/Regional Languages. This raises a serious question with regard to the imposition of another foreign language at a very early stage in education when students have to first transit from mother tongue to regional /national language than they can be put to learn the English language. During the colonial rule it was a requirement to serve the masters, but in independent India, it seems to have become important to seek positions of power and lucrative jobs and learning in higher education. But the majority of students remain at the district level after primary/elementary education even after higher secondary education level.

18.1.2 Therefore, it is recommended that the issue of English language needs to be re-visited to enable the students to acquire learning through two languages ie. Mother tongue and regional/national language. Three language formula including teaching in English needs to be re-visited. As languages form the basis of understanding even mathematics' question it is, therefore, imperative that improvement in languages teaching, maybe through MLE or a system of transition from mother tongue to regional/ national language is effectively attempted.

18.1.3 The system of teaching-learning and evaluation of achievement of students at Primary level and for that matter at any level should be transformed from rote learning to learning by understanding and acquisition of abilities to do or perform. It is recommended that seven abilities in languages as envisaged in this study with the priority of three kay language competencies may be adopted for teaching-learning of students as well as Continous Comprehensive Evaluation. Students quarterly progress should be seen from the level he progresses from simple to complex level of language and mathematics learning and it outcome besides other parameters of development of the child. This concrete method of CCE will help teachers to focus their teaching on outcome bases education as also to see

how far the students progressed. This is likely to bring big and concrete change in our endeavor to improve the quality of primary education through very effective role played by teachers in schools of scheduled as well as non-scheduled areas of sample and other states.

18.1.4 It is recommended that, before generalizing the findings based on sample schools in sample states of this study, a detailed study based on the outcome of learning may be conducted for all the states to develop a level of indices of competencies /abilities of students of states and for all India. Based on states and national level indices of competencies, concrete policy steps should be taken to effectively implement the provisions of Right to Education Act,2009 in letter and spirit.

19. Children are future of India and this future is shaped in schools and institutions of higher education. For an inclusive and welfare nation-state – India, it is imperative that no child is left behind and, therefore, students living in scheduled area districts require special attention to provide quality primary education, to ensure that no child is left behind in education in scheduled area Districts.