CHAPTER I

Introduction

1.1 The context:

Sarva Shiksha Abhiyan (SSA) which is the flagship programme of Govt. of India was launched by MHRD (Ministry of Human Resource and Development) to provide quality education to all children in the age group of 6-14 years. The national Government and the state government as well are putting a lot of efforts over the years for ensuring quality education at elementary level. The state of Assam along with the rest of the country has made satisfactory progress in terms of access, retention and equity after implementation of SSA and subsequent execution of the Right to Education Act, 2009. Improving quality of Elementary Education is now the foremost objective of SSA after implementation of RTE. A lot of effort in terms of huge investment of both human and material resources is being made to enhance the quality of learning in the state. The focus has gradually been shifted towards "Quality". In this direction, quality of learning is the thrust area at all levels especially at elementary level as it provides the very foundation of edifice of learning. So, learning assessment of children is the pre condition for improving quality. It is now nationally accepted that achievement survey is a must for taking necessary measures for quality improvement. The present State learning achievement survey (SLAS) at the end of class III (2015 academic session) is the second one following the SLAS in this class in 2014 though 4^{th} cycle of National Achievement survey(NAS) at the end of class III has also been conducted in the state in 2015. The SLAS in the state was initiated first in the academic session 2013 in class V while SLAS was conducted in classes II, III and VIII in the academic session 2014.

Numbers of initiatives have been under taken to enhance quality in education in general and in elementary education in particular in the state along with the rest of the country. Teachers are now being recruited through Teachers Eligibility test (TET). Teachers are being rationalized or posted where needed so that the standard pupil teacher ratio (PTR) can be maintained as per RTE norm, textbooks are developed in the light of NCF 2005; activity based learning is being followed; training programme for the untrained teachers is being organized; special training materials as per RTE norm are developed, resource materials for implementation of continuous comprehensive evaluation were developed, video conference is being conducted regularly for discussion of various academic issues of the state, school

infrastructure has been improved; various grants are provided, work books, reference books etc. are provided since the inception of SSA and enactment of RTE Act, 2009.

Obviously, achievement survey is to know the health of the elementary education system covering both of the process and learning outcome of the children. Achievement survey must be followed by actions to improve the achievement levels of the children. Assessment of training needs can also be made using the result of the survey.

Tools for assessing school health and learning assessment were administered in this survey. Quality is a concern and achieving it a challenge. Learning achievement survey can help meeting this challenge. Availability of teachers as per the prescribed norms of RTE act, teachers' role and responsibilities towards the school and children were also assessed through this survey

1.2 Objectives:

The survey was conducted with the following major objectives:

- To assess the learning level of children at the end of class III
- To identify the difficult areas of learning
- To compare the District wise learning level of children
- To compare gender wise, socio-economic status wise, area wise (Urban, Rural, hilly, Char, Tea garden) learning level of children
- To suggest formulation of strategies to bring about desirable improvement in the coming years.

1.3. Limitation:

I. This survey was conducted in fourteen districts of Assam.
II. Learning achievement was assessed in three subjects viz. Language 1, Mathematics and Environmental Studies
III. Only subject wise Tests were administered
IV. The survey was conducted in one medium of Instruction
V. This survey used DISE data.
VI. Districts have changed some schools due to unavoidable reasons.

CHAPTER II

Methodology

2.1Research Design:

The sample survey design was followed to assess learning achievement of the children at the end of class III (academic session 2015)

2.2 Sample:

The survey was undertaken in fourteen districts of the state. The sample schools comprised of three hundred and fifty schools covering all the sample districts. The schools were selected following proportional randomly. The survey was conducted to get a comparative picture for gender wise, social category wise, urban/rural wise so that specific issues can be addressed on priority basis. The survey would provide and insight into the learning level of children of class III in particular and would also give an understanding about the existing status of the factors associated with teachers, students and schools.

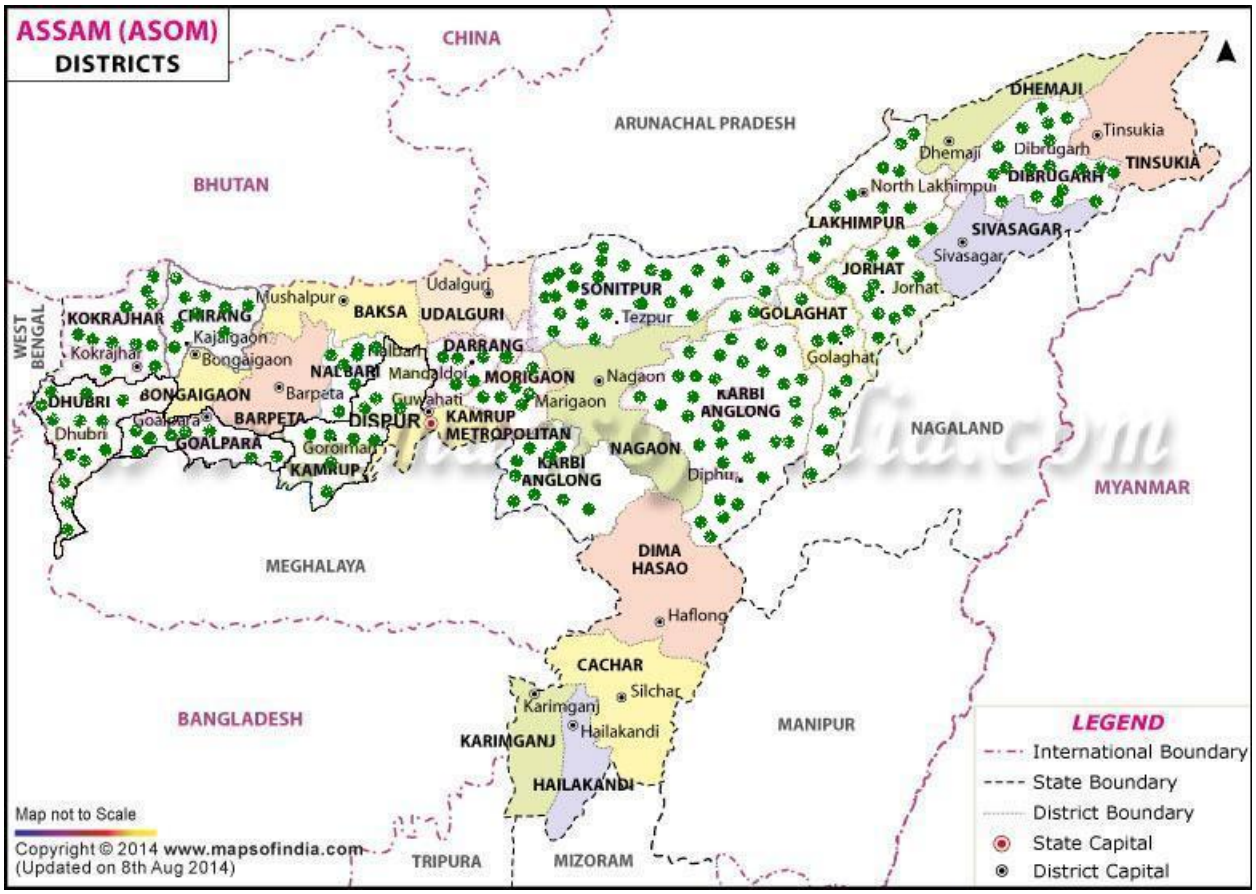


Fig1.1: Map of Assam showing distribution of Sampled Districts (green patches)

2.3 Tools:

In fact, the result of a survey/study depends to a great extent on proper sample, objective oriented quality tools and how they are administered. As such development of tools for any survey or study is a very crucial step. The faculty of respective departments of SCERT, Assam, District Institute of Education and Training (DIET), and teacher of schools were entrusted with the responsibility for development of tools. The tools for the survey were designed more or less on the line of tools developed by NCERT for conducting National Achievement Survey (NAS). The present survey was conducted in only medium of instruction i.c Assamese. The Tests were administered in three core subjects to assess learning achievement of the children. These were Language 1, Mathematics and Environmental studies. Each of the Tests comprised of twenty five items. The items were multiple choice questions (MCQ) in nature with three options. Though the survey was

conducted at the end of Class III, competencies from just below classes were also considered to be included in the tests. Obviously, different Tests developed by NCERT, New Delhi for conducting National Achievement, were discussed and hence a shadow of these may felled on the tests. Some of the Salient features of the test were as below:

- Each of the subject Test viz in Language 1, Mathematics and Environmental studies consisted of twenty five MCQ with three options
- Two forms of Tests in each subject were developed with some anchor items which not only established linkage between the two forms but also provide scope for coverage of more competencies and as a whole the syllabi
- The items were developed to assess the learning level of children not only of the particular class but of classes below.
- The items for each of the domains viz. Knowledge, Understanding, Application and Skill were included in each subject.
- For Language-I, one descriptive item was also kept to assess writing skill of children.

The Teacher Questionnaire (TQ) was designed for collecting information from teachers teaching any or two or all three subjects for which, the learning level of children was assessed. The items mainly included areas relating to experience, educational and professional qualification, subjects(s) teaching during the survey period etc.

The School Questionnaire (SQ) was designed mainly with the objective of collecting information relating to availability of facilities in the school.

The Pupil Questionnaire (PQ) included questions relating to family background, educational qualification and professional status of parents/guardians, availability of educational facilities and support in the family etc.

One field Notes for Field Investigators was also developed and used while data collection was done. The field notes for F I was filled in by the FI incorporating the procedure for administration of Tests. A one page summary note was also developed so that the district Coordinators can provide the physical data of the District in very brief in a short period just after completion of the field activity.

2.4 Data Collection:

The District Coordinators were vigorously trained at SCERT, Assam enabling them to train the field Investigators for Administration of Test and collection of data using different tools. The district Coordinators organized and conducted training for F Is for data collection. An action plan for each of the sample district for data collection was also prepared so that the work could be completed smoothly with co operation from the Head Teacher (H T), Assistant Teachers (A T), District and Block Level educational functionaries, S S A and SCERT, Assam. Provision of Supervision and on spot support to the F I during data collection was also made. Thus, every possible care was taken to ensure that data were collected properly.

CHAPTER III

Learning Achievement in Language

Children's achievement in Language was assessed through two forms of tests. Each tests consisted of 25 items one of which was a descriptive one. All items were multiple choice questions in nature having three options except the descriptive item. The items comprised of language elements and reading comprehension tests. Reading comprehension tests were developed incorporating story reading, poem reading, picture reading and paragraph reading. The two forms of tests shared some common items called as anchor items which helped in maintaining difficulty level of the two forms.

The items comprised of the competencies as below:

Test Form 11 (Set 1)		Test Form 12 (Set 2)	
Item No.	Competency	Item No.	Competency
1	Item No. 1 to 6 Reading Comprehension	1	Item No. 1 to 5 Reading Comprehension(story reading)
2		2	
3		3	
4		4	
5		5	
6		6	Conjunct letter
7	Item No. 7 to 10 picture reading (Anchor items)	7	Prefix/ suffix
8		8	Synonyms
9		9	Conjunct letter
10		10	Word meaning
11	Word meaning (Anchor item)	11	Opposite word
12	Expression in one word (Anchor item)	12	Tense
13	Opposite word (Anchor item)	13	Item No. 13 to 16 picture reading (Anchor items)
14	Synonyms (Anchor item)	14	
15	Conjunct letter (Anchor item)	15	
16	Tense	16	

17	Conjunct letter	17	Word meaning (Anchor item)
18	Identification of vowel	18	Expression in one word (Anchor item)
19	Conjunct letter	19	Opposite word (Anchor item)
20	Item No. 20 to 24 reading comprehension (paragraph reading)	20	Synonyms (Anchor item)
21		21	Conjunct letter (Anchor item)
22		22	Item No 22 to 24 Reading comprehension poem
23		23	
24		24	
25	Writing skill	25	Writing skill

Table3.1: The Competencies Tested in Language assessment

Gender	Rural			Urban			t	Total		
	N	Mean %	SD	N	Mean %	SD		N	Mean%	SD
Boys	2135	54	6	569	59	5	124.74	2704	55	5
Girls	2486	53	6	666	59	5	131.45	3152	54	6
Total	4621	53	6	1235	59	5		5856	55	6
Mean Difference	12.81			14.17				13.09		
T	155.31			97.65				181.19		

Table 3.2: Gender wise and Area wise Achievement in Language

The table revealed that the mean scores of boys and girls of urban areas being 59% and 59% respectively were slightly higher than that of boys and girls of rural areas being 54% and 53% respectively. Obviously there were no differences in mean score of boys and girls of both of the rural and urban areas.

Districts	Boys			Girls			t	Total			Rank
	N	Mean %	SD	N	Mean %	SD		N	Mean %	SD	
Chirang	128	65	5	149	68	4	60.72	277	66	4	2
Darrang	192	61	5	210	63	5	59.26	402	62	5	3

Dhubri	186	54	6	247	53	6	46.44	433	53	6	9
Dibrugarh	212	58	5	199	57	5	55.53	411	58	5	6
Goalpara	255	36	5	324	36	5	43.74	579	36	5	14
Golaghat	232	54	5	252	52	5	52.78	484	53	5	9
Jorhat	183	48	6	212	48	7	36.36	395	48	6	12
Kamrup	245	50	5	308	53	5	58.98	553	51	5	11
Karbi Anglong	125	47	5	209	46	4	44.07	334	46	5	13
Kokrajhar	214	67	5	185	68	4	73.53	399	67	4	1
Lakhimpur	243	61	5	259	64	4	73.60	502	62	5	3
Morigaon	127	62	5	170	58	5	48.35	297	60	5	5
Nalbari	136	55	6	145	61	6	37.59	281	58	6	6
Sonitpur	226	56	5	283	53	6	53.05	509	54	6	8
Total	2704	55	5	3152	54	6		5856	55	6	

Table 3.3.: District wise and Gender wise Achievement in Language

The table revealed that children of Kokrajhar scored the highest 67% in language while children from Goalpara scored the lowest 36%. The state average mean score was 55.3%. The children from the districts of Chirang, Dibrugarh, Darrang,Kokrajhar, Lakhimpur,Morigaon,Nalbari, scored above the state average while the children from the districts of Dhubri, Goalpara, Golaghat, jorhat, Kamrup, Karbi-Anglong and Sonitpur scored below the state average.

Achievement of girls in language of Nalbari District was higher significantly than that of boy of the district. However, no significant differences were observed in mean scores of boys and girls of the districts except Nalbari.

Districts	Rural			Urban			t	Total			Rank
	N	Mean%	SD	N	Mean%	SD		N	Mean %	SD	
Chirang	174	63	5	103	72	3	60.72	277	66	4	2
Darrang	306	64	5	96	55	5	59.26	402	62	5	3
Dhubri	323	50	6	110	61	5	46.44	433	53	6	9

Dibrugarh	305	55	5	106	67	4	55.53	411	58	5	6
Goalpara	460	36	5	119	35	5	43.74	579	36	5	14
Golaghat	434	51	5	50	70	3	52.78	484	53	5	9
Jorhat	353	47	6	42	56	4	36.36	395	48	6	12
Kamrup	449	50	5	104	55	5	58.98	553	51	5	11
Karbi Anglong	269	45	4	65	51	5	44.07	334	46	5	13
Kokrajhar	295	67	4	104	70	4	73.53	399	67	4	1
Lakhimpur	353	63	5	149	61	4	73.60	502	62	5	3
Morigaon	227	59	5	70	62	4	48.35	297	60	5	5
Nalbari	253	57	6	28	72	4	37.59	281	58	6	6
Sonitpur	420	55	6	89	51	5	53.05	509	54	6	8
Total	4621	53	6	1235	59	5		5856	55	6	

Table 3.4: District wise and Area wise Achievement in Language

Achievement of children from urban areas were higher than that of rural counter part of the districts of Chirang, Dhubri, Dibrugarh, Golaghat, Jorhat, Kamrup, Karbi Anglong and Nalbari while achievement of rural children was higher than that of urban in language in the district of Darrang. There were no significant* difference in achievement of rural and urban children in the district of Goalpara, Kokrajhar, Lakhimpur, Morigaon and Sonitpur. (* difference of 5% or more)

District	Mean scores (%)		Remarks
	Rural	Urban	
Chirang	63	72	Mean score of urban > Mean score of rural
Darrang	64	55	Mean score of rural > Mean score of urban
Dhubri	50	61	Mean score of urban > Mean score of rural

Dibrugarh	55	67	Mean score of urban > Mean score of rural
Golaghat	51	70	Mean score of urban > Mean score of rural
jorhat	47	56	Mean score of urban > Mean score of rural
Kamrup	50	55	Mean score of urban > Mean score of rural
Karbi Anglong	45	51	Mean score of urban > Mean score of rural
Nalbari	57	72	Mean score of urban > Mean score of rural

Table 3.5: Significant differences of achievement of rural and urban in Language

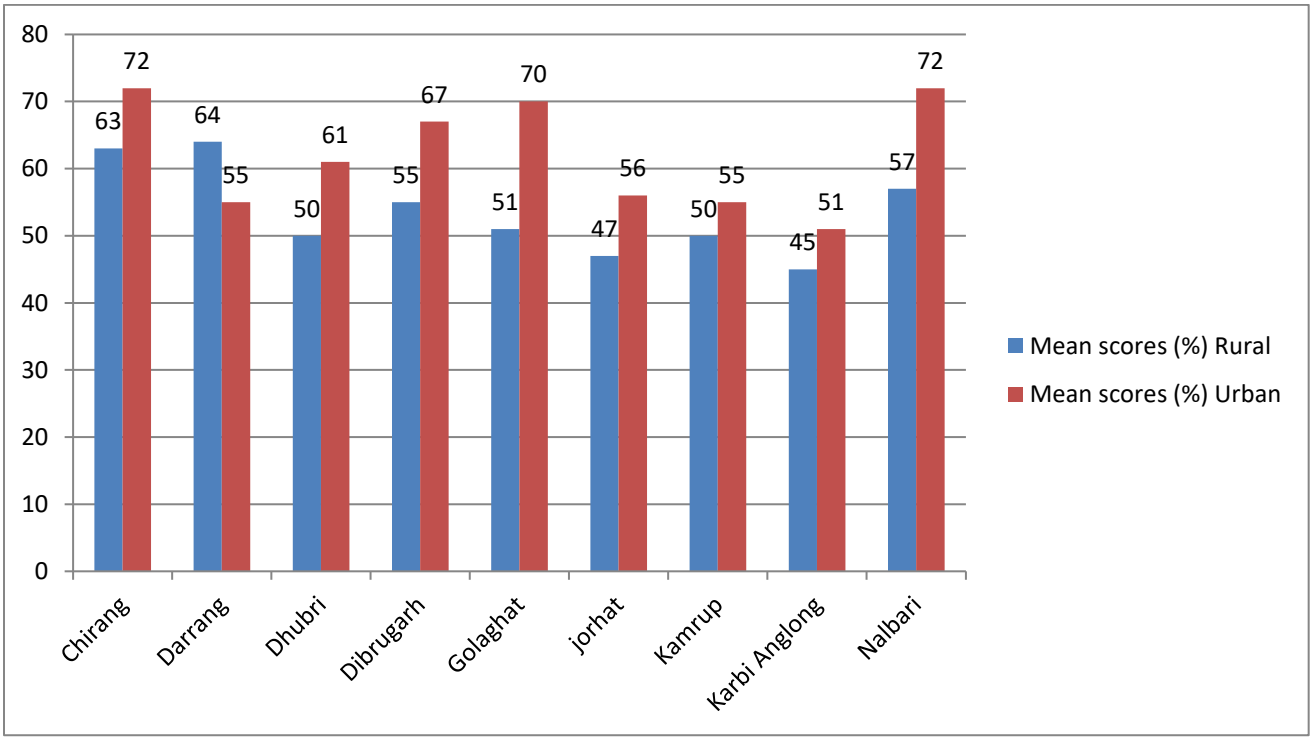


Fig3. 1: Mean scores differences of Rural and Urban in language assessment.

Questions With Nature	Rural		Urban		Total	
	N	%	N	%	N	%
Q1	1706	72.4%	489	79.3%	2195	73.9%
Q2	1432	60.8%	397	64.3%	1829	61.5%
Q3	1164	49.4%	312	50.6%	1476	49.7%
Q4	1565	66.5%	433	70.2%	1998	67.2%
Q5	1410	59.9%	383	62.1%	1793	60.3%
Q6	1415	60.1%	365	59.2%	1780	59.9%
Q7	849	36.1%	186	30.1%	1035	34.8%
Q8	1371	58.2%	449	72.8%	1820	61.2%
Q9	1509	64.1%	476	77.1%	1985	66.8%
Q10	513	21.8%	171	27.7%	684	23.0%
Q11	1256	53.3%	392	63.5%	1648	55.5%
Q12	1350	57.3%	401	65.0%	1751	58.9%
Q13	1443	61.3%	415	67.3%	1858	62.5%
Q14	1440	61.1%	428	69.4%	1868	62.9%
Q15	1479	62.8%	430	69.7%	1909	64.2%
Q16	1352	57.4%	366	59.3%	1718	57.8%
Q17	1003	42.6%	294	47.6%	1297	43.6%
Q18	1323	56.2%	373	60.5%	1696	57.1%
Q19	1278	54.3%	342	55.4%	1620	54.5%
Q20	539	22.9%	125	20.3%	664	22.3%
Q21	1319	56.0%	402	65.2%	1721	57.9%
Q22	1485	63.1%	451	73.1%	1936	65.1%
Q23	1162	49.3%	368	59.6%	1530	51.5%
Q24	1220	51.8%	340	55.1%	1560	52.5%
Total Students	2355		617		2972	

Table 3.6 Area wise and Question wise number of correct Response in Language SET 11

In Language Test form 11, the item No. 1 was answered correctly by highest number of children (93.9%). The item was on reading (story) comprehension. Item No. 1 to item No 6 was on reading comprehension. An average of 62.05% of children responded correctly to these items. Item No 20, 10, was responded correctly by 22.3% and 23% of children respectively. In other

words item no 20 was responded correctly by lowest number of children. Item No. 20 was also on reading comprehension (paragraph reading). The other items on paragraph reading i.c item No. 21, 22, 23 and 24 were responded correctly by an average of 57% of children.

Item No.	**% of children responded correctly**	**Competencies tested**
1 to 6	62	Reading comprehension (story reading)
7to 10	46.5	Picture reading
11	55.5	Word meaning (Anchor item)
12	58.9	Expression in one word (Anchor item)
13	62.5	Opposite word (Anchor item)
14	62.9	Synonyms (Anchor item)
15	64.2	Conjunct letter (Anchor item)
16	57.8	Tense
17	43.6	Conjunct letter
18	57.1	Identification of vowel
19	54.5	Conjunct letter
20 to 24	49.8	Reading comprehension (paragraph reading)
		Writing skill

Table 3.7: competency wise achievement of children (test form 11)

The table revealed that 43.6% of children responded correctly to the item for assessment of conjunct letter. In case of reading comprehension children found easier story reading to the paragraph reading and picture reading. Assessment of competencies in language elements revealed that children achieved higher in vocabulary (synonyms 62.9%, opposite words 62.5, expression in one word 58.9%, word meaning 55.5%) than formation of conjunct letter, tense etc.

Questions with Nature	Rural		Urban		Total	
	Count	Column N %	Count	Column N %	Count	Column N %
Q1	1154	50.9%	355	57.4%	1509	52.3%
Q2	1387	61.2%	410	66.3%	1797	62.3%
Q3	807	35.6%	252	40.8%	1059	36.7%
Q5	1281	56.5%	407	65.9%	1688	58.5%
Q6	1390	61.3%	439	71.0%	1829	63.4%
Q7	1569	69.2%	487	78.8%	2056	71.3%
Q8	1390	61.3%	416	67.3%	1806	62.6%
Q9	749	33.1%	228	36.9%	977	33.9%
Q10	1307	57.7%	387	62.6%	1694	58.7%

Q11	913	40.3%	294	47.6%	1207	41.9%
Q12	1209	53.4%	313	50.6%	1522	52.8%
Q13	617	27.2%	142	23.0%	759	26.3%
Q14	1499	66.2%	492	79.6%	1991	69.0%
Q15	1483	65.4%	468	75.7%	1951	67.6%
Q16	433	19.1%	95	15.4%	528	18.3%
Q17	1239	54.7%	394	63.8%	1633	56.6%
Q18	1319	58.2%	411	66.5%	1730	60.0%
Q19	1487	65.6%	403	65.2%	1890	65.5%
Q20	1295	57.1%	420	68.0%	1715	59.5%
Q21	1350	59.6%	429	69.4%	1779	61.7%
Q22	1557	68.7%	472	76.4%	2029	70.4%
Q23	1411	62.3%	474	76.7%	1885	65.4%
Q24	1497	66.1%	470	76.1%	1967	68.2%
Total Students		2266		618		2884

Table 3.8 Area wise and Question wise number of correct Response in Language SET 12

Item No.	**% of children responded correctly**	**Competencies tested**
1 to 5	52.5	Reading comprehension (story reading)
6	63.4	Conjunct letter
7	71.3	Prefix/ suffix
8	62.6	Synonyms
9	33.9	Conjunct letter
10	58.7	Word meaning
11	41.9	Opposite word
12	52.8	Tense
13 to 16	45.3	picture reading (Anchor items)
17	56.6	Word meaning (Anchor item)
18	60.0	Expression in one word (Anchor item)
19	65.5	Opposite word (Anchor item)
20	59.5	Synonyms (Anchor item)
21	61.7	Conjunct letter (Anchor item)
22 to 24	68	Item No 22 to 24 Reading comprehension (poem)
25		Writing Skill

Table 3.9: competency wise achievement of children (test form 12)

CHAPTER IV

Learning Achievement in Mathematics

Students' achievement in Mathematics:

Learning achievement in Mathematics was assessed administering two sets of tests. Each set of test consisted of 25 MCQ having three options. There were nine Anchor items in the Test and sixteen unique items in each of the test. The items were developed to assess the ability of the students to deal with number system, concept of shape and pattern, operation of numbers like addition, subtraction, multiplication, measurement of length, money and time, pre concept of weight etc. and Item wise competencies tested was as below:

Test Form 21 (Set 1)		Test Form 22 (Set 2)	
Item No.	Competency	Item No.	Competency
1	Concept of Shape (rolling things)	1	Concept of unit and ten
2	Expanded number	2	Addition of three digit number
3	Observation skill (pattern)	3	Concept of calendar month
4	Measurement of Length (observation skill)	4	Pre concept of weight (heavy and light)
5	Problem sum of multiplication	5	Identification of bigger or smaller number
6	Measurement of time (observation of clock)	6	Problem sum of subtraction
7	Identification of number (up to 1000)	7	Concept of before, after and middle in number
8	Identification of bigger or smaller number	8	Concept of shape (corner)
9	Problem sum of multiple	9	Concept of Shape (rolling things)
10	formation of three digit number with given instruction	10	Expanded number
11	Subtraction of three digit number	11	Observation skill (pattern)
12	Observation of design	12	Measurement of Length (observation skill)
13	Problem sum of addition	13	Problem sum of multiplication
14	Measurement of length (Cm)	14	Measurement of time (observation of clock)

15	Problem sum of addition	15	Identification of number (up to 1000
16	Concept of multiplication	16	Identification of bigger or smaller number
17	Problem sum of addition & subtraction	17	Problem sum of multiple
18	Concept of unit and ten	18	Money (counting/addition)
19	Formation of two digit number	19	Formation of two digit number
20	Concept of multiplication	20	Calendar reading
21	Addition of two digit number	21	Addition (two digit number / carry over)
22	Addition of two digit number	22	Series observation
23	Concept of after and before in days of the week	23	Problem sum of addition
24	Subtraction	24	Problem sum of multiplication
25	Problem sum of addition	25	Problem sum of subtraction

Table4.1: The Competencies Tested in Mathematics assessment

Gender	Rural			Urban			t	Total		
	N	Mean%	SD	N	Mean%	SD		N	Mean%	SD
Boys	2310	57	7	554	61	7	116.29	2864	58	7
Girls	2651	55	7	637	61	7	121.78	3288	56	7
Total	4961	56	7	1191	61	7		6152	57	7
Mean Difference	13.97			15.20				14.21		
T	148.71			80.19				168.34		

Table 4.2: Gender wise and Area wise Achievement in Mathematics

The table revealed that there was no significant difference in mean scores of rural boys and urban boys being the mean scores 57% and 61% of the rural boys and urban boys respectively. The mean scores of urban girls and rural girls were 61% and 55% respectively. So, mean scores of urban girls was significantly higher than that of rural girls. There was no difference in mean scores of urban boys and urban girls. The rural boys scored slightly higher than that of rural girls.

Districts	Rural			Urban			t	Total			Rank
	N	Mean%	SD	N	Mean%	SD		N	Mean %	SD	
Chirang	174	73	4	103	86	3	80.97	277	78	4	1
Darrang	329	71	6	71	70	5	60.84	400	71	6	2
Dhubri	560	41	6	104	41	6	43.63	664	41	6	12
Dibrugarh	304	57	6	106	74	5	51.65	410	61	6	6
Goalpara	464	32	4	121	34	3	51.69	585	32	4	14
Golaghat	507	56	6	50	81	4	57.83	557	58	6	9
Jorhat	338	58	8	55	51	6	38.35	393	57	7	10
Kamrup	448	60	6	104	64	7	57.84	552	61	6	6
Karbi Anglong	271	38	4	65	45	6	39.67	336	39	5	13
Kokrajhar	292	70	5	104	68	6	61.51	396	69	6	3
Lakhimpur	353	66	6	149	64	6	63.15	502	66	6	4
Morigaon	227	68	6	67	63	6	48.68	294	66	6	4
Nalbari	250	56	7	28	61	7	35.39	278	56	7	11
Sonitpur	444	62	7	64	55	7	52.72	508	61	7	6
Total	4961	56	7	1191	61	7	168.34	6152	57	7	

Table 4.3: District wise and Area wise Achievement in Mathematics

The table revealed that the children from Chirang district scored the highest (Mean score 78%) while the children from Goalpara scored the lowest (Mean score 32%) in Mathematics. The average mean score of the state in mathematics was 57%. The children from the districts of Chirang, Darrang, Dibrugarh, Kokrajhar, Kamrup Lakhimpur,Morigaon, Golaghat, jorhat, Sonitpur scored above the state average while the children from the districts of Dhubri, Goalpara, Karbi-Anglong and Nalbari,scored below the state average.

District	Mean scores (%)		Remarks
	Rural	Urban	
Chirang	73	86	Mean score of urban > Mean score of rural
Dibrugarh	57	74	Mean score of urban > Mean score of rural
Golaghat	56	81	Mean score of urban > Mean score of rural
jorhat	58	51	Mean score of rural > Mean score of urban
Karbi Anglong	38	45	Mean score of urban > Mean score of rural
Nalbari	57	72	Mean score of urban > Mean score of rural
Morigaon	68	63	Mean score of rural > Mean score of urban
Nalbari	56	61	Mean score of urban > Mean score of rural
Sonitpur	62	55	Mean score of rural > Mean score of urban

Table 4.4: Significant differences of achievement of rural and urban in Mathematics

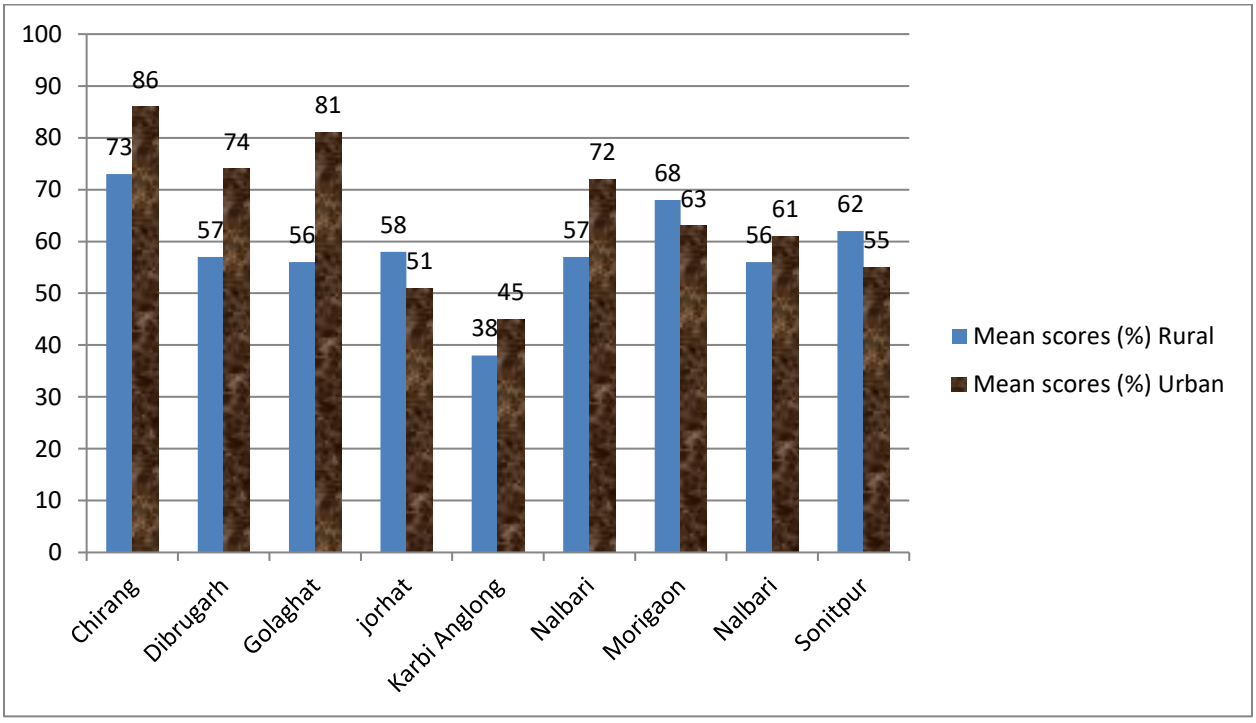


Fig 4.1: Mean scores differences of Rural and Urban in Mathematics assessment.

In mathematics assessment, significant differences in mean scores achievement of rural and urban children were observed in the district of Chirang (73% and 86%), Dibrugarh (57% and 7486%), Golaghat (56% and 81%), Jorhat (58% and 51%), Karbi Anglong (38% and 45%), Morigaon (68% and 63%), Nalbari (56% and 61%), and Sonitpur (62% and 55%),

Mean score achievement of rural children were higher than urban children in Jorhat,morigaon and Sonitpur while mean score achievement of urban children were higher than rural children in Chirang, Dibrugarh, Golaghat, Karbi Anglong and Nalbari.

Districts	Boys			Girls			t	Total			Rank
	N	Mean%	SD	N	Mean%	SD		N	Mean %	SD	
Chirang	129	77	4	148	79	4	80.97	277	78	4	1
Darrang	191	73	6	209	70	6	60.84	400	71	6	2
Dhubri	313	39	6	351	42	6	43.63	664	41	6	12
Dibrugarh	210	61	6	200	62	6	51.65	410	61	6	6
Goalpara	259	32	4	326	33	4	51.69	585	32	4	14
Golaghat	273	61	6	284	56	6	57.83	557	58	6	9
Jorhat	174	58	7	219	56	8	38.35	393	57	7	10
Kamrup	246	61	6	306	61	6	57.84	552	61	6	6
Karbi Anglong	130	42	5	206	37	4	39.67	336	39	5	13
Kokrajhar	213	71	5	183	68	6	61.51	396	69	6	3
Lakhimpur	241	66	6	261	66	6	63.15	502	66	6	4
Morigaon	125	67	6	169	66	6	48.68	294	66	6	4
Nalbari	132	55	7	146	58	6	35.39	278	56	7	11
Sonitpur	228	60	6	280	62	7	52.72	508	61	7	6
Total	2864	58	7	3288	56	7	168.34	6152	57	7	

Table 4.5: District wise and Gender wise Achievement in Mathematics

The mean score of boys and Girls in Mathematics in the state were 58% and 56% respectively. So, there was no significant difference in the mean scores of boys and girls in the state average. However, mean scores of boys in Golaghat and Karbi Anglong districts were significantly higher than girls. The children of Chirang scored the highest 78% followed by Darrang 71%.

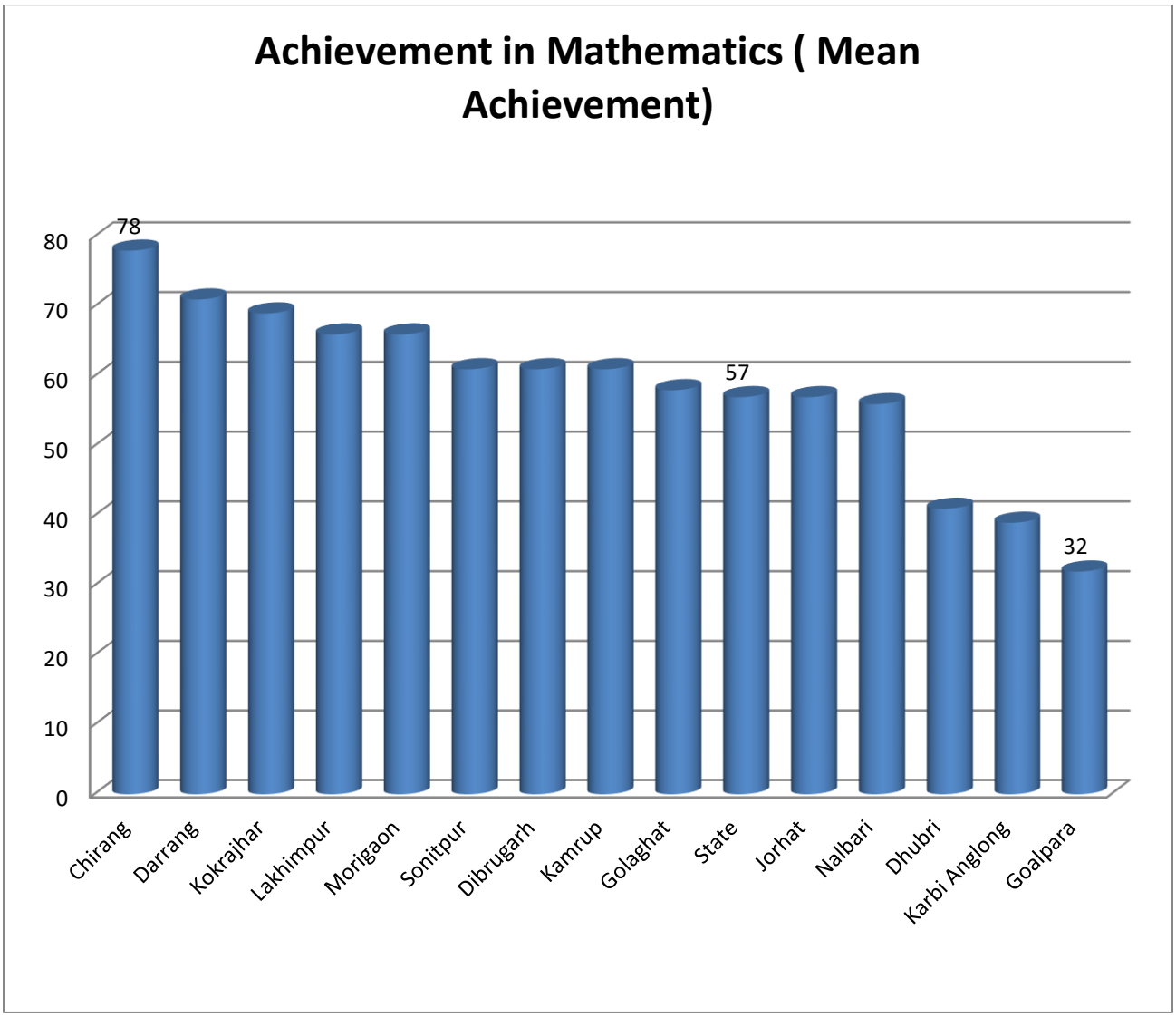


Fig 4.2 District wise mean achievement in Mathematics

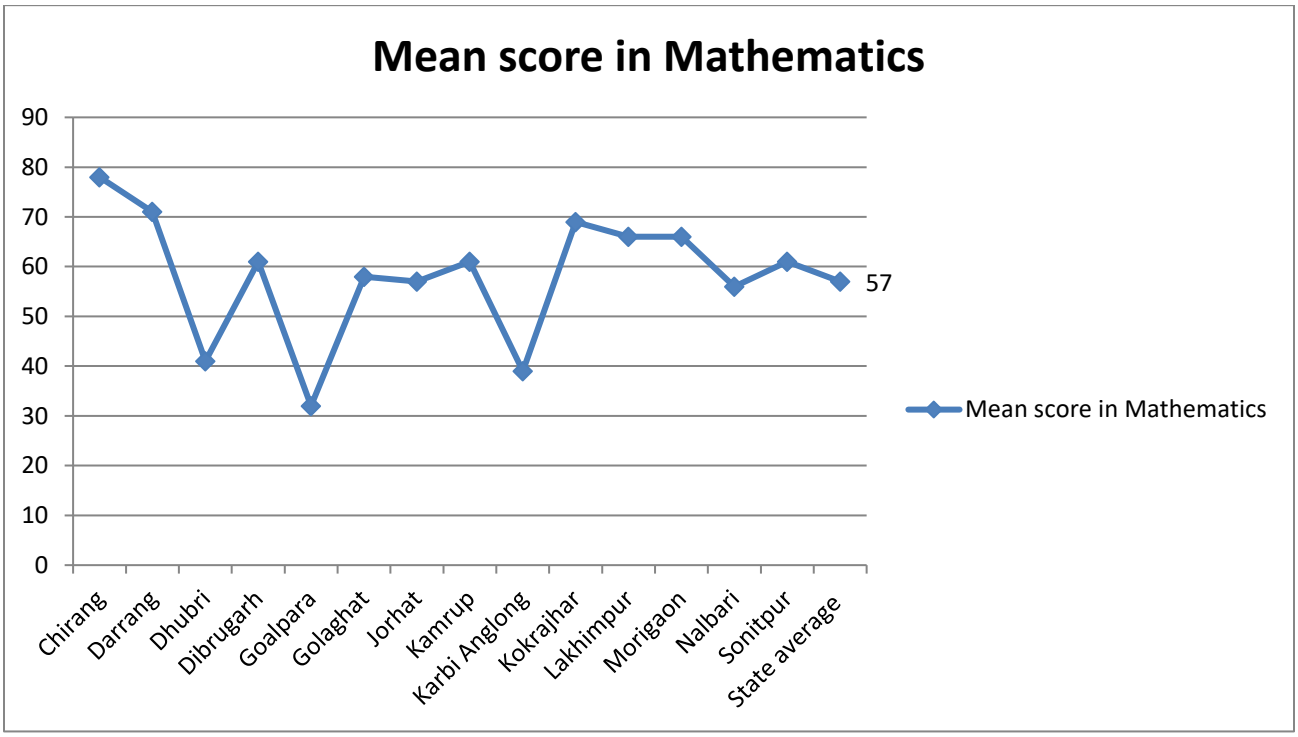


Fig 4.3 District wise mean achievement in Mathematics

Item No.(Set 21)	Rural		Urban		Total	
	N	%	N	%	N	%
Q1	1890	75.6%	463	77.9%	2353	76.1%
Q2	1774	71.0%	440	74.1%	2214	71.6%
Q3	1576	63.0%	436	73.4%	2012	65.0%
Q4	1613	64.5%	449	75.6%	2062	66.6%
Q5	1333	53.3%	354	59.6%	1687	54.5%
Q6	1441	57.6%	368	62.0%	1809	58.5%
Q7	1571	62.8%	412	69.4%	1983	64.1%
Q8	1346	53.8%	364	61.3%	1710	55.3%
Q9	1479	59.2%	396	66.7%	1875	60.6%
Q10	1156	46.2%	298	50.2%	1454	47.0%
Q11	1363	54.5%	333	56.1%	1696	54.8%
Q12	1082	43.3%	260	43.8%	1342	43.4%
Q13	1374	55.0%	345	58.1%	1719	55.6%
Q14	1253	50.1%	307	51.7%	1560	50.4%

Q15	1046	41.8%	277	46.6%	1323	42.8%
Q16	1068	42.7%	271	45.6%	1339	43.3%
Q17	1346	53.8%	330	55.6%	1676	54.2%
Q18	1055	42.2%	296	49.8%	1351	43.7%
Q19	1585	63.4%	390	65.7%	1975	63.8%
Q20	1137	45.5%	291	49.0%	1428	46.2%
Q21	1350	54.0%	367	61.8%	1717	55.5%
Q22	1377	55.1%	378	63.6%	1755	56.7%
Q23	1596	63.8%	413	69.5%	2009	64.9%
Q24	966	38.6%	230	38.7%	1196	38.7%
Q25	1378	55.1%	355	59.8%	1733	56.0%
Total Students	2500		594		3094	

Table 4.6: Area wise and Question wise number of correct Response in Mathematics SET 21

Item No.	% of children responded correctly	Competencies tested
1	76.1	Concept of Shape (rolling things)
2	71.6	Expanded number
3	65.0	Observation skill (pattern)
4	66.6	Measurement of Length (observation skill)
5	54.5	Problem sum of multiplication
6	58.5	Measurement of time (observation of clock)
7	64.1	Identification of number (up to 1000)
8	55.3	Identification of bigger or smaller number
9	60.6	Problem sum of multiple
10	47.0	formation of three digit number with given instruction
11	54.8	Subtraction of three digit number
12	43.4	Observation of design
13	55.6	Problem sum of addition
14	50.4	Measurement of length (Cm)
15	42.8	Problem sum of addition
16	43.3	Concept of multiplication
17	54.2	Problem sum of addition & subtraction
18	43.7	Concept of unit and ten

19	63.8	Formation of two digit number
20	46.2	Concept of multiplication
21	55.5	Addition of two digit number
22	56.7	Addition of two digit number
23	64.9	Concept of after and before in days of the week
24	38.7	Subtraction
25	56.0	Problem sum of addition

Table 4.7: Competency wise achievement of children in Mathematics (Test form 21)

In assessment of mathematics, children achieved higher in number system than operation of numbers like addition, subtraction , multiplication, Achievement of children in test of the concept of unit and ten, problem sum of addition and subtraction were low .(≤ 55%)

Questions with Nature	Rural		Urban		Total	
	N	%	N	%	N	%
Q1	1725	70.1%	454	76.0%	2179	71.3%
Q2	1741	70.7%	444	74.4%	2185	71.5%
Q3	1156	47.0%	305	51.1%	1461	47.8%
Q4	1586	64.4%	440	73.7%	2026	66.3%
Q5	1524	61.9%	382	64.0%	1906	62.3%
Q6	1284	52.2%	281	47.1%	1565	51.2%
Q7	1442	58.6%	362	60.6%	1804	59.0%
Q8	1545	62.8%	416	69.7%	1961	64.1%
Q9	1561	63.4%	435	72.9%	1996	65.3%
Q10	1538	62.5%	434	72.7%	1972	64.5%
Q11	1366	55.5%	372	62.3%	1738	56.8%
Q12	1463	59.4%	385	64.5%	1848	60.4%
Q13	1302	52.9%	323	54.1%	1625	53.1%
Q14	1322	53.7%	361	60.5%	1683	55.0%
Q15	1350	54.9%	354	59.3%	1704	55.7%
Q16	1172	47.6%	343	57.5%	1515	49.5%
Q17	1470	59.7%	376	63.0%	1846	60.4%
Q18	1321	53.7%	339	56.8%	1660	54.3%
Q19	1472	59.8%	359	60.1%	1831	59.9%
Q20	1347	54.7%	389	65.2%	1736	56.8%
Q21	1245	50.6%	361	60.5%	1606	52.5%

Q22	1022	41.5%	289	48.4%	1311	42.9%
Q23	1533	62.3%	399	66.8%	1932	63.2%
Q24	1406	57.1%	383	64.2%	1789	58.5%
Q25	1247	50.7%	294	49.2%	1541	50.4%
Total Students	2461		597		3058	

Table 4.8: Area wise and Question wise number of correct Response in Mathematics SET 22

Item No.	% of children responded correctly	Competencies tested
1	71.3	Concept of unit and ten
2	71.5	Addition of three digit number
3	47.8	Concept of calendar month
4	66.3	Pre concept of weight (heavy and light)
5	62.3	Identification of bigger or smaller number
6	51.2	Problem sum of subtraction
7	59.0	Concept of before, after and middle in number
8	64.1	Concept of shape (corner)
9	65.3	Concept of Shape (rolling things)
10	64.5	Expanded number
11	56.8	Observation skill (pattern)
12	60.4	Measurement of Length (observation skill)
13	53.1	Problem sum of multiplication
14	55.0	Measurement of time (observation of clock)
15	55.7	Identification of number (up to 1000
16	49.5	Identification of bigger or smaller number
17	60.4	Problem sum of multiple
18	54.3	Money (counting/addition)
19	59.9	Formation of two digit number
20	56.8	Calendar reading
21	52.5	Addition (two digit number / carry over)
22	42.9	Series observation
23	63.2	Problem sum of addition
24	58.5	Problem sum of multiplication
25	50.4	Problem sum of subtraction

Table 4.9: Competency wise achievement of children in Mathematics (Test form 22)

CHAPTER V

Learning Achievement in Environmental Studies

Students' achievement in Environmental Studies:

Learning achievement in Environmental Studies, like Language and mathematics was also assessed administering two sets of tests. Each set of test consisted of 25 items having three options. There were ten Anchor items in the Test in order to maintain the equilibrium between the sets and fifteen unique items in each of the test. The items were developed to assess the ability of the students to deal with curricular competencies which are stated below:

Test Form 31 (Set 1)		Test Form 32 (Set 2)	
Item No.	Competency	Item No.	Competency
1	Classification of plants based on structure	1	Recall the national symbol of India
2	Functions of different parts of plant	2	Knowledge of some birds that can't fly
3	Uses of different types of leaves	3	Habitat of different plants
4	Knowledge of Flowers that bloom at night	4	Knowledge of different types of food
5	Nests of different birds	5	Location of Small scale Industries of Assam
6	Importance of some days and observation their of	6	Use of different types of vehicles for disaster risk reduction
7	Different mode of transport	7	Rules for health care and its application
8	Fishing equipments made up of bamboo	8	Significance of National anthem, Its composure
9	Relation of Festivals with agriculture	9	Road safety rules and its application
10	Location of the state of Assam in India	10	Classification of Plants based on size and shape
11	Recall the national symbol of India	11	Honey bee and honey
12	Knowledge of some birds that can't fly	12	Classification of plants based on structure
13	Habitat of different plants	13	Homes of different animals
14	Knowledge of different types of food	14	Food habits of different birds
15	Location of Small scale Industries of	15	Importance of some days and

	Assam		observation their of
16	Use of different types of vehicles for disaster risk reduction	16	Different systems of communication/transaction
17	Rules for health care and its application	17	Use of bamboo for manufacture of Musical instruments
18	Significance of National anthem, Its composure	18	Different festivals of Assam
19	Road safety rules and its application	19	Knowledge of the capital of Assam
20	Different types of communication system and persons related with	20	Road safety rules and importance
21	Habitat of different animals	21	Colours in a rainbow
22	Locally celebrated festivals	22	Oil yielding crops
23	Traffic rules as road safety measures	23	Precautions to be taken at the time of natural calamities
24	Map reading and identification of location of given state/places	24	Habitats of different animals
25	Local self government and people	25	Traffic rules as road safety measures

Table5.1: The Competencies Tested in Environmental Studies assessment

Gender	Rural			Urban			t	Total		
	N	Mean %	SD	N	Mean %	SD		N	Mean%	SD
Boys	2289	52	6	578	60	6	111.12	2867	53	6
Girls	2583	50	6	661	59	7	115.25	3244	52	6
Total	4872	51	6	1239	60	6		6111	52	6
Mean Difference	12.66			14.91				13.12		
T	139.73			81.69				160.00		

Table 5.2 : Gender wise and Area wise Achievement in EVS

The table revealed no significant differences in mean achievement of rural boys and girls and urban boys and girls. However significant differences were observed in mean achievement of urban boys and rural boys. The mean achievement of urban boys was higher than that of rural boys. Similarly urban girls scored higher than that of rural girls in environmental studies.

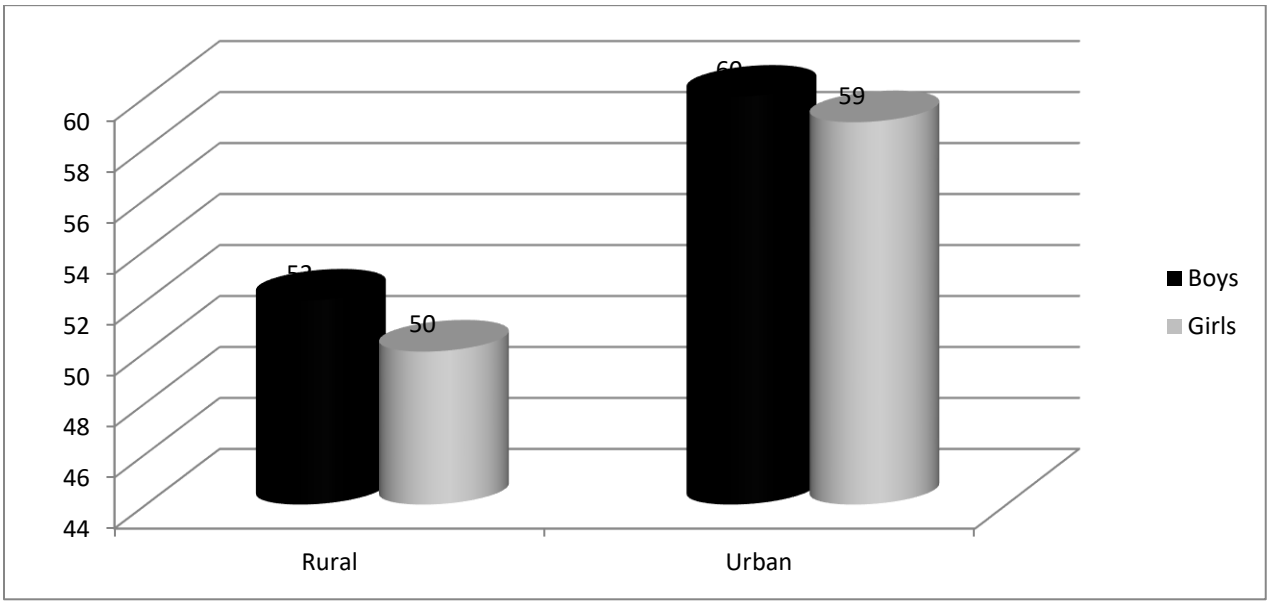


Fig5.1: gender wise and area wise achievement in Environmental studies.

Districts	Boys			Girls			t	Total			Rank
	N	Mean%	SD	N	Mean%	SD		N	Mean %	SD	
Chirang	128	69	6	149	74	5	55.06	277	72	5	2
Darrang	196	70	6	204	66	7	55.16	400	68	6	3
Dhubri	311	43	6	349	41	5	50.65	660	42	5	11
Dibrugarh	208	65	6	199	62	6	54.42	407	63	6	5
Goalpara	255	28	3	324	28	3	56.16	579	28	3	14
Golaghat	237	58	7	247	57	6	47.99	484	57	7	8
Jorhat	201	44	5	204	43	5	42.51	405	44	5	10
Kamrup	245	45	5	308	45	5	50.86	553	45	5	9
Karbi Anglong	130	40	5	208	35	4	39.79	338	37	4	12
Kokrajhar	211	71	5	181	75	4	80.84	392	73	4	1
Lakhimpur	237	67	5	265	70	5	72.58	502	68	5	3
Morigaon	126	64	7	170	63	7	39.76	296	63	7	5
Nalbari	160	34	3	149	32	3	44.99	309	33	3	13
Sonitpur	222	59	6	287	56	6	53.94	509	58	6	7
Total	2867	53	6	3244	52	6		6111	52	6	

Table 5.3 : District wise and Gender wise Achievement in EVS

The table revealed that the state mean achievement of children in Environmental Studies was 52%. The children from kokrajhar scored the highest 73% while children from Goalpara scored the lowest 28%. Thus the range of mean achievement was 45 which was high enough and indicated heterogeneity in achievement throughout the state. The table also revealed that there was no significant difference in mean achievement of boys and girls being 53% and 52% respectively. However achievement of boys were slightly higher than that of girls in the districts of Darrang and Karbi- Anglong and achievement of girls were slightly higher than that of boys in the districts of Kokrajhar and Chirang.

Name of Districts	Mean Achievement	Comparison with the state achievement
Kokrajhar	73	Mean achievement> state achievement
Chirang,	72	Mean achievement> state achievement
Darrang,	68	Mean achievement> state achievement
Lakhimpur,	68	Mean achievement> state achievement
Morigaon,	63	Mean achievement> state achievement
Dibrugarh	63	Mean achievement> state achievement
Sonitpur	58	Mean achievement> state achievement
Golaghat	57	Mean achievement> state achievement
State	52	
Kamrup,	45	Mean achievement ≤ state achievement
Jorhat,	44	Mean achievement ≤ state achievement
Dhubri	42	Mean achievement ≤ state achievement
Karbi Anglong	37	Mean achievement ≤ state achievement
Nalbari	33	Mean achievement ≤ state achievement
Goalpara	28	Mean achievement ≤ state achievement

Table 5.4 District wise mean achievement and comparison with the state achievement

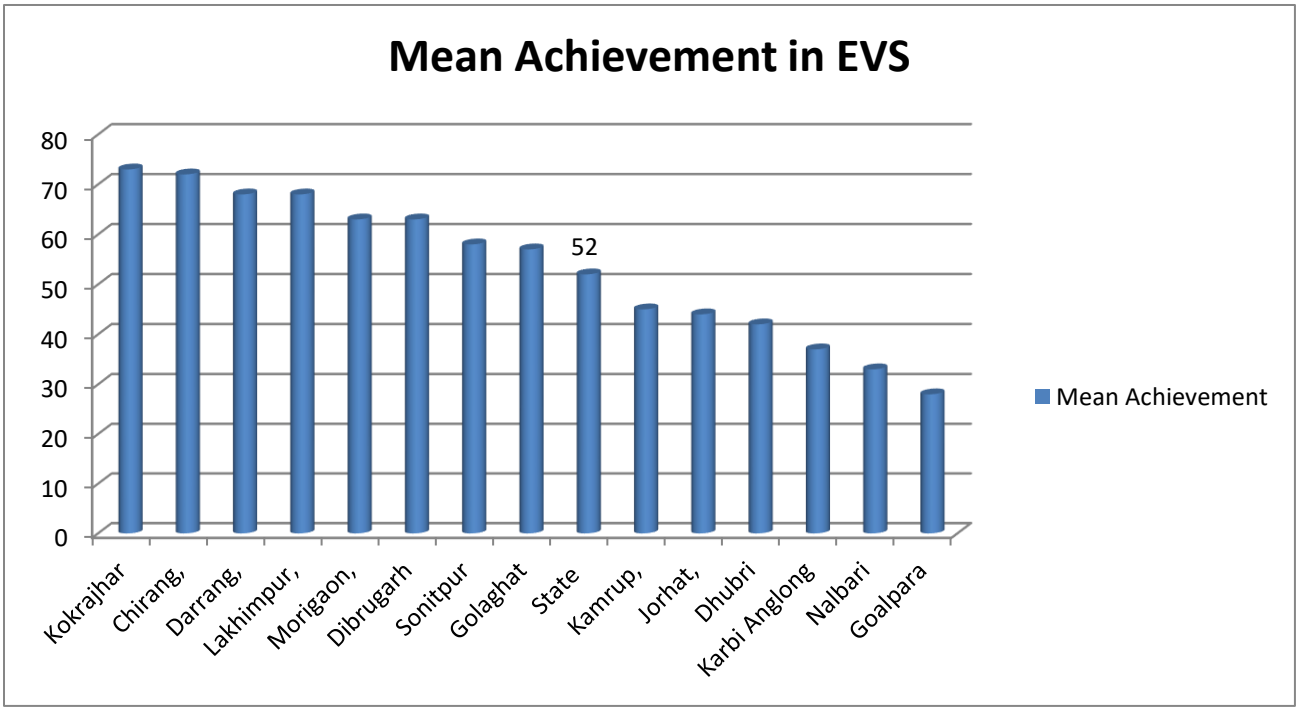


Fig 5.2 District wise mean achievement in Environmental Studies.

Districts	Rural			Urban			t	Total			Rank
	N	Mean%	SD	N	Mean %	SD		N	Mean %	SD	
Chirang	174	66	6	103	81	4	55.06	277	72	5	2
Darrang	306	70	6	94	64	6	55.16	400	68	6	3
Dhubri	554	41	5	106	45	5	50.65	660	42	5	11
Dibrugarh	301	59	6	106	77	5	54.42	407	63	6	5
Goalpara	460	28	3	119	26	3	56.16	579	28	3	14
Golaghat	434	55	6	50	77	5	47.99	484	57	7	8
Jorhat	358	41	4	47	64	7	42.51	405	44	5	10
Kamrup	449	43	5	104	52	6	50.86	553	45	5	9
Karbi Anglong	273	36	4	65	41	6	39.79	338	37	4	12
Kokrajhar	289	73	5	103	74	4	80.84	392	73	4	1
Lakhimpur	353	68	6	149	70	5	72.58	502	68	5	3
Morigaon	226	62	7	70	68	5	39.76	296	63	7	5
Nalbari	275	32	3	34	41	5	44.99	309	33	3	13
Sonitpur	420	60	6	89	49	5	53.94	509	58	6	7
Total	4872	51	6	1239	60	6		6111	52	6	

Table5. 5 : District wise and Area wise Achievement in EVS

The table revealed that achievement of urban children (60%) of the state was significantly higher than that of rural children (51%). Achievement of urban children were significantly higher in the districts of Chirang, Dibrugarh, Golaghat, Jorhat, Kamrup, Karbi Anglong,Morigaon and Nalbari while achievement of rural children were higher in the districts of Darrang and Sonitpur. (Difference of ≥5% was considered as significant)

Districts	Achievement of rural	Achievement of urban	comparison
Chirang	66	81	U > R
Darrang	70	64	R > U
Dhubri	41	45	No. significant diff.
Dibrugarh	59	77	U > R
Goalpara	28	26	No. significant diff.
Golaghat	55	77	U > R
Jorhat	41	64	U > R

Kamrup	43	52	U > R
Karbi Anglong	36	41	U > R
Kokrajhar	73	74	No. significant diff.
Lakhimpur	68	70	No. significant diff.
Morigaon	62	68	U > R
Nalbari	32	81	U > R
Sonitpur	60	64	R > U

Table 5.6: District wise, area wise mean achievement and comparison with the state achievement in EVS

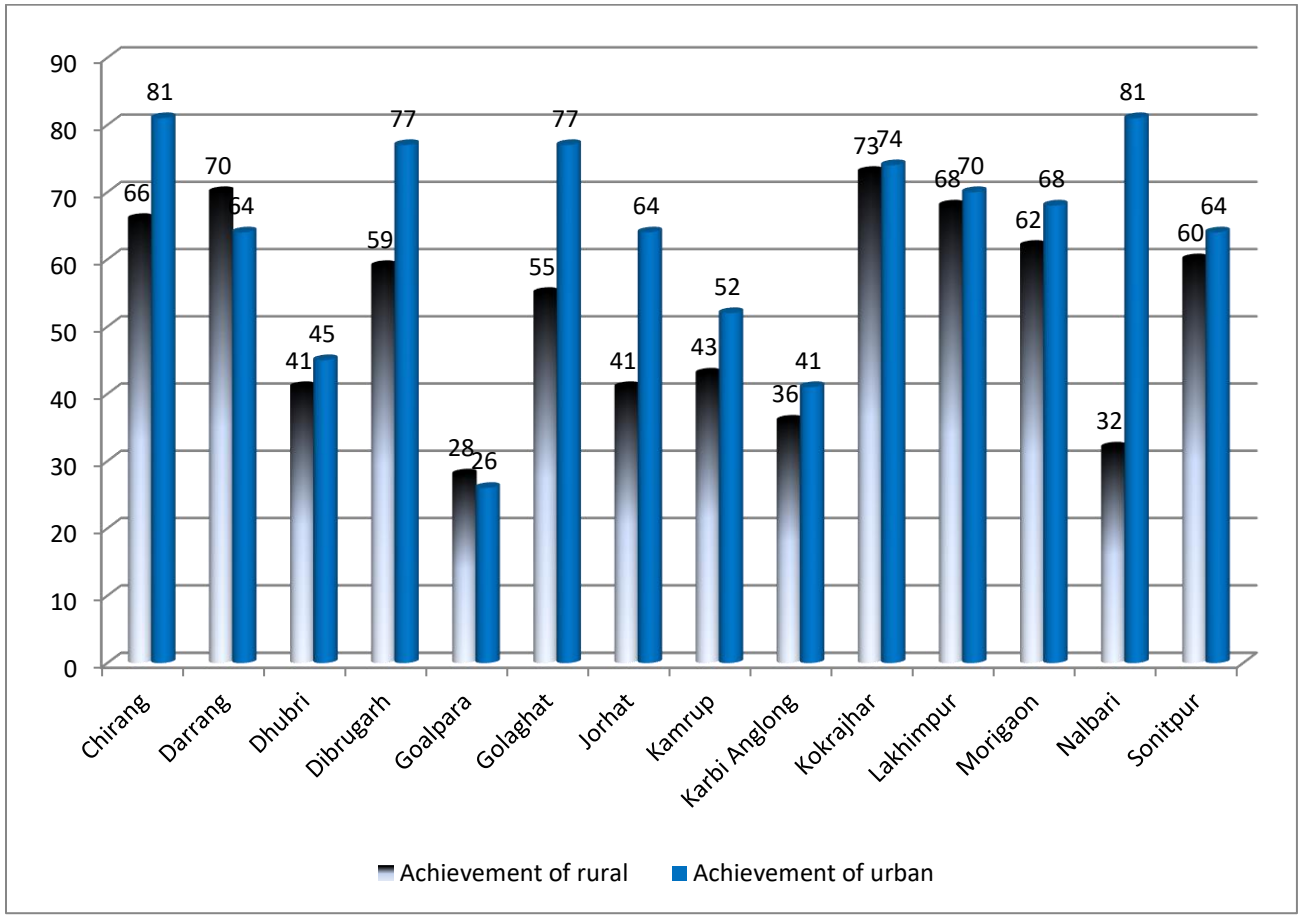


Fig 5.3: District wise and area wise mean achievement in Environmental Studies.

Questions with Nature	Rural		Urban		Total	
	N	%	N	%	N	%
Q1	1556	62.9%	500	77.8%	2056	66.0%
Q2	1604	64.8%	470	73.1%	2074	66.5%
Q3	1412	57.1%	429	66.7%	1841	59.1%
Q4	994	40.2%	362	56.3%	1356	43.5%
Q5	1228	49.6%	408	63.5%	1636	52.5%
Q6	1372	55.5%	420	65.3%	1792	57.5%
Q7	1424	57.6%	434	67.5%	1858	59.6%
Q8	1511	61.1%	463	72.0%	1974	63.3%
Q9	1217	49.2%	361	56.1%	1578	50.6%
Q10	1286	52.0%	409	63.6%	1695	54.4%
Q11	1549	62.6%	472	73.4%	2021	64.8%
Q12	1280	51.7%	443	68.9%	1723	55.3%
Q13	1093	44.2%	254	39.5%	1347	43.2%
Q14	1256	50.8%	396	61.6%	1652	53.0%
Q15	1435	58.0%	396	61.6%	1831	58.7%
Q16	1184	47.9%	400	62.2%	1584	50.8%
Q17	1091	44.1%	334	51.9%	1425	45.7%
Q18	1280	51.7%	372	57.9%	1652	53.0%
Q19	1343	54.3%	386	60.0%	1729	55.5%
Q20	1161	46.9%	360	56.0%	1521	48.8%
Q21	1234	49.9%	407	63.3%	1641	52.6%
Q22	1158	46.8%	309	48.1%	1467	47.1%
Q23	1258	50.8%	371	57.7%	1629	52.3%
Q24	1165	47.1%	357	55.5%	1522	48.8%
Q25	1141	46.1%	354	55.1%	1495	48.0%
Total Students		2474		643		3117

Table 5.7 : Area wise and Question wise number of correct Response in EVS (form 31)

Item No.	% of children responded correctly	Competencies tested
1	66.0%	Classification of plants based on structure
2	66.5%	Functions of different parts of plant
3	59.1%	Uses of different types of leaves
4	43.5%	Knowledge of Flowers that bloom at night
5	52.5%	Nests of different birds
6	57.5%	Importance of some days and observation their of
7	59.6%	Different mode of transport
8	63.3%	Fishing equipments made up of bamboo
9	50.6%	Relation of Festivals with agriculture
10	54.4%	Location of the state of Assam in India
11	64.8%	Recall the national symbol of India
12	55.3%	Knowledge of some birds that can't fly
13	43.2%	Habitat of different plants
14	53.0%	Knowledge of different types of food
15	58.7%	Location of Small scale Industries of Assam
16	50.8%	Use of different types of vehicles for disaster risk reduction
17	45.7%	Rules for health care and its application
18	53.0%	Significance of National anthem, Its composure
19	55.5%	Road safety rules and its application
20	48.8%	Different types of communication system and persons related with
21	52.6%	Habitat of different animals
22	47.1%	Locally celebrated festivals
23	52.3%	Traffic rules as road safety measures
24	48.8%	Map reading and identification of location of given state/places
25	48.0%	Local self government and people

Table 5.8 Item wise percentage wise children responded correctly

Questions with Nature	Rural		Urban		Total	
	N	%	N	%	N	%
Q1	1409	58.8%	420	70.5%	1829	61.1%
Q2	1554	64.8%	453	76.0%	2007	67.0%
Q3	983	41.0%	238	39.9%	1221	40.8%
Q4	1037	43.2%	322	54.0%	1359	45.4%
Q5	1317	54.9%	348	58.4%	1665	55.6%
Q6	1377	57.4%	418	70.1%	1795	60.0%
Q7	1310	54.6%	358	60.1%	1668	55.7%
Q8	1148	47.9%	309	51.8%	1457	48.7%
Q9	1193	49.7%	323	54.2%	1516	50.6%
Q10	1092	45.5%	256	43.0%	1348	45.0%
Q11	1473	61.4%	442	74.2%	1915	64.0%
Q12	876	36.5%	257	43.1%	1133	37.8%
Q13	1145	47.7%	403	67.6%	1548	51.7%
Q14	1218	50.8%	295	49.5%	1513	50.5%
Q15	1433	59.8%	364	61.1%	1797	60.0%
Q16	1194	49.8%	372	62.4%	1566	52.3%
Q17	1135	47.3%	373	62.6%	1508	50.4%
Q18	1196	49.9%	356	59.7%	1552	51.8%
Q19	1074	44.8%	365	61.2%	1439	48.1%
Q20	791	33.0%	235	39.4%	1026	34.3%
Q21	1180	49.2%	420	70.5%	1600	53.4%
Q22	1075	44.8%	319	53.5%	1394	46.6%
Q23	1096	45.7%	289	48.5%	1385	46.3%
Q24	1236	51.5%	400	67.1%	1636	54.6%
Q25	914	38.1%	278	46.6%	1192	39.8%
Total Students	2398		596		2994	

Table 5.9: Area wise and Question wise number of correct Response in EVS (form 32)

Item No.	% of children responded correctly	Competencies tested
1	61.1%	Recall the national symbol of India
2	67.0%	Knowledge of some birds that can't fly
3	40.8%	Habitat of different plants
4	45.4%	Knowledge of different types of food
5	55.6%	Location of Small scale Industries of Assam
6	60.0%	Use of different types of vehicles for disaster risk reduction
7	55.7%	Rules for health care and its application
8	48.7%	Significance of National anthem, Its composure
9	50.6%	Road safety rules and its application
10	45.0%	Classification of Plants based on size and shape
11	64.0%	Honey bee and honey
12	37.8%	Classification of plants based on structure
13	51.7%	Homes of different animals
14	50.5%	Food habits of different birds
15	60.0%	Importance of some days and observation their of
16	52.3%	Different systems of communication/transaction
17	50.4%	Use of bamboo for manufacture of Musical instruments
18	51.8%	Different festivals of Assam
19	48.1%	Knowledge of the capital of Assam
20	34.3%	Road safety rules and importance
21	53.4%	Colours in a rainbow
22	46.6%	Oil yielding crops
23	46.3%	Precautions to be taken at the time of natural calamities
24	54.6%	Habitats of different animals
25	39.8%	Traffic rules as road safety measures

Table5.10: % wise students responded correctly in assessment of EVS Test 32

Sl. No	**% of children responded correctly**	Item Number
1	≥ 60%	1,2,6,11 and 15 (5)
2	≥ 50%	5,7,9,13,14,16,17,18,21and 24 (10)
3	≥ 40%	3,4,8,10,19,22 and 23 (7)
4	Below 40%	12,20 and 25 (3)

Table5.11: Item wise number of student responded correctly in assessment of EVS test 32

The table revealed that item no. 12, 20 and 25 were responded correctly by below 40% of the students in assessment of Environmental studies Test 32. The competencies tested in these items were Classification of plants based on structure, road safety rules and its importance and traffic rules and road safety measures. On other hand Item Number 1, 2,6,11, and 15 were responded correctly by 60% or above students. The competencies tested in these items were National symbol of India, name of a bird that cannot fly, vehicles used for disaster ricks reduction, name of honey bee and honey and days of Observation. All these were knowledge based items.

CHAPTER VI

Learning Achievement in Language, Mathematics and Environmental Studies

Learning achievement of children in Language, Mathematics and Environmental studies have been discussed in separate chapters. In this chapter, learning achievement of children in all the subjects will be discussed taking districts as unit.

D. Code	Districts	Mean Achievement		
		Language	Mathematics	Environmental Studies
01	Chirang	66	78	72
02	Darrang	62	71	68
03	Dhubri	53	41	42
04	Dibrugarh	58	61	63
05	Goalpara	36	32	28
06	Golaghat	53	58	57
07	jorhat	48	57	44
08	Kamrup	51	61	45
09	Karbi Anglong	46	39	37
10	Kokrajhar	67	69	73
11	Lakhimpur	62	66	68
12	Morigaon	60	66	63
13	Nalbari	58	56	33
14	Sonitpur	54	61	58
	State average	55	57	52

Table6.1: District wise mean achievement in Language, Mathematics and Environmental Studies.

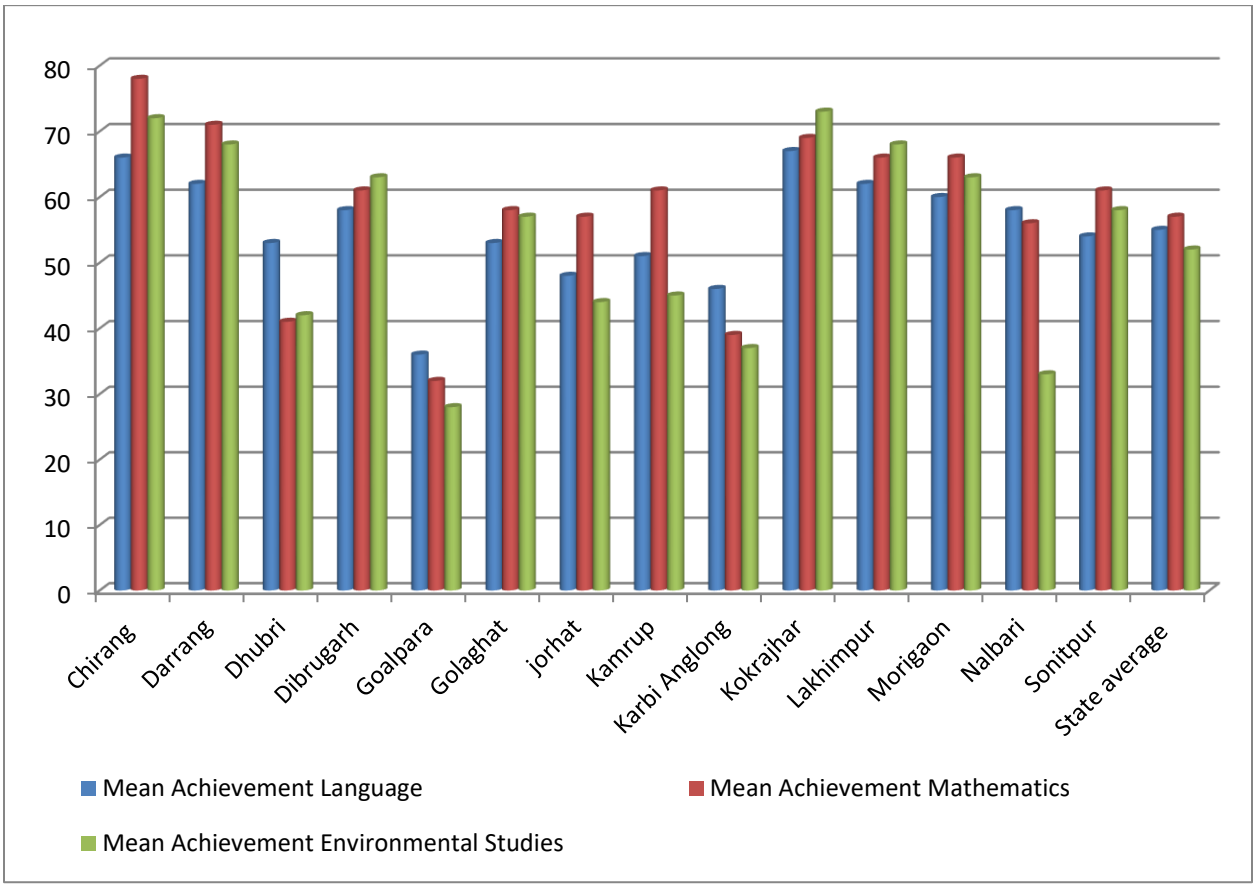


Fig: 6.1 District wise mean scores in Language, Mathematics and EVS

Achievement Level(Percentage)	Mathematics			Language			EVS		
	f	f%	cf%	f	f%	cf%	f	f%	cf%
0-10	195	3.2	3.2	227	3.9	3.9	129	2.1	2.1
10-20	197	3.2	6.4	185	3.2	7.0	443	7.2	9.4
20-30	728	11.8	18.2	654	11.2	18.2	707	11.6	20.9
30-40	722	11.7	29.9	593	10.1	28.3	1486	24.3	45.2
40-50	844	13.7	43.7	939	16.0	44.4	515	8.4	53.7
50-60	481	7.8	51.5	588	10.0	54.4	538	8.8	62.5
60-70	688	11.2	62.7	654	11.2	65.6	355	5.8	68.3
70-80	521	8.5	71.1	1253	21.4	87.0	804	13.2	81.4
80-90	968	15.7	86.9	663	11.3	98.3	525	8.6	90.0
90-100	808	13.1	100.0	100	1.7	100.0	609	10.0	100.0
Total	6152	100.0		5856	100.0		6111	100.0	

Table 6.2 Distribution of Students on the basis of their achievement level in Mathematics, Language & EVS

The table revealed that 18.2%, 18.2% and 20% of the students scored between 0 % to 30% in Mathematics, language and Environmental Studies respectively. 28.8%, 13% and 18.6% of the students scored 80% and above 80% in mathematics, Language and EVS respectively. 19.7%, 33.6% and 19% of students achieved between 60% to 80% in mathematics, Language and EVS respectively. This indicated that performance of student was better in language than that of Mathematics and EVS and achievement in mathematics was better than that of Environmental Studies. 29.9%, 28.3 and 45.2% of the children achieved ≤ 40% in Mathematics, Language and EVS respectively. In other words more students achieved less or equal to 40% in Environmental Studies while lesser number of students responded correctly to the 40% or less than 40% of tests in Language and Mathematics

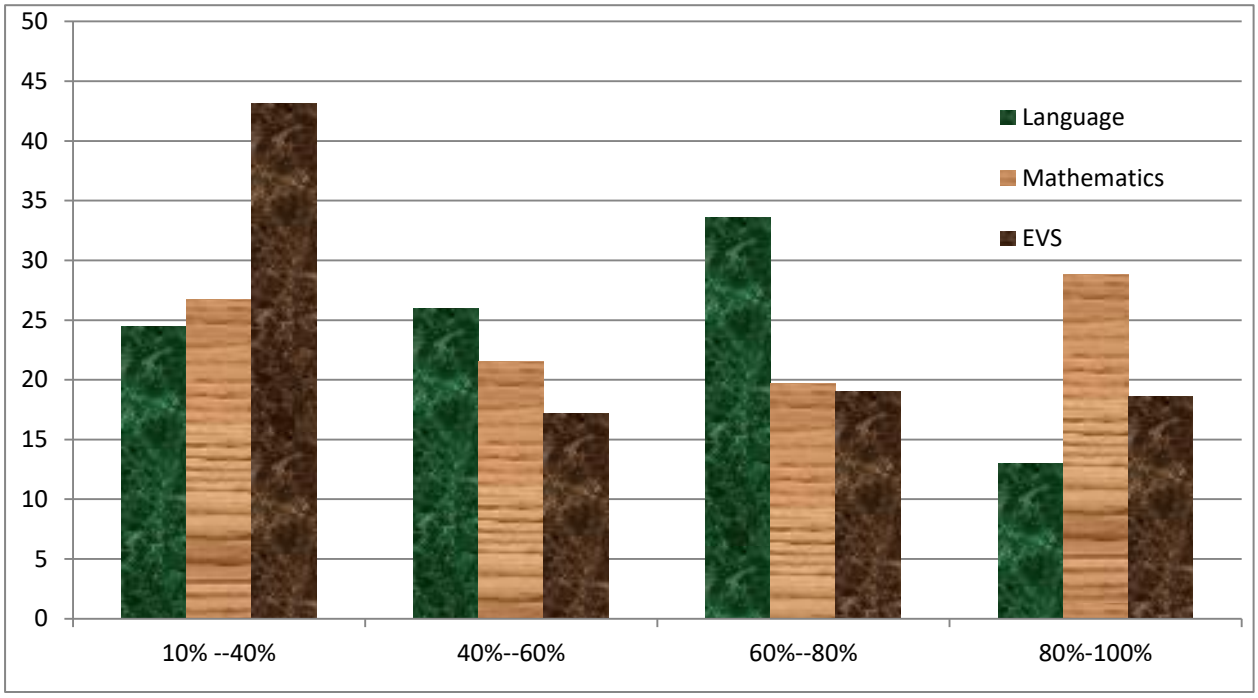


Fig6.2: Distribution of children on the basis of their achievement in Language, Mathematics and EVS

Cut off Points	Mathematics		Language		EVS	
	N	%	N	%	N	%
0- less than 33%	1486	24.2	1066	18.2	1841	30.1
33% - less than 45%	950	15.4	923	15.8	1184	19.4
45% - less than 60%	955	15.5	1197	20.4	793	13.0
60% - less than 75%	721	11.7	1041	17.8	662	10.8
75% - 100%	2040	33.2	1629	27.8	1631	26.7
Total	6152	100.0	5856	100.0	6111	100.0

Table 6.3 Distribution of student on the basis of cut off points as per their achievement level in Mathematics, Language and Environmental Studies

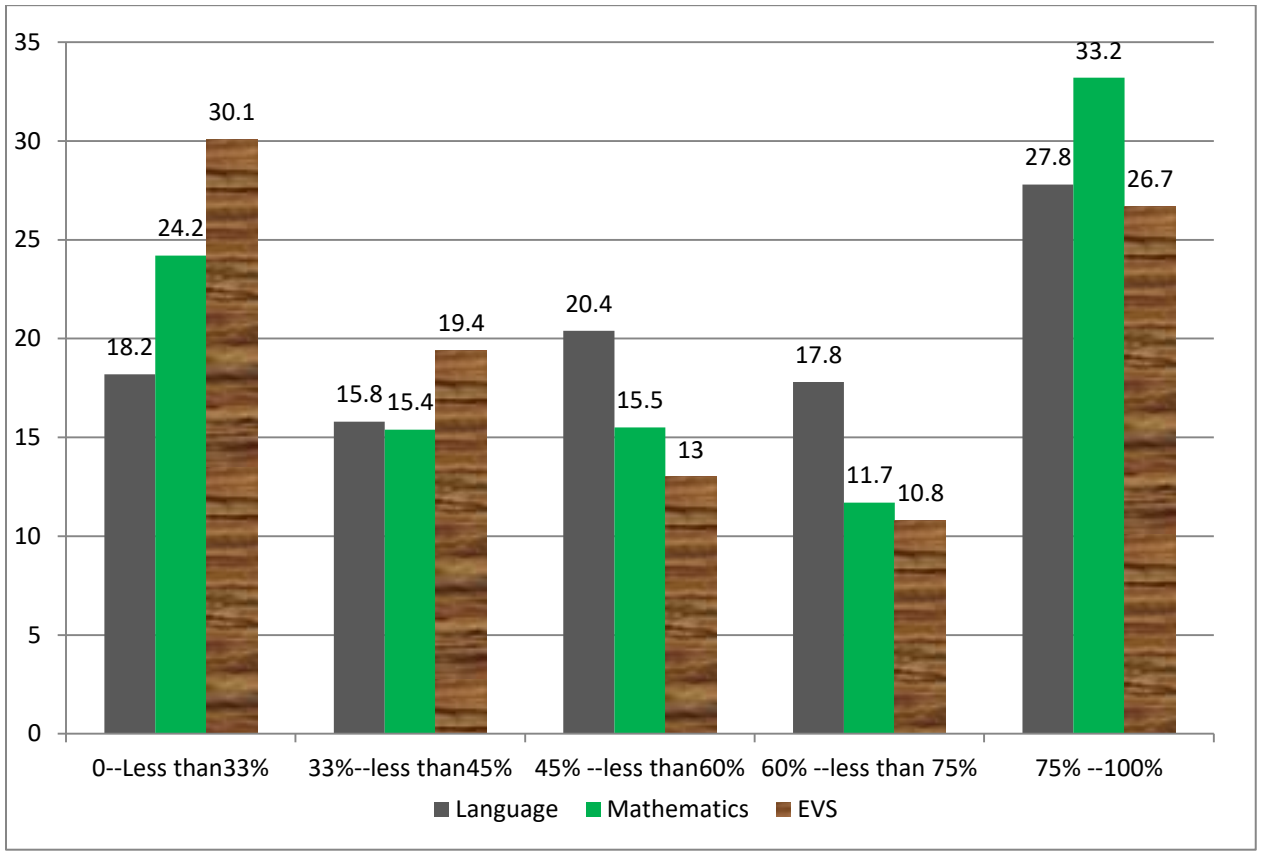


Fig6.3: Distribution of children on the basis of cut off points in Language, Mathematics and EVS

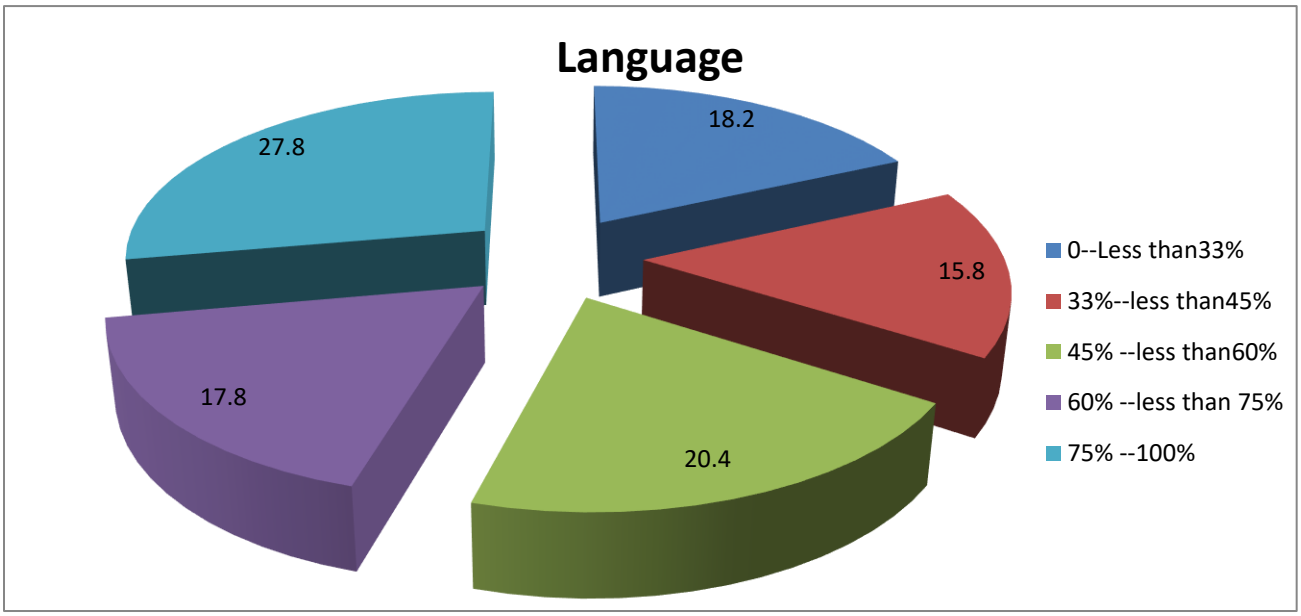


Fig6.4: Distribution of students on the basis of cut off points as per their achievement in Language

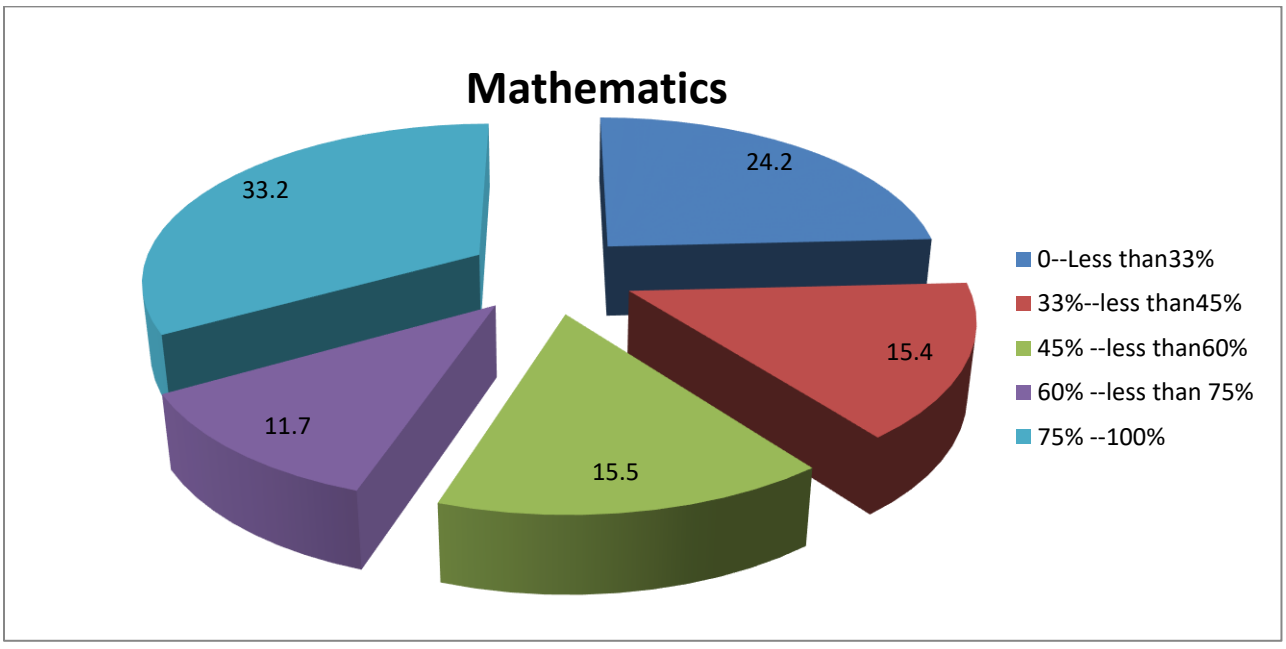


Fig6.5: Distribution of students on the basis of cut off points as per their achievement in Mathematics

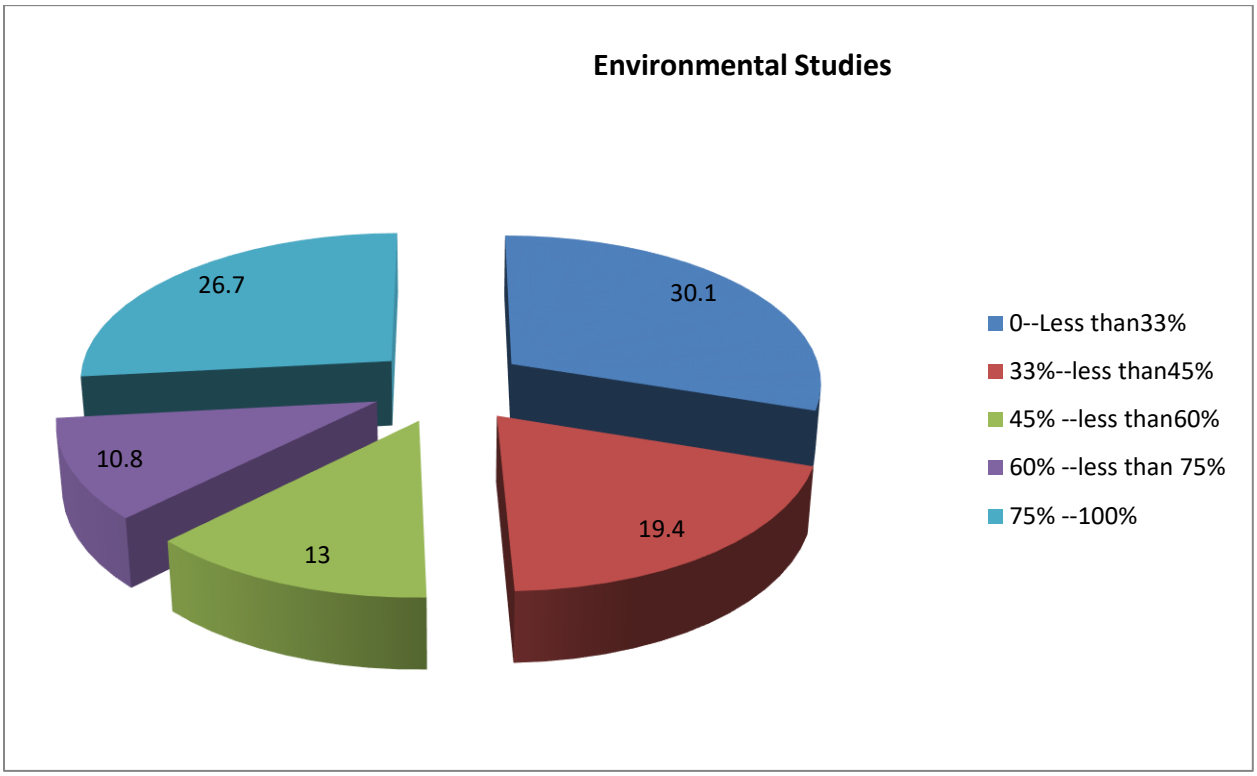


Fig6.6: Distribution of students on the basis of cut off points as per their achievement in EVS.

CHAPTER VII

Learners' Background-related variables

7.1 Gender, Category and Location- related variables:

Category		Rural			Urban			Total		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
SC	N	155	209	364	24	10	34	179	219	398
	%	42.58	57.42		70.59	29.41		44.97	55.03	
ST	N	299	295	594	36	104	140	335	399	734
	%	50.34	49.66		25.71	74.29		45.64	54.36	
OBC	N	507	486	993	321	146	467	828	632	1460
	%	51.06	48.94		68.74	31.26		56.71	43.29	
Others	N	1349	1661	3010	173	377	550	1522	2038	3560
	%	44.82	55.18		31.45	68.55		42.75	57.25	
Grand Total	N	2310	2651	4961	554	637	1191	2864	3288	6152
	%	46.56	53.44		46.52	53.48		46.55	53.45	

Table 7.1: Area wise, Gender wise and Category wise Distribution of Students

The Table revealed that the sample children consisted of 46.55% boys and 53.45% girls and 80.64% and 19.36% of the sample children were from rural and urban area respectively. 6.47%, 11.93%, 23.73% and 57.87% of the sample children were represented by the SC, ST, OBC and others categories of the community respectively.

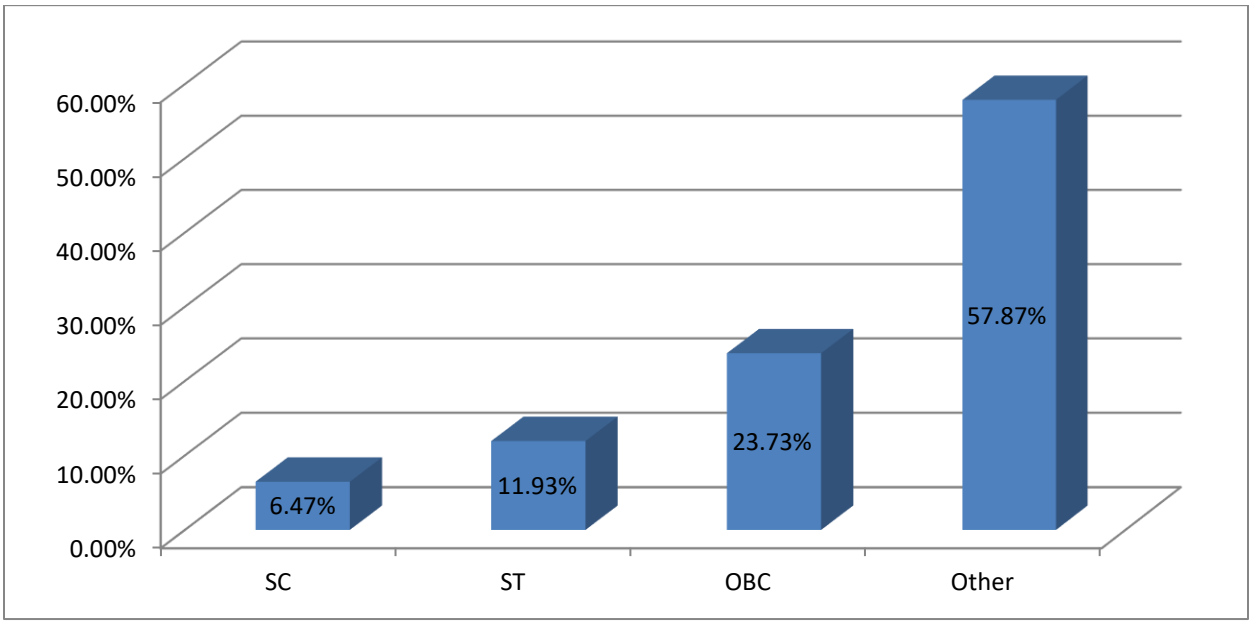


Fig 7.1 Representation of different categories in sample

7.2 Home environment related variables:

(Educational status and occupation of Parents)

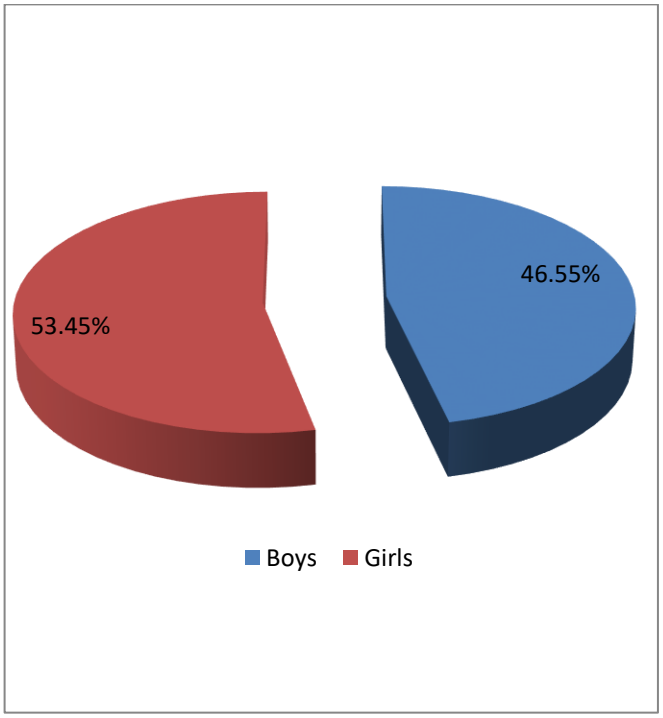


Fig 7.2 Representation of Boys and Girls

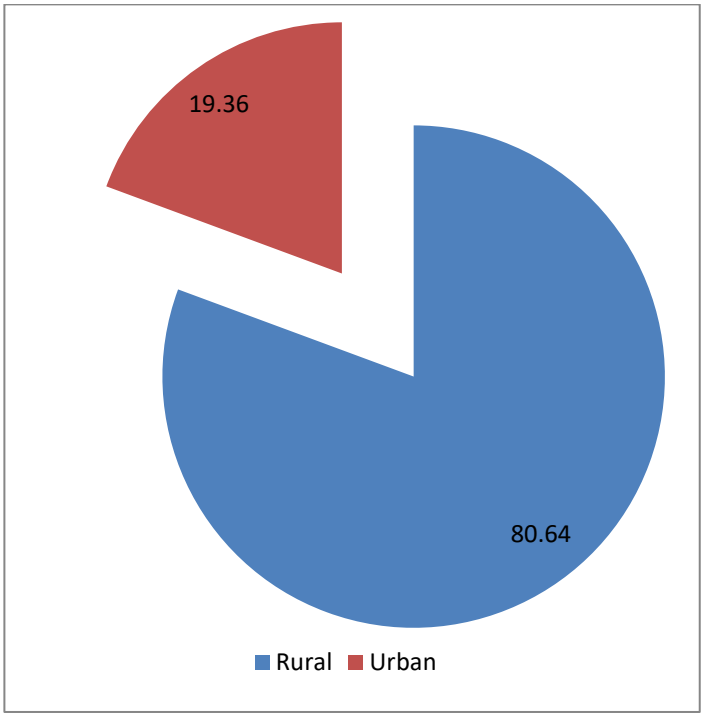


Fig: 7.3 Representation of Rural and Urban children

Educational Level	Rural		Urban		Total	
	N	%	N	%	N	%
Father is Not Alive	175	3.53	55	4.62	230	3.74
Illiterate	701	14.13	182	15.28	883	14.35
Literate	2063	41.58	483	40.55	2546	41.38
Education Up to Secondary Level	1091	21.99	286	24.01	1377	22.38
Education above Higher/Senior Secondary level	931	18.77	185	15.53	1116	18.14
Grand Total	4961		1191		6152	

Table 7.2: Distribution of Student on the basis of Educational Status of Father

From the table it can be interpreted that the father of only 22.38% of children were educated up to the secondary level of education, father of only 18.14% of children were educated above

Higher/ senior Secondary level of education and father of 14.35% of children were even illiterate.

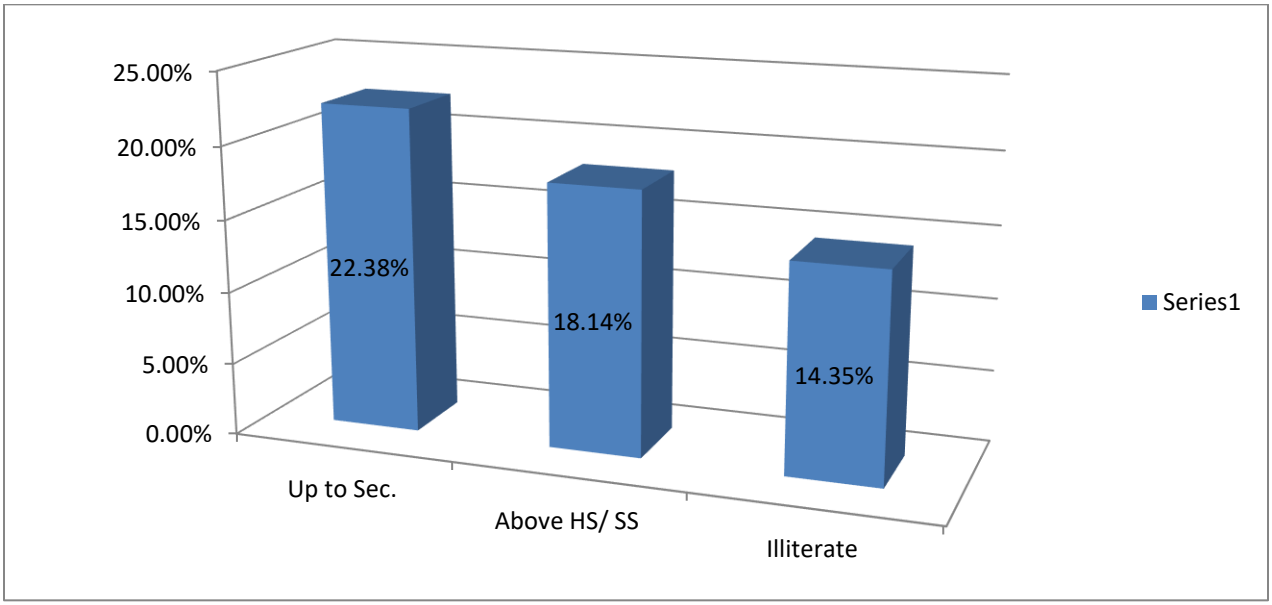


Fig 7.4 Educational status of Father of children

Educational Level	Rural		Urban		Total	
	N	%	N	%	N	%
Mother is Not Alive	141	2.84	50	4.20	191	3.10
Illiterate	1621	32.67	440	36.94	2061	33.50
Literate	2345	47.27	516	43.32	2861	46.51
Education Up to Secondary Level	763	15.38	162	13.60	925	15.04
Education above Higher/Senior Secondary level	91	1.83	23	1.93	114	1.85
Grand Total	4961		1191		6152	

Table 7.3: Distribution of Student on the basis of Educational Status of Mother

From the table it can be interpreted that the father of only 15.04% of children were educated up to the secondary level of education, father of only 1.85% of children were educated above Higher/ senior Secondary level of education and father of 33.5% of children were even illiterate.

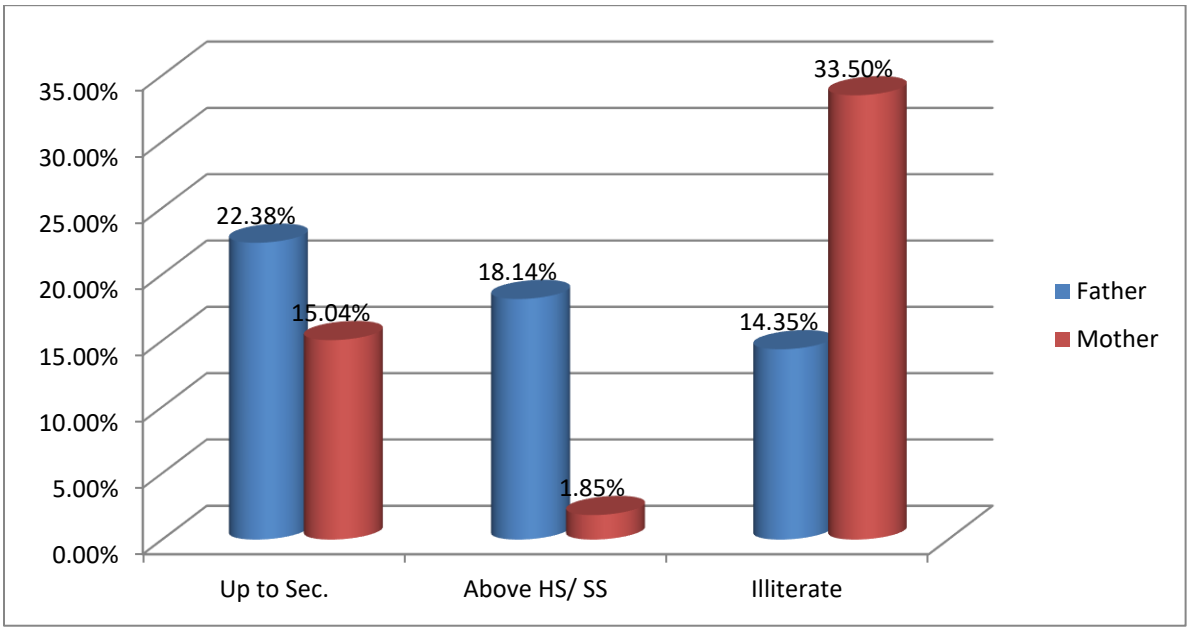


Fig 7.5 Educational status of Parents of children

Occupations	Rural		Urban		Total	
	N	%	N	%	N	%
Father is Not Alive	175	3.53	55	4.62	230	3.74
Farmer	3356	67.65	668	56.09	4024	65.41
Self Employed	590	11.89	240	20.15	830	13.49
Job	840	16.93	228	19.14	1068	17.36
Grand Total	4961		1191		6152	

Table 7.4: Distribution of Student on the basis of Occupation of Father

The table revealed that most of the sample children were from family of farmer background. The father of 65.41 % of children were farmer, father of 17.36% of children were having regular job.

Occupations	Rural		Urban		Total	
	N	%	N	%	N	%
Mother is Not Alive	141	2.84	50	4.20	191	3.10
Farmer	3324	67.00	557	46.77	3881	63.09
Self Employed	1435	28.93	488	40.97	1923	31.26
Job	61	1.23	96	8.06	157	2.55
Grand Total	4961		1191		6152	

Table 7.5: Distribution of Student on the basis of Occupation of Mother

In case of occupation of mother, it was recorded that mother of 31.26% of children were self employed and mother of only 2.55% of children were having job.

7.3 Teacher-related variables: (As per PQ)

Frequency of Home Work	Rural		Urban		Total	
	N	%	N	%	N	%
Regularly	2060	41.52	511	42.91	2571	41.79
Sometimes	2901	58.48	680	57.09	3581	58.21
Not at all	0	0	0	0	0	0
Total	4961		1191		6152	

Table 7.6: Opinion of the Students about the Home work given by the Teacher in Language

Data collected through PQ revealed that according to 41.79% and 58.21 % of the children the Language teachers of class III of the sample schools assigned home work to the children regularly and sometimes respectively.

Frequency of Home Work	Rural		Urban		Total	
	N	%	N	%	N	%
Regularly	2375	47.87	658	55.25	3033	49.30
Sometimes	2586	52.13	533	44.75	3119	50.70
Not at all	0		0		0	
Total	4961		1191		6152	

Table 7.7: Opinion of the Students about the Home work given by the Teacher in Mathematics

Data collected through PQ revealed that 49.3% and 50.70 % of the children were in the opinion that Mathematics teachers of class III of the sample schools assigned home work to the children regularly and sometimes respectively.

Frequency of Home Work	Rural		Urban		Total	
	N	%	N	%	N	%
Regularly	1996	40.23	555	46.60	2551	41.47
Sometimes	2965	59.77	636	53.40	3601	58.53
Not at all	0		0		0	
Total	4961		1191		6152	

Table 7.8: Opinion of the Students about the Home work given by the Teacher in EVS

Data collected through PQ revealed that 41.47% and 58.53 % of the children were in opinion that EVS teachers of class III of the sample schools assigned home work to the children regularly and sometimes respectively.

Checking of Home Work	Rural		Urban		Total	
	N	%	N	%	N	%
Regularly	1200	24.19	289	24.27	1489	24.20
Sometimes	3761	75.81	902	75.73	4663	75.80
Not at all	0		0		0	
Total	4961		1191		6152	

Table 7.9 : Opinion of students on Checking Home work at School in Language

According to 24.2% of children the Language Teachers checked Home work regularly and 75.8% of children Teachers checked home work only some times.

Checking of Home Work	Rural		Urban		Total	
	N	%	N	%	N	%
Regularly	1689	34.05	420	35.26	2109	34.28
Sometimes	3272	65.95	771	64.74	4043	65.72
Not at all	0		0	0	0	0
Total	4961		1191		6152	

Table7.10 : Opinion of students on **Checking** Home work at School in Mathematics

As per data from PQ 34.28% of children opined that Mathematics teachers checked home work assigned by them to the children regularly while 65.72% of children opined that Mathematics teachers checked home work sometimes

Checking of Home Work	Rural		Urban		Total	
	N	%	N	%	N	%
Regularly	1213	24.45	443	37.20	1656	26.92
Sometimes	3748	75.55	748	62.80	4496	73.08
Not at all	0		0		0	
Total	4961		1191		6152	

Table 7.11: Opinion of students on **Checking** Home work at School in EVS

As per data from PQ only 26.92% of EVS teachers checked home work assigned by them to the children regularly while 73.08% of EVS teachers checked home work sometimes

Area	Physically Challenged				
	Boys		Girls		Total
	N	%	N	%	
Rural	17	60.71	10	58.82	27
Urban	11	39.29	7	41.18	18
Total	28		17		45

Table 7.12: Distribution of Students on the Basis of Belongs to Physically Challenged

The table revealed that the sample of the survey consisted of 45 numbers of differently able learners of which 27 from rural and 18 from urban area and 28 were boys and 17 were girls.

Area	Get Helps in study at home					Not Get Helps in study at home					Total
	Boys		Girls		Total	Boys		Girls		Total	
	N	%	N	%		N	%	N	%		
Rural	1815	77.27	2141	81.10	3956	456	88.54	549	84.72	1005	4961
Urban	534	22.73	499	18.90	1033	59	11.46	99	15.28	158	1191
Grand Total	2349		2640		4989	515		648		1163	6152

Table 7.13: Distribution of Students on the Basis of Get Helps in study at home

The table revealed that out of 2864 boys tested 82% of them got help in their study at home while 18% did not get help in their study at home. Out of 3288 girls tested 80.3% of them got help in their study at home while 19.7% did not get help in their study at home.

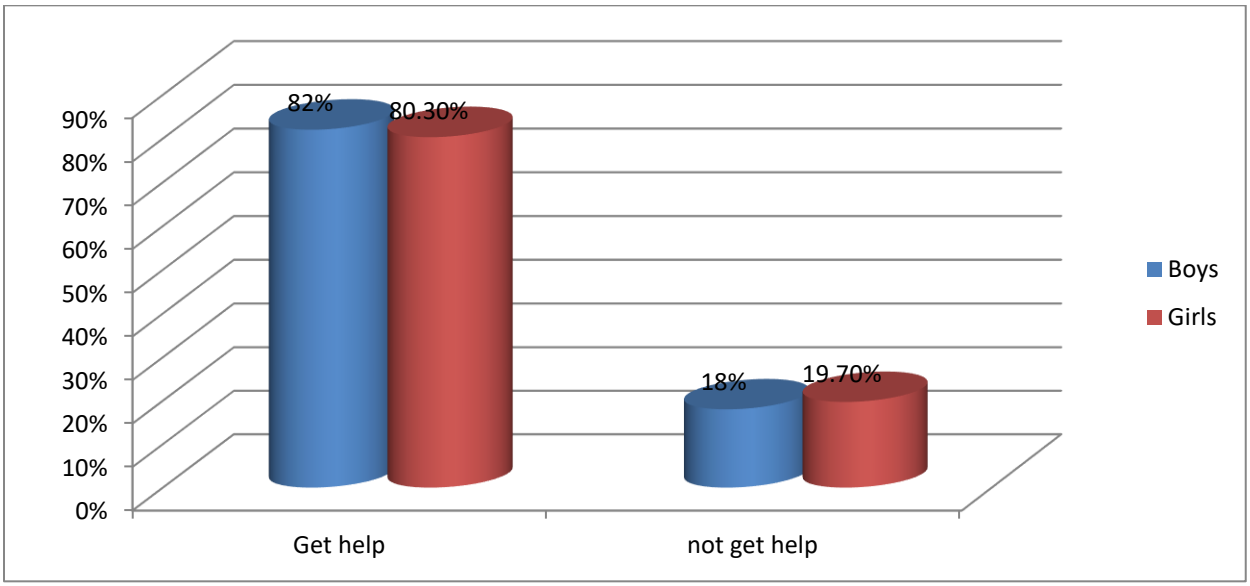


Fig7.6: % wise children getting and not getting help in their study at home.

Area	Lang, used at home is same as in school					Lang, used at home is not same as in school					Total
	Boys		Girls		Total	Boys		Girls		Total	
	N	%	N	%		N	%	N	%		
Rural	2302	80.72	2651	80.75	4953	8	66.67	0	0.00	8	4961
Urban	550	19.28	632	19.25	1182	4	33.33	5	100.00	9	1191
Grand Total	2852		3283		6135	12		5		17	6152

Table 7.14: Distribution of Students on the Basis of Language used at home and school

The table revealed that 99.7% of children use same language at home and at school while only 0.3% of the children do not use the same language at home and at schools.

Area	Taking Tuitions					Not Taking Tuitions					Total
	Boys		Girls		Total	Boys		Girls		Total	
	N	%	N	%		N	%	N	%		
Rural	54	50.47	6	19.35	60	2256	81.83	2645	81.21	4901	4961
Urban	53	49.53	25	80.65	78	501	18.17	612	18.79	1113	1191
Grand Total	107		31		138	2757		3257		6014	6152

Table 7.15: Distribution of Students on the Basis of taking Private Tuition

The table revealed that 2.24% of children in class III took private tuition and 97.76% of children did not take private tuition.

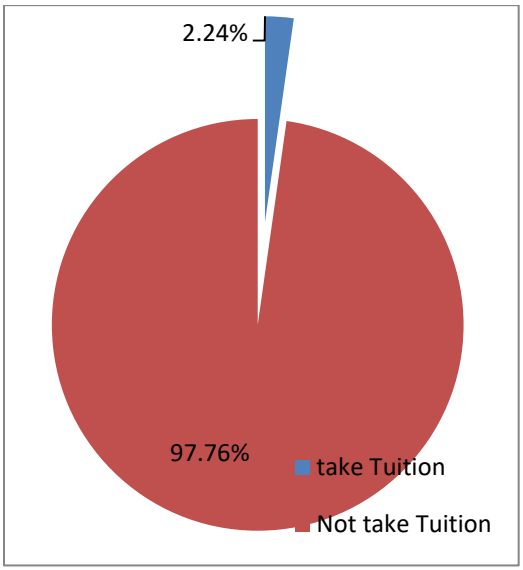


Fig7.7 % of children takes and do not take Tuition school

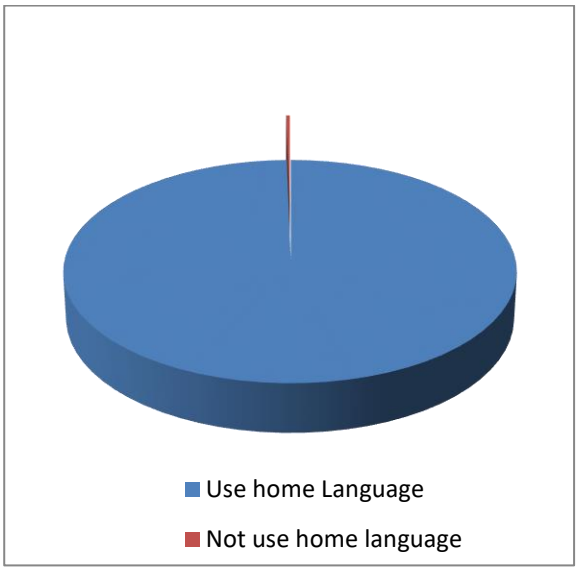


Fig7.8 Use and not use home language at

7.4 Teachers related variable :(As per TQ)

Sex	Frequency	Percent
Male	396	52.2
Female	363	47.8
Total	759	100.0

Table 7.16: Distribution of Teachers according to their sex

The number of class III teachers interviewed during conduct of survey was 759 of which 52.2% and 47.8% was male and female teacher respectively.

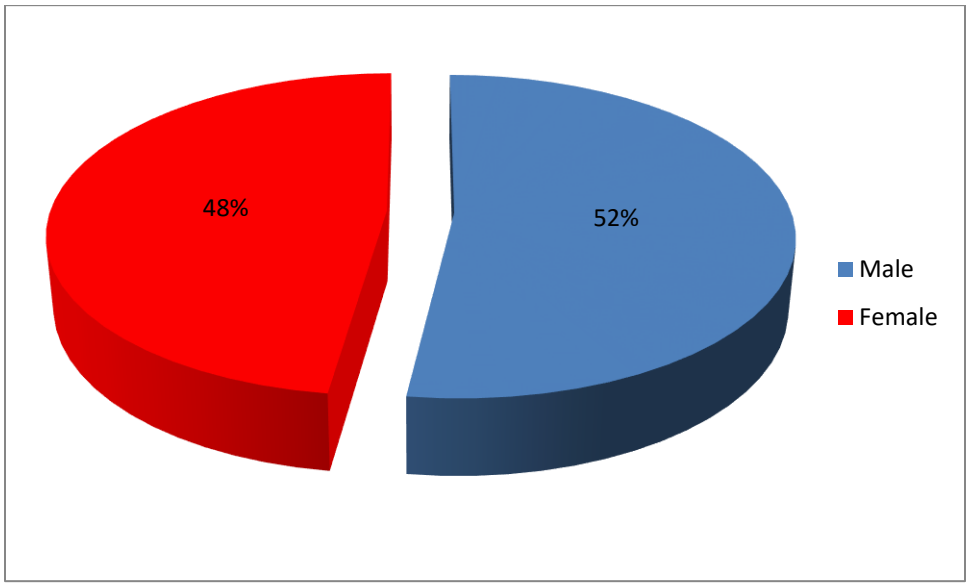


Fig: 7.9:% wise and gender wise number of teacher

Category	Frequency	Percent
SC	46	6.1
ST	87	11.5
OBC	247	32.5
General	297	39.1
Tea Garden Community	8	1.1
Religious Minority	10	1.3
Others	64	8.4
Total	759	100.0

Table7.17: Frequency distribution Teachers according to their Category

The table revealed that class III teachers of the sample schools comprised of different categories.39.1% and 32.2% teachers were belongs to general and OBC category respectively.

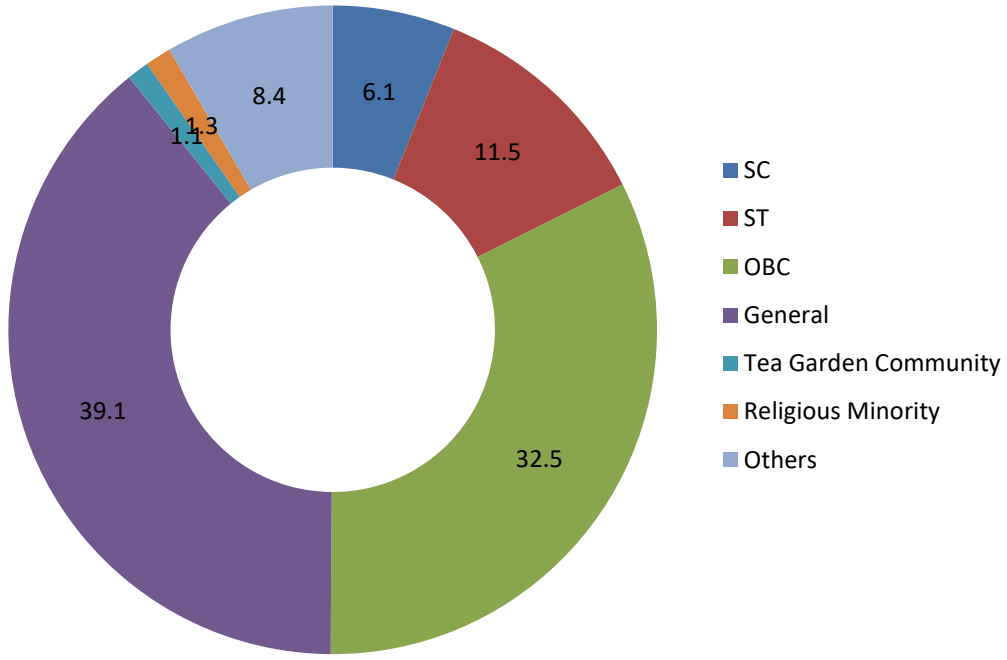


Fig 7.10: percentage wise category wise number of teacher

Educational Qualification	Frequency	Percent
Middle	19	2.5
Secondary	176	23.2
Higher/ Senior Secondary	225	29.6
Graduation	303	39.9
Post- Graduation	36	4.7
Total	759	100.0

Table: 7.18: Highest Educational Qualification

The table revealed that 2.5% of the sample teachers for class III were Middle school passed. On contrary to that 4.7% of class III teachers were with post graduation. However highest 39.9% of class III teachers were graduate.

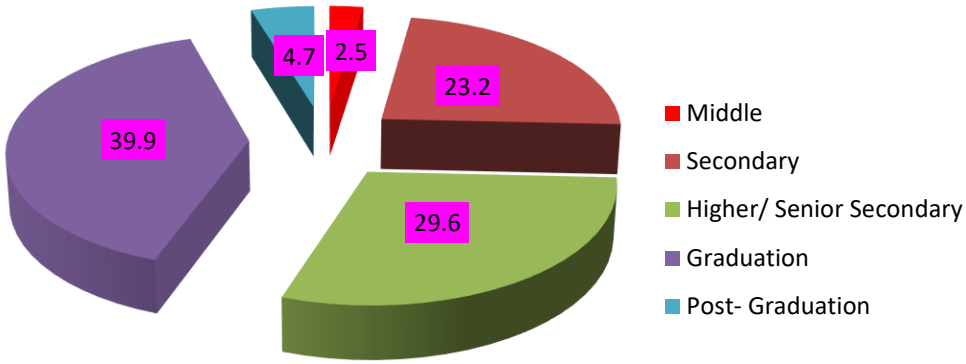


Fig: 7.11: % wise highest qualification wise number of teacher

Professional Qualification	Frequency	Percent
Untrained (No Certificate/ Diploma/ Degree in teaching	111	14.6
Elementary Teacher Training Certificate/ Diploma/JBT/ BTC	598	78.8
Graduate Level (B.Ed. LT etc.)	50	6.6
Total	759	100.0

Table 7.19 : Highest Professional Qualification

The table revealed that 78.8% and 6.6% of class III teachers were with elementary teachers training and with B.Ed respectively while 14.6% of sample teachers had no such degree or diploma in teachers training.

Subject(s) teaching	Frequency	Percent
Language	121	15.9
Mathematics	135	17.8
EVS	121	15.9
Language & Maths	32	4.2
Language & EVS	40	5.3
Maths & EVS	18	2.4
All Subjects	292	38.5
Total	759	100.0

Table 7.20: Subject(s) teaching in Class II/III

The table revealed 38.5% of teachers teach all the (Language, Mathematics and EVS) subjects in class III.4.2%, 5.3% and 2.4% of teachers teach Language& Mathematics, Language &EVS and Mathematics and EVS respectively

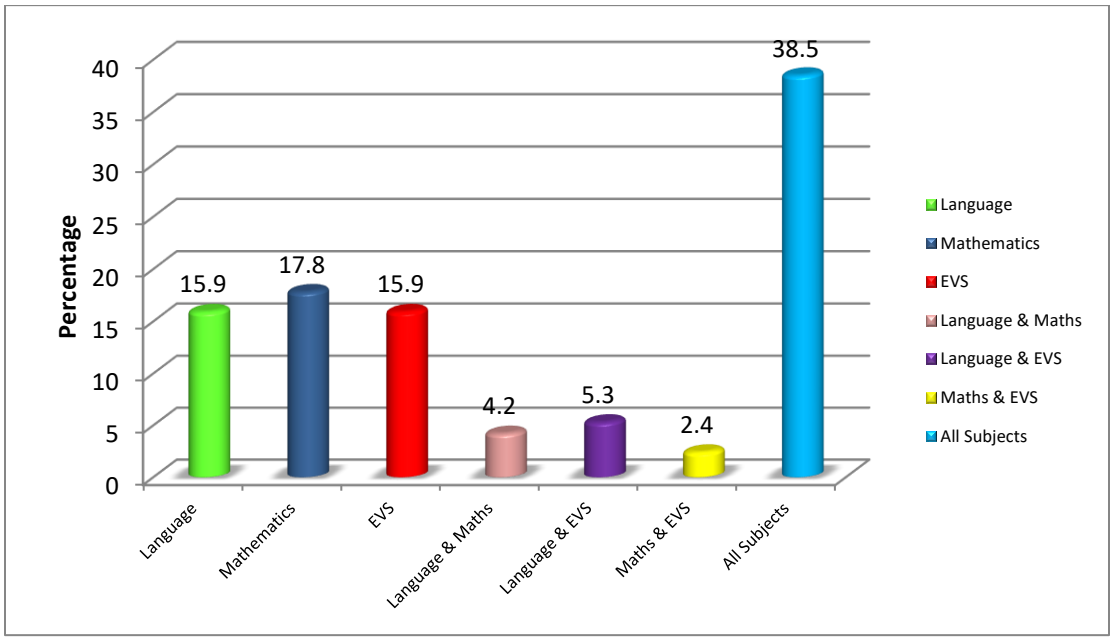


Fig 7.12: Percentage wise subject wise number of teacher

Teaching Experience	Frequency	Percent
Less than 1 yr.	78	10.3
1-3 yrs.	249	32.8
3-6 yrs	125	16.5

6-10 yrs.	66	8.7
More than 10 yrs	241	31.8
Total	759	100.0

Table 7.21: Teaching Experience wise number of teacher in Class-II/III

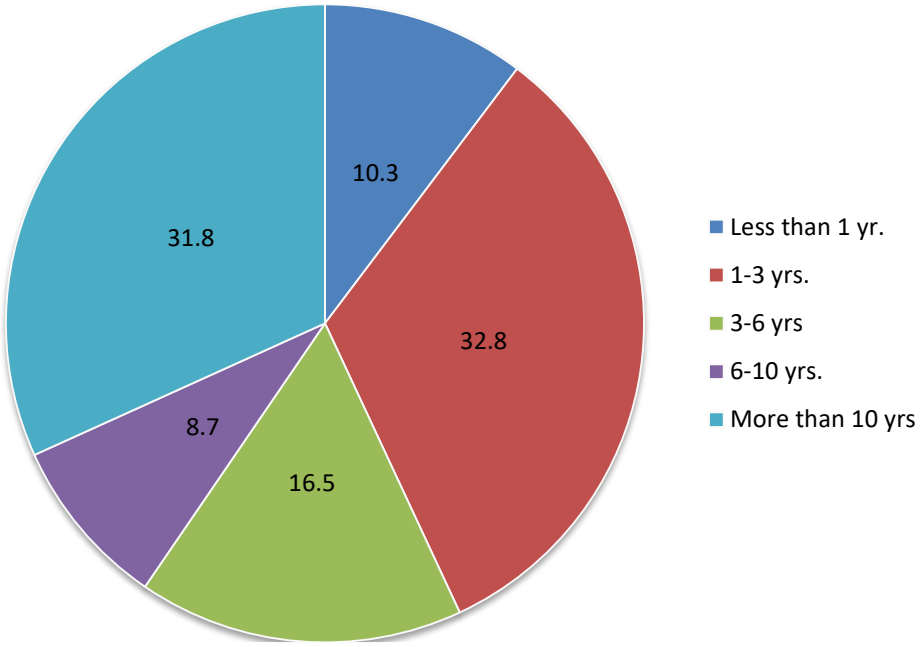


Fig: 7.13 percentage wise Teaching experience wise number of Teacher

Attended Training Programe	Frequency	Percent
Yes	502	66.1
No	257	33.9
Total	759	100.0

Table 7.22: number of teacher attending In service training programme during the academic session 2012 and 2013 and 2013-2014

66.1% and 33.9% of teachers attended and not attended respectively in service training during 2013-2014.

Number	Frequency	Percent
Only 1	105	20.9
2-3	188	37.5
4-6	106	21.1
6-9	40	8.0
10 and More	63	12.5
Total	502	100.0

Table 7.23: Frequency of In-service training programme attended during the academic session 2012 and 2013

Training Organizer	Frequency	Percent
SCERT/SIE	28	5.6
SCERT/SIE , SSA	1	0.2
SCERT/SIE ,DIET	1	0.2
SSA	352	70.1
SSA , DIET	7	1.4
SSA, Others	1	0.2
DIET	78	15.5
Others	34	6.8
Total	502	100.0

Table7.24 : Agency wise number of training organized during 2012-2013.

Materials	AVAILABILITY		IF AVAILABLE THEN USES		
	Yes	No	Regularly	Sometimes	Never
Teacher's Handbook	528(69.6)	231(30.4)	354(67.0)	172(32.6)	2(0.4)
Charts	668(88.0)	91(12.0)	188(28.1)	480(71.9)	0(0)
Maps	586(77.2)	173(22.8)	98(16.7)	481(82.1)	7(1.2)
Globe	548(72.2)	211(27.8)	71(13.0)	468(85.4)	9(1.6)
Mathematics Kit	468(61.7)	291(38.3)	137(29.3)	323(69.0)	8(1.7)
Science Kit	326(43.0)	433(57.0)	68(20.9)	248(76.1)	10(3.1)
TLM	650(85.6)	109(14.4)	331(50.9)	314(48.3)	5(0.8)
Audio-visual aids	100(13.2)	659(86.8)	14(14.0)	80(80.0)	6(6.0)

Table7.25 : Distribution of Teaching Aids/ Materials Availability and uses (in percentage)

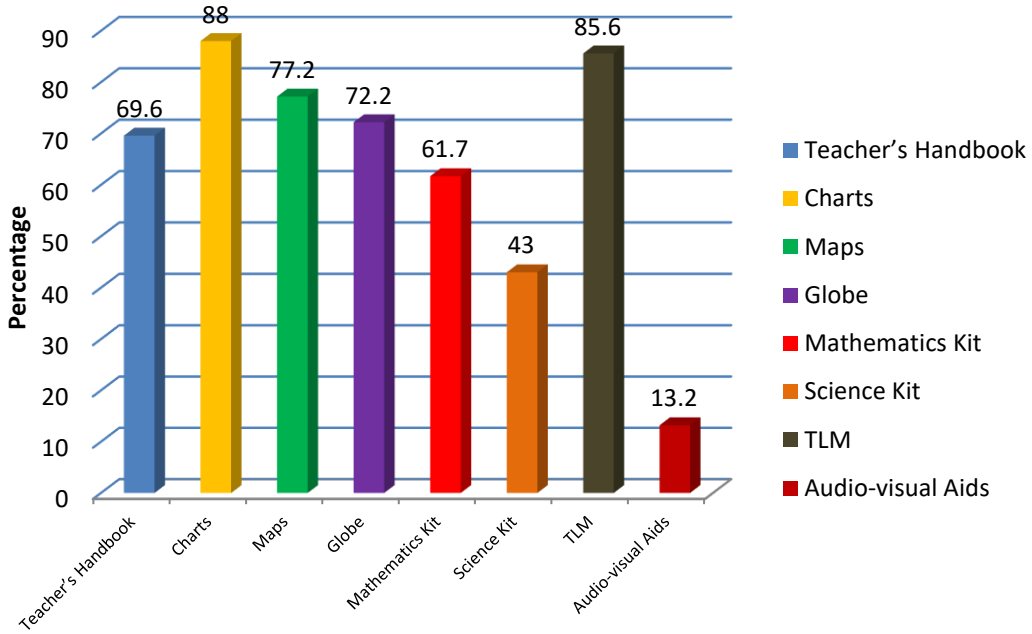


Fig: 7.14 Type wise Availability of Teaching Aids/ Materials

Give Homework	Frequency	Percent
Not at all	4	0.5
Sometimes	297	39.1
Regularly	458	60.3
Total	759	100.0

Table 7.26 : Nature of assignment of home work wise Number of teacher.

Homework	Frequency	Percent
Reading and Writing	40	5.3
Reading , Writing & Project work	26	3.4
Reading	65	8.6
Reading and Project work	1	.1
Writing and Project work	24	3.2
Writing	515	68.2
Project Work	84	11.1
Total	755	100.0

Table: 7.27 Nature of home work wise Number of teacher.

Period	Frequency	Percent
Upto 10	88	11.6
11-18	94	12.4
19-24	157	20.7
25-30	237	31.2
31 & more	183	24.1
Total	759	100.0

Table: 7.28: Work load (in terms of periods taken) wise number of Teacher.

7.5School related Variables:

Area	State Govt		Govt Aided		Tea garden managed		Local body		Total School
	N	%	N	%	N	%	N	%	
Rural	225	83.3%	33	12.2%	7	2.6%	5	1.9%	270
Urban	57	87.7%	6	9.2%	1	1.5%	1	1.5%	65

Grand Total	282	84.2%	39	11.6%	8	2.4%	6	1.8%	335

Table 7.29: Area wise Distribution of schools on the basis of Management

The table revealed that out of 335 sample schools (sample schools were 350, SQ of 15 schools may be missed) 84.2% and 11.6% schools were provincialised/Government schools and Govt Aided schools respectively.

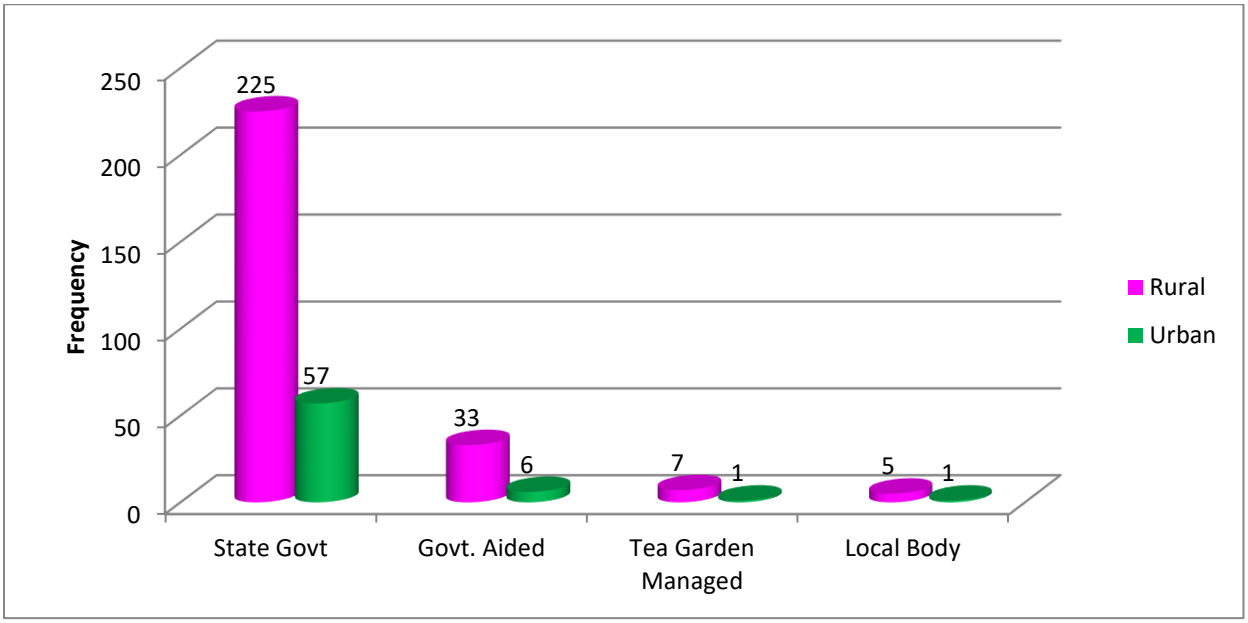


Fig: 7.15: % wise number of school by Management

Area	Yes		No		Total
	N	%	N	%	N
Rural	153	56.7%	117	43.3%	270
Urban	44	67.7%	21	32.3%	65
Grand Total	197	58.8.0%	138	41.2.0%	335

Table 7.30: Distribution of Schools on the Basis of Pre – School Attached

58.8% and 41.2% of the sample schools were with and without attached Pre-school

Area	1-5		1-8		1-10		1-12		Total
	N	%	N	%	N	%	N	%	N
Rural	256	94.8%	9	3.3.0%	1	0.37%	4	1.48%	270
Urban	60	92.3%	3	4.62%	2	3.2%	0	0.0%	65
Grand Total	316	94.30 %	12	3.6%	3	0.9%	4	1.2%	335

Table 7.31: Distribution of Schools on the basis of terminal Stage of School

94.3% and 3.6% of sample schools were having from class I to class V and class I to class VIII the remaining schools were having classes X and XII

Types of Schools	Rural		Urban		Total	
	N	%	N	%	N	%
Boys	0	0.0%	1	1.5%	1	0.3%
Girls	0	0.0%	0	0.0%	0	0.0%
Co-Ed	270	100.0%	64	98.5%	334	99.7%
Grand Total	270	100.0%	65	100.0%	335	100.0%

Table 7.32 Types of School wise number of schools

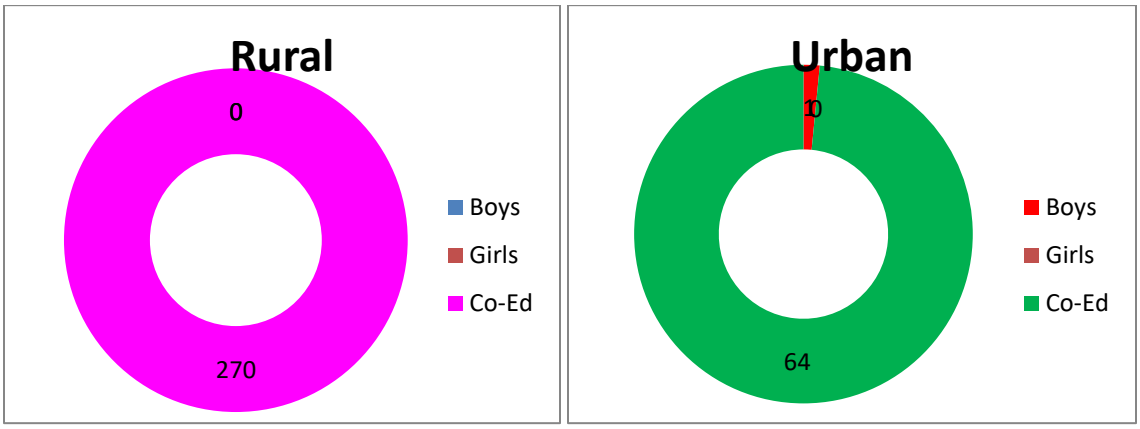


Fig: 7.16 school type, like Boys school, girl school etc.

Area	Number of Sampled Schools	Number of Teachers on Roll					
		Male		Female		Total	Average Teachers per School
		N	%	N	%		
Rural	270	1331	79.46%	1288	77.97%	2619	10
Urban	65	344	20.54%	364	22.03%	708	11
Total	335	1675	100%	1652	100%	3327	10

Table 7.33: Area wise and Gender wise Availability of Teacher on the Sample Schools

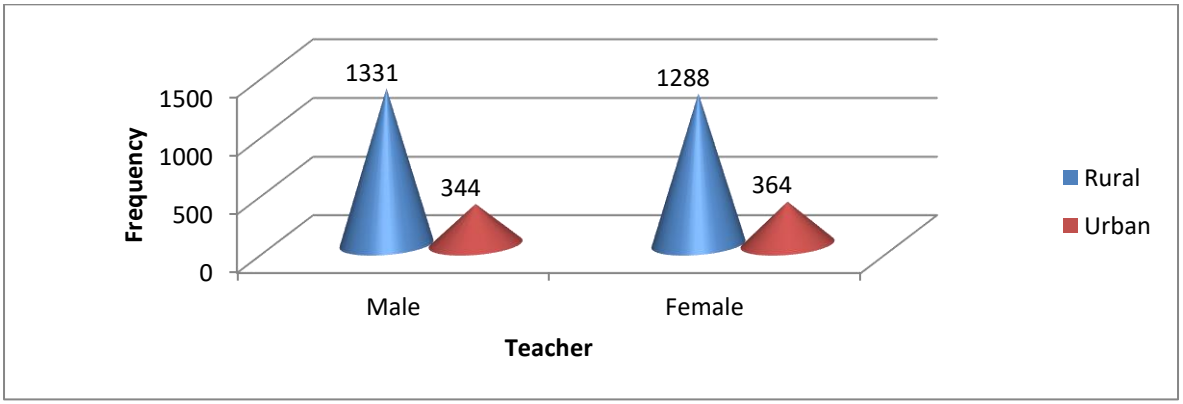
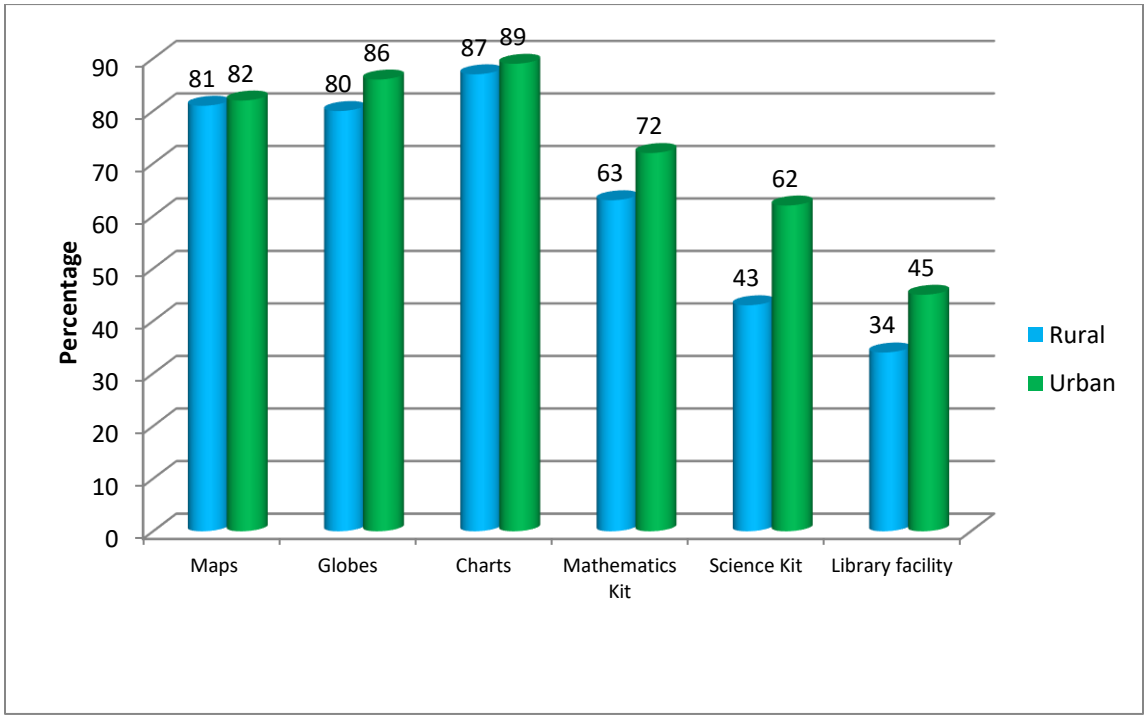


Fig: 7.17 Gender wise and area wise Availability of Teacher

	Rural		Urban		Total	
	N	%	N	%	N	%
Maps	219	81.1%	53	81.5%	272	81.2%
Globes	216	80.0%	56	86.2%	272	81.2%
Charts	234	86.7%	58	89.2%	292	87.2%
Mathematics Kit	170	63.0%	47	72.3%	217	64.8%
Science Kit	117	43.3%	40	61.5%	157	46.9%
Library facility	91	33.7%	29	44.6%	120	35.8%
Total Sample Schools	270		65		335	

Table 7.34: Percentage of schools with various Facilities related to Teaching Learning process



.Fig: 7.18 Availability of TLM in schools

Frequency of Visit	Rural		Urban		Total	
	N		N		N	
None	1		0		1	
1	17		6		23	
2	13		2		15	
3	25		1		26	
4	28		7		35	
5	21		7		28	
6-7	17		3		20	
8-9	29		5		34	
10+	28		9		37	
Total Sample Schools	270		65		335	

Table 7.35: Visit of BRC/CRC Personnel to Schools in Current Academic Session

Student Enrolment	Rural Schools		Urban Schools		Total Schools	
	N	%	N	%	N	%
Less than 40	199	73.7%	40	61.5%	239	71.3%
41-80	67	24.8%	21	32.3%	88	26.3%
81-120	3	1.1%	3	4.6%	6	1.8%
121 and above	1	0.4%	1	1.5%	2	0.6%

Table 7.36: Area wise Enrolment of Students in **Class III**

The table revealed that 73.7% of the sample schools have an enrollment of less than 40 children in class III. 24.8% and 1.1% schools have an enrollment of 41-80 and 81-120 children.

Appendix I

List of District Coordinators and DTP Operators:

District Coordinators:

D. Code	District Name	Class III
01	Chirang	Bani Kanta Saharia
02	Dhubri	Pradip Roy
03	Dibrugarh	Maloy Baruah
04	Goalpara	Bharati Das
05	Hailakandi	Amiruddin Laskar
06	Jorhat	Niren Sarma
07	Karbi-Anglong	Junuka Rongpharpi
08	Karimganj	Kanailal Dey
09	Kamrup	Gunajit Baruah
10	Kokrajhar	Breez K.Basumatary
11	Lakhimpur	Mrinal Sarma Baruah
12	Morigaon	Dipak Das
13	Nalbari	Labnya Das
14	Sonitpur	Chandan Bhuyan