

# Baseline Assessment Report

ICT Enabled Education: Empowering Schools for Improved Learning Outcomes





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**Save the Children works for :**

- A world which respects and values each child.
- A world which listens to children and learns.
- A world where all children have hope and opportunity.

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# CONTENTS

Acknowledgment

Foreword

Acronyms

Executive Summary

**Chapter 1**

Introduction .....9

**Chapter 2**

Assessment Background .....10

**Chapter 3**

Methodology .....12

**Chapter 4**

Assessment Findings .....17

    4.A. Academic Performance of Children (Learning Levels) .....18

    4.B. ICT Learning Environment .....46

    4.C. Learning Environment .....50

    4.D. School Functioning .....64

    4.E. Community Institutions for School Management .....76

    4.F. Children Group.....81

**Chapter 5**

Recommendations .....83

**Annexure**.....86

# ACRONYMS

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<b>CCE</b>	Continuous Comprehensive Evaluation
<b>CDs</b>	Compact Disc
<b>DIET</b>	District Institute of Education and Training
<b>DVDs</b>	Digital Video Disc
<b>EVS</b>	Environmental Studies
<b>FGD</b>	Focused Group Discussion
<b>ICT</b>	Information Communication Technology
<b>MDM</b>	Mid day Meal
<b>RTE</b>	Right to Education Act
<b>SCERT</b>	State Council of Education Research and Training
<b>SDP</b>	School Development Plan
<b>SMC</b>	School Management Committee
<b>TLMs</b>	Teaching Learning Materials
<b>VCRs</b>	Video Cassette Recorder and Player

# EXECUTIVE SUMMARY

Scores of primary schools in rural India are failing to equip the students with the basics of the 3Rs (to read, write and arithmetic), leave alone familiarizing the pupils with higher order scholastic pedagogy. Large scale surveys(ASER 2016) have brought to the fore that our primary schools are failing the students across India. It is indeed alarming to note that at the national level, of the students in class V (rural) only 47.8% ( 62.5% for Maharashtra )can read a grade specific written story in vernacular, only 24.5% (27.9% for Maharashtra) can read easy sentences in English and 25.9%(20.3% for Maharashtra) can successfully do division..

One promising intervention to buck this trend is introduction of ICT based learning in classrooms. Research (Blanskat et al 2006) show that e-mature classrooms show a rapid increase in academic performance and can be a game changer in elementary schools if implemented well.

In recognition that our schools have poor learning outcomes and that ICT has potential for bridging the gap, Save the Children with support from Avaya, proposes to introduce ICT based learning in 10 Zila Parishad Schools in Haveli block, Pune district.

The objective of the project is to improve the learning outcomes of the students through the use of ICT as an intervention. Under the project, Save the Children will collaborate with DIET to develop the E –curriculum for 4th, 5th & 6th grades in English, Environmental Science and General Science. The digital content and software application will be hosted in DIET's server. The educational content will be relayed from DIET office and will support the teacher student interaction via visual online session. The content will be displayed in class through projectors. The project proposes to cover about 3500 students. Other than establishing the IT infrastructure, the project will train 60 SSA, DIET, SCERT faculty and 116 teachers. In addition 120 SMC members will be sensitized.

While there is compelling argument on efficacy of ICT in making a positive impact to learning, bringing ICT into the classroom and to make it work has its own set of challenges. It is towards identifying the opportunities and risks, this baseline assesment study has been commissioned to gather the 'As-Is' situation on the ground for 5 schools in which the intervention will start in year 1 of the project.

The 'As-Is' data has been collected for five broad variables which have significant ramification for successful implementation of ICT lead learning namely (i) Academic performance of the students, (ii) ICT Learning Environment, (iii) Learning Environment, (iv) School Functioning and (v) Community Institutions for School Management.

For testing academic performance of the students, a set of tools (question papers) was developed based on the prescribed school curriculum for English Writing, EVS and Science. The questions were of relatively easy level and entirely from the prescribed textbooks. An English reading test was also administered. The sampling frame for the written test was the entire student population in Class IV, V and VI in the five intervention schools and five control schools. For the reading test, a sub sample was drawn from the students present in the class. The sampling was so designed that the written test results are significant at 95% level of confidence and the reading tests significant at 85% level of confidence. The variation in the significance level is due to different sample sizes.

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The baseline assesment has been done for five broad variables which have significant ramification for successful implementation of ICT lead learning namely (i) Academic performance of the students, (ii) ICT Learning Environment, (iii) Learning Environment, (iv) School Functioning and (v) Community Institutions for School Management.

ICT and use of computers in learning is not something which is unfamiliar with the target schools. While the idea exists and in some cases even the facilities, this has not been converted into a regular ICT lead program learning program on the ground.

Test	Class	%age of sample Students who under performed in the test (E1 & E2 Grade)	
		Intervention	Control
Written English	IV	44%	35%
	V	48%	44%
	VI	58%	74%
Spoken English	IV	22%	11%
	V	43%	45%
	VI	78%	74%
EVS	IV	64%	71%
	V	50%	28%
Science	VI	13%	2%

For collecting data on the other parameters the methodology involved interaction with three key stakeholders namely (i) teachers, (ii) students and (iii) SMC members using structured questionnaires and checklists. In addition school and classroom observation was done by trained assessors to collect data on classroom dynamics, teaching methodology and infrastructure available and its use.

A two group experimental design was adopted comprising a control group and a treatment group. In context of this study, the treatment group are the ones where ICT lead learning under the project would be rolled out. The control groups are similar schools (Zila Parishad Schools located in rural area) but where the intervention under the project will not be made.

### Academic Performance of the Students

In a nutshell the performance is extremely poor for English followed by EVS. The performance in Science was however found to be relatively better.

- English:** In lower classes the English reading was better than spoken English, which rapidly declined in higher classes. Similar (but to a lesser extent) fall in English writing levels was also observed. As the complexity of English language skills expected to be mastered by the student increases with every increase in grade level, the teaching methodologies followed in the class appears to be unable to cope with the demands. This phenomenon of decline in second language skills has been commonly seen in other learning outcome studies (ASER 2016). The English proficiency in control schools appears to be better or at par with the intervention schools.
- EVS:** The assessment revealed that the poor performance rate declined for EVS and sciences with increase in the grade levels which is reverse of the English language trend. However for intervention schools the failure rate at class V even after the drop remains high (50%).
- Science:** The students assessed have done remarkably well in Science, with every school returning a credible performance.

### ICT Learning Environment

Facilities like computers etc are not adequate and in some cases not working or present. All the intervention schools have at least one computer, however the children have limited or no access. 60% of the intervention schools have an Audio Visual projector room, but in 2/3rd of the cases the equipment lies in disrepair due to no maintenance contracts being in place.

Teacher not trained in use of ICT. ICT being a fast changing domain requires frequent upgrades of teacher skills. Pressure from the community/SMC to use ICT in teaching appears to be lukewarm. While in some schools in the SMC meetings computer education has got mention, ICT lead teaching does not seem to be on the SMC agenda. This is most probably due to not being aware of the potential of ICT lead learning methodology.

ICT infrastructure is dependent on electric supply which is erratic in some of the intervention schools. The intervention schools do not have internet connectivity, an important requirement if new and interactive learning material is to be downloaded from the internet. The classroom observation revealed that the majority of the teachers follow the 'chalk-talk method'. For such teachers to use ICT in teaching requires a paradigm shift in mindset. One indicator of this being the availability of educational CDs in 60% of the intervention schools but not used for teaching.

It may further be mentioned that with about 20% of the classrooms in intervention schools requiring major repairs. Setting up additional ICT resources in the intervention schools might need extensive retrofitting to ensure proper electrical wiring, heating/cooling and ventilation, and safety and security to house the ICT facility.

On a positive note it may be mentioned that most of the teachers in intervention schools know the basic computer operations and 60% of them know how to make power point presentations. It is also hearty to note that the teachers interviewed expressed felt need for training in ICT.

## Learning Environment

A rich learning environment is one that is open, respectful, caring and safe for the student. The study assessed the physical learning environment through school observation using a checklist. This baseline study has assessed a sub set of the most critical physical learning environment variables which include availability of electricity, ICT infrastructure, toilets, water availability and access. A poor physical environment leads to below par learning outcomes and it is critical that the learning environment be conducive so as to create an enabling milieu for the ICT lead learning project to have an impact.

**Location:** All the intervention schools (except one) are mostly located within 3 kms from the main road and by rural standards can be termed as accessible

**Physical Infrastructure:** About 40% of the intervention schools do not have proper boundary wall which has ramification for student safety. 20% of the classrooms in intervention schools remain unused due to want of repairs. In 40% of the intervention schools students and teachers do not drink the water supplied at the school due to quality concerns. All the intervention schools are electrified and have basic electrical fixtures like fan and light, however in 60% of the intervention schools the electricity supply is erratic.

**Use of Teaching Aids:** All schools had Charts, Globes and Flashcards , however their use is teaching tardy as revealed during classroom observation.

**Inclusion & Safety :** The teachers interviewed did not report any pressure from any staff or community member to follow socially unjust practices. It is a point of concern that only 40% of the teachers were aware of child rights. Only in 20% of the intervention schools have made any effort to make the stake holders aware about their rights and responsibilities. First Aid and disaster response training to teachers was not reported from any intervention schools.

## School Functioning

Classroom observation reveals that majority of the teachers appear to be following the 'chalk-talk method'. This reflects teachers not being open to alternate teaching methodologies. In context of the project, the teachers will have to be oriented towards accepting the innovation proposed by the project. Multigrade classrooms are not pervasive. However wherever such situation exists, it will become a challenge to incorporate this variable in the ICT based teaching project design. The use of classroom space is straight jacketed wherein students sits in rows which does not promote group interaction, peer to peer learning and a more engaged classroom environment. Activity based learning was found to be absent in the schools. Except for a very few schools, group activities in the classroom is limited. Largely the teachers have a friendly demeanour towards the students. In most schools TLMs are not used to assist classroom teaching. Teachers are professionally

Most of the teachers in intervention schools know the basic computer operations and 60% of them know how to make power point presentations. It is also hearty to note that the teachers interviewed expressed felt need for training in ICT.

The physical infrastructure can be said to be good in parts in intervention schools. Some of the schools donot have boundary walls, have erratic electric supply and poor quality drinking water facilities. All the schools have electric fixtures and gender segregated toilets. While TLM material was found to be present, there use in teaching remains tardy.. The knowledge of child rights was not found to be pervasive across the teachers sampled.

Classroom observation reveals that majority of the teachers appear to be following the 'chalk-talk method'. This reflects teachers not being open to alternate teaching methodologies. In context of the project, the teachers will have to be oriented towards accepting the innovation proposed by the project through its intent of centralized delivery of classes though ICT.

In the intervention schools in most cases (80%) the SMC were found to be actively involved in the functioning of the schools including preparing School Development Plan, keeping oversight on the utilisation of school grants, monitoring attendance, keep track of the critical ratios, and check the mid day meal program on regular basis. The meetings of the SMC are held regularly, on an average the SMCs across all intervention schools have met 3 times in last six months.

### Recommendations:

- Provide Technology/Hardware
- Upgrade/Use Existing ICT Infrastructure
- Follow-up on E-Lessons
- Develop a set of Educational Technology Standards
- Technical Support on Contractual Basis
- Community Buyin
- Attitudinal Training for Teachers
- Involve Teachers in Decision Making

trained and many of them hold post graduate degree qualifications. In most of the schools the teachers reported non teaching work load.

### Community Institutions for School Management

In the intervention schools in most cases (80%) the SMC were found to be actively involved in the functioning of the schools including preparing School Development Plan, keeping oversight on the utilisation of school grants, monitoring attendance, keep track of the critical ratios, and check the mid day meal program on regular basis. The meetings of the SMC are held regularly, on an average the SMCs across all intervention schools have met 3 times in last six months. It is to the advantage of the project that the intervention schools has an aware and engaged SMC.

Most of the SMC members in intervention schools have received training on their responsibilities in Overall Role and Responsibility, RTE Act, SDP development. However no training was given on monitoring of learning practices to be followed in school, which becomes a critical gap wrt to the ICT based learning project.

### Recommendations

The role of ICT in improving learning outcomes in schools, especially in developing countries has two extremes and a middle path. At one extreme is the view that ICT has limited pedagogical benefits, while on the other end is the view that ICT will answer all that issues which plague learning outcome of children. In between these two extremes lies the view that ICT can do much but not everything. ICT is an enabler and not replacement for the teacher in the classroom. The recommendations made in this study take this middle path view.

**Providing Technology/Hardware:** The success of the project hinges on schools being equipped with requisite hardware, software, networks and Internet access, in order to provide the required logistical support to schools. Similar hardware might be needed at the DIET end.

**Upgrading/Use existing ICT infrastructure:** The project may consider using the existing infrastructure to the extent possible, which currently lies in disuse.

**Follow-up on E-Lessons:** E-lessons under the project will need concurrent follow-up by the class teacher to help in retention and assimilation of the e-lesson content and should be positioned as part of regular teaching and not a supplementary activity

**Development of a set of educational technology standards:** The experiences from the current project may be used for establishing a technology standard for ease of replication across schools.

**Technical support on contractual basis:** Put in place education associates in schools to help the teacher in mainstreaming the e lessons into learning and retention amongst students. AMC may be provided for regular maintenance and upkeep of equipment at the school end.

**Community Buyin:** The project to be sustainable and gather momentum will require significant community involvement.

**KSA (Knowledge, Skill, Attitude) upgrade for teachers:** Teachers are at the forefront when it comes to influencing the teaching-learning process inside the classroom. It is therefore important to change their attitude towards a computer-based learning environment. Significant resources for training the teachers will have to be set aside under the project for this purpose.

**Involving Teachers:** Inclusion in the project operation and decision making will provide opportunity for cross learning and increase teachers' buyin.



# CHAPTER 1

# INTRODUCTION

Scores of primary schools in rural India are failing to equip the students with the basics of the 3Rs (to read, write and arithmetic), leave alone familiarizing the pupils with higher order scholastic pedagogy. Large scale surveys(ASER 2016) have brought to the fore that our primary schools are failing the students across India. It is indeed alarming to note that at the national level, of the students in class V (rural) only 47.8% ( 62.5% for Maharashtra )can read a grade specific written story in vernacular, only 24.5% (27.9% for Maharashtra) can read easy sentences in English and 25.9%(20.3% for Maharashtra) can successfully do division .

Experts have suggested a number of interventions for ameliorating the poor learning outcomes. One suggestion which holds significant promise is introduction of ICT in education. Research(Blanskat, Blamire, Kefala, 2006) indicates that ICT has positive impact on students' performances in primary schools particularly in languages. Schools with higher level of e-maturity show a rapid increase in performances in scores compared to those with lower level. In addition, schools with sufficient ICT resources achieved better results than those that are not well-equipped. There is a significant improvement on learners' performances. Pupils are more motivated when computers and Internet are being used in class.

Maharashtra has the distinction of highest penetration of computers in schools, with 33% of its schools having at least one computer<sup>1</sup>. In this distinction lies an opportunity for harnessing ICT in improving learning outcomes in schools.

## ICT for Improved Learning Outcomes

ICT based education has much to recommend for itself. It helps in expanding access, improving the internal efficiency of educational systems and enhancing the quality of education. Technology in education offers the following benefits to the educational community and the society:

- **Enhanced Learning Environment:** Technology has pedagogical benefits through facilitating learners to be constructively engaged with instruction
- **Generates interest in learning:** Technology has

<sup>1</sup> Strengthening Education Management Information System in India', 2012 , published by the HRD Ministry and the National University of Educational Planning and Administration (NUEPA)

the potential to make instruction easier, more challenging and motivating for teachers and the students.

- **Promotes inclusiveness:** Technology helps schools achieve the goal of promoting equal access to education including those with disabilities.
- **Transcends locational disadvantage:** Brings in connectivity for students in remote locations with the best of teaching resources, thereby providing to them a level playing field.

## ICT Enabled Education Project

In recognition that our schools have poor learning outcomes and that ICT has potential for bridging the gap, Save the Children with support of Avaya, proposes to introduce ICT based learning in 10 schools in Pune district over a period of 3 years.

Under the project, Save the Children will collaborate with DIET to develop the E –curriculum for specific intervention with 4th, 5th & 6th grades on English, environmental science and general Science. The E-content developed by Save the Children will be approved by DIET before implementation.

The teachers will be trained wherein master trainers will provide support to teachers in leveraging the E-curriculum effectively. The digital content and software application will be hosted in DIET's server. The educational content will be relayed from DIET office and will support the teacher student interaction via visual online session. The content will be displayed in class through LED Televisions.

The project proposes to cover about 3500 students. Other than establishing the IT infrastructure, the project will train 60 SSA, DIET, SCERT faculty and 116 teachers. In addition 120 SMC members will be sensitized.

## CHAPTER 2

# ASSESSMENT BACKGROUND

### Introduction to the Project:

Providing free and compulsory education to all children is a goal that is enshrined in the Indian Constitution as a Fundamental Right. The RTE (Right to Education) Act, 2009, emphasizes on enhancing the quality and relevance of education that is being imparted to children across schools in the length and breadth of the country. Keeping in line with the above thought Save the Children proposes to augment the quality of education for children at the Primary/Elementary Schools by leveraging the utilization of Information Communication Technology (ICT) in a phase wise intervention across ten schools in the Haveli Block of Pune.

In this noble endeavor of Save the Children, they are joined by a global software and service company Avaya. Together the company envisages on bringing in communications and infrastructural solutions that will assist in real-time engagement by integrating voice, video, transferring data, conferencing and much more.

This project will highlight Avaya's commitment to the community along with enhancing the profile of Avaya's CSR investment amongst employees and other stakeholders.

### Need for this assessment:

The Sarva Shikshya Abhiyan (SSA) or Education for all is an ambitious program designed by the government of India to bring under the ambit of the education system all children in the age group of 6-13 years. The RTE Act (Right to Education), also embodied the SSA initiative, however, two alarming facts surfaced as challenges.

They are:-a) Rise in the drop out level, b) The learning Outcomes when recorded were unsatisfactory.

It is indeed alarming to note that at the national level, of the students in class V (rural) only 48% can read a grade specific written story in vernacular, only 24% can read easy sentences in English and 26% can successfully do division (ASER 2014).

Faltering educational level in our primary schools is a reflection on the quality of teaching, monitoring mechanisms, administrative capacity, teaching methodologies and teacher commitment. One of the reasons for high dropout rates in higher classes is

burden of non-learning, with the student unable to comprehend the lesson.

Low learning outcomes amongst children completing their elementary education without the grade level competencies is a major cause of concern.

### The main objective of this assessment:

The RTE Act (Right to Education) 2009, believes that ICT enabled education will bring about the much needed change and will help in enhancing the overall standard of education that is being imparted to children. Save the Children with support of Avaya, proposes to introduce ICT based learning in 10 schools in Pune district over a period of 3 years.

### The project aims to:

To develop an environment of ICT based teaching for all the children.

- To make available resources and tools for ICT based teaching for teachers and students to enhance the teaching -learning process.
- To attract under-privileged students to school
- To accelerate the rate of enrollment along with retaining them in schools.
- To facilitate creative teaching and make the process of learning more informative and interactive.

The key target for the project is the improvement in learning outcome.

**5 Schools**  
(starting YEAR 1)

70% of students in intervention schools in grade 4th, 5th, 6th in English, 4th & 5th – Environmental Science and 6th - General Science will have improved learning levels at the end of the 3rd year

**3 Schools**  
(starting YEAR 2)

40% of students in intervention schools in grade 4th, 5th, 6th in English, 4th & 5th – Environmental Science and 6th - General Science will have improved learning levels at the end of the 3rd year

**2 Schools**  
(starting YEAR 3)

15% of students in intervention schools in grade 4th, 5th, 6th in English, 4th & 5th – Environmental Science and 6th - General Science will have improved learning levels at the end of the 3rd year

## CHAPTER 3

# METHODOLOGY

This chapter outlines the methodology adopted to assess the baseline situation pertaining to learning outcomes of students studying in zila parishad schools in the Haveli Block of Pune along with the enabling environment in terms of the level of infrastructure, classroom teaching-learning process and the awareness level of the SMC members.

### 3.1 Objective of the Study

Following are the objectives of this baseline assesment:

- To assess the current academic performance based on e-learning with Subjects of English for class 4th , 5th & 6th , Environmental Science for class 4th & 5th and General Science for class 6th for children in 5 intervention schools of first year and 5 control schools in the same block.
- To assess the existing Learning Environment & teaching-learning processes in 5 intervention schools of first year and 5 control schools in the same block.
- To assess the current Level of community's participation in School's management & children's learning etc as per SMC's / Parents requirement
- To produce recommendations for the effective implementation of the project

### 3.2 Location of the Study

The study was conducted at 5 Intervention schools and 5 Control schools located in rural areas of Haveli block, Pune. The interventions schools are those where the ICT base learning project would be rolled out. The control schools are located in the same vicinity as the intervention schools and are similar in terms of school management(Zila Parishad), student background ( socio economic grouping) , location (rural) and enrolment. The schools that were included in the sample frame for the study are given in Tab 1.

### 3.3 Experimental Design

The assessment has adopted the two group experimental design. A two-group design involves a control group and treatment, group. The control group does not get the treatment (Project intervention), while the treatment group does get the project intervention as planned in Project Proposal . Treatment group are the schools which have been recommended by DIET to work under project. The control groups are similar schools ( ZilaParishad Schools located in rural area) as the treatment schools but where the intervention under the project will not be made.

The selection of controlgroup/schools was done on the basis of following points: Similar distance from DIET office as Treatment group, No ICT replica, No other external Organisation's intervention, having similar grades as treatment group i.e. 1 to 7, medium of instruction – Marathi & present in same Block – Haveli

Tab 1 : Intervention (Treatment) and Control Schools

	Schools									
		Std IV			Std V			Std VI		
		Total	Girls	Boys	Total	Girls	Boys	Total	Girls	Boys
Intervention Schools	ZPPS Loni Kalbhor	120	120		43	43		34	34	
	ZPPS Sidarmmala	20	10	10	31	9	22	31	21	10
	ZPPS Raiwadi	15	7	8	8	3	5	9	1	8
	ZPPS Manjri Khurd	49	21	28	17	12	5	33	18	15
	ZPPS Awhalwadi	37	17	20	53	23	30	46	26	20
	Total Interven Schools	241	175	66	152	90	62	153	100	53
Control Schools	ZPPS Shriramnagar	40	20	20	34	19	15	33	13	20
	ZPPS Jayaprakashnagar	44	22	22	35	20	15	14	0	14
	ZPPS Shindavane	33	18	15	30	16	14	27	15	12
	ZPPS Shivapur	40	17	23	36	14	22	33	13	20
	ZPPS Valati	34	19	15	37	19	18	15	15	0
	Total Control Schools	191	96	95	172	88	84	122	56	66
All	Total Students	432			324			275		

Block. A total of ten schools were covered, comprising of approximately 500 students (Tab 1).

### 3.4 Assessment Frame

**Learning Outcome Assessment :** To assess the grade specific learning levels in

- English: 4th, 5th & 6th classes
- EVS: 4th & 5th classes
- Science: 6th class.

#### **School Management Committee Member**

**Survey:** To ascertain the awareness of SMCs/ SMC members about their role as per RtE in the manage-

ment of school, review current functioning of SMC on school management

**School Observation:** Asses availability of ICT and other physical infrastructure

**Classroom Observation:** A 30 minute classroom observation done to when the teacher was teaching to assess whether quality learning environment are visibly present in practice, e.g. general code of conduct, teacher-student atmosphere, access to learning aids and basic amenities etc.

**Interview of Students:** In the study design FGD with elected student groups was planned. However since none of the intervention or control schools had

## Box 1: Design of the Learning Outcome Test Instrument

The instrument for the written/reading test was prepared from the books prescribed as part of the curriculum by the Maharashtra State and was administered to Class IV, Class V and Class VI students only. The questions covered the entire text book that has been prescribed in the syllabus. The students were tested on their knowledge of English Writing, English Speaking and EVS/ Science. Since the test was administered in December, which coincides with the closure of the academic year, it is assumed that the students would have been taught the entire prescribed syllabus and the books. The degree of difficulty of the questions was kept moderate. The learning indicators that were addressed through the tools are:-

### I) English Written and Oral in Class IV

- Follows words and sentences spoken/used in class/school in English and responds in home language/English/sign language.
- Understands announcements made in school and in the neighbourhood (railway station, market, airport, cinema hall etc).
- Understands questions asked on textual material.
- Follows oral messages/telephonic communications and communicates them in English or home language/sign language.
- Enthusiasm to listen to English with understanding.
- Familiarity with English phrases used in specific instructions, directions and requests.

### II) English Written and Oral in Class V

- Listens to English words and sentences spoken/used in class/school, and responds in home language/English/sign language.
- Follows announcements made in school and in the neighborhood.
- Appreciates the difference between a question and a statement.
- Listens to and engages in conversation with people from the community.
- Attends to oral messages/telephonic communications and communicates with them in English or home language/sign language.
- Are able to comprehend and write in own words.

### III) English Written and Oral in Class VI

- Writes answers for textual questions after comprehension
- Understands the main idea, locates details in the text
- Collects and reads books from different sources.
- Use English as a means of communication.
- Writes personal experience and connects learning to real life.

### IV) EVS for Class IV,V and Science (appropriate for the class)

- Observes nature and responds through verbal and non-verbal expression
- A concern for the physical environment and thinks of ways to protect it.
- Uses appropriately new words/concepts related to environment.
- Engages with various sources and identifies the ill effects of Man vs. Nature conflict and the benefits of making Nature, Man's friend.

such elected children group, this instrument was administered to a randomly group of children selected from the children present in the classroom during school visit.

**Teacher Quality Assessment:** How well are the teachers equipped to provide quality learning to students. While there can be a number of variables affecting teacher quality, a select variables pertaining to teacher qualification, teaching methodology, student interaction in class room with the teacher etc was assessed through teacher observation in classroom and interview with the teachers.

### 3.5 Development of Data Collection Instruments

Both qualitative and quantitative data was collected through specifically designed instruments by external consultant. The instruments which were designed for undertaking the baseline study are listed below:

**A. Learning Outcome Measurement Instrument** (see Box 1 for details): A set of 12 tools was designed pertaining to each subject and grade level to assess the learning levels of the students as under:

- English Written and Oral for Class IV, V and VI- To test whether the children have grade specific learning skills in both Reading and written English.
- EVS for Class IV, V - To test whether the students have grade specific learning levels in Environmental Science
- Science for Class VI- To test whether the students have grade specific learning levels in science

The Learning Outcome instruments are given in **Annexure 1**.

The premise which went into the development of the learning outcome tools is given in the box below:

**B. SMC (School Management Committee) Instrument:** A questionnaire for collecting information on awareness level of SMC members on their roles, responsibility and contribution in school's development.

**C. School Observation Sheet:** A structured checklist for collecting data on ICT and other infrastructure available in school.

**D. Class Room Observation Sheet:** Recording sheet for noting the classroom dynamics, sitting arrangements, teacher learning practice and teacher's profile.

**E. Children Group FGD Facilitation Note and Observation Sheet:** Employed for getting an understanding of the student's perception on the elements of quality of learning environment including teaching methods

and classroom participation.

**F. Teacher Assessment Format:** A structured questionnaire for teachers for collecting data from teachers on their educational qualification, perception about the infrastructure facilities available in schools and the quality of education being imparted.

## 4. Field Testing of the Instruments

All the instruments (tools) that were designed were field tested so as to ascertain that the tools worked in the "real world". Valuable feedback was received and the tools accordingly modified. All the instruments were in Marathi.

## 5. Sample Size

### 5.1 Sample Size Learning Outcomes

In order to measure Learning Outcome among children in Class 4, 5 and 6 in subjects English, EVS and Science, the following method to be used. The maximum time for conducting both the test should not exceed 45 minutes in one class.

- **Written Test:** The entire population (i.e. all the students present) were administered the written test. The time taken for conducting the written test was around 30- 40 minutes per class.
- **Reading Test:** In order to save time, 30% of the students who took the written test were sampled. The third child method was used for a random sample. In a class with children sitting in a row, the child sitting on the first row extreme left was picked and then every third child on the right was picked for sampling.

The data collection was so constructed that the entire process got completed for a given class in approximately 2 hours. The sample size is given in Table 3.

### 5.2 Sample Size of Other Surveys and FGDs

The sample size of other surveys and FGDs is given in Table 4

**Table 3: Sample Size for the Learning Outcome Survey (administered the test)**

Schools	English Writing			English Reading			EVS		Science
	IV	V	VI	IV	V	VI	IV	V	VI
<b>Intervention Schools</b>									
ZPPS Loni Kalbhor (girls school)	94	37	27	30	11	9	95	33	27
ZPPS Sidammala (coed)	21	24	20	6	8	7	21	24	20
ZPPS Raiwadi (coed)	11	4	8	6	3	3	11	4	8
ZPPS Manjri Khurd (coed)	46	14	26	13	5	8	46	14	26
ZPPS Awhalwadi (coed)	35	49	32	12	17	10	37	47	31
<i>Total Intervention Schools</i>	207	128	113	67	44	37	210	122	112
Schools	English Writing			English Reading			EVS		Science
	IV	V	VI	IV	V	VI	IV	V	VI
<b>Control Schools</b>									
ZPPS Shriramnagar	18	15	19	6	5	7	18	15	19
ZPPS Jayaprakashnagar	23	19	14	8	6	4	22	20	14
ZPPS Shindavane	19	19	15	6	6	5	19	19	17
ZPPS Shivapur	26	25	21	8	9	7	26	25	21
ZPPS Valti	20	5	1	9	3	1	20	5	1
<i>Total Control Schools</i>	106	83	70	37	29	24	105	84	72
<i>Total Sample</i>	313	211	183	104	73	61	315	206	184

## 6. Degree of Confidence Learning Outcome Survey

The key to the validity of any survey is randomness. How well the sample represents the population is gauged by survey's confidence level.<sup>1</sup>

For written test the entire students present in the class was sampled. For intervention schools of all the enrolled schools the students sampled was around 80% for IV & V classes and around 75% for VI class. The missing children in the sample were absent on the date of the survey. For the reading test, as mentioned in IA 95 percent level of confidence means that, if the Learning Survey was administered to 100 samples from the same population, 95 times the results returned would be similar (with a specified margin of error)

the previous section 30% of the students present were administered the test.

The confidence level for writing test is 95% whereas that for the reading test it is 85%. Since the reading tests was randomised (using the 3rd student rule), it can be considered representative. The confidence levels are within the acceptable limits which practitioners use. The confidence levels are given in Table 5.

## 7. Training of the Field Staff on Data Collection

Two field staff was engaged for doing the field data collection and directly supervised by the Save the Chil-

**Table 4: Sample Sizes for Other Surveys and FGDs**

Survey/Observation	Number
SMC (School Management Committee) Survey	One member from each from every Intervention & Control Schools
School Observation	All School ( Intervention & Control)
Children Group FGD	1 FGD/ School
Classroom Observation Survey	One class in each school from every Intervention and Control schools (either IV/V/VI)
Teacher Assessment Survey	One teacher from each school teaching either in IV/V/VI

**Table 5: Confidence Level of the Sampling done for the Baseline Study**

	Class IV			Class V			Class VI		
	Enrol	Sam-ple	Conf Level	Enrol	Sam-ple	Conf Level	Enrol	Sam-ple	Conf Level
<b>Intervention Schools</b>									
English Writing	241	207	95%	152	128	95%	153	113	95%
English Reading		67	85%		44	85%		37	85%
EVS		210	95%		112	95%		Not Applicable	
Science	Not Applicable			Not Applicable			112	95%	
<b>Control Schools</b>									
English Writing	250	106		150	37		150	105	72
English Reading		83			29			84	184
EVS		70			24			Not Applicable	
Science	Not Applicable			Not Applicable			72		

dren knowledge management staff. The field staffs which was recruited have previous teaching experience in primary schools, are proficient in both reading and speaking Marathi and understand the local milieu. Two sessions were held for training the field staff which included background of the project, detailed item by item explanation of the tools, data definitions clearly explained, the importance of the data being collected and how it will be used. The training also included session on front of class interviews and demonstrated interviews.

### 6. Data Collection

The field work spread over one month (Dec 2016) wherein ten schools ( both intervention and control) were covered. Each field investigator was allotted 5 schools each. The field work was spread over 15 working days. The field team was closely supervised for data quality through frequent field checks. The field data enumerators also had access to the supervisor and master trainer for guidance during the field

work. December month was selected since it coincides with the end of the academic sessions in Zila Parishad schools and therefore the learning outcome survey could have questions which covered the entire syllabus.

### 7. Data Collation

The filled data schedules were cross checked for consistency or any factual errors and the same corrected in discussion with the field staff. The data collection error was within the tolerance of 2%..

### 8. Data Analysis

The quantitative data was entered into an excel sheet and tabulations done using the statistical package R. For the Learning Outcome, the test score of each individual student was normalized to 100 and graded as per the system followed by Zila Parishad Schools in Maharashtra. The students who scored Grade E2 and E1 have been categorized to be 'under performers' Those scoring A1 and A2 grades are 'exemplary performers.' The reference sheet is given in Table 6

**Tab 6: Reference Table for Conversion of Individual Student Scores to Grades as Recommended by Government of Maharashtra CCE Standard**

	Marks Obtained in percentages	Grades	Final Results
Under Performers	0-20	E2	Weak
	21-32	E1	Poor
Average Performers	33-40	D	Pass
	41-50	C2	Fair
	51-60	C1	Average
Good Performers	61-70	B2	Good
	71-80	B1	Very Good
Outstanding Performers	81-90	A2	Excellent
	91-100	A1	Super Achiever



## **Chapter 4**

### **Assessment Findings**

**4.A. Academic Performance of Children (Learning Levels)**

**4.B. ICT Learning Environment**

**4.C. Learning Environment**

**4.D. School Functioning**

**4.E. Community Institutions for School Management**

# CHAPTER 4

# LEARNING LEVELS

## SECTION 4.A: Learning Outcomes for English (Writing)

### 4.A.1 Aggregate Performance in English in Class IV ( Intervention v/s Control)

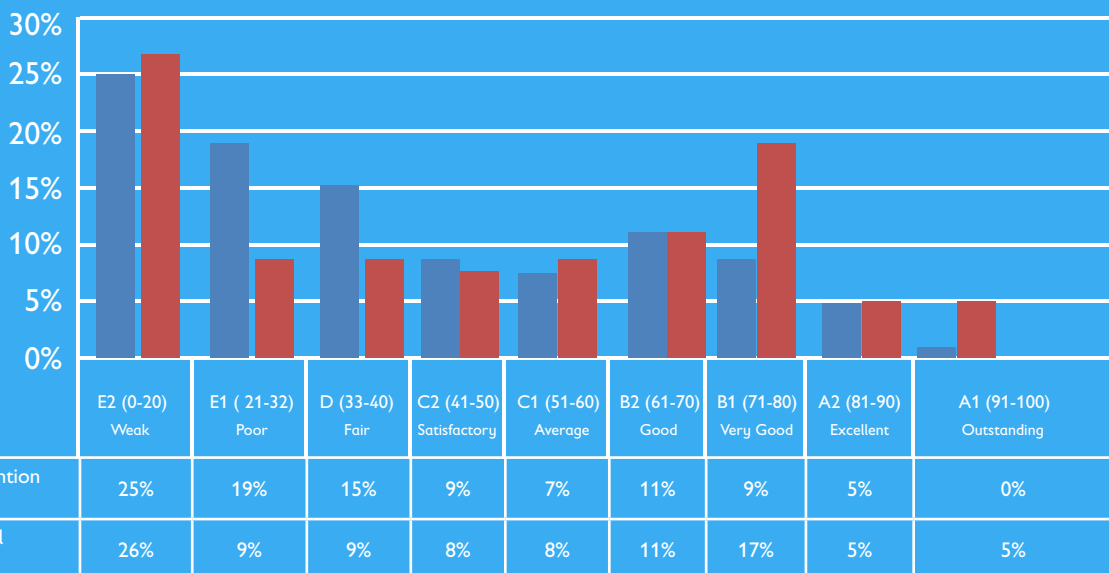
#### What was tested?

- Follow simple instruction, requests and questions and use formulaic expressions appropriately.
- Enjoy doing activities (identifying a person, object or thing) in English.
- Recognize whole words or chunks of language.
- Recognize small and capital forms of English alphabet both in context and in isolation.
- Read simple words/short sentences with the help of pictures and understand them and replicate them while writing.
- Write simple words/phrases/short sentences

#### Inference

- 44% of children are under performing (E1+E2) in the intervention schools as compared to 36% in control schools.
- 5% students assessed in the control schools fell in the outstanding category whereas no students in the intervention schools could reach this level.

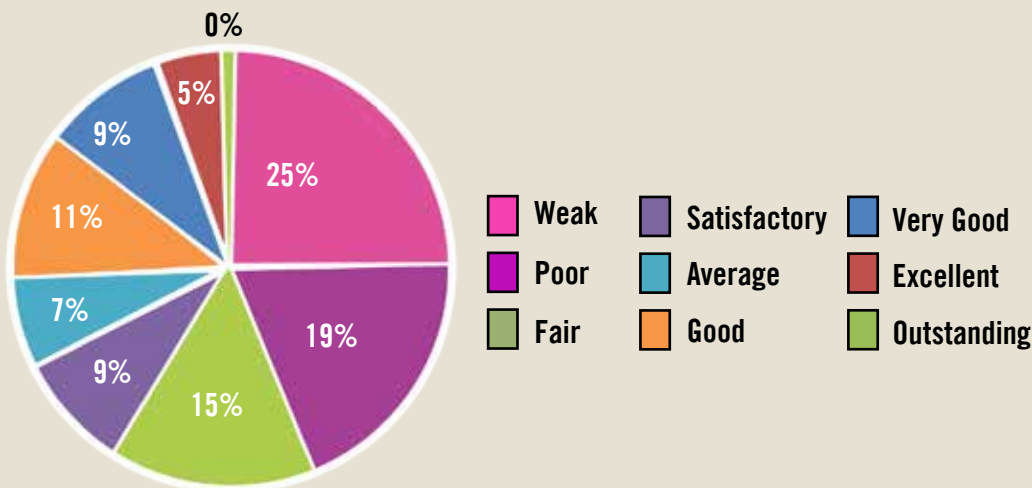
Aggregate Performance of the Intervention Schools vis-a vis Control School in Class IV in English Writing



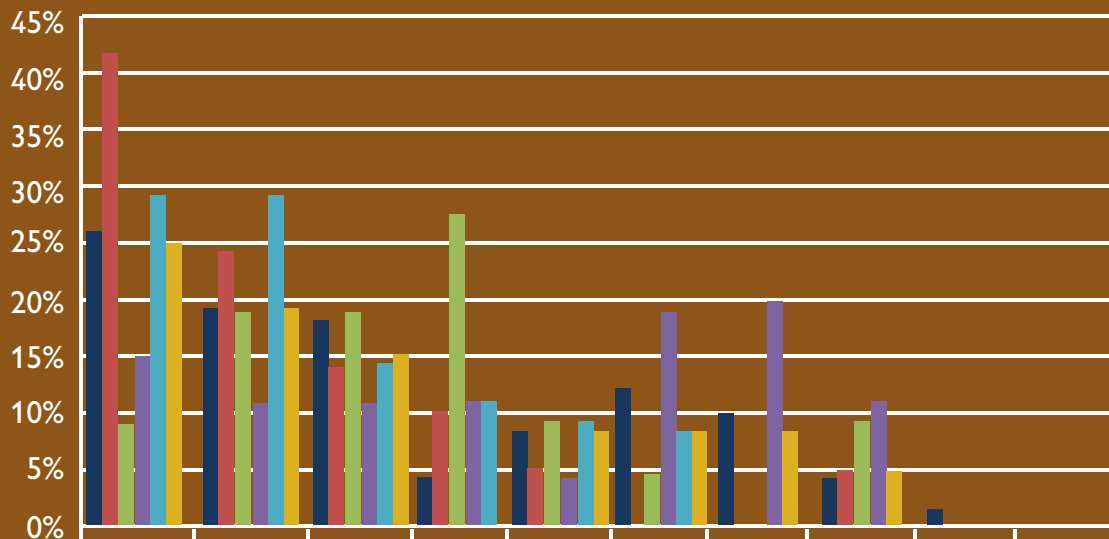
#### 4.1.A.1 Learning Outcome in English Writing in Class IV in Intervention Schools

1. Learning Outcome Test of Class IV in English writing was administered to 207 students from intervention schools..
2. At an aggregate level 44% of the students in the intervention school under performed in the test (securing Weak and Poor grades).
3. The under performance percentage has been significantly high- LoniKalbhor (45%), Sidrammala (67%), Raiwadi (27%), ManjriKhurd (26%) and Awalvai (58%).

Aggregate Performance of Intervention Schools in English Writing in Class IV



Level of Performance in English Writing in Class IV in Intervention School

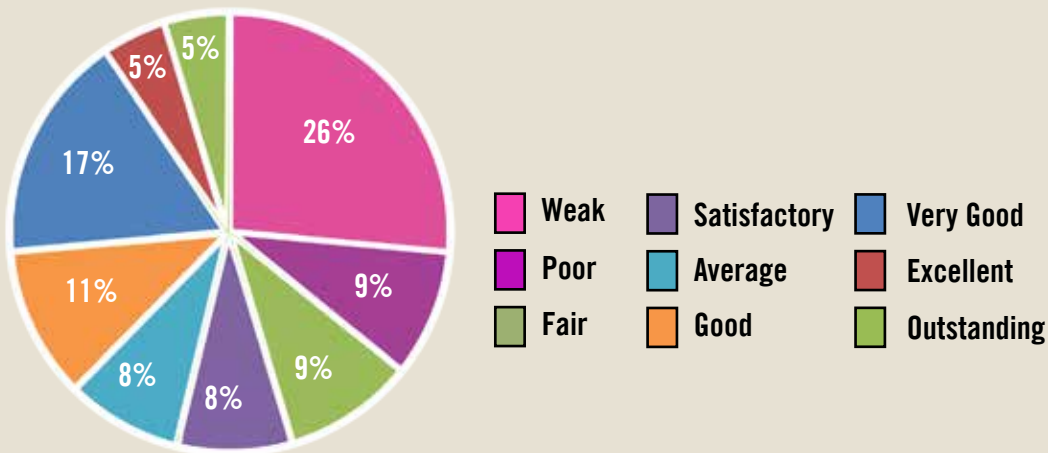


School	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
Loni Kalbhor	26% (24)	19% (18)	17% (16)	4% (4)	7% (7)	12% (11)	10% (9)	4% (4)	1% (1)	94
Sidarmmala	43% (9)	24% (5)	14% (3)	10% (2)	5% (1)	0% (0)	0% (0)	5% (1)	0% (0)	21
Raiwadi	9% (1)	18% (2)	18% (2)	27% (3)	9% (1)	9% (1)	0% (0)	9% (1)	0% (0)	11
Manjri Khurd	15% (7)	11% (5)	11% (5)	11% (5)	4% (2)	17% (8)	20% (9)	11% (5)	0% (0)	46
Awthalwadi	29% (10)	29% (10)	14% (5)	11% (4)	9% (3)	9% (3)	0% (0)	0% (0)	0% (0)	35
Total	25% (51)	19% (40)	15% (31)	9% (18)	7% (14)	11% (23)	9% (18)	5% (11)	0% (1)	207

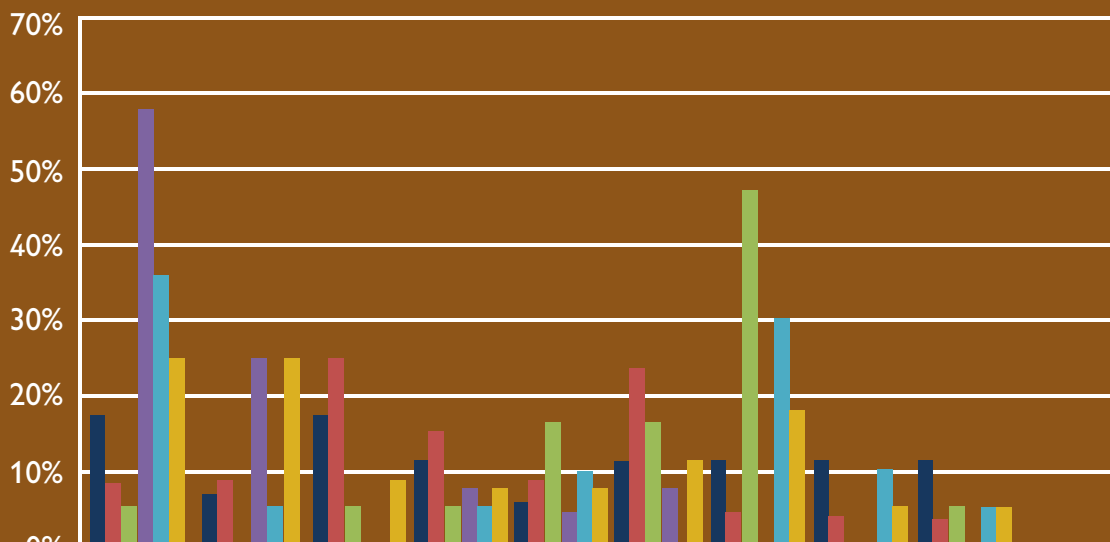
#### 4.1.A.2. Learning Outcome in English Writing in Class IV in Control Schools

1. Learning Outcome Test of Class IV in English writing was administered to 106 students.
2. At the aggregate level, 35% of the students were under performers (E grades). In comparison, 44% of the students from the intervention schools secured E grade.
3. In the entire sample 5 students got AI grade.
4. The under performance rate varies across schools; Shindavane (5%) and Jaiprakashnagar (15%) have low failure rates compared to the remaining three- Shriramnagar (23%), Shivapur (81%), and Valti (40%).

**Aggregate Performance of Control Schools in English Writing in Class IV**



**Level of English Writing in Class IV in Control School**



	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
ZPPS Shiram Nagar	17% (3)	6% (1)	17% (3)	11% (2)	6% (1)	11% (2)	11% (2)	11% (2)	11% (2)	18
ZPPS Jayprakash Nagar	9% (2)	9% (2)	26% (6)	13% (3)	9% (2)	22% (5)	4% (1)	4% (1)	4% (1)	23
ZPPS Shindavane	5% (1)	0% (0)	5% (1)	5% (1)	16% (3)	16% (3)	47% (9)	0% (0)	5% (1)	19
ZPPS Shivapur	58% (15)	23% (6)	0% (0)	8% (2)	4% (1)	8% (2)	0% (0)	0% (0)	0% (0)	26
ZPPS Valti	35% (7)	5% (1)	0% (0)	5% (1)	10% (2)	0% (0)	30% (6)	10% (2)	5% (1)	20
Total	26% (28)	9% (10)	9% (10)	8% (9)	8% (9)	11% (12)	17% (18)	5% (5)	5% (5)	106

## 4.1.A.2 Aggregate Performance of the Intervention Schools vis-a- vis Controlled School in Class V in English Writing

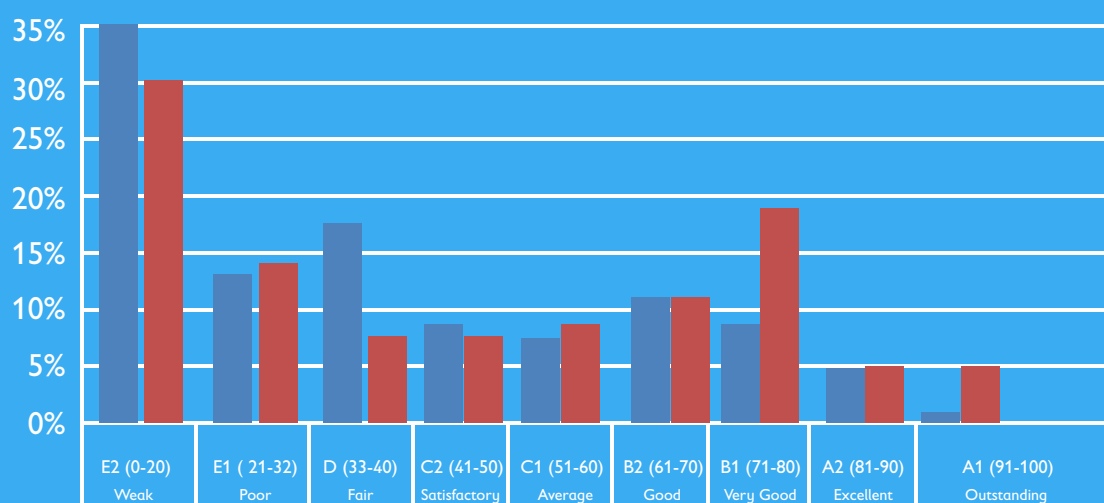
### What was tested?

- Describe and write experiences and incidents. Enjoy doing activities (identifying a person, object or thing) in English.
- Carry out and write a brief conversation involving seeking/giving information.
- Enjoy reading a story, poem, a short write – up, a notice, poster, etc.
- Take dictation of simple sentences and to practice copy writing from the blackboard/textbook and to use common punctuation marks.
- Write a short description of a person, thing or place – prepare a notice, or write a message for someone.

### Inference

- 48% students assessed fall in the underperforming category in intervention schools, while the corresponding figure for the control schools is 45%.
- 0% students assessed in the control schools fell in the outstanding category, while 2% of the sampled students in intervention schools made the outstanding grade.

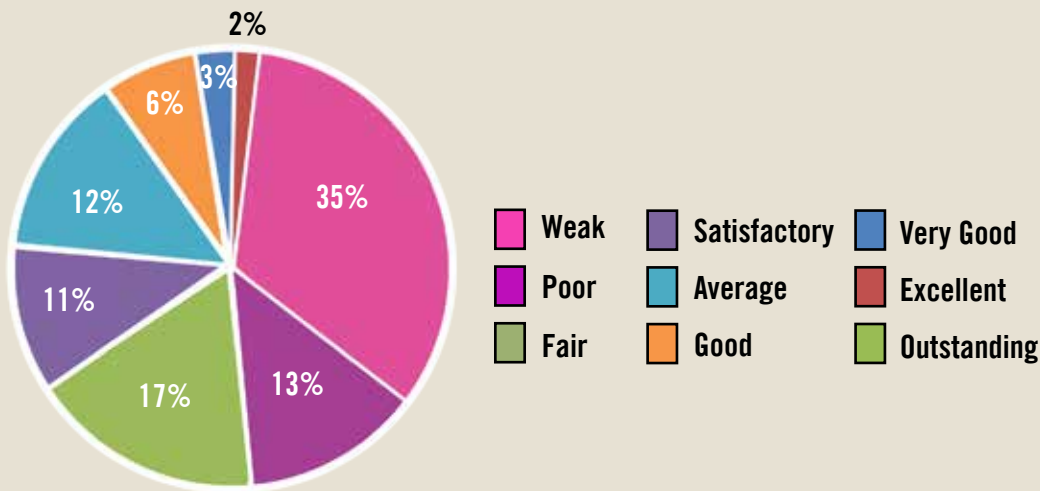
## Aggregate Performance of the Intervention Schools vis-a- vis Controlled School in Class V in English Writing



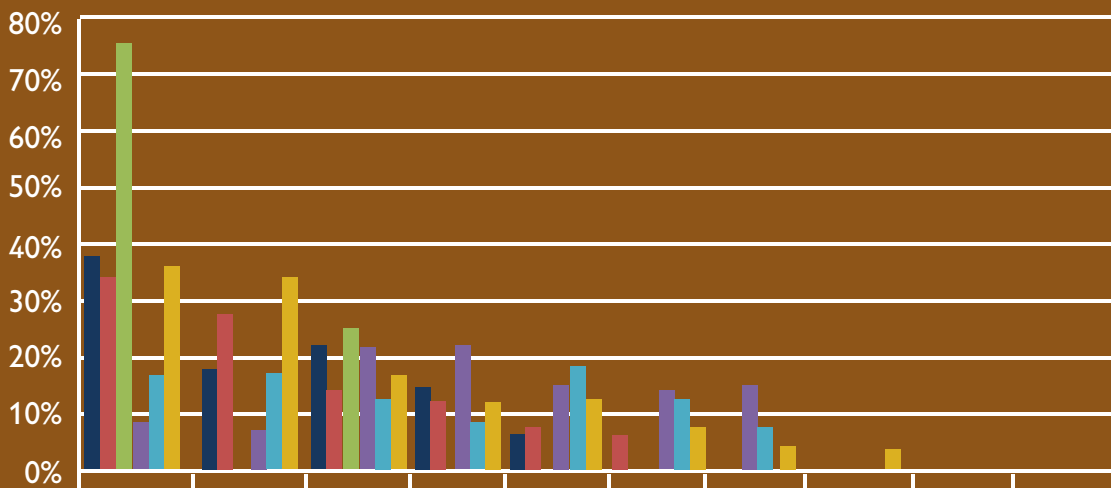
### A.A.2.A Learning Outcome in English Writing in Class V in Intervention Schools

1. Learning Outcome Test of Class V in English writing was administered to 128 students,
2. At an aggregate level 48% of the students underperformed (E1+E2) in the test
3. None of the students sampled could achieve the top grade (A1).
4. The under performance rate varies across schools- LoniKalbhor (70%), Sidrammala (71%), Raiwadi (100%), ManjriKhurd (65%) and Awalvai (12%).

**Aggregate Performance of Intervention Schools in English Writing in Class V**



**Level of Performance in English Writing in Class V (Intervention School)**

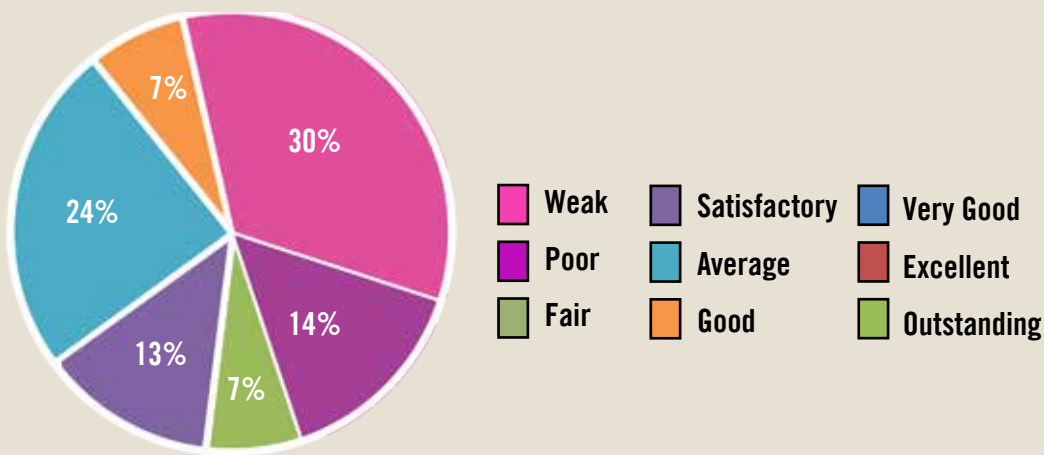


School	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
Loni Kalbhor 2	54% (20)	16% (6)	8% (3)	11% (4)	8% (3)	0% (0)	3% (1)	0%	0%	37
Sidrammala	58% (14)	13% (3)	8% (2)	0% (0)	13% (3)	8% (2)	0% (0)	0%	0%	24
Raiwadi	100% (4)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0%	0%	4
Manjri Khurd	36% (5)	29% (4)	7% (3)	7% (1)	7% (1)	0% (0)	0% (0)	0%	0%	14
Awalwadi	4% (2)	8% (4)	18% (14)	16% (9)	16% (8)	12% (6)	6% (3)	6% (3)	0%	49
<b>Total</b>	<b>35% (45)</b>	<b>13% (17)</b>	<b>17% (22)</b>	<b>12% (14)</b>	<b>12% (15)</b>	<b>6% (8)</b>	<b>3% (4)</b>	<b>2% (3)</b>	<b>0%</b>	<b>128</b>

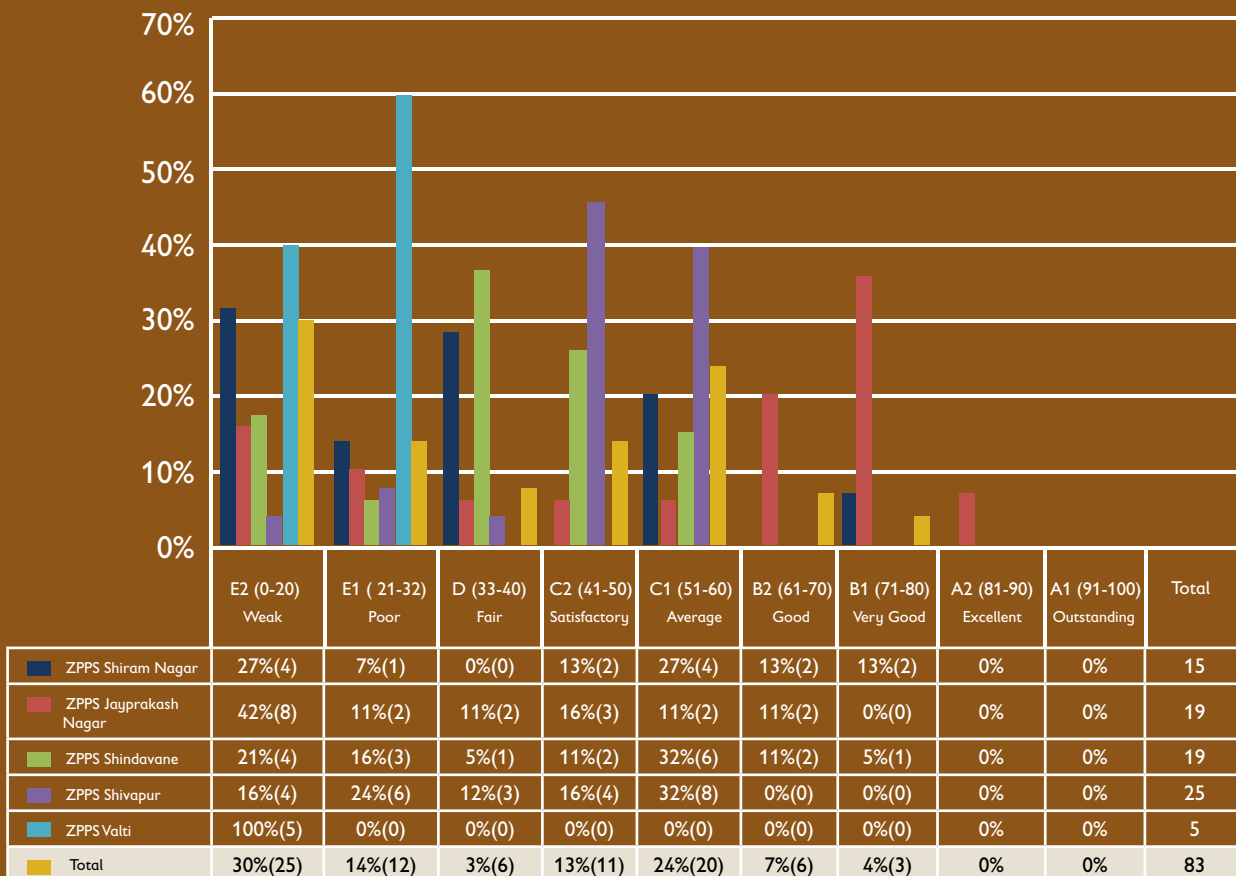
#### A.4 Learning Outcome in English Writing in Class V in the Control Schools

1. Learning Outcome Test of Class V in English writing was administered to 83 students.
2. At aggregate level 44% students under performed which is comparable with the intervention schools (48%).
3. No student could score the top (A1) grade.
4. The failure rates across schools –Shriramnagar (34%), Jaiprakashnagar (53%), Shindavane (37%), Shivapur (40%), and Valti (100%).

Aggregate Performance in English Writing in Class V in Control Schools



Level of Performance in English Writing in Class V (Control School)



## Aggregate Performance of the Intervention Schools vis-a- vis Controlled School in Class VI in English Writing

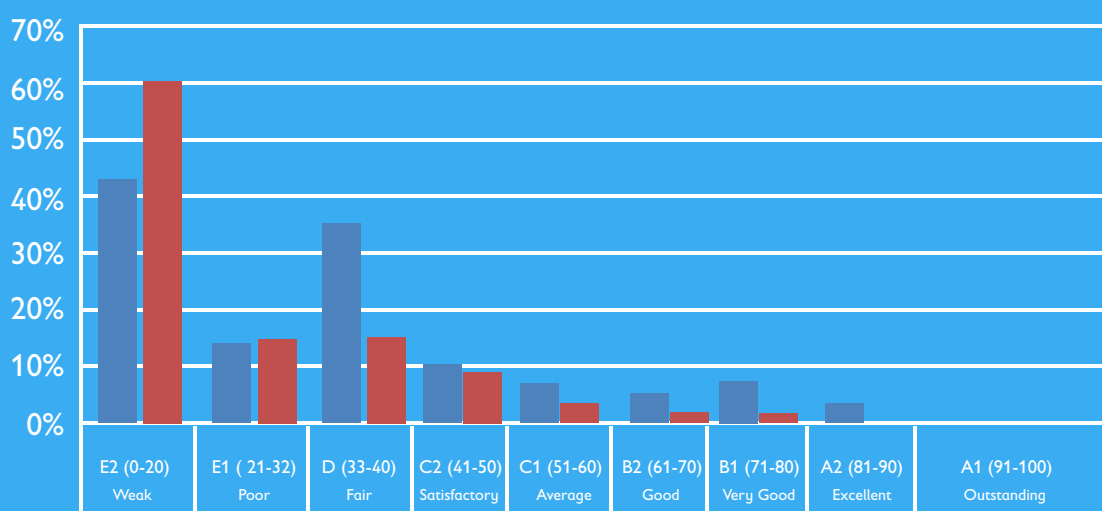
### What was tested?

- Understand English language spoken in their immediate environment.
- Listen and write English with understanding and enthusiasm.
- Develop familiarity with English phrases used in specific instructions and requests and use them in sentences.
- Understand non-verbal clues and respond in speaking and writing.
- Write coherently with a sense of audience.
- Expresses through creative writing.

### Inference

- 58% students assessed in intervention schools fall in the under performing category while the corresponding figure for control schools is 74%..
- 4% of the students assessed in intervention schools fall in the outstanding category, while there are no such students in control schools. .

## Aggregate Performance of the Intervention Schools vis-a- vis Controlled School in Class VI in English Writing

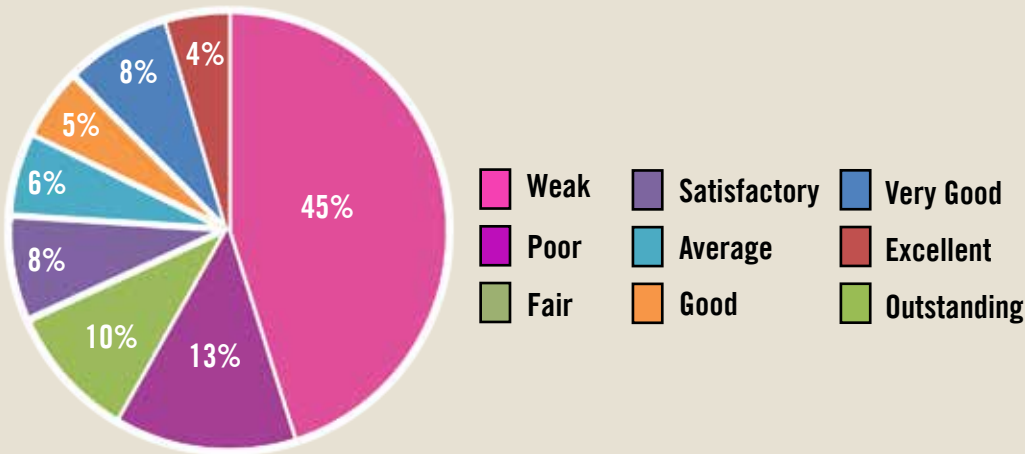




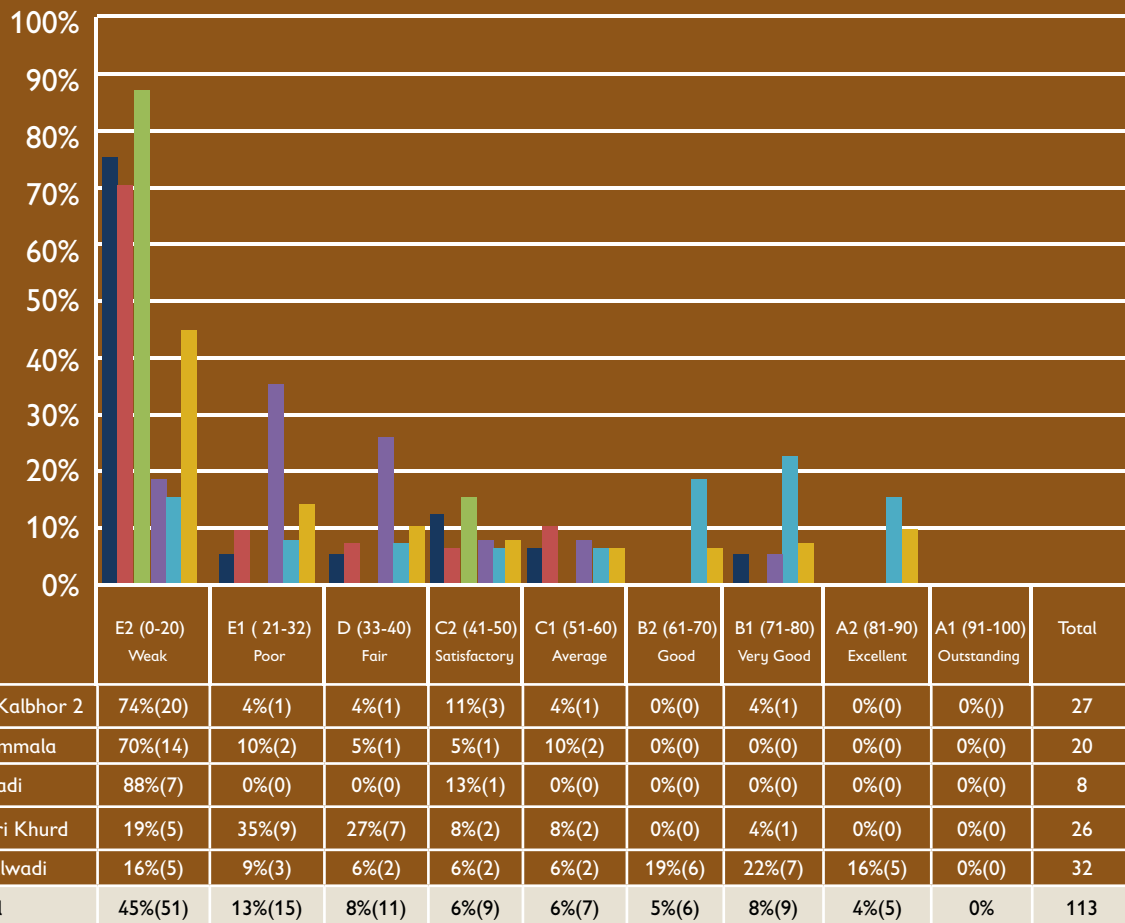
### Learning Outcome in English Writing in Class VI the Intervention Schools

1. Learning Outcome Test of Class VI in English writing was administered to 113 students
2. 58% of the students under performed
3. No student scored A1 grade.
4. The under performance rates are - LoniKalbhor (78%), Sidrammala (80%), Raiwadi (88%), ManjriKhurd (54%) and Awalvai (25%).

**Aggregate Performance of Intervention Schools in English Writing in Class VI**



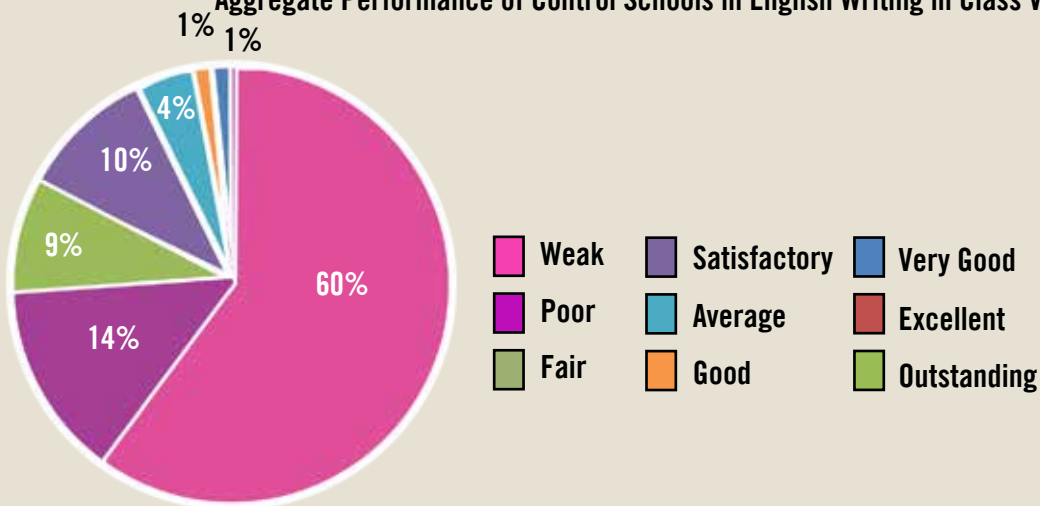
**Level of English Writing in Class VI (Intervention School)**



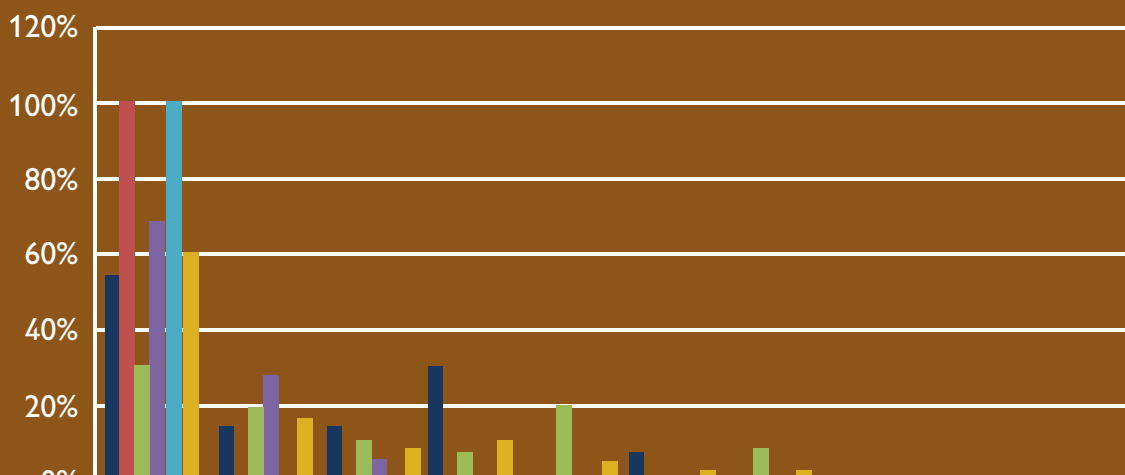
### Learning Outcome in English Writing in Class VI at Control Schools

1. Learning Outcome Test of Class VI in English writing was administered to 70 students
2. 74% of the students under performed in the test which is significantly higher than the intervention schools(58%).
3. No student in the sample could get A1grade.
4. The under performance rates are - Shriramnagar (48%), Jaiprakashnagar (100%), Shindavane (53%), Shivapur (85%), and Valti (100%).

Aggregate Performance of Control Schools in English Writing in Class VI



Level of English Writing in Class VI (Control School)



School	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding
ZPPS Shiram Nagar	37%(7)	11%(2)	16%(3)	32%(6)	0%(0)	5%(1)	0%(0)	0%	0%
ZPPS Jayprakash Nagar	100%(14)	0%(0)	0%(0)	0%(0)	0%(0)	0%(0)	0%(0)	0%	0%
ZPPS Shindavane	33%(5)	20%(3)	13%(2)	7%(1)	20%(3)	0%(0)	7%(1)	0%	0%
ZPPS Shivapur	71%(15)	24%(5)	5%(1)	0%(0)	0%(0)	0%(0)	0%(0)	0%	0%
ZPPS Valti	100%(1)	0%(0)	0%(0)	0%(0)	0%(0)	0%(1)	0%(0)	0%	0%
Total	60%(42)	14%(10)	9%(6)	10%(7)	4%(3)	1%(1)	1%(1)	0%(0)	0%(0)

## 4.A.2 Learning Outcomes for English (Reading)

### Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class IV in English Reading

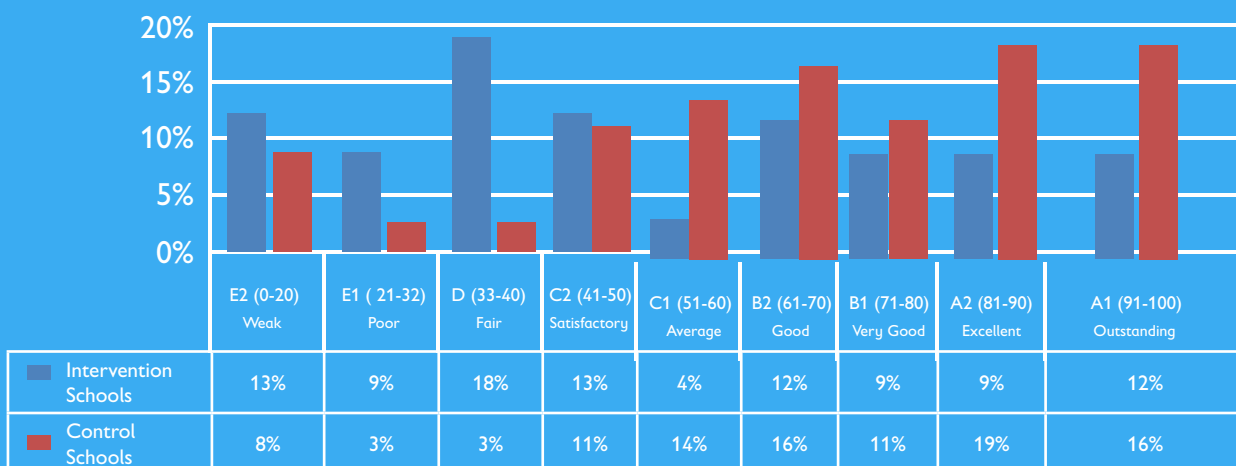
#### What was tested?

- Follows words and sentences spoken/used in class/school in English and responds in home language/English/sign language.
- Understands announcements made in school and in the neighborhood (railway station, market, airport, cinema hall etc).
- Understands questions asked on textual material.
- Follows oral messages/telephonic communications and communicates them in English or home language/sign language.
- Develops enthusiasm to listen to English with understanding.
- Develops familiarity with English phrases used in specific instructions, directions and requests.

#### Inference

- 22% students assessed fall in the underperforming category in intervention schools, while the corresponding figure for the control schools is 11%.
- 35% students assessed in the control schools fell in the outstanding category, while 21% of the sampled students in intervention schools made the outstanding grade.

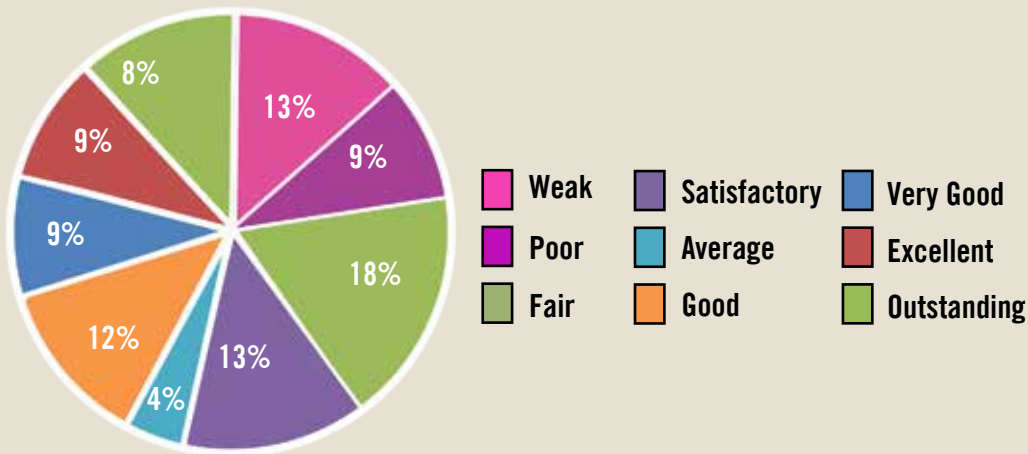
### Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class IV in English Reading



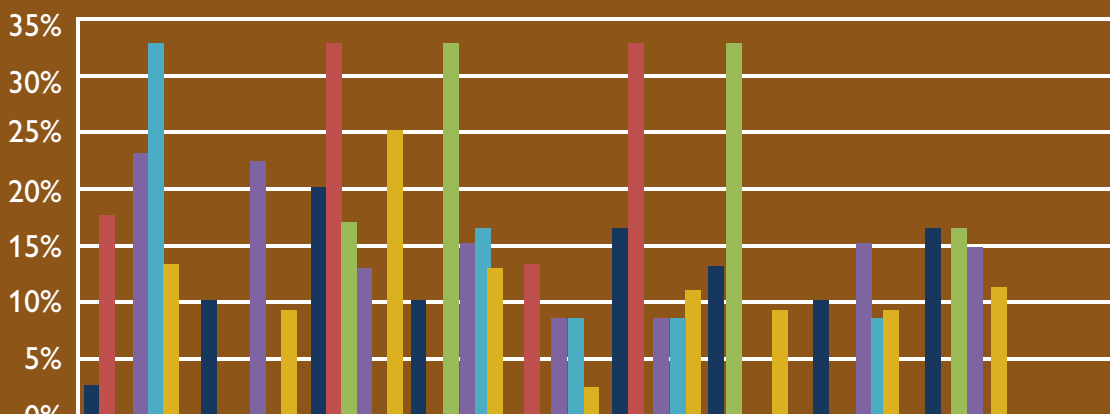
## B.1 Learning Outcomes in English Reading in Intervention Schools in Class IV

- Learning Outcome Test of Class IV in English reading was administered to 67 students
- 22% of the students under performed in the test
- 8 students in the sample could score the top Grade (A1).
- Compared to writing, reading levels are better, with low underperformance percentage.
- Across schools, the failure rate is a mixed bag- LoniKalbhor (20%), Sidrammala (17%), Raiwadi(0%), ManjriKhurd (46%) and Awalvadi (33%).

### Aggregate Performance of Intervention Schools in English Reading in Class IV



### Level of English Reading in Class IV (Intervention School)

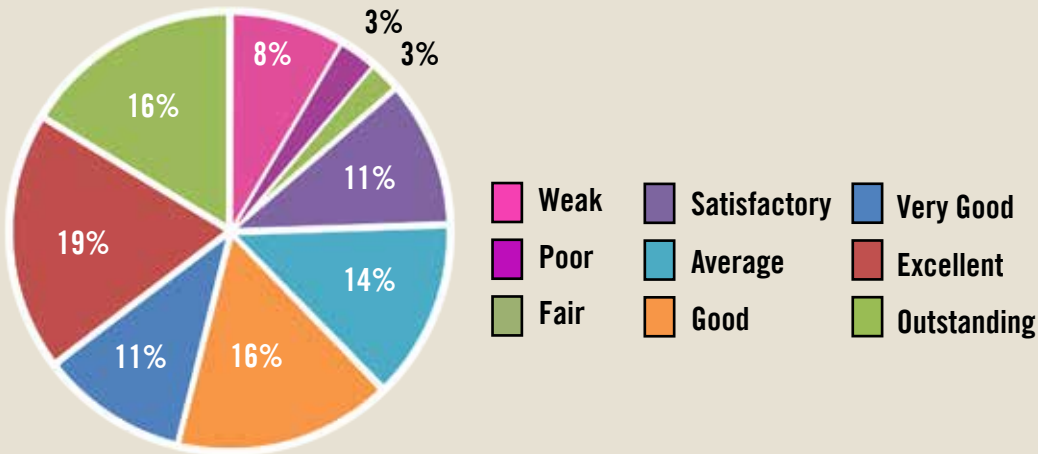


	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
Loni Kalbhor 2	3%(1)	10%(3)	20%(6)	10%(3)	0%(0)	17%(5)	13%(4)	10%(3)	17%(5)	30
Sidrammala	17%(1)	0%(0)	33%(2)	0%(0)	17%(1)	33%(2)	0%(0)	0%(0)	0%(0)	6
Raiwadi	0%(0)	0%(0)	17%(1)	33%(2)	0%(0)	0%(0)	33%(2)	0%(0)	17%(1)	6
Manjri Khurd	23%(3)	23%(3)	0%(0)	15%(2)	8%(1)	8%(0)	0%(0)	15%(2)	15%(2)	13
Awalvadi	33%(4)	0%(0)	25%(3)	17%(2)	8%(1)	8%(1)	0%(0)	8%(1)	0%(0)	12
Total	13%(9)	9%(6)	18%(12)	13%(9)	4%(3)	12%(8)	9%(6)	9%(6)	12%(8)	67

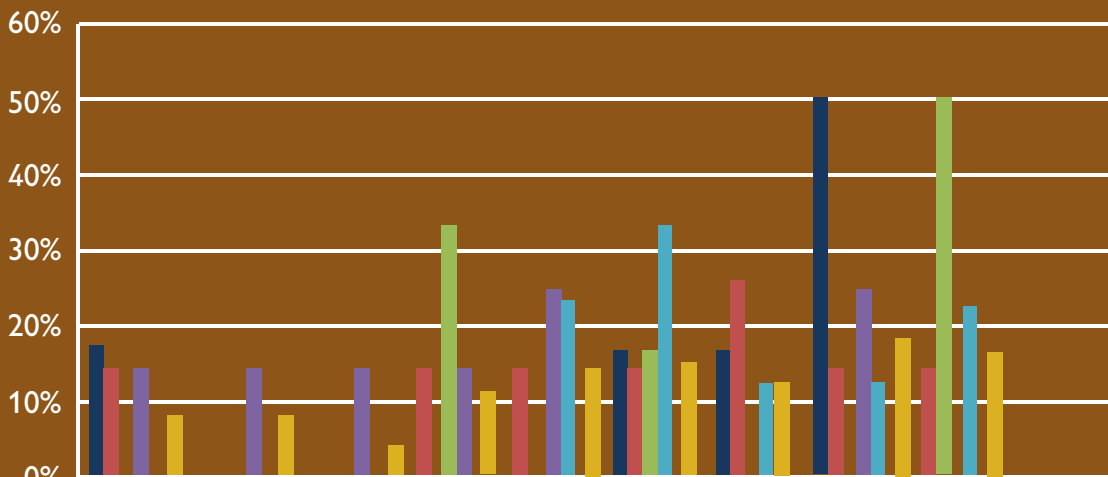
## Learning Outcome in English Reading in the Control Schools in class IV

- Learning Outcome Test of Class IV in English reading was administered to 37 students
- 11% of the students under performed in the test., this is better than the reading under performance level of the intervention schools(22%)
- Of the total sample, 6 students could score A1 grade.
- The under performance rate across control schools shows significant variation- Shriramnagar (17%), Jayaprakashnagar (13%), Shindavane(0%), Shivapur (26%), Valti (0%).

Aggregate Performance Performance of Control Schools in English Reading in Class IV



Level of English Reading in Class IV (Control School)



	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
ZPPS Shiram Nagar	17%(1)	0%(0)	0%(0)	0%(0)	0%(0)	17%(1)	17%(1)	50%(3)	0%(0)	6
ZPPS Jayprakash Nagar	13%(1)	0%(0)	0%(0)	13%(1)	13%(1)	13%(1)	25%(2)	13%(1)	13%(1)	8
ZPPS Shindavane	0%(0)	0%(0)	0%(0)	33%(2)	0%(0)	17%(1)	0%(0)	0%(0)	50%(3)	6
ZPPS Shivapur	13%(1)	13%(1)	13%(1)	13%(1)	25%(2)	0%(0)	0%(0)	25%(2)	0%(0)	8
ZPPS Valti	0%(0)	0%(0)	0%(0)	0%(0)	22%(2)	33%(3)	11%(1)	11%(1)	22%(2)	9
Total	8%(3)	3%(1)	11%(1)	11%(4)	14%(5)	16%(6)	11%(4)	19%(7)	16%(6)	37

## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class V in English Reading

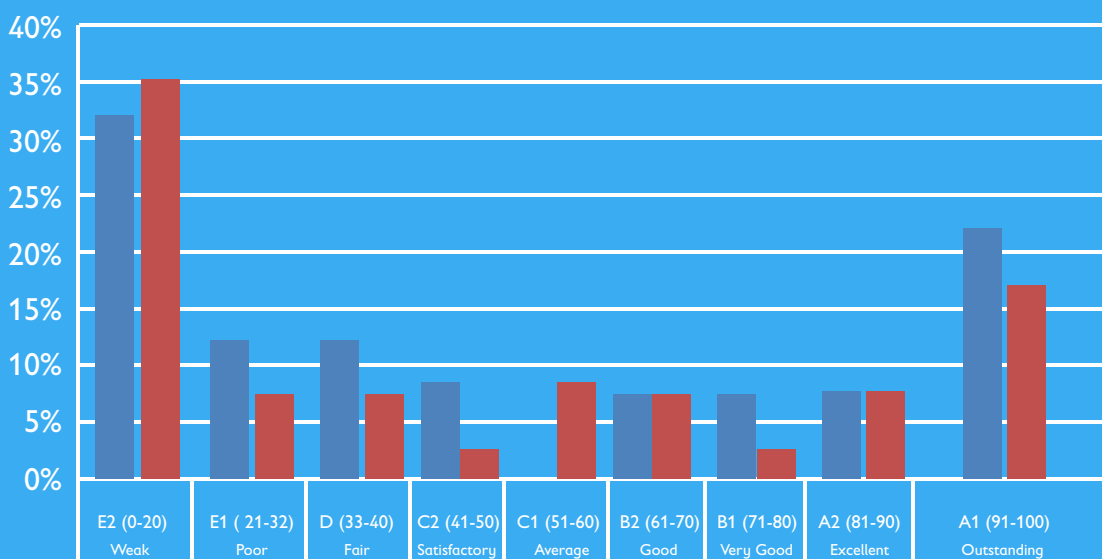
### What was tested?

- Listens to English words and sentences spoken/used in class/school, and responds in home language/English/sign language.
- Follows announcements made in school and in the neighborhood.
- Appreciates the difference between a question and a statement.
- Listens to and engages in conversation with people from the community.
- Attends to oral messages/telephonic communications and communicates with them in English or home language/sign language.
- Are able to comprehend and express in own words

### The Analysis

- 43 % students assessed fall in the underperforming category in intervention schools, while the corresponding figure for the control schools is 45%.
- 28% students assessed in the control schools fell in the outstanding category, while 23% of the sampled students in intervention schools made the outstanding grade.

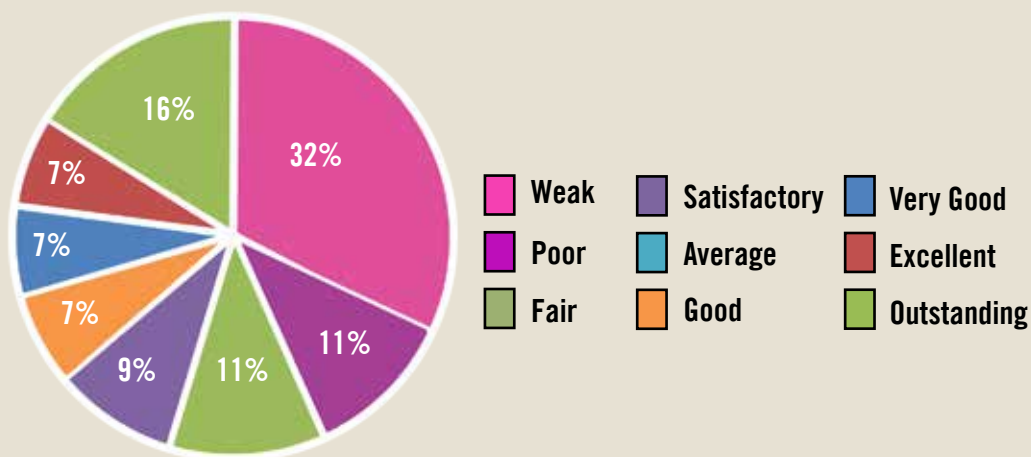
## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class V in English Reading



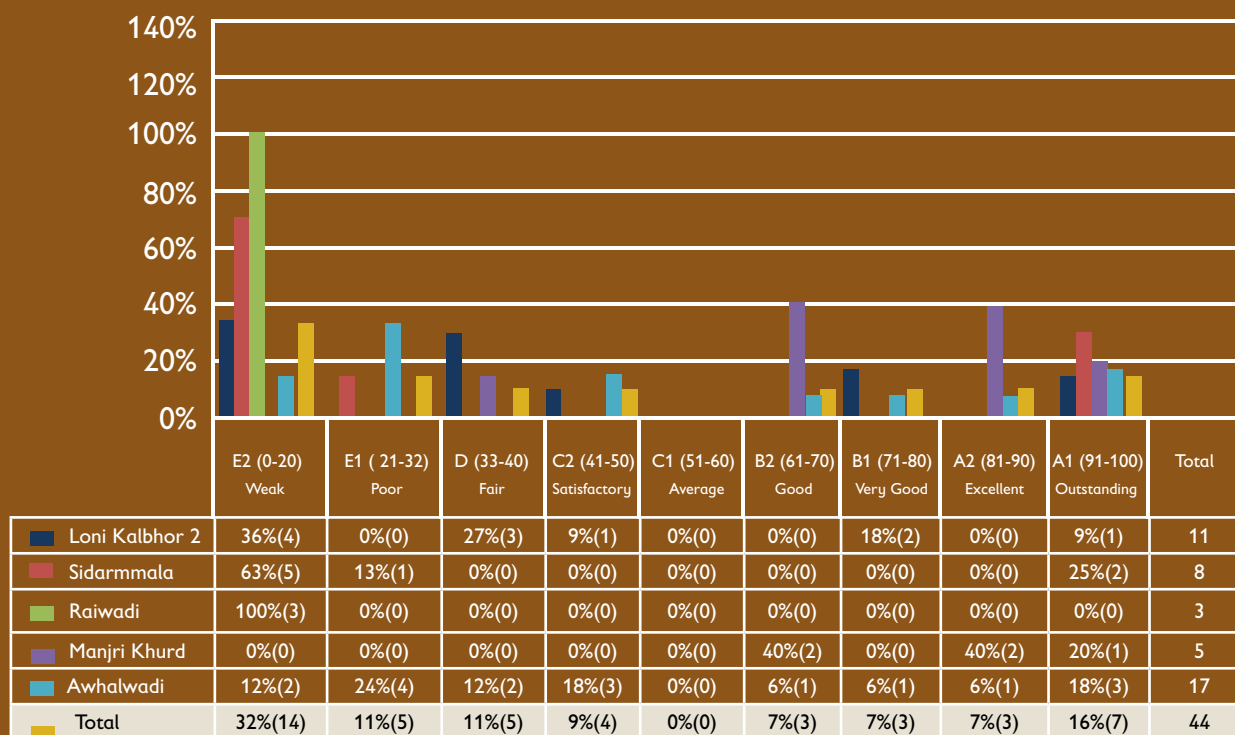
## Learning Outcome in English Reading in the Intervention Schools Class V

1. Learning Outcome Test of Class V in English reading was administered to 44 students
2. 43% students under performed in the reading test.
3. 7 students were able to score A1 grade.
4. The under performance rate across schools varies by a wide range - LoniKalbhori (36%), Sidarammala (76%), Raiwadi (100%), ManjriKhurd (0%) and Awalvai (36%).

Aggregate Performance of the Intervention Schools in English Reading in Class V



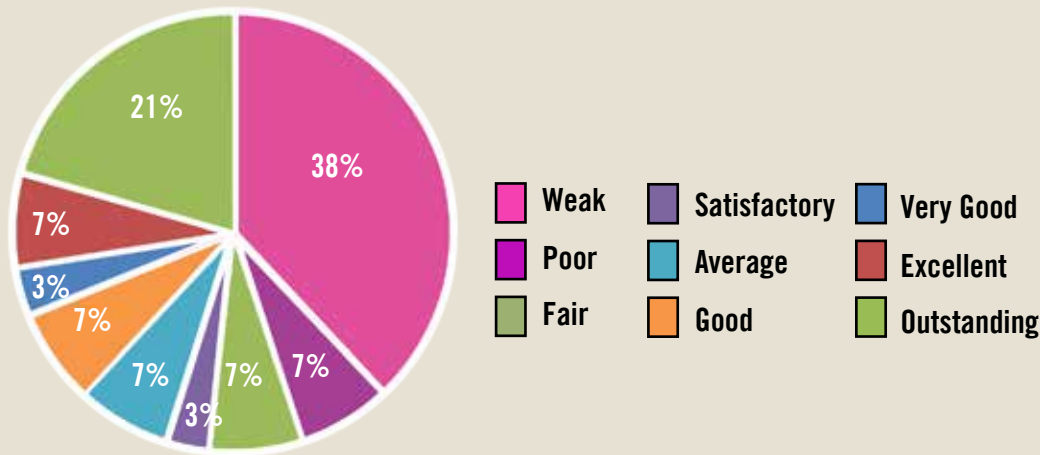
Level of English Reading in Class V (Intervention School)



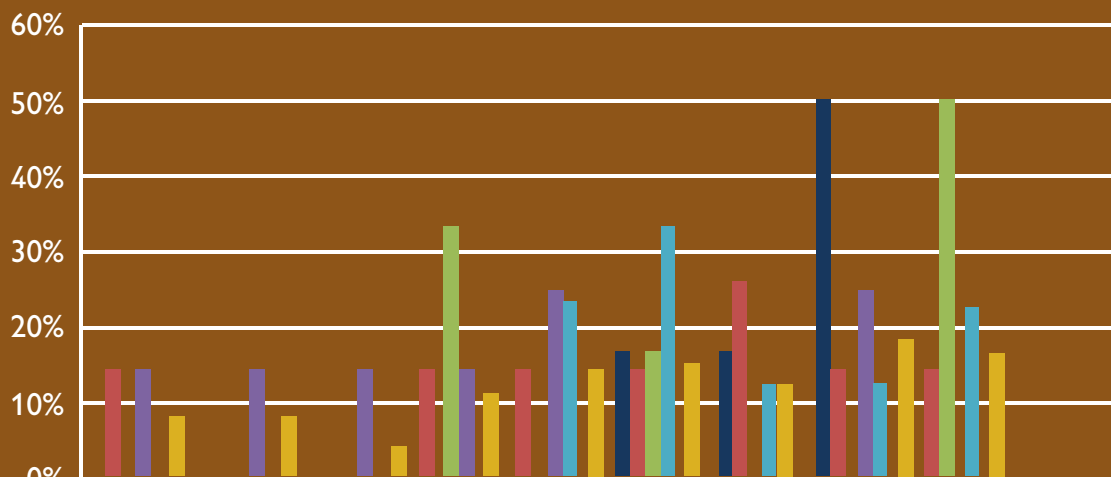
## Learning Outcome in English Reading in the Control Schools Class V

1. Learning Outcome Test of Class V in English reading was administered to 29 students
2. 45% of the students under performed in the reading test. This is comparable with the under performance rates in intervention schools which is 43%.
3. Of the sampled students, 6 have scored A1 grade.
4. The under performance across the schools is a mixed bag - Shriramnagar(0%), Jayaprakashnagar (67%), Shindavane(34%), Shivapur (44%), Valti (100%).

### Aggregate Performance of Control Schools in English Reading in Class V



### Level of English Reading in Class V (Control School)



	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
ZPPS Shiram Nagar	0%(0)	0%(0)	0%	0%	0%	0%	20%	40%	40%	5
ZPPS Jayprakash Nagar	50%(3)	17%(1)	0%	17%	0%	0%	0%	0%	17%	6
ZPPS Shindavane	17%(1)	17%(1)	17%	0%	17%	0%	0%	0%	33%	6
ZPPS Shivapur	44%(4)	0%(0)	11%	0%	11%	22%	0%	0%	11%	9
ZPPS Valti	100%(3)	0%(0)	0%	0%	0%	0%	0%	0%	0%	3
Total	38%(11)	7%	7%	3%	7%	7%	3%	7%	21%	29



## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class VI in English Reading

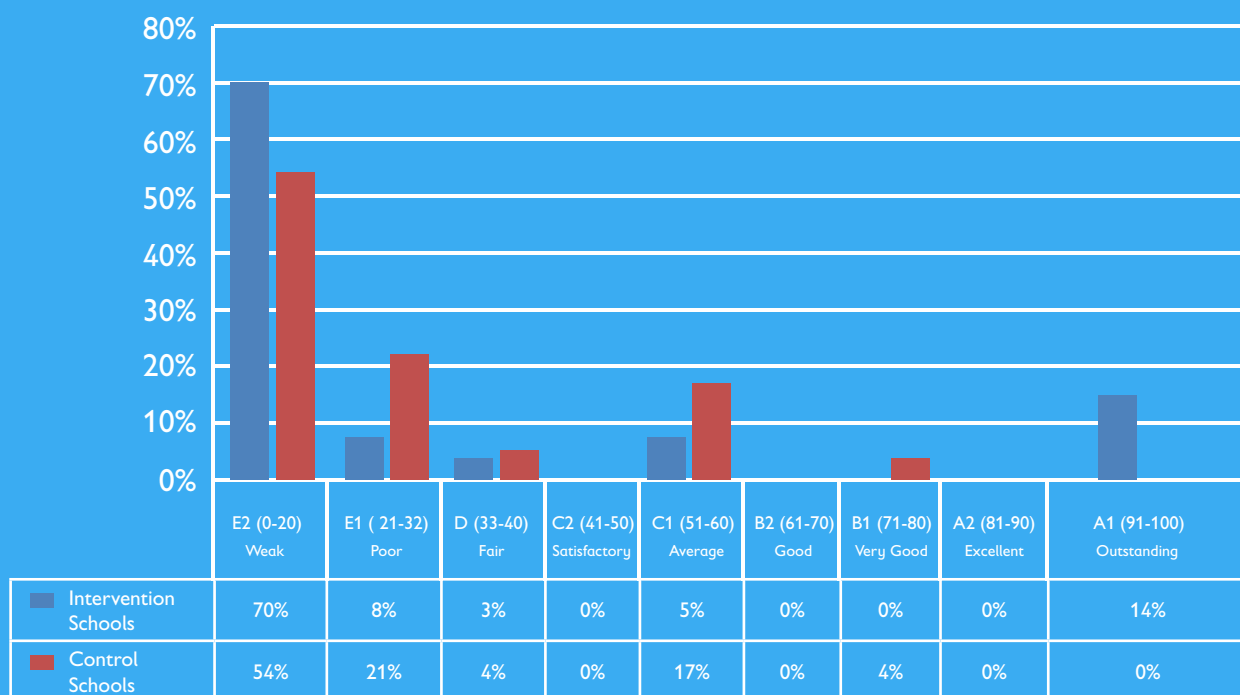
### What was tested?

- Expresses and are able to give answers for textual questions after comprehending the questions.
- Understands the main idea, locates details in the text
- Collects and reads books from different sources.
- Use English as a means of communication.
- Narrates personal experience and connects learning to real life.

### The Analysis

- 78 % students assessed fall in the underperforming category in intervention schools, while the corresponding figure for the control schools is 75%.
- 0% students assessed in the control schools fell in the outstanding category, while 14% of the sampled students in intervention schools made the outstanding grade.

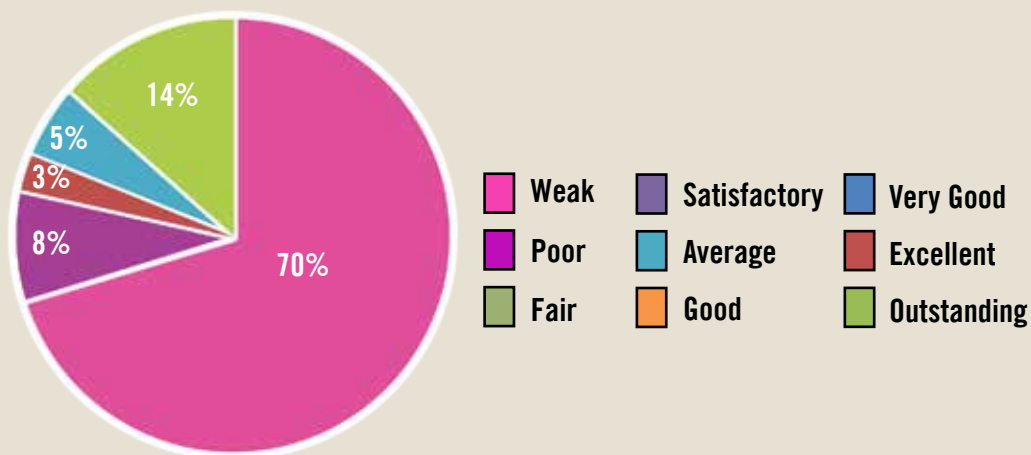
## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class VI in English Reading



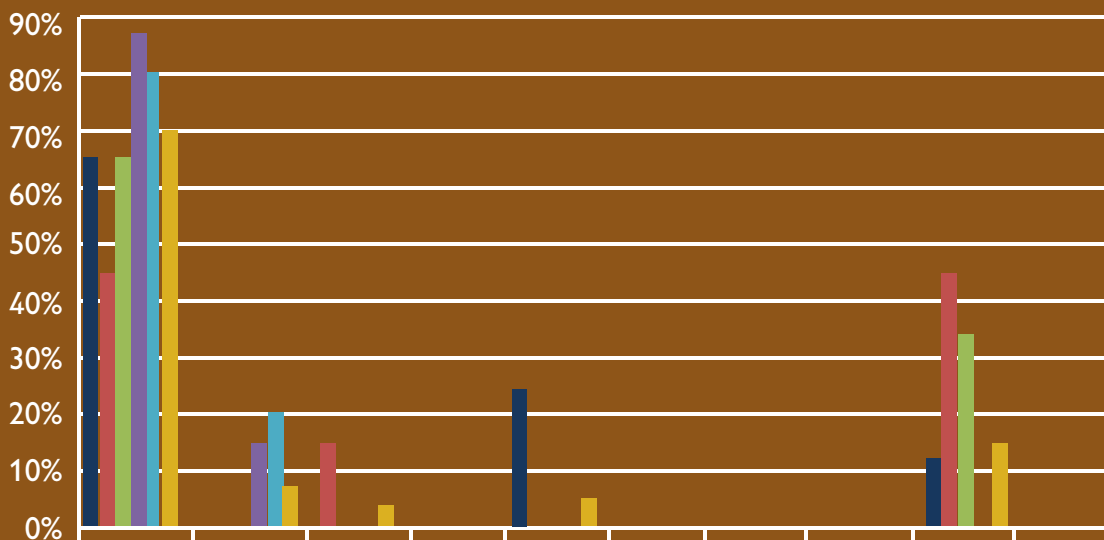
### Learning Outcome in English Reading in Class VI in the Intervention Schools

- Learning Outcome Test of Class VI in English reading was administered to 37 students
- 78% of the students under performed in the test.
- 5 students achieved A1 grade.
- The under performance rates across schools are - LoniKalbhor (67%), Sidammala (43%), Raiwadi (67%), ManjriKhurd (100%) and Awalvai (100%).

#### Aggregate Performance in the Intervention Schools in English Reading in Class VI



#### Level of Performance in English Reading in Class VI (Intervention School)

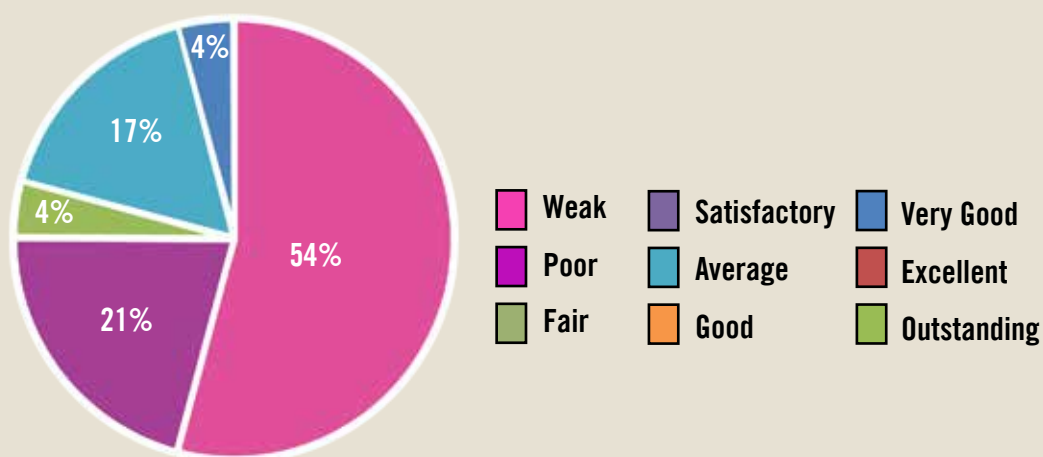


	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
Loni Kalbhor 2	67%(6)	0%(0)	0%(0)	0%(0)	22%(2)	0%	0%	0%	11%(1)	9
Sidammala	43%(3)	0%(0)	14%(1)	0%(0)	0%(0)	0%	0%	0%	43%(3)	7
Raiwadi	67%(2)	0%(0)	0%(0)	0%(0)	0%(0)	0%	0%	0%	33%(1)	3
Manjri Khurd	88%(7)	13%(1)	0%(0)	0%(0)	0%(0)	0%	0%	0%	0%(0)	8
Awahlwadi	80%(8)	20%(2)	0%(0)	0%(0)	0%(0)	0%	0%	0%	0%(0)	10
Total	70%(26)	8%(3)	3%(1)	0%(0)	5%(2)	0%	0%	0%	14%	37

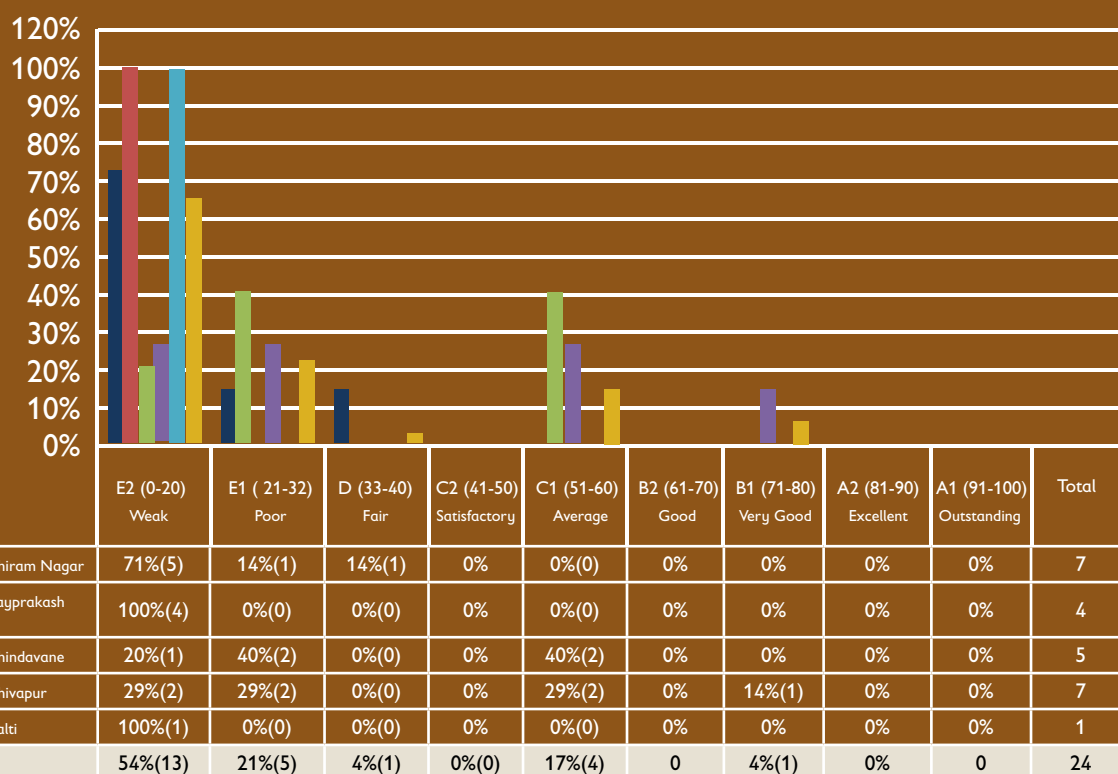
## B.6 Learning Outcome in English Reading in Class VI in the Control Schools

- Learning Outcome Test of Class VI in English reading was administered to 24 students
- 74% of the students under performed in the test which is comparable with the under performance rates at the intervention schools(78%).
- No student could manage A1 grade.
- The under performancen rates across schools is consistently high –Shiramnagar(85%), Jayprakashnagar (100%), Shindavane(60%), Shivapur(48%),Valti(100%).

**Aggregate Performance of Controlled Schools in English Reading in Class VI**



**Level of Performance in English Reading in Class VI (Controlled School)**



## Learning Outcomes for EVS

### Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class IV in EVS

#### What was tested?

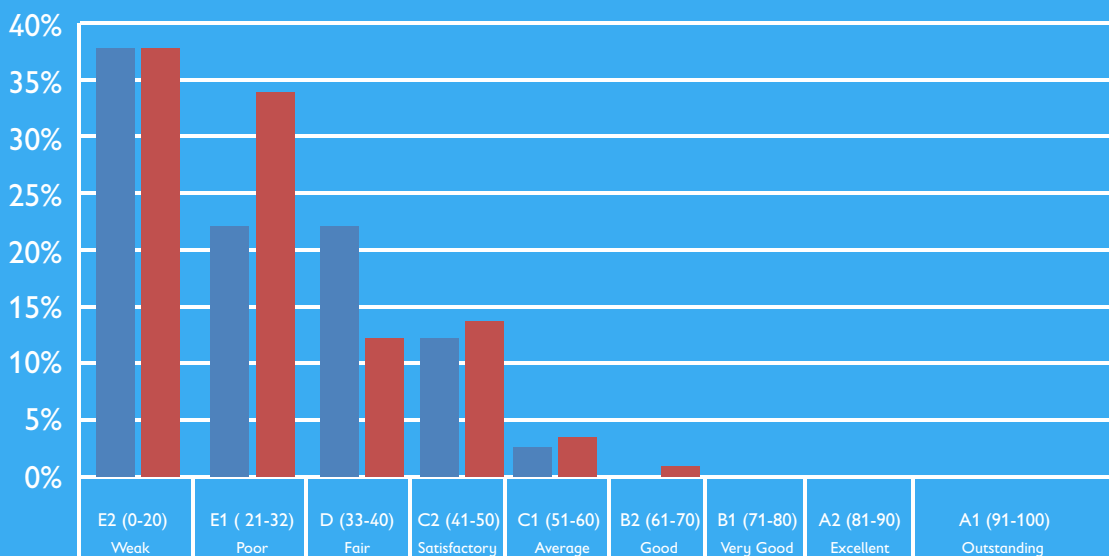
##### GRADE SPECIFIC

- **Observes nature and responds through verbal and non-verbal expression**
- **A concern for the physical environment and thinks of ways to protect it.**
- **Uses appropriately new words/concepts related to environment.**
- **Engages with various sources and identifies the ill effects of Man vs. Nature conflict and the benefits of making Nature, Man's friend.**

#### The Analysis

- 64 % students assessed fall in the underperforming category in intervention schools, while the corresponding figure for the control schools is 71%.
- No student either in control or intervention school could achieve outstanding category

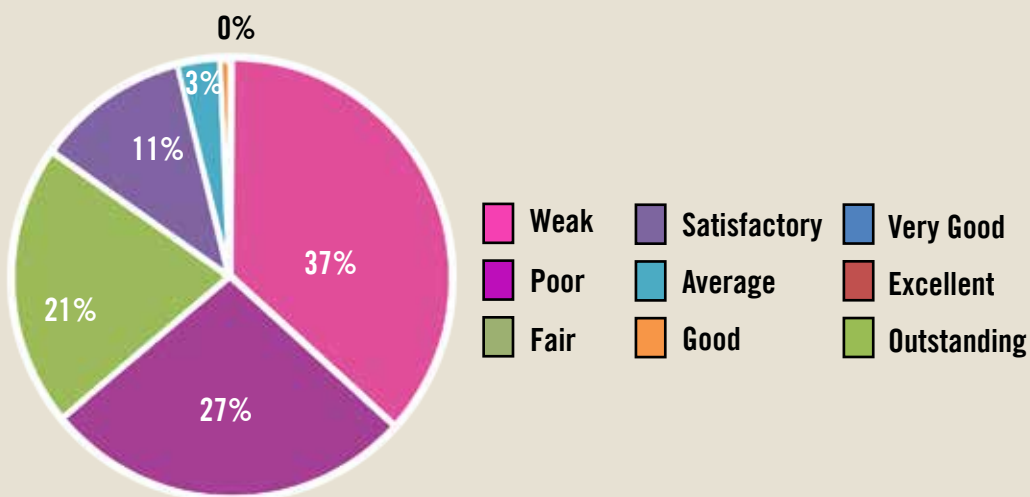
### Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class V in EVS



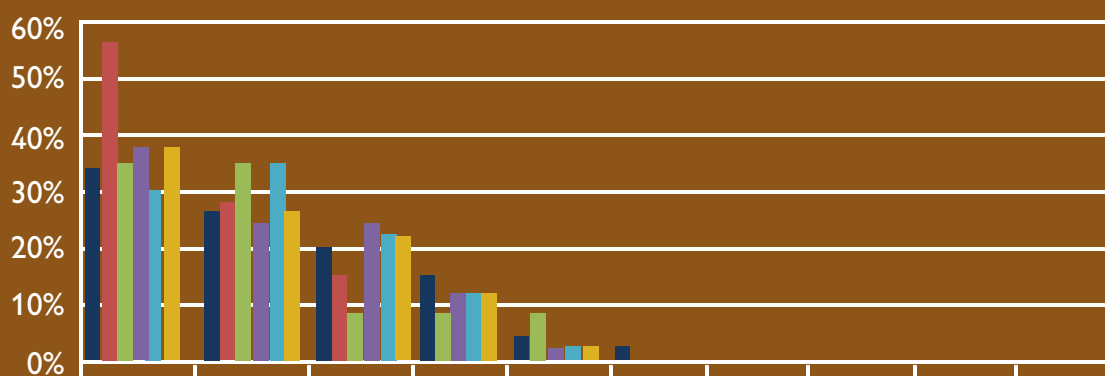
## Learning Outcome in EVS in the Intervention Schools Class IV

1. Learning Outcome Test of Class IV in EVS was administered to 210 students
2. 64% of the students underperformed the test.
3. There were no student in the B1,A2 and A1 categories.
4. Across schools also the performance has been consistently poor- - LoniKalbhor (60%), Sidammala (86%), Raiwadi (72%), ManjriKhurd (61%), and Awalvadi (62%).

### Aggregate Performance in EVS in Intervention Schools in Class IV



### Level of Performance in EVS in Class IV (Intervention School)

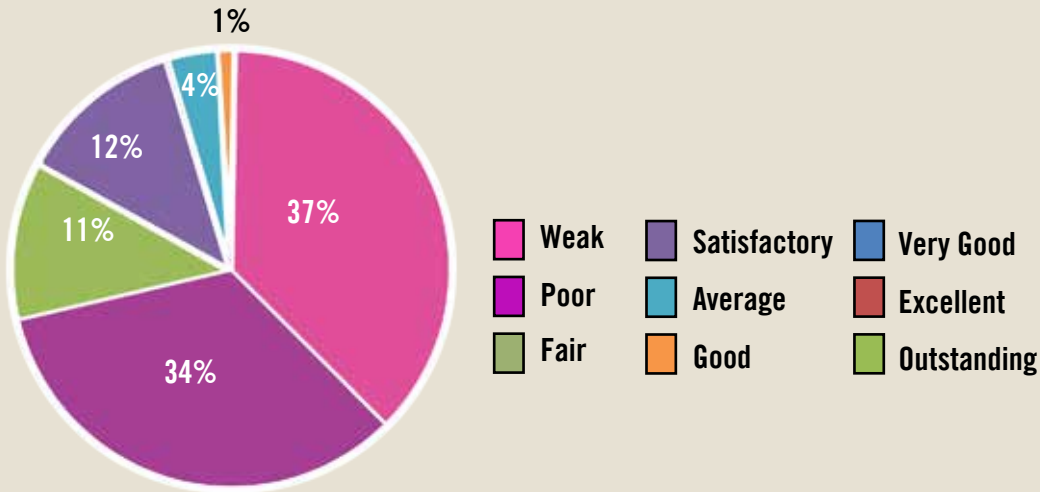


	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
Loni Kalbhor 2	35%(33)	25%(24)	20%(19)	15%(14)	4%(4)	1%(1)	0%	0%	0%	95
Sidammala	57%(12)	29%(6)	14%(3)	0%(0)	0%(0)	0%(0)	0%	0%	0%	21
Raiwadi	36%(4)	36%(4)	9%(1)	9%(1)	9%(1)	0%(0)	0%	0%	0%	11
Manjri Khurd	37%(17)	24%(11)	26%(12)	11%(5)	2%(1)	0%(0)	0%	0%	0%	46
Awthalwadi	30%(11)	32%(12)	24%(9)	11%(4)	3%(1)	0%(0)	0%	0%	0%	37
<b>Total</b>	<b>37%(77)</b>	<b>27%(57)</b>	<b>21%(44)</b>	<b>11%(24)</b>	<b>3%(7)</b>	<b>0%(0)</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>210</b>

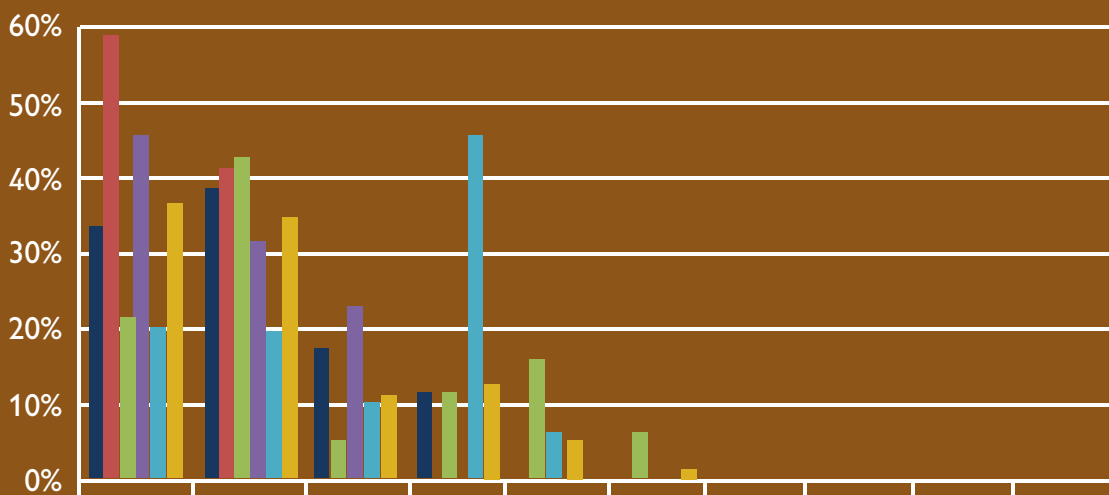
### Learning Outcome in EVS in the Control Schools in Class IV

- Learning Outcome Test of Class IV in EVS was administered to 105 students
- 71% of the students under performed in the test. This is comparable with under performance test result of the intervention schools (64%).
- As was for intervention schools, no student from the control school sample could make it to the B1, A2, and A1 grade.

Aggregate Performance in EVS in Control Schools in Class IV



Level of Performance in EVS in Class IV (Control School)



	E2 (0-20) Weak	E1 (21-32) Poor	D (33-40) Fair	C2 (41-50) Satisfactory	C1 (51-60) Average	B2 (61-70) Good	B1 (71-80) Very Good	A2 (81-90) Excellent	A1 (91-100) Outstanding	Total
ZPPS Shiram Nagar	33%(6)	39%(7)	17%(3)	11%(2)	0%(0)	0%	0%	0%	0%	18
ZPPS Jayprakash Nagar	59%(13)	41%(9)	0%(0)	0%(0)	0%(0)	0%	0%	0%	0%	22
ZPPS Shindavane	21%(4)	42%(8)	5%(1)	11%(2)	16%(3)	5%(1)	0%	0%	0%	19
ZPPS Shivapur	46%(12)	31%(8)	23%(6)	0%(0)	0%(0)	0%	0%	0%	0%	26
ZPPS Valti	20%(4)	20%(4)	10%(2)	45%(9)	5%(1)	0%	0%	0%	0%	20
Total	37%(39)	34%(36)	11%(12)	12%(13)	4%(4)	1%	0%	0%	0%	105

## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class V in EVS

### What was tested?

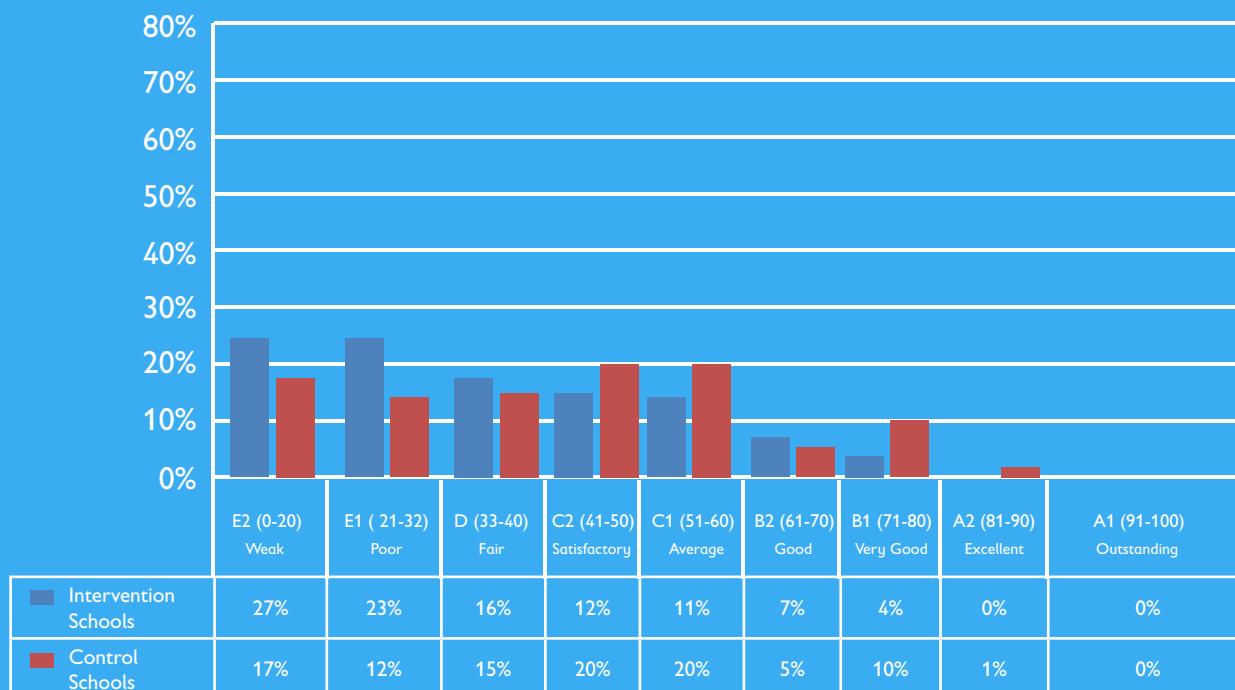
#### GRADE SPECIFIC

- **Observes nature and responds through verbal and non-verbal expression**
- **A concern for the physical environment and thinks of ways to protect it.**
- **Uses appropriately new words/concepts related to environment.**
- **Engages with various sources and identifies the ill effects of Man vs. Nature conflict and the benefits of making Nature, Man's friend.**

### The Analysis

- 50% % students assessed fall in the underperforming category in intervention schools, while the corresponding figure for the control schools is 29%.
- No student either in intervention school could achieve outstanding category while 4% in control school could make it to the top grade

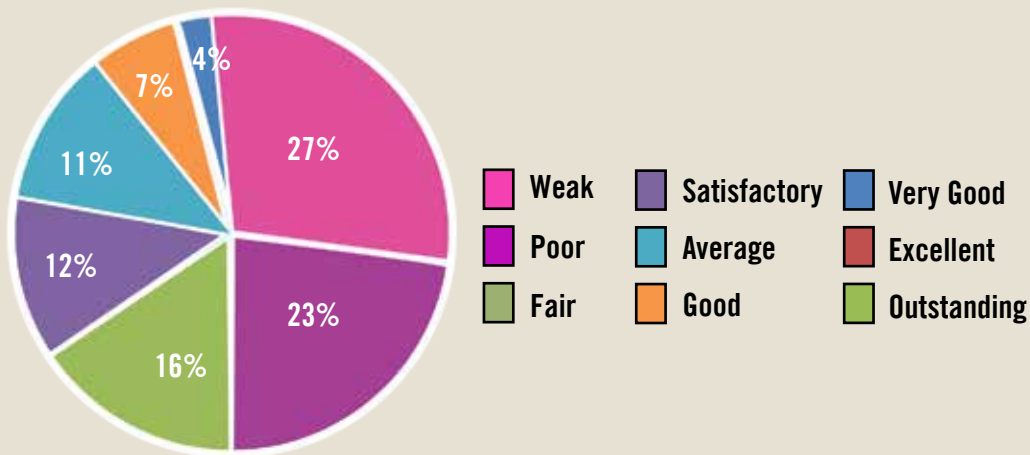
## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class V in EVS



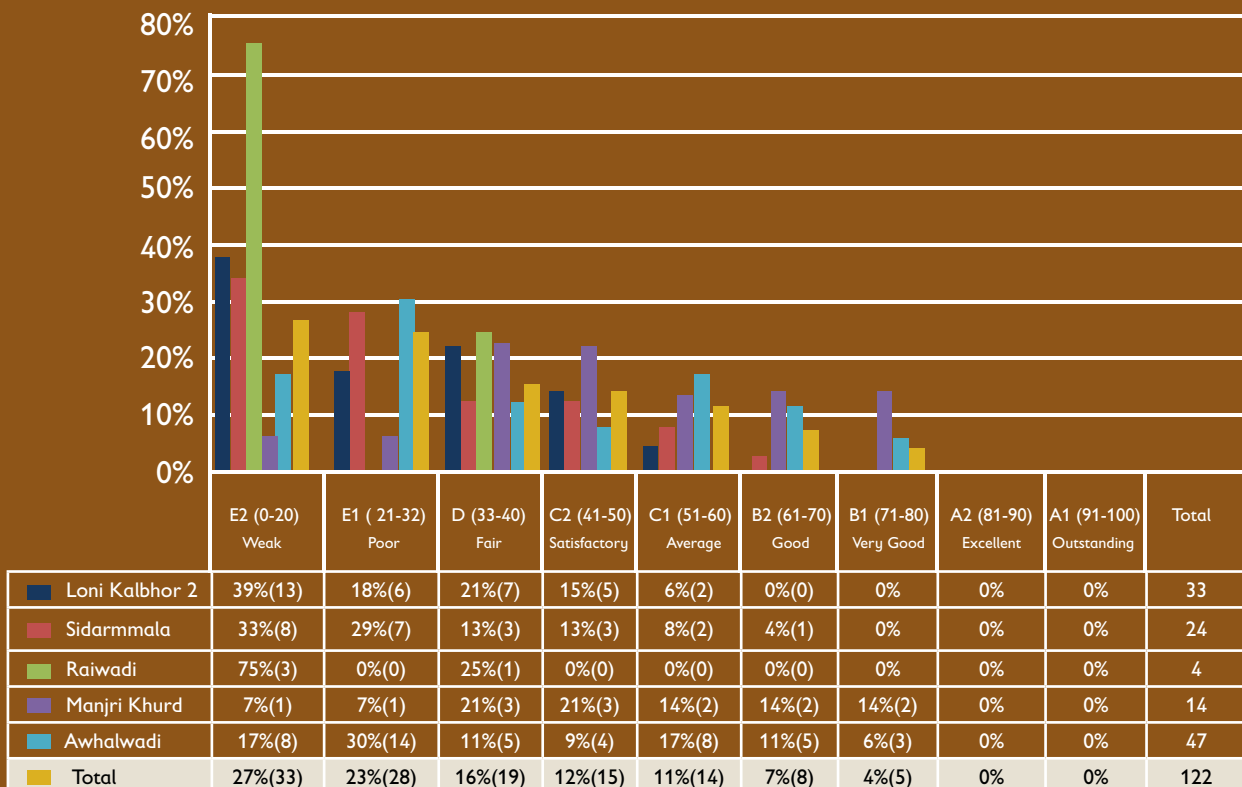
### C. 3 Learning Outcome in EVS in Class V at the Intervention Schools

- Learning Outcome Test of Class V in EVS was administered to 122 students
- 50% of the students could not clear the test.
- There are no students in category A2 and A1.
- The failure rates are largely uniform across the schools except for ManjriKhurd which relatively performs better - LoniKalbhor (57%), Sidammala (62%), Raiwadi (75%), ManjriKhurd (14%), and Awalvadi

Aggregate Performance of the Intervention Schools in Science in Class V



Level of Performance in EVS in Class V (Intervention School)

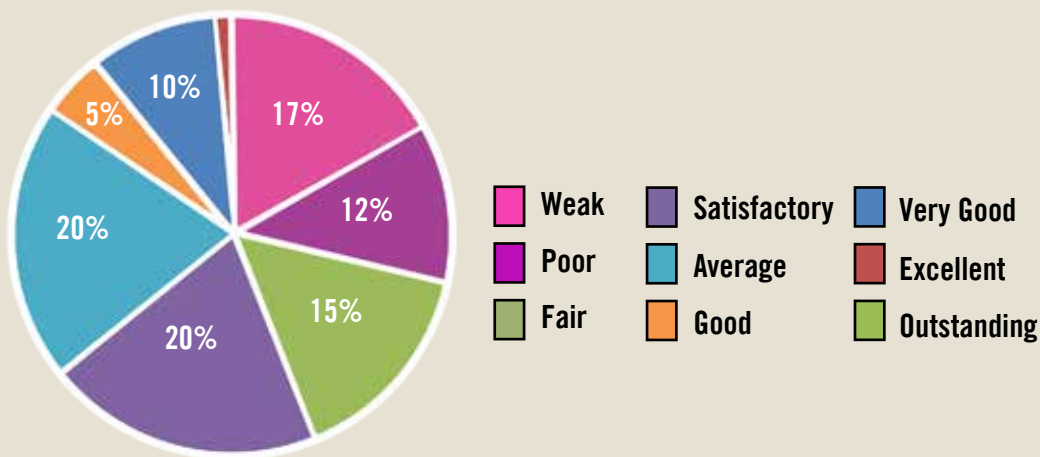




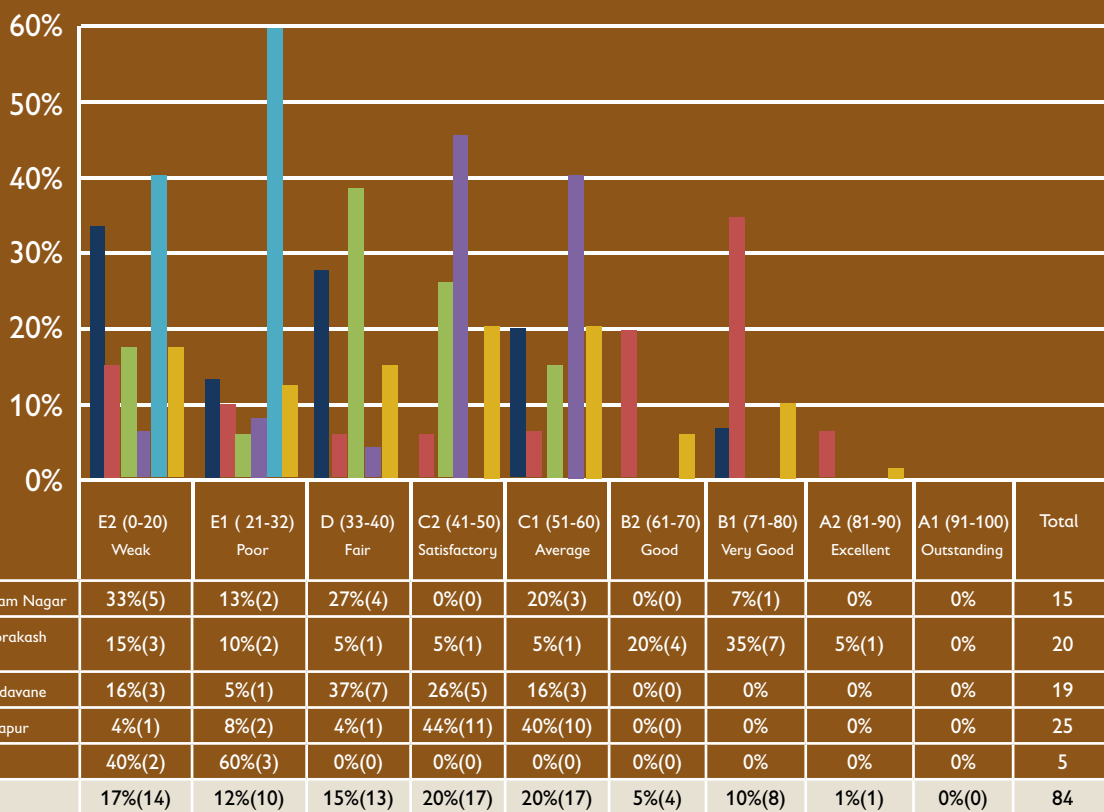
### C.4 Learning Outcome in EVS in Class V in the Control Schools

- Learning Outcome Test of Class V in EVS was administered to 87 students
- 28% under performed in the test which is lower than the failure rate at the intervention schools (50%).
- There are no students in A1 category.
- The under performance rates across schools are- Shriramnagar (49%), Jayaprakashnagar (25%), Shindavane (21%), Shivapur (12%), and Valti (100%).

**Aggregate Performance of the Control Schools in EVS in Class V**



**Level of Performance in EVS in Class V (Control School)**



## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Class VI in Science

### What was tested?

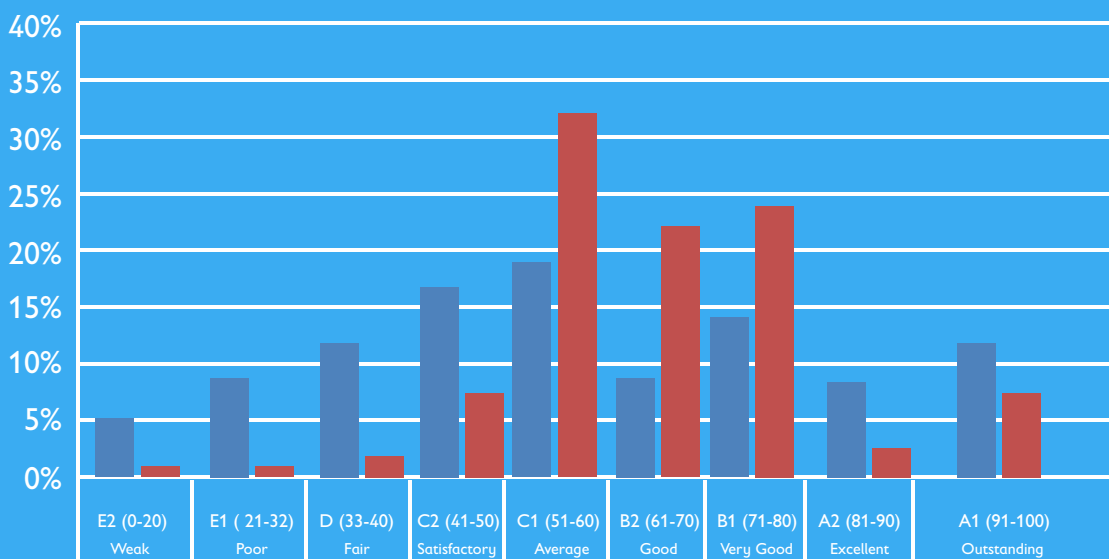
#### GRADE SPECIFIC

- Observes nature and responds through verbal and non-verbal expression
- A concern for the physical environment and thinks of ways to protect it.
- Uses appropriately new words/concepts related to environment.
- Engages with various sources and identifies the ill effects of Man vs. Nature conflict and the benefits of making Nature, Man's friend.

### The Analysis

- 13% % students assessed fall in the underperforming category in intervention schools, while the corresponding figure for the control schools is 3%.
- 18% of the students in intervention school achieved outstanding category grade while the corresponding figure for control schools is 11%

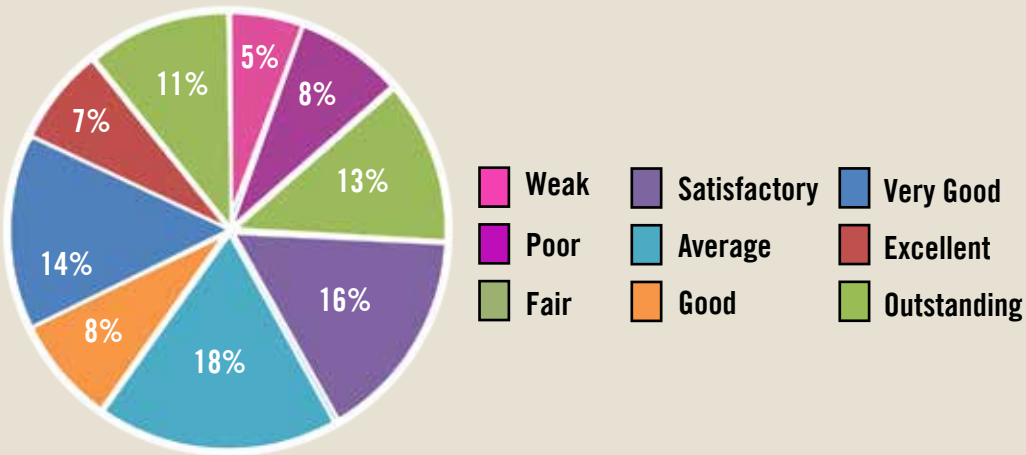
## Aggregate Performance of the Intervention Schools vis-a vis Controlled School in Science in Class VI



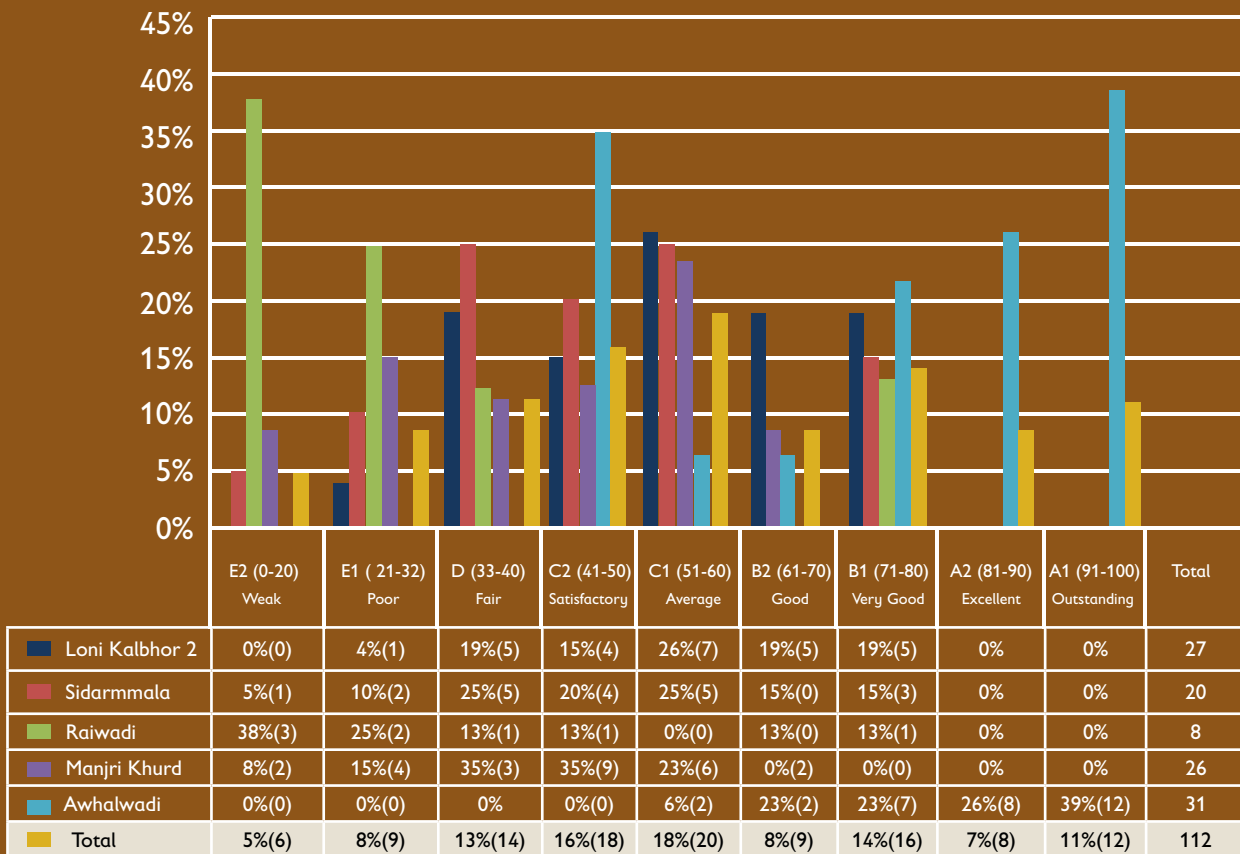
### D.1 Learning Outcome in Science in Class VI the Intervention Schools

1. Learning Outcome Test of Class V in Science was administered 112 students,
2. 13% of the students under performed in the test.
3. 12 students scored grade A1.
4. Except for Raiwadi, the remaining schools have performed relatively well, the under performance failure rates are- LoniKalbhhor (4%), Sidrammala(15%), Raiwadi(63%), ManjriKhurd(23%),Awalvadi (0%).

Aggregate Performance in Intervention School In Science In Class VI



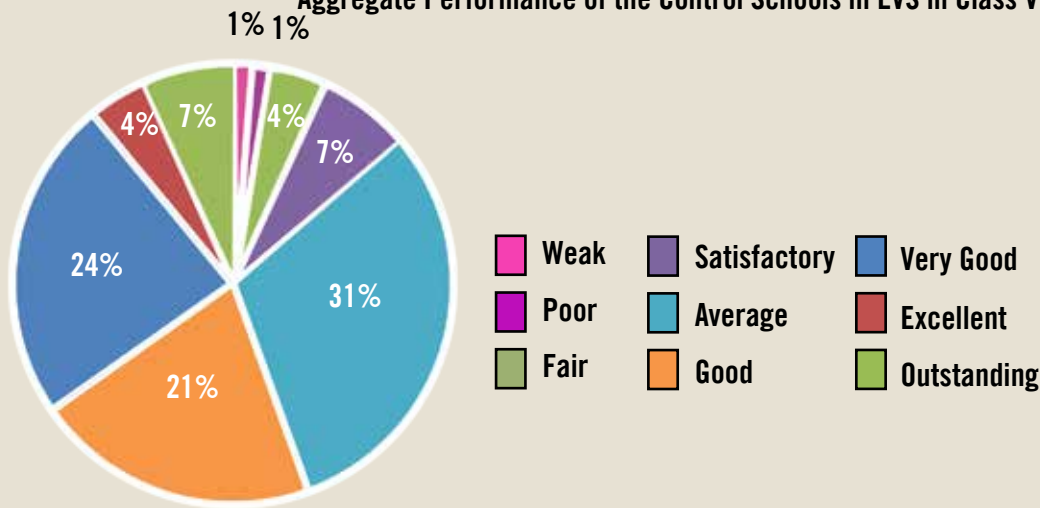
Level of Performance in Science in Class VI (Intervention School)



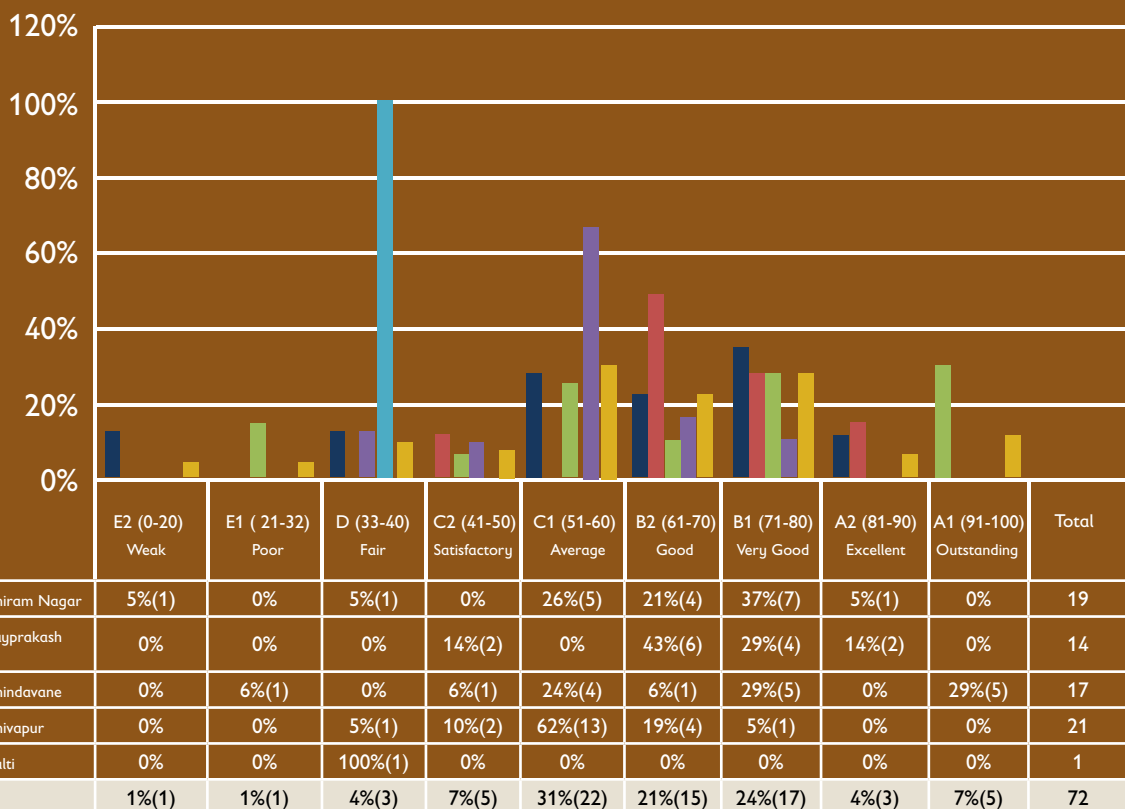
## D.2 Learning Outcome in Science in Class VI the Control Schools

1. Learning Outcome Test of Class V in Science was administered to 72 students,
2. 2% of the students under performed the test, compared to the under performance rate of 13% in intervention schools.
3. 5 students were placed in grade A1.
4. All the schools have performed credibly evidence by low failure rates- Shriramnagar (5%), Jayaprakashnagar (0%), Shindavane (8%), Shivapur (0%), and Valti (0%).

Aggregate Performance of the Control Schools in EVS in Class VI



Level of performance in Science in Class VI (Control School)



## SUMMARY OF FINDINGS

Test	Class	%age of sample Students with E Grade	
		Intervention	Control
Written English	IV	44%	35%
	V	48%	44%
	VI	58%	74%
Spoken English	IV	22%	11%
	V	43%	45%
	VI	78%	74%
EVS	IV	64%	71%
	V	50%	28%
Science	VI	13%	2%

- Grade specific spoken and written English deteriorates as the student progresses to higher classes. Significant and focused intervention would be required to turnaround this situation. In context of the project, the tests have revealed poor English writing skills. A distance education in language will have to be supplemented by in class writing exercises by the class teacher.
- For EVS the failure rate in Class IV is very high and is a cause for concern. The performance in class V is slightly better than that in class IV. High failure rate in EVS is a cause for concern and needs to be ameliorated. It would be indeed a challenge for the project to devise creative learning material and methods to be delivered through ICT into the classroom
- In science the schools are performing remarkably well, and the momentum needs to be maintained.

## SECTION 4.B

### ICT LEARNING ENVIRONMENT

ICT enabled education has the potential to transform the system of education and also address key issues including poor learning outcomes, high student teacher ratio, dearth of adequate number of teachers that can impart quality education and weak DIET - school linkages. As an integral part of the Right to Education

Act, ICT enabled education is envisaged to hold tremendous significance particularly as an effective tool for imparting education to underprivileged children. Computer-aided education could be utilized to facilitate creative teaching and to make the process of learning more informative and interactive.

#### 7.1 Availability of ICT facilities

	Intervention Schools					Control Schools						
	Loni Kalbhoh	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhalwadi	YES' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'YES' Schools
Radio	No	Yes	No	No	No	1	Yes	No	No	Yes	No	2
Computer	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	No	4
AV Room with projector	Yes(*)	Yes(*)	No	No	Yes	3	Yes	No	No	No	No	1
CD's available	No	Yes	No	Yes	Yes	3	Yes	No	No	Yes	No	2

Note: \* Not in working order

#### Intervention Schools:

- All the schools have at least one computer, however the children do not access them
- Three schools have an Audio Visual projector room, however the AV equipment at Loni Kalbhoh, Sidammal are not in working order. The equipment at Awhalwadi is in working order. The remaining two schools do not have any AV facility
- Educational CDs were found to be available at 60% of the schools

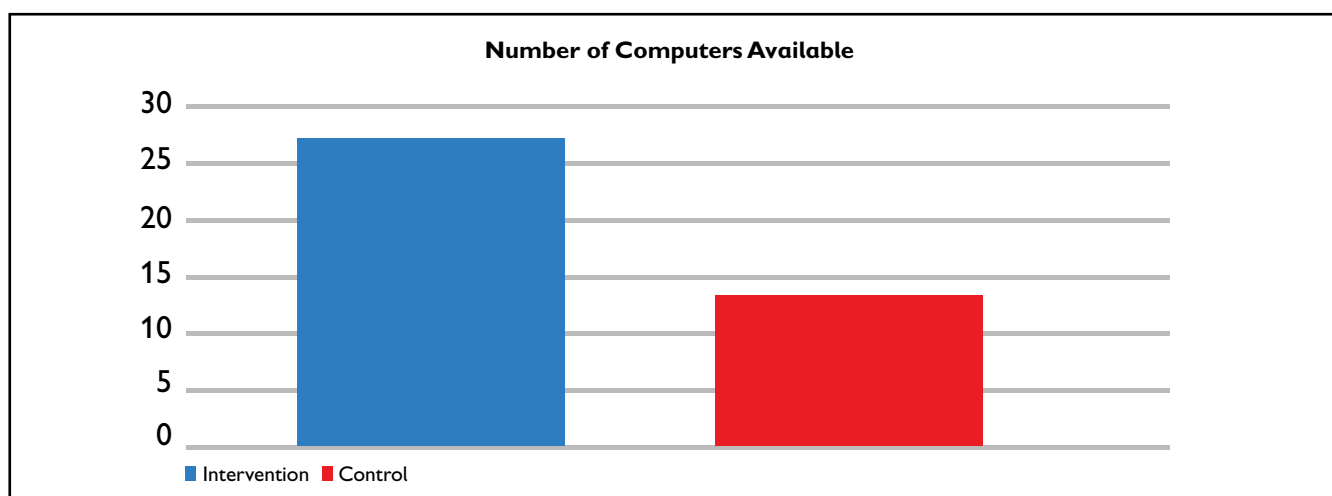
#### Control Schools:

- At least one computer is available in 80% of the schools. Valti does not have access to a computer
- Only one school (Shriramnagar) has Audio Visual Room with projector
- Educational CDs were available in two schools (Shriramnagar & Shivapur)

## 7.2 Availability of Computer Facilities

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	YES' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'YES' Schools
Radio	No	Yes	No	No	No	1	Yes	No	No	Yes	No	2
Computer	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	No	4
AV Room with projector	Yes(*)	Yes(*)	No	No	Yes	3	Yes	No	No	No	No	1
CD's available	No	Yes	No	Yes	Yes	3	Yes	No	No	Yes	No	2

Note: \*used for office purposes, \*\* not in working condition



### Intervention Schools:

- 80% of the schools have a computer lab, the exception being school at Raiwadi. Two of the schools - Loni Kalbhor and Sidarmmala reported inadequate lab space to accommodate students.
- The schools on an aggregate have 28 computers. The lone computer at Raiwadi is not in working order and the one at Sidarmmala is used for administrative purposes and not available for students.
- There is no internet facility at the schools and there are no computer lab assistant
- In 60% of the schools the electricity supply is erratic

### Control Schools:

- 60% of the schools have computer labs , exception being schools at Shivapur and Valti
- Computer labs wherever present have adequate space except for that in Shindavane
- 60% of the schools face erratic electric supply
- Internet facility and computer lab absent in all the schools

### 7.3 Access and Use of ICT Facilities for Teaching

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	YES' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'YES' Schools
Regular Access to computer facility	No	No	No	No	No	0	No	No	No	Yes	No	1
Teacher provided with internet facility	No	No	No	No	No	0	No	No	No	Yes	No	1
Learning material made using ICT	No	Yes (PPT)	No	Yes (PPT)	Yes (PPT)	3	No	No	No	No	No	0

#### Intervention Schools:

- None of the teachers sampled reported having regular access to computers
- There is no access to internet for the teachers at school
- In 60% of the schools the teacher reported having used ICT to make teaching material (ppt presentation)

#### Control Schools:

- Only one school (Shivapur) the teacher had regular access to computer at school
- No teachers provided with ICT facility
- No teacher has made learning material using ICT

### 7.4 Teachers Training in ICT

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	YES' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'YES' Schools
Did you attend any training since 2011	Yes	No	No	No	No	1	Yes	Yes	No	Yes	No	3
Areas training needed		Math	Math	No	No					ICT		
Do district official come for spot check of teaching imparted	Yes	Yes	Yes	Yes (PPT)	Yes (PPT)	3	Yes	No	No	Yes	Yes	3
Training in ICT	No	No	No	No	No	0	No	No	No	No	No	0
Can you open computers	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5



### **Intervention Schools:**

- Only 20% of the teachers reported having attended training in last five years
- Areas in which teacher training need was identified to be Maths & ICT
- 60% of the sampled teachers reported having encountered at least one visit by district officials for spot checks on teaching efficacy
- There has been no training on ICT
- 100% teachers can do basic operations in computers ( like switching on etc)

### **Control Schools:**

- 60% of the teachers have attended a training programme in last 5 yrs.
- Areas in which teacher training need was identified to be Maths & ICT
- Teachers from 60% schools reported at least having encountered one instance of district official oversight through spot checks on classroom teaching
- No training provided for ICT
- 100% teachers reported familiarity of basic operations of computers

## **SUMMARY OF FINDINGS**

ICT and use of computers in learning is not something which is alien to the schools. While the idea exists and in some cases even the facilities, they have not converted into a regular ICT lead program on the ground. There seem to be many reasons.

- Facilities like Audio Video rooms, computers etc are not adequate and in some cases not working
- Teacher not trained in use of ICT. ICT is a fast changing domain and would require frequent upgrades of teacher skills.
- Pressure from the community/SMC to use ICT in teaching appears not to be there. However in some schools, in the SMC meetings computer education has got mention, however SMC needs to be made more aware of the use of ICT as a teaching methodology.
- Erratic electric supply in some schools
- No internet connectivity means new and interactive material downloadable from the net cannot be made available by the teachers to the students
- No technical support in terms of hardware maintenance
- Teacher mindset- The baseline study has revealed that majority of the teachers follow the 'chalk-talk method', which is teacher centered. Teacher anxiety over being replaced by technology or losing their authority in the classroom as the learning process becomes more learner-centered is an acknowledged barrier to ICT adoption. This challenge can become significant in the context of the project.
- With physical infrastructure in terms of build quality of the school building requiring attention, with almost 20% of the classrooms in intervention schools requiring major repairs (see chapter 5), , extensive retrofitting to ensure proper electrical wiring, heating/cooling and ventilation, and safety and security would be needed to house the ICT facility

## SECTION 4.C

### LEARNING ENVIRONMENT

A rich learning environment is one that is open, respectful, caring and safe. Learning environment comprises of two dimensions- Physical Learning Environment and Psychological Learning Environment.

Physical learning environment comprises the environment inside and outside the school facility which includes the key characteristics of physical environment including location, accessibility, safety, flexibility, scale, and visibility. This baseline study has assessed a sub set of the most critical physical learning environment indicators which

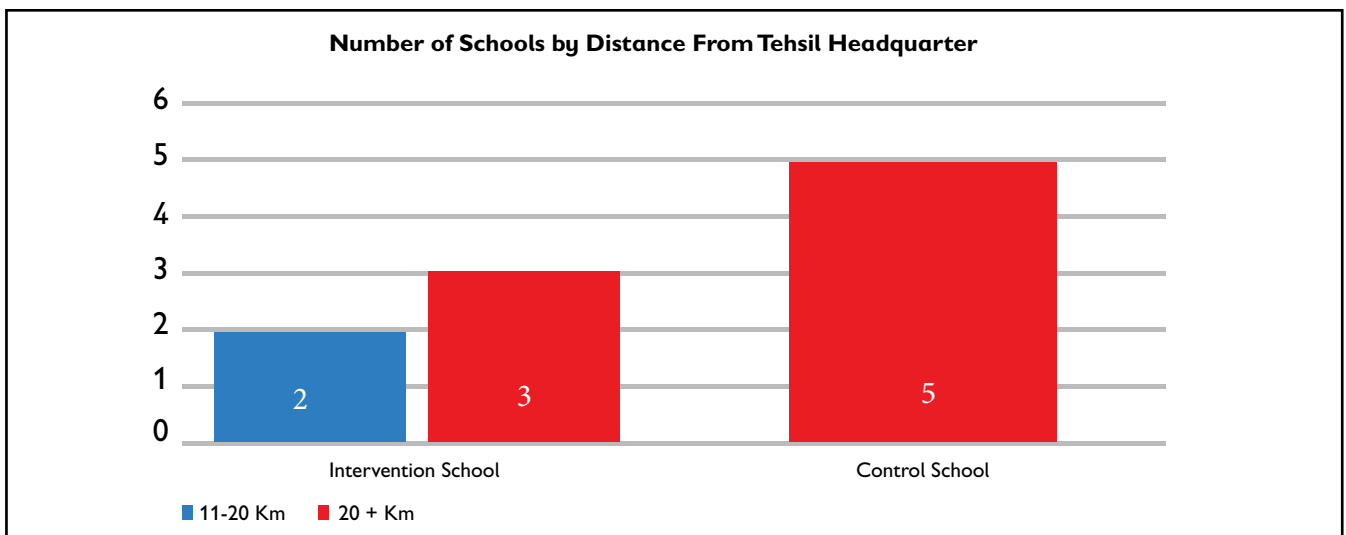
include availability of electricity, ICT infrastructure, toilets, water availability and access.

#### 1. Access to the School

This indicator pertains to the locational features of the school so as to determine ease of access.

##### 1.a Distance from the Tehsil Headquarter

The sample schools are located in rural locations and mostly at a distance of more than 20 kms from the Tehsil Headquarter. However given that Pune is a well developed district with good road network, these schools cannot be categorised to be remote.



Tab 5.1: Distance of the Sample Schools from the Tehsil Headquarter

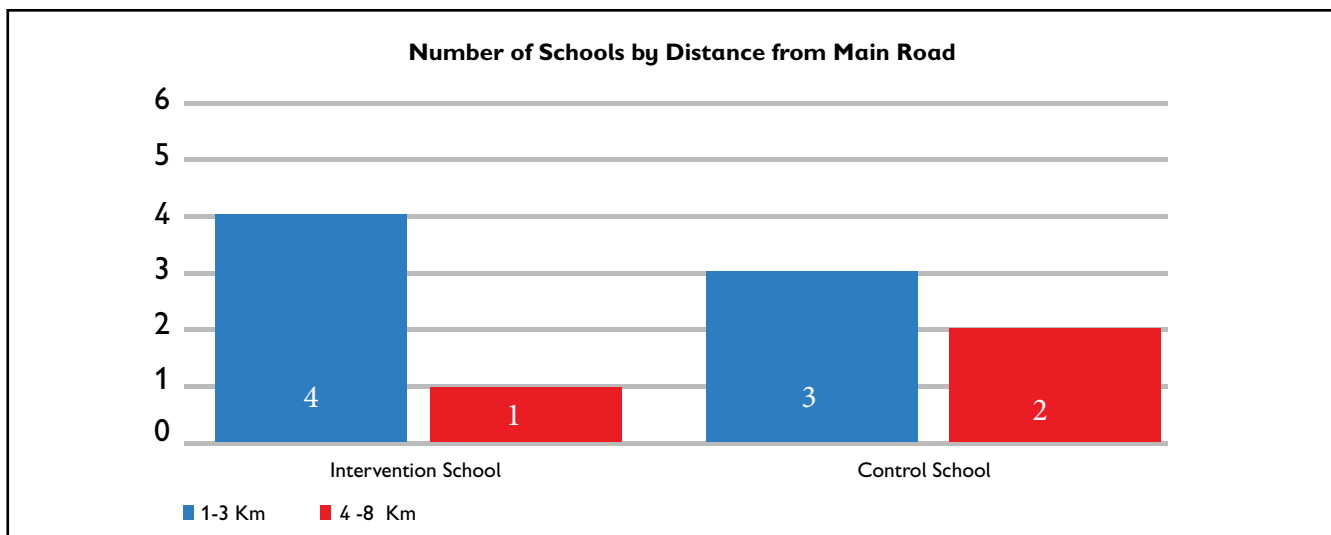
	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	YES' Schools	Shri-ranagar	Jayapra kashnagar	Shinda-vane	Shiva-pur	Valti	'YES' Schools
11-20 kms				Yes	Yes	2						0
20+ kms	Yes-	Yes	Yes			3	Yes	Yes	Yes	Yes	Yes	5

### 1.b Distance from Main Road

The distance from the main road is an indicator of the last mile access to the school. Schools which are difficult to access in terms of distance, road condition or any other physical barriers tend to have a high dropout rate. Most of the schools are within 3 kms from the main road,

except for Awhalwadi (Intervention School) ,Shindavane and Valti(Control schools), which are at a distance of 4-8 kms from the main road.

Tab 5.1: Distance of the Sample Schools from the Teshsil Headquarter



Tab 5.2: Distance of the Sample Schools from the Main Road

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	YES' Schools	Shriram nagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'YES' Schools
1-3 kms	Yes	Yes		Yes	Yes	4	Yes	Yes		Yes		3
4-8 kms			Yes			1			Yes		Yes	2

### 1.c School Building

All intervention and control schools have pucca buildings. For Raiwadi, the school building is not a composite structure but a cluster of classrooms. Across schools, there are classrooms with asbestos ceiling, leaking roofs, broken floors and weak walls. The details are discussed in the following sections.

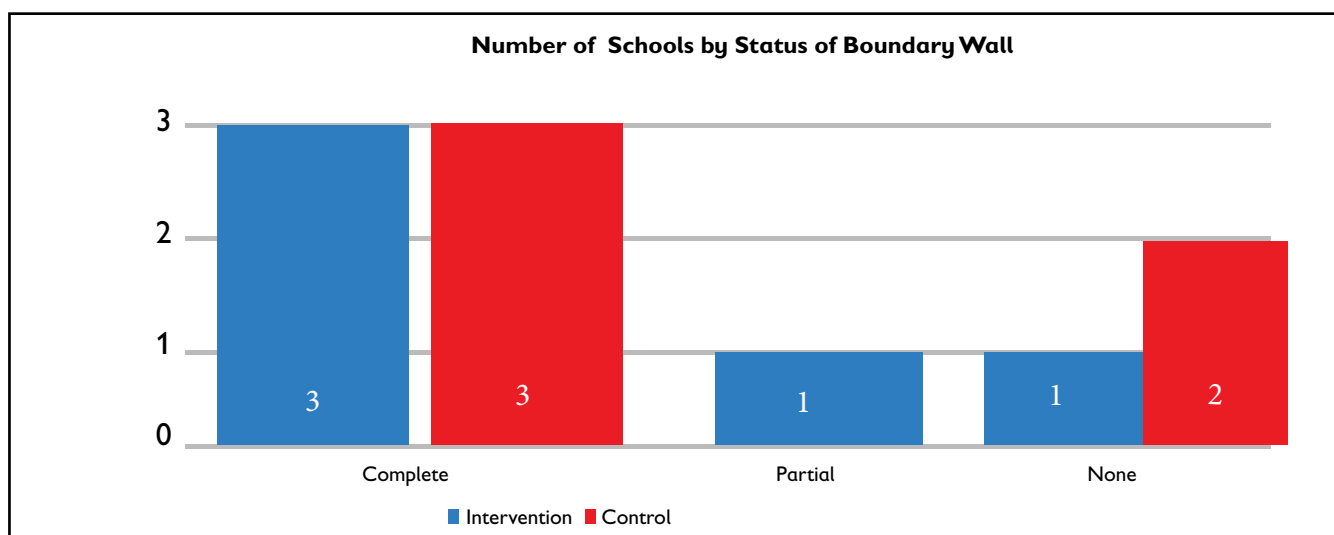
## 2. Basic School Facilities

The data on the basic school facilities was collected by the investigators using the school observation checklist. Data was collected on a number of indicators related to the facilities available in sampled schools, such as classrooms, boundary walls, water and toilet provision, and libraries, all of which are now included as required infrastructure specified in the Right to Education Act.

### 2.a Boundary Wall

Boundary walls provide a secure school compound and environs for the students. 60% of

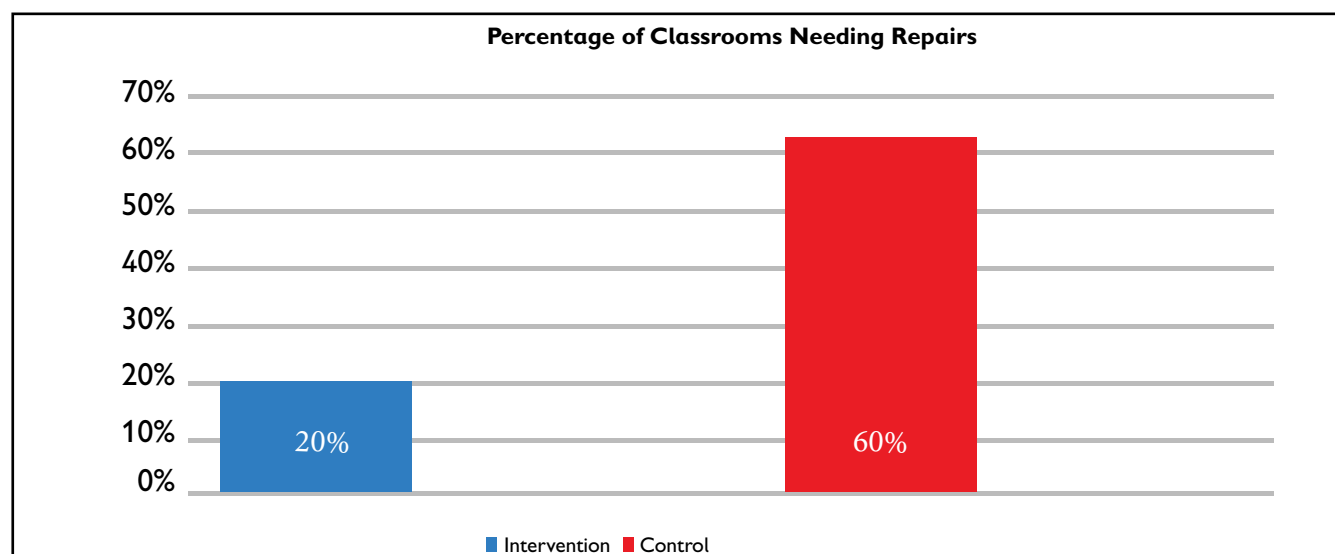
the schools both in the intervention and the control sample set have proper boundary walls. Two intervention schools namely at Raiwadi and Awhalwadi have partial or non-existent boundary wall. Similarly for control schools, the schools at Valti and Jayaprakashnagar do not have boundary walls.



Tab 5.3: Status of Boundary Wall in Sampled Schools

Status of Boundary Wall	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	No' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'No' Schools
Complete	Yes	Yes		Yes		3	Yes		Yes	Yes		3
Partial					Yes	1						
None			Yes			1		Yes			Yes	2

## 2.b Physical Status of Classrooms



Tab 5.4: Physical Status of Classrooms

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	No' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'No' Schools
Total Number of Classrooms	16	11	4	8	8	47	7	6	12	14	9	48
Number of Pucca Classrooms	14	8	4	7	7	40	2	2	7	5	3	19
Number of Classes needing major repair	3	3	0	1	2	9	5	4	6	9	6	30
%age of classrooms needing repairs	20%	30%	0%	10%	25%	20%	70%	65%	50%	65%	65%	60%
No. of unusable classrooms	3	2	0	1	2	8	2	0	5	6	6	19

### Intervention Schools:

- Approximately 80% of the classrooms in intervention schools are pucca. The rest have mostly asbestos roof.
- 20% of the rooms require major repairs and in most cases unusable.
- Of the classes requiring major repairs, 90% are unusable, major reasons include broken flooring and unavailability of electric connection

### Control Schools:

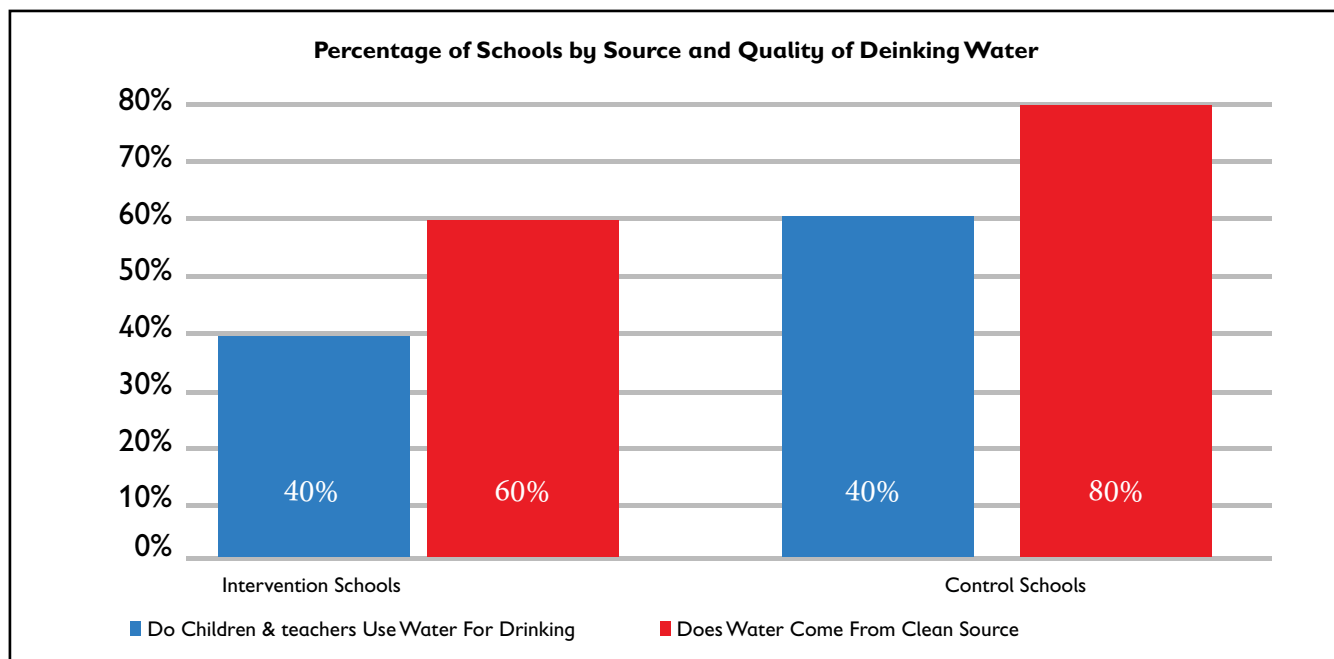
- Only 40% of the schools are pucca classroom structures. The rest have mostly asbestos roofs.
- 60% of the rooms require major repairs
- Of the classes requiring major repairs, 70% are unusable, major reason being leaking roofs, broken floors and unavailability of electric connection

## 2.c Lighting and Ventilation of the Classrooms

Good lighting and ventilation in class room has often been referred to as the ‘silent curriculum’ (Taylor and Vlastos 2009), given their significant impact on the learning outcomes of the students. Studies (UOT 2011) have shown that student’s in well-ventilated classrooms perform significantly better on standardized tests than their

peers who receive inadequate fresh air. In both intervention and control schools the class rooms were observed to be well ventilated and had adequate sunlight, the exception being the control school at Shindavane where the classroom was observed to be stuffy due to inadequate cross ventilation.

## 2.e Availability of Drinking Water



Tab 5.5: Availability and Quality of Drinking Water

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	Yes' Schools	Shriram nagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes' Schools
Drinking water available	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
Drinking water available daily	Yes	Yes	Yes	Yes	Yes	5	Yes	No	Yes	Yes	Yes	4
Do children & teachers use water for drinking	Yes	Yes	No	No	No	2	No	No	Yes	Yes	Yes	3
Does water come from clean source	Yes	Yes	No	No	Yes	3	Yes	No	Yes	Yes	Yes	4
Is water stored in tank	Yes	Yes	No	Yes	Yes	4	Yes	Yes	Yes	Yes	Yes	5
Is tank cleaned regularly	Yes	Yes	No	No	Yes	3	No	Yes	Yes	Yes	Yes	5

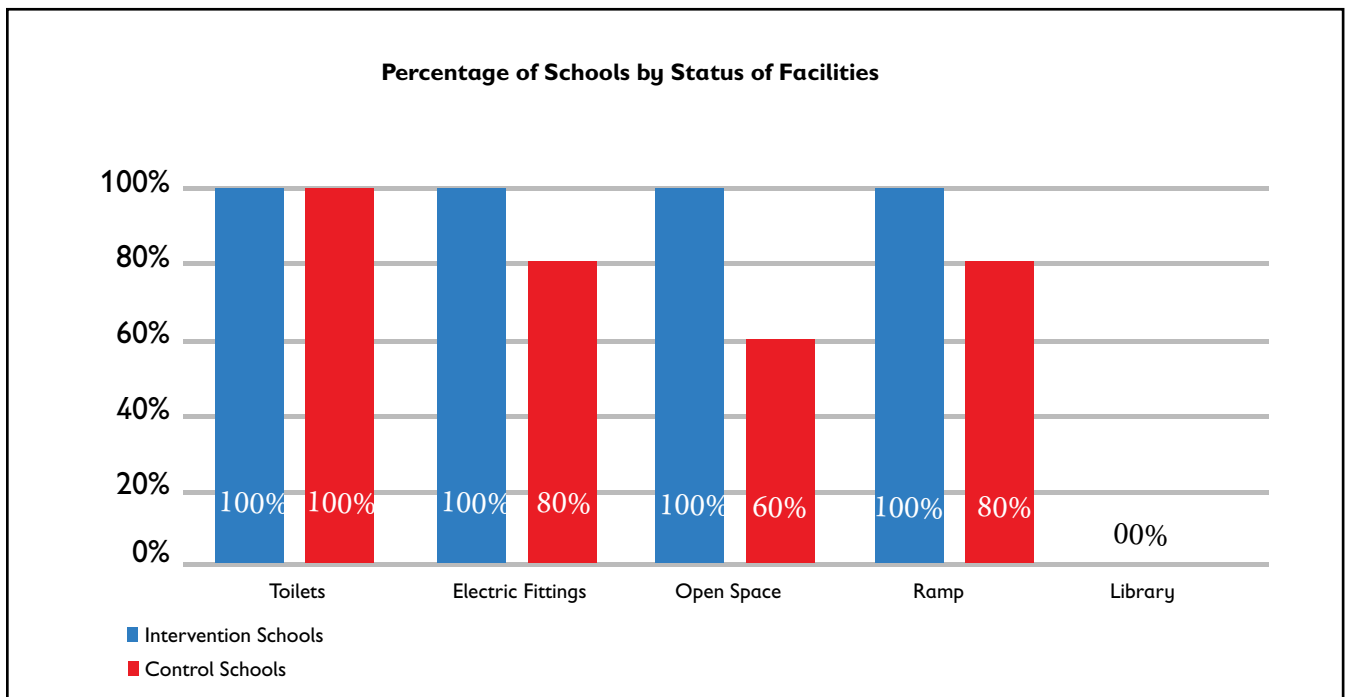
### Intervention Schools:

- Drinking water is available in all the schools
- Drinking water is available daily
- Only in 40% of the schools, children drink water at school, the water quality is not perceived to be safe in the rest. The schools with water quality issues include those at Raiwadi, Manjri Khurd, and Awhalwadi.
- Only 60% of the schools get water from a clean source. Schools at Raiwadi and Manjri Khurd have source quality issues.
- Only 75% of the schools which store water in tanks, have the tanks cleaned regularly

### Control Schools:

- Drinking water is available in all the schools
- Except for school at Jayaprakashnagar, water supply and availability is daily in rest of the school. The school at Jayaprakashnagar is plagued with intermittent supply of water.
- Only at 60% of the schools children regularly drink the water supplied at school
- Majority of the schools were found to have a safe/protected source of drinking water. Jayaprakashnagar school was found to have quality water source issue

## 2.f Other Basic Facilities



Tab 5.6 : Status of Basic Amenities

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	Yes' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes' Schools
Toilets	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
Separate for Girls	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
Electric Light	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	No	Yes	Yes	4
Fan installed	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	No	Yes	Yes	4
Open space for playing	Yes	Yes	No	Yes	Yes	4	Yes	Yes	No	No	No	2
Blackboard	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
Ramp	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	No	4
Library	No	No	No	No	No	0	No	No	No	No	No	0

#### Intervention Schools:

- All the schools have gender segregated toilets, electric light & fan, Blackboard and Ramp
- Except for school at Raiwadi, all the schools have open space for playing
- No School has a library

#### Control Schools:

- All the schools have gender segregated toilets and blackboards
- Electric fan and lights were not found to be installed in school at Shindavane, the rest have the said facilities installed
- Only two of the control schools have open space for playing, schools at Shindavane, Shivapur and Valti have no such facility
- Ramp for disabled children was not found at school t Valti, the rest had ramps installed
- No school has a library



## 2.g Availability of TLM

Tab 5.7 : Use of TLMs

	Intervention Schools					Control Schools						
	Loni Kalb-hor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes' Schools	Shriram-nagar	Jayaprakash-nagar	Shindavane	Shivapur	Valti	'Yes' Schools
<i>Charts</i>	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
<i>Maps</i>	No	No	Yes	Yes	Yes	3	Yes	Yes	No	Yes	Yes	4
<i>Globes</i>	Yes	Yes	Yes	Yes	Yes	5	Yes	No	Yes	Yes	Yes	4
<i>Flash Cards</i>	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	No	4
<i>Board Games</i>	No	No	No	No	No	0	Yes	No	No	Yes	No	2

### Intervention Schools:

- All schools had Charts, Globes and Flashcards in the classroom observed
- 60% of the schools had maps
- Board games/learning cards was not available in any school

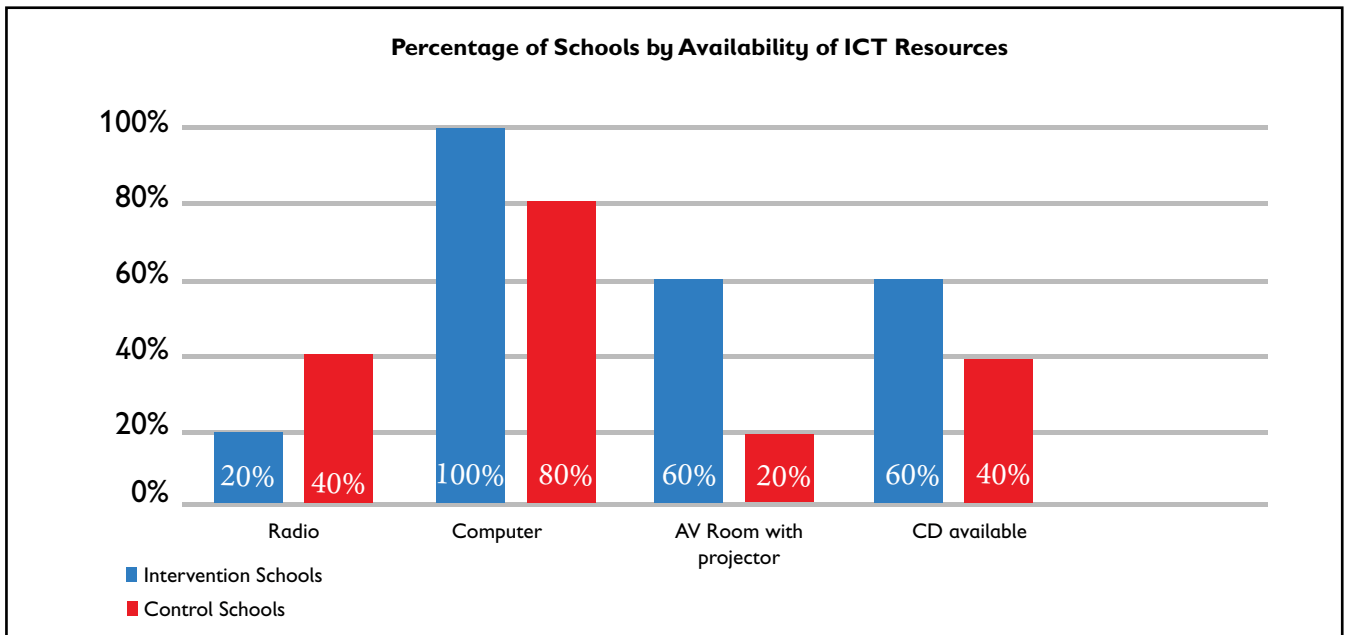
As has been discussed in the previous chapter, during classroom observation at intervention schools, the teachers were not found to be using TLM during teaching.

### Control Schools:

- All schools were found to have charts
- Only 80% of the schools had Maps(except Shindavane), Globe (except Jayaprakash nagar), Flash cards(except Valti)
- Board games were only available in 40% of the schools

As alluded to in the previous chapter , during classroom observation only 2 schools ( Shivram-nagar and Shivapur) were found to be using TLMs during teaching.

## 2.h Availability of ICT facilities



Tab 5.8 :Availability of ICR Facilities

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes' Schools
<i>Radio</i>	No	Yes	No	No	No	1	Yes	No	No	Yes	No	2
<i>Computer</i>	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	No	4
<i>AV Room with projector</i>	Yes(*)	Yes(*)	No	No	Yes	3	Yes	No	No	No	No	1
<i>CD's available</i>	No	Yes	No	Yes	Yes	3	Yes	No	No	Yes	No	2

Note: \* Not in working order

### Intervention Schools:

- All the schools have at least one computer, however the children have limited or no access
- Three schools have an Audio Visual projector room, however the AV equipment at Loni Kalbhor, Sidammal are not in working order. The equipment at Awhalwadi is in working order. The remaining two schools do not have any AV facility
- Educational CDs were found to be available at 60% of the schools

### Control Schools:

- At least one computer is available in 80% of the schools. Valti does not have access to a computer
- Only one school (Shriramnagar) has Audio Visual Room with projector
- Educational CDs were available in two schools (Shriramnagar & Shivapur)

## 2.i Access and Use of ICT Facilities for Teaching

Tab 5.9: Access and use of ICT Facilities for Teaching

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes' Schools
<i>Regular Access to computer facility</i>	No	No	No	No	No	0	No	No	No	Yes	No	1
<i>Teacher provided with internet facility</i>	No	No	No	No	No	0	No	No	No	Yes	No	1
<i>Learning material made using ICT</i>	No	Yes (PPT)	No	Yes (PPT)	Yes (PPT)	3	No	No	No	No	No	0

### Intervention Schools:

- All the schools have at least one computer, however the children have limited or no access
- Three schools have an Audio Visual projector room, however the AV equipment at Loni Kalbhor, Sidammal are not in working order. The equipment at Awhalwadi is in working order. The remaining two schools do not have any AV facility
- Educational CDs were found to be available at 60% of the schools

### Control Schools:

- At least one computer is available in 80% of the schools. Valti does not have access to a computer
- Only one school (Shriramnagar) has Audio Visual Room with projector
- Educational CDs were available in two schools (Shriramnagar & Shivapur)

## 3. SCHOOL SAFETY

Keeping the children safe in schools is a collective responsibility. However the main onus falls on the teachers, who are at the frontline (given their proximity with the students) to build a secure learning environment, identify pupil in distress or at a risk of harm and taking suitable action. For the baseline study the sampled teachers were asked about their awareness on inclusion and training to be the first responder in school during a medical emergency or a disaster.

### 3.a Inclusion

Tab 5.10: Teachers Awareness and Practice of Inclusion in School

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes' Schools
<i>Pressure from community/ Staff for socially unjust practice</i>	No	No	No	No	No	0	No	No	No	No	No	0
<i>Teacher aware of child rights</i>	No	No	No	Yes	Yes	2	No	Yes	No	No	Yes	2
<i>Are stake holders made aware of rights &amp; responsibilities</i>	No	No	No	Yes	Yes	2	Yes	Yes	No	No	Yes	3
<i>Do you have CSWN in your class</i>	No	No	No	No	No	0	No	No	No	No	No	0

#### Intervention Schools:

- None of the teachers reported any pressure from any staff or community member to follow socially unjust practices
- Teachers from only 40% of the schools report awareness of child rights
- Only in 20% of the schools is any effort made to make the stake holders aware about their rights and responsibilities
- None of the teachers reported any child with special needs in their class. Mentioned was made of special educators being appointed by the Panchayat Samiti for such children.

#### Control Schools:

- At none of the schools was any pressure being exerted on the teachers for following unjust social practices was reported
- Awareness of child rights amongst teachers was reported from only 40% of the schools
- 60% of the schools make an effort to make the stake holders aware of their rights and responsibilities
- None of the teachers reported having children with special needs in their class

### 3.b Emergency Response

Tab 5.11 : First Aid and Disaster Management Training to Teachers

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes' Schools
<i>First Aid training to teachers</i>	No	No	No	No	No	0	Yes	No	No	No	No	1
<i>Disaster Management training to teachers</i>	Yes	No	No	No	No	1	Yes	Yes	No	No	Yes	2

#### Intervention Schools:

- First Aid training to teachers was not reported from any school
- Teacher from only one school (Loni Kalbhor) reported having received training in disaster management

#### Control Schools:

- First Aid training to teachers was reported from only one school (Shriramnagar)
- Training in disaster management was reported from 40% of the schools (Shriramnagar, Jayaprakashnagar)

## 4. TEACHER DEVELOPMENT

Tab 5.12 :Teacher Training Status and Need

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes' Schools	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes' Schools
Did you attend any training since 2011	Yes	No	No	No	No	1	Yes	Yes	No	Yes	No	3
Areas training needed		Math	Math	ICT	ICT					ICT		
Do district official come for spot check of teaching imparted	Yes	Yes	Yes	No	No	3	Yes	No	No	Yes	Yes	3
Training in ICT	No	No	No	No	No	0	No	No	No	No	No	0
Can you open computers	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5

### Intervention Schools:

- Only 20% of the teachers reported having attended training in last five years
- Areas in which teacher training need was identified to be Maths & ICT
- 60% of the sampled teachers reported having encountered at least one visit by district officials for spot checks on teaching efficacy
- There has been no training on ICT
- 100% teachers can do basic operations in computers ( like switching on etc)

### Control Schools:

- 60% of the teachers have attended a training programme in last 5 yrs.
- Areas in which teacher training need was identified to be Maths & ICT
- Teachers from 60% schools reported at least having encountered one instance of district official oversight through spot checks on classroom teaching
- No training provided for ICT
- 100% teachers reported familiarity of basic operations of computers

# SUMMARY OF FINDINGS

## 1. Location :

- The schools are mostly located at a distance of within 3 kms from the main road and hence accessible

## 2. Physical Infrastructure

- About 40% of the intervention schools do not have proper boundary wall which has ramification for student safety
- 20% of the classrooms in intervention schools remain unused due to want of repairs.
- In 40% of the intervention schools students and teachers do not drink the water supplied at school
- All the intervention schools are electrified and have basic electrical fixtures like fan and light

## 3. Teaching Aids

- All schools had Charts, Globes and Flash-cards , however their use is tardy
- All the intervention schools have at least one computer, however the children have limited or no access
- 60% of the intervention schools have an Audio Visual projector room
- Educational CDs were found to be available at 60% of the intervention schools
- None of the teachers sampled reported having regular access to computers
- There is no access to internet
- In 60% of the schools the teacher reported having used ICT to make teaching material (ppt presentation)

## 4. Child Safety Inclusion

- None of the teachers reported any pressure from any staff or community member to follow socially unjust practices
- Teachers from only 40% of the schools report awareness of child rights
- Only in 20% of the schools is any effort made to make the stake holders aware about their rights and responsibilities

- First Aid training to teachers was not reported from any school

## 5. Teacher Training

- Only 20% of the teachers reported having attended training in last five years
- Areas in which teacher training need was identified to be Maths & ICT
- 60% of the sampled teachers reported having encountered at least one visit by district officials for spot checks on teaching efficacy
- There has been no training on ICT
- 100% teachers can do basic operations in computers ( like switching on etc)

## SECTION 4.D

### SCHOOL FUNCTIONING

Schools work on certain key assumptions. It is assumed that children are enrolled in school at the age of five or six, depending on the official norms of the state. It is assumed that most children and most teachers come to school regularly. Children are grouped broadly into age-grade specific classes and teachers are assigned to teach each class. There are timetables, textbooks and supplementary teaching learning materials. And all of this activity takes place within a physical space with certain infrastructural characteristics, such as a boundary wall, classrooms, toilets, and drinking water. These are the assumptions on which the school system is built.

A fundamental goal of the RTE Act is to ensure that our schools realize the aforesaid premises. That they are equipped with the necessary human, physical and financial resources to enrol all children, and enable them to complete eight years of elementary schooling (Classes 1-8).

The right to quality elementary education means

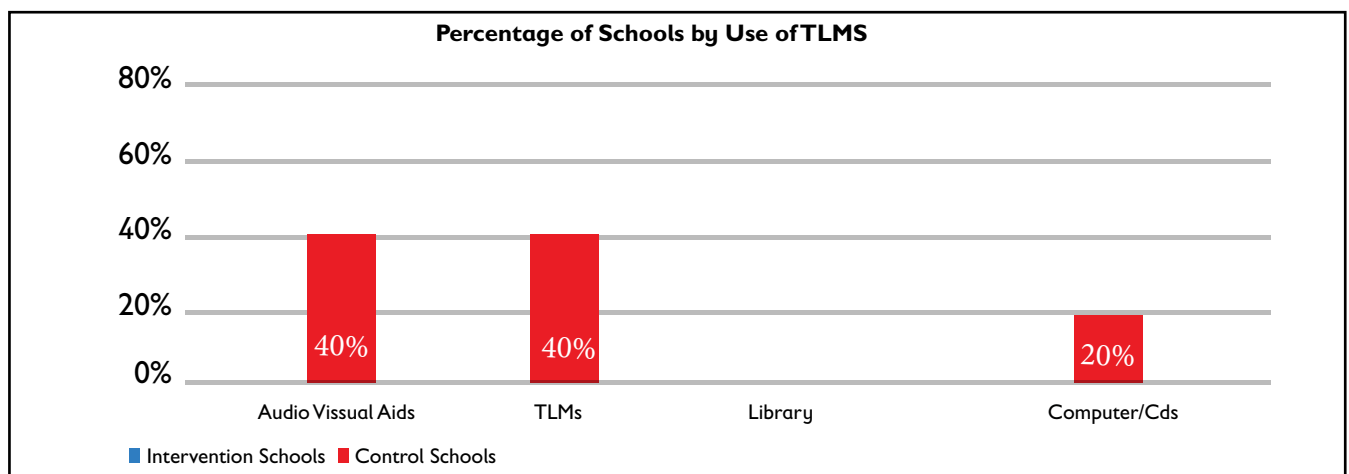
that children are taught in properly equipped full-time schools by properly qualified teachers. It also involves receiving an all-round education which includes the acquisition of grade-appropriate basic cognitive skills.

#### 1. Teaching Interaction

##### 1. a Use of Teaching Learning Material

TLMs can significantly increase student achievement by supporting student learning. They also add important structure to lesson planning and delivery of instructions. They also assist teachers in helping them to tailor instructions to the capacities and learning style of learners. The investigators observed for availability and use of the following categories of TLMs.

1. Audio- Visual Aids ( E.g. Charts, and Cards, CDs/DVDs, Audio Cassette
2. Are Teaching Learning Materials (Flash cards, pebbles, marbles) used
3. Reading Corner/Library available
4. Lab Equipments, Apparatus, TV, Computer, LCD used



#### Intervention Schools:

- It was observed that in the sampled classes TLM was not being used for imparting learning to students.

#### Control Schools:

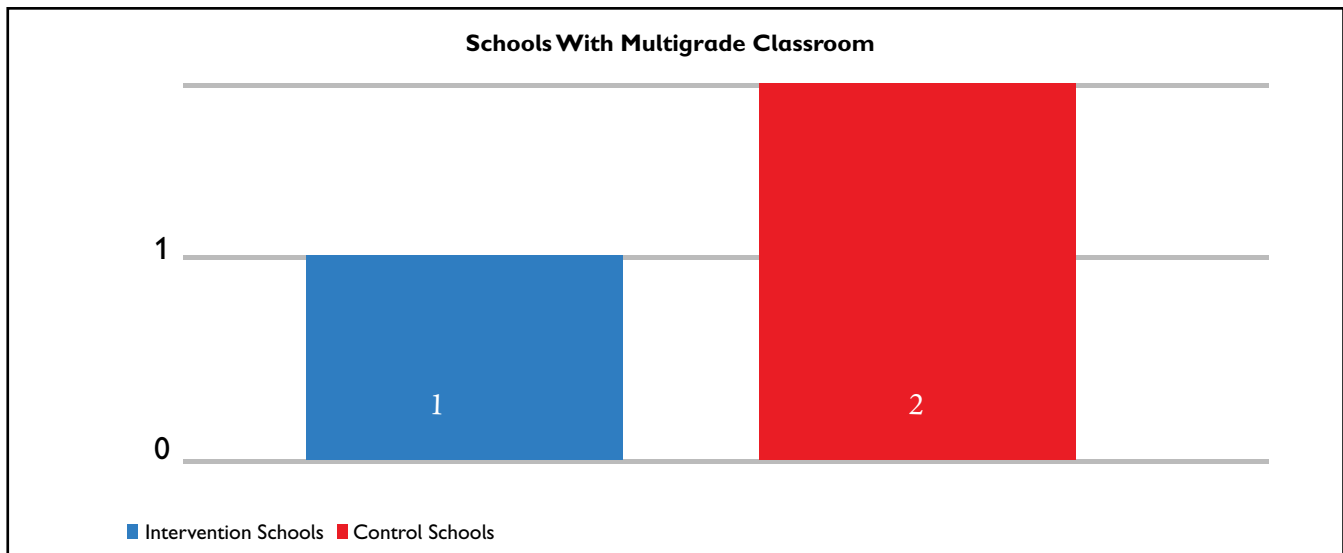
- The use of TLM in Control School was more pervasive compared to Intervention schools. It was found that in Shriramnagar and Shivapur schools Visual aids and TLMs is available and used. Computers are used for students in Shivapuri School for displaying educational CDs.



## 1.b Multigrade Classrooms

Multi grade classroom present a significant challenge to both teacher and the students. Not only teachers have to teach more than one grade of students in the same classroom, but also most of the times teach different subject to each grade. Both teacher and students have to adapt to a

host of teaching methods like grouping, individualised instruction, independent study, team-teaching, group project work, peer tutoring etc.



Tab 4.2: Prevalence of Multigrade Classes in Intervention and Control Schools

	Intervention Schools					Control Schools				
	Loni Kalbhor	Sidarm-mala	Raiwadi	Manjri Khurd	Awhalwadi	Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti
<i>MultiGrade Classes</i>	No	No	Yes	No	No	Yes	No	No	No	Yes

### Intervention Schools:

- Amongst intervention schools, only Raiwadi has multi grade classes.

### Control Schools:

- Two of the control schools namely Shriramnagar and Valti have multigrade classrooms.

### 1.c Organisation of Space

The way in which classroom sitting arrangement is structured reveal a great deal about the extent to which children's learning is the main focus within the classroom. Two variables were

observed – (i) did children sit in ways that facilitated learning from each other as well as from the teacher? (ii) did boys and girls sit separately?

Tab 4.3: Organisation of Classroom Space in Intervention and Control Schools

	Intervention Schools					Control Schools				
	Loni Kalbhor	Sidarm -mala	Rai-wadi	Manjri Khurd	Awhal-wadi	Shriram nagar	Jayaprakashnagar	Shindavane	Shivapur	Valti
<i>Sitting configuration in rows</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Boys &amp; Girls sitting separately</i>	<b>Girls only</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

#### Intervention Schools:

- Children were almost invariably seated in rows. Seating arrangements such as small groups were never observed. Girls and boys sat separately in all the observed classrooms, except for Loni Kharbor which is a girl's school.

#### Control Schools:

- Except for Valti, all schools showed gender segregation in which the students sat in segregated clusters. As is for intervention schools, the configuration of seating arrangement was in straight lines which are not conducive to peer to peer learning and group work.

### 1.d Teacher Engagement with Students

The way the teacher interacts with her students in the classroom has impact on learning outcomes. Teacher interaction with students are characterised by two variables namely (i) level of control and the (ii) level of responsiveness. In the baseline responsiveness was measured by the

demeanour of the teacher (smiling, encouraging etc) while she is teaching and the control was measured by propensity to scold or punish students. These two characteristics were measured during classroom observation.

Tab 4.4: Teacher Interaction with Students in Intervention and Control Schools

	Intervention Schools					Control Schools				
	Loni Kalbhor	Sidarm -mala	Rai-wadi	Manjri Khurd	Awhal-wadi	Shriram nagar	Jayaprakashnagar	Shindavane	Shivapur	Valti
<i>Do teachers smile, talk and listen to learners</i>	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes
<i>Incident of punishment observed</i>	No	No	No	No	Yes	No	No	No	No	No

### **Intervention Schools:**

- In Manjri Khurd and Awhalwadi, the teacher did not display a friendly and engaging behaviour with the class. In the remaining schools the demeanour of the teacher in the class was friendly and approachable. During classroom observation, teacher at Awhalwadi was observed to be punishing students, such instances were not reported from other schools.

### **Control Schools:**

- In JayaprakashNagar the teacher showed low level of openness towards the learners. In rest of the schools the teacher's approach to her class was much more forthcoming. No teacher was observed to be punishing any student during classroom observation.

## **1.d Teaching Medium**

The medium of instruction is the language used by the teacher to teach. It is generally accepted that teaching in the vernacular, especially in the elementary classes enables the learners to grasp

lessons faster. Classroom observation looked into the use of medium of instruction and prevalence of books in vernacular in the classroom.

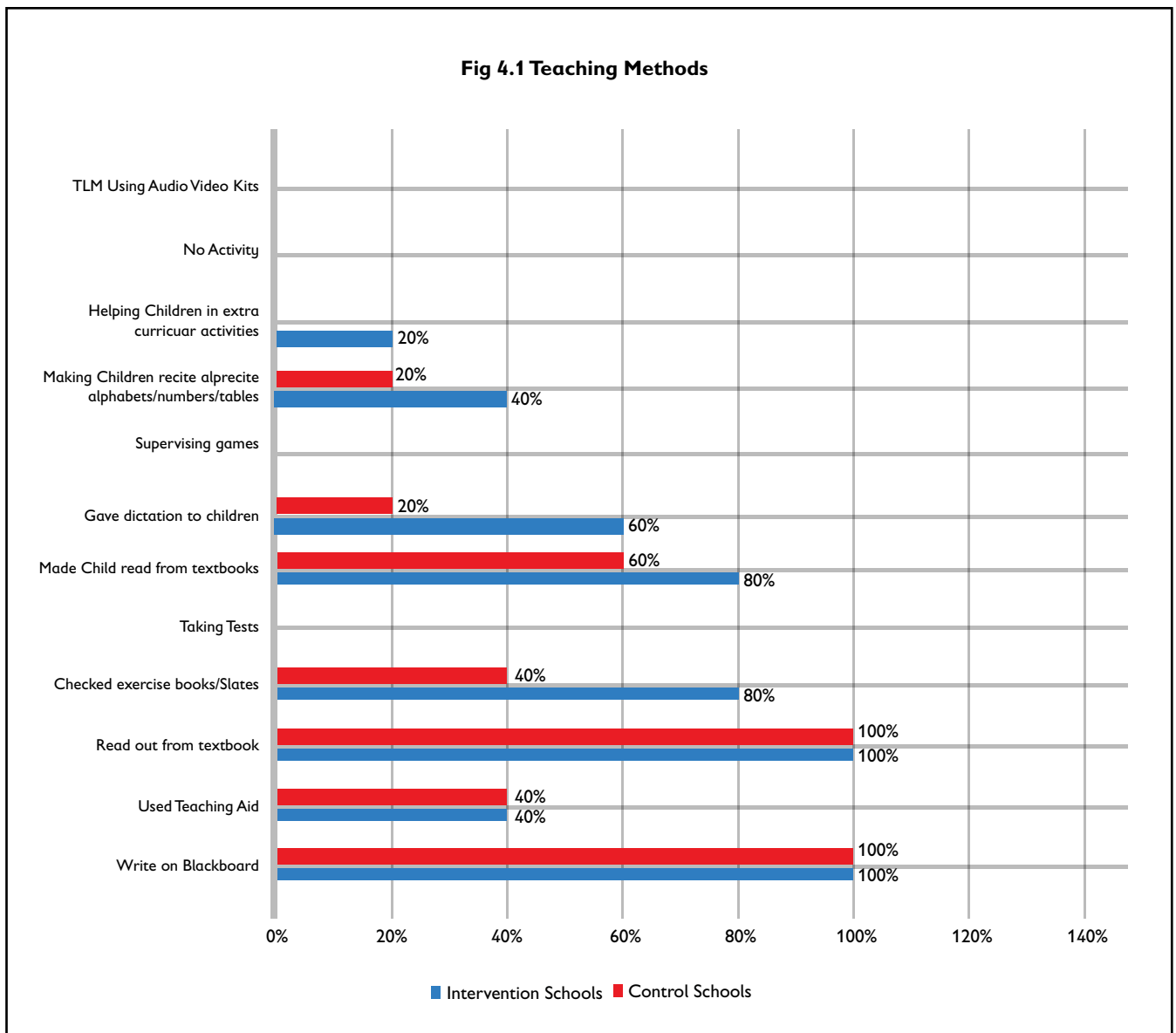
### **Intervention Schools:**

- The medium of instruction in the entire sample set was in Marathi. The text books were also found to be in Marathi language.

## 2. Teaching Methods

The general principles, pedagogy and management strategies used in classroom instruction go a long way in improving learning outcomes. The teaching methods tend to be either teacher – centric (direct instruction) or student –centric (Inquiry/Cooperative Learning). For the baseline, the classroom observers collected data on the instructional methods utilized by the teacher during the observation. Field investigators were asked to identify those teaching-related activities

that they saw the teacher do even once during a thirty minute period, regardless of whether that activity took three minutes or all thirty. These indicators covered both those instructional strategies known to be commonly utilized in primary school classrooms, such as reading from the textbook and dictation, as well as those explicitly recommended by the National Curriculum Framework (2005), such as small group work and use of supplementary Teaching Learning Material (TLM).



Tab 4.5: Teaching Methods used in Intervention and Control Schools

	Intervention Schools					'Yes'. Schools	Control Schools					
	Loni Kalbhor	Sidarm -mala	Rai-wadi	Manjri Khurd	Awhal-wadi		Shriram nagar	Jayapra kashna-gar	Shinda-vane	Shiva-pur	Valti	'Yes'. Schools
Write on Blackboard	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
Used Teaching Aid	No	Yes	Yes	No	No	2	Yes	No	No	Yes	No	2
Read out from textbook	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
Checked exercise books/ Slates	Yes	Yes	Yes	No	Yes	4	Yes	No	No	Yes	No	2
Taking Tests	No	No	No	No	No	0	No	No	No	No	No	0
Made child read from textbooks	Yes	Yes	Yes	Yes	No	4	Yes	No	Yes	Yes	No	3
Gave dictation to children	Yes	No	Yes	No	Yes	3	No	No	No	Yes	No	1
Supervising games	No	No	No	No	No	0	No	No	No	No	No	0
Making children recite alphabets/ numbers/ tables	Yes	Yes	No	No	No	2	No	No	No	No	No	0
Helping children in extracurricular activities	No	No	No	Yes	No	2	No	No	No	No	No	0
No Activity	No	No	No	No	No	0	No	No	No	No	No	0
TLM using audio video kits	No	No	No	No	No	0	No	No	No	No	No	0

### Intervention Schools:

- Writing on the blackboard and reading from the textbook were the most commonly observed teaching activities. This was followed by making the child read from the text book and the teacher checking exercise books/slates. Although children in each classroom were diverse, the teaching methods and materials commonly employed assume a uniform group of students both in terms of grade and ability level. Group work or use of teaching learning material (other than textbook) was rarely observed.

### Control Schools:

- Similar trend as in intervention schools was observed for control schools, with blackboard and reading from textbook being the predominant teaching activity. Making child to read was the next most common activity across the sampled control schools. Use of TLM is not pervasive and group work is absent.

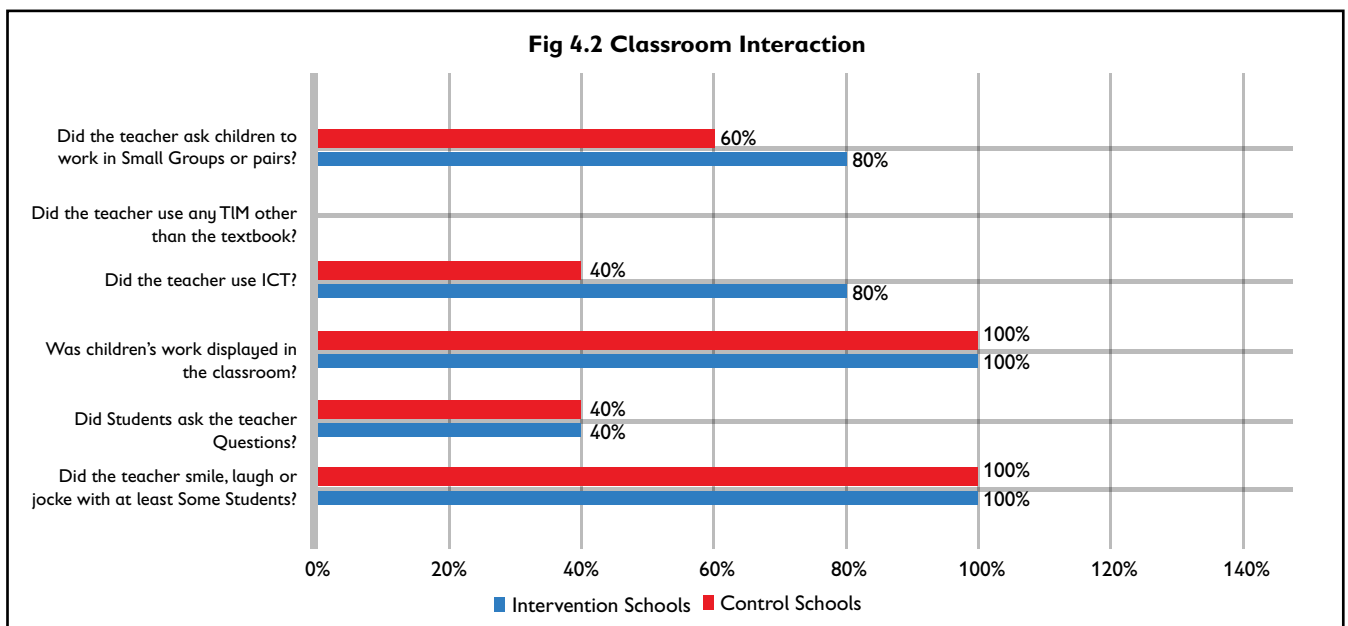
### 3. Classroom Interaction

Although both the National Curriculum Framework (2005) and RTE (2009) stress the importance of child friendly learning environments in promoting children’s retention and learning, they do not give any indication on how “child friendly” classroom is to be defined. The baseline study used six indicators to analyze the relationship between classroom practice and children’s learning. Some of the indicators have been alluded to in the previous section, and here will be discussed in the context of a child friendly classroom. The indicators are:

1. Did the teacher smile, laugh or joke with at least some students? :The association of learning with fear, discipline and stress, rather than enjoyment and satisfaction, is detrimental to learning
2. Did students ask the teacher questions?: Children will learn only in an atmosphere where they feel they are valued

3. Was children’s work displayed in the classroom?:Appreciation of the student’s work
4. Did the teacher use ICT in the classroom? : Integration of ICT into the teaching and learning process provides children with opportunities to use modern technology to enhance their learning in all subjects and makes learning interesting.
5. Did the teacher use any TLM other than the textbook? TLM promotes children’s creativity, participation and interest, thereby enhancing their learning. No one textbook can cater to the diverse needs of different groups of students.
6. Did the teacher ask children to work in small groups or pairs? : Small group work can be effective mechanisms to engage students from different classes and ability levels.

The classrooms observers looked out for the above six indicators during their observation.



Tab 4.6: Classroom Interaction in Intervention and Control Schools

	Intervention Schools					'Yes'. Schools	Control Schools					
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi		Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes'. Schools
Did the teacher smile, laugh or joke with at least some students?	Yes	Yes	Yes	Yes	No	3	Yes	No	Yes	Yes	Yes	4
Did students ask the teacher questions?	Yes	Yes	Yes	No	Yes	5	Yes	No	No	Yes	Yes	3
Was children's work displayed in the classroom?	Yes	Yes	Yes	Yes	No	3	Yes	No	No	Yes	No	2
Did the teacher use ICT?	No	No	No	No	No	0	No	No	No	No	No	0
Did the teacher use any TLM other than the textbook?	No	No	No	No	No	0	Yes	No	No	Yes	No	2
Did the teacher ask children to work in small groups or pairs?	No	No	No	No	No	0	No	No	No	No	No	0

### Intervention Schools:

- The most commonly observed practice in the classroom was students asking the teacher questions (100%) and children's work displayed in the classroom (26%). This was followed by teacher's friendly demeanour (60%) and children work displayed in the classroom (60%). No classroom was found to be using ICT, TLM and having students working in small groups. A maximum of three of the six indicators was present in the best performing schools in terms of 'child friendly' classroom.

### Control Schools:

- There is no indicator in which all the control schools indicate achievement. The best performing indicator was friendly demeanour of the teacher (80%) followed by students asking questions in the class (66%). Unlike intervention schools where there are no classrooms in which TLM was being used, for control schools 40% of the classrooms were found to be using TLM. The work of children was found to be displayed in 40% of the classrooms. Schools at Shriramnagar and Shivapur have four of the six indicators present in the classrooms. No ICT or children working in small groups was found in any of the classrooms.

## 4. Students Activity in the Classroom

In classroom settings, a variety of engagement activities is particularly important in supporting learning and development including the skills students develop and the grades they make. In contrast, disengaged students are distracted, passive, do not try hard, give up easily in the face of challenge or difficulty, express negative emotions, fail to plan or monitor their work, and generally withdraw. Experts agree that when teachers focus on supporting students' autonomous motives (e.g., interests, needs, preferences, personal goals) through classroom activities, these instructional acts support students' engagement by presenting interesting and relevant learning activities, providing optimal challenges, highlighting meaningful learning goals, and supporting students' volitional endorsement of classroom behaviours .

For the baseline study a set of twelve indicators were observed, the indicators are categorised as passive and active learning activity indicators.

- 1. Passive Learning Indicators:** (i) Copying from blackboard, (ii) Copying from charts/ pictures, (iii) Listening to what teacher is reading from the text book, (iv) Giving tests, (v) Writing what teacher is dictating, (vi) Repeat alphabets and tables
- 2. Active learning Indicators:** (i) Reading from textbooks, (ii) Supervised play, (iii) Recite rhymes/sing song, (iv) Doing sums, (v) Students using computers/ audio visual aids on their own.

Tab 4.7: Student Activity in Classrooms in Intervention and Control Schools

	Intervention Schools					'Yes'. Schools	Control Schools					
	Loni Kalbhor	Sidarm -mala	Rai-wadi	Manjri Khurd	Awhal-wadi		Shrira mnagar	Jayapra kashna-gar	Shinda-vane	Shiva -pur	Valti	'Yes'. Schools
<b>Passive Learning Indicators</b>												
Writing from blackboard	Yes	Yes	Yes	Yes	No	3	Yes	No	Yes	Yes	Yes	4
Writing from charts/pictures	Yes	Yes	Yes	No	Yes	5	Yes	No	No	Yes	Yes	3
Listening to teacher reading from the text book	Yes	Yes	Yes	Yes	No	3	Yes	No	No	Yes	No	2
Giving tests	No	No	No	No	No	0	No	No	No	No	No	0
Writing what teacher is dictating	No	No	No	No	No	0	Yes	No	No	Yes	No	2
Repeat alphabets and tables	No	No	No	No	No	0	No	No	No	No	No	0
<b>Active Learning Indicators</b>												
Reading from textbooks	Yes	Yes	Yes	Yes	No	80%	Yes	No	No	Yes	No	40%
Supervised play	No	No	No	No	No	0%	No	No	No	No	No	0%
Recite rhymes/sing song	No	No	No	No	No	0%	No	No	No	No	No	0%
Doing sums	Yes	Yes	No	No	No	40%	Yes	No	No	Yes	No	40%
Students using computers/ audio visual aids on their own	No	No	No	No	No	0%	No	No	No	No	No	0%



### **Intervention Schools:**

- Amongst the passive indicators, the most pervasive activity that students were found engaged in was writing/copying written text from the blackboard onto their notebooks/ slates (100%). This is followed by listening to the teacher reading from the text book (80%) and students engaged in repeating alphabets and tables after the teacher (60%). Amongst the active learning indicators the most observed was independent reading of textbooks by students (80%) followed by independent solving of math problems (40%).

### **Control Schools:**

- Similar trend as in intervention schools was also observed for the control schools. Amongst the passive learning indicators writing/copying from the blackboard was found in all the classrooms (100%). This was followed by listening to the teacher reading out from the text book (60%). Among active learning activities independent reading and doing math problems emerged at the top (40%).

## **5. Engaged Pedagogy**

This refers to using teaching approaches that encourage more engaged student involvement. Often, the teacher takes on the role of facilitator as opposed to lecturer in these approaches. Typically, student learning is higher using these methods and students use more high-order thinking skills while learning material in depth. The assessment was done through observation and interaction with the teacher on the use of engaged pedagogy processes- (i) activity based learning, (ii) group work, (iii) conversational skills encouraged, (iv) debates, quizzes, (v) project work, (vi) report writing, (vi) ICT based assignments.

### **Intervention Schools:**

- None of the schools show any evidence of encouraging activity based learning, group work or engaged student assignments in the class room.

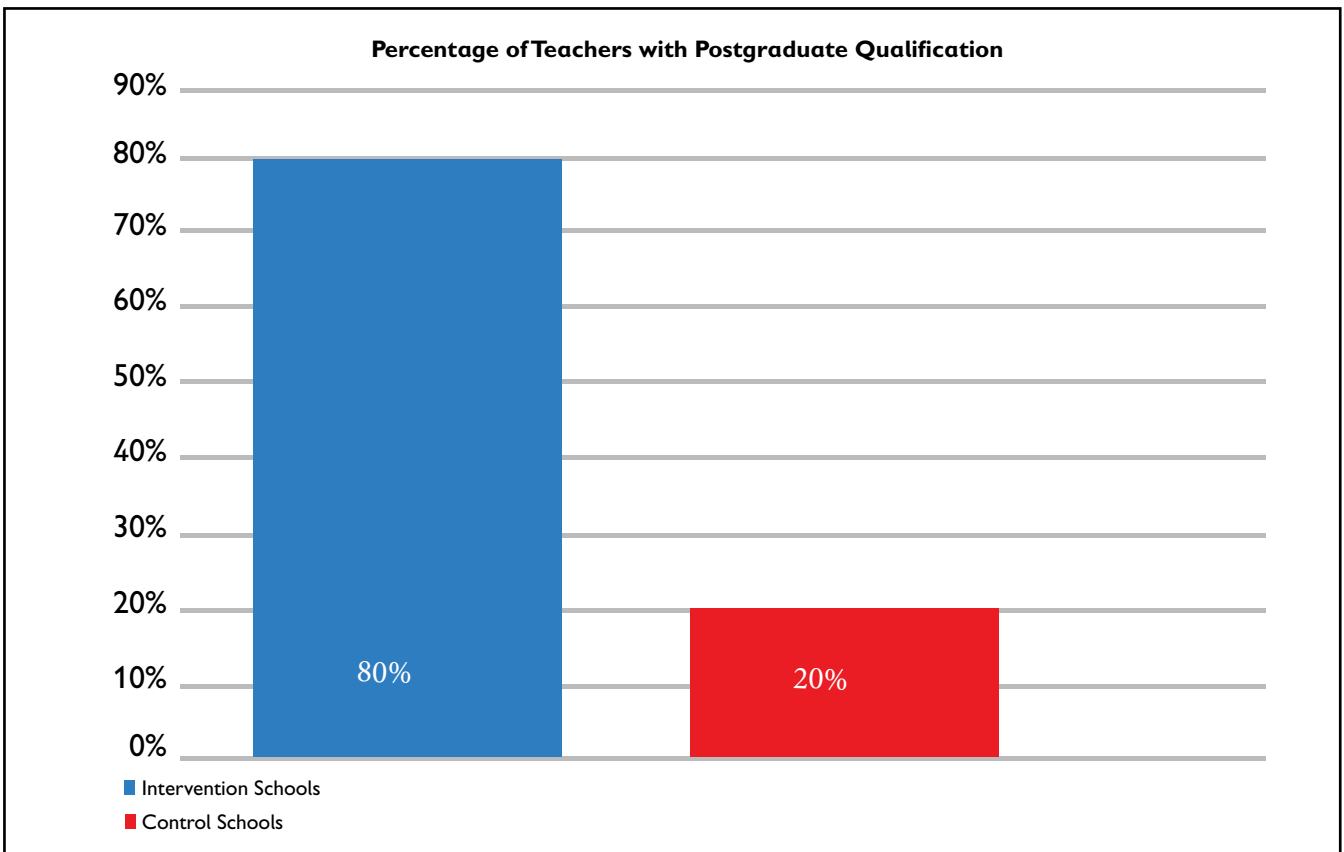
### **Control Schools:**

- Control Schools: Two schools – Shriramnagar and Shivapur were found to encourage classroom activities like quizzes and debates. Class room observation revealed group work amongst students as well in these two schools.

## **6. Teacher Characteristics**

The teacher is a key driver of the learning experience of the students and therefore should be well equipped to handle this onerous responsibility. For the baseline survey one teacher from each of the intervention and control schools was interviewed for eliciting information on qualifications, workload and support available.

## 1.d Teacher Engagement with Students



Tab 4.8: Teacher's Professional Qualification

	Intervention Schools					'Yes'. Schools	Control Schools					
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi		Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes'. Schools
Professional teaching qualification	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5
Post graduate Qualification	Yes	Yes	Yes	Yes	No	4	No	No	Yes	No	No	1

### Intervention Schools:

- All the teachers hold Bachelor in Education degree and are professionally qualified to teach
- 80% of the sampled teachers have a post graduate degree

### Control Schools:

- All the teachers hold professional qualification of Bachelor in Education and are trained to be teachers
- Only 20% of the teachers surveyed held a post graduate degree.

## 6.2 Teacher Load

	Intervention Schools					'Yes'. Schools	Control Schools					
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi		Shriramnagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes'. Schools
Avg Class Size	42	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Subjects Taught	All	All	All	All	All		All	All	All	All	All	
Non teaching work (census, pulse polio etc)	Yes	Yes	Yes	No	No	3	Yes	Yes	Yes	Yes	No	4
Admin Responsibility hamper teaching	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	No	Yes	No	3
Coordinate extracurricular activities (excursions, school programs etc)	No	Yes	No	Yes	Yes	5	Yes	No	Yes	No	No	2

### Intervention Schools:

- The average class size handled by an individual teacher ranges from 11-42 students, the smallest being at Raiwadi and the largest at Lon Kalbhor school
- For a given class, the teachers teach all the subjects, this is generally true in primary classes in most government schools in the country
- In 60% of the school the sampled teacher indicated having to do non teaching work. This was mostly related to data entry of school records (like DISE report)
- Non teaching and other administrative work hampers the teaching responsibility of the teacher
- In 60% of the schools the teacher report having to coordinate extra-curricular activities like excursions school programmes etc.

### Control Schools:

- The average class size handled ranged from 25-30
- In 80% of the schools, the teacher reported having to do non teaching work
- In 60% of the schools the load of non teaching and administrative work hampers the teacher to exercise the teaching responsibility fully
- In 40% of the schools, the teacher also had to coordinate extracurricular activities

## SECTION 4.E

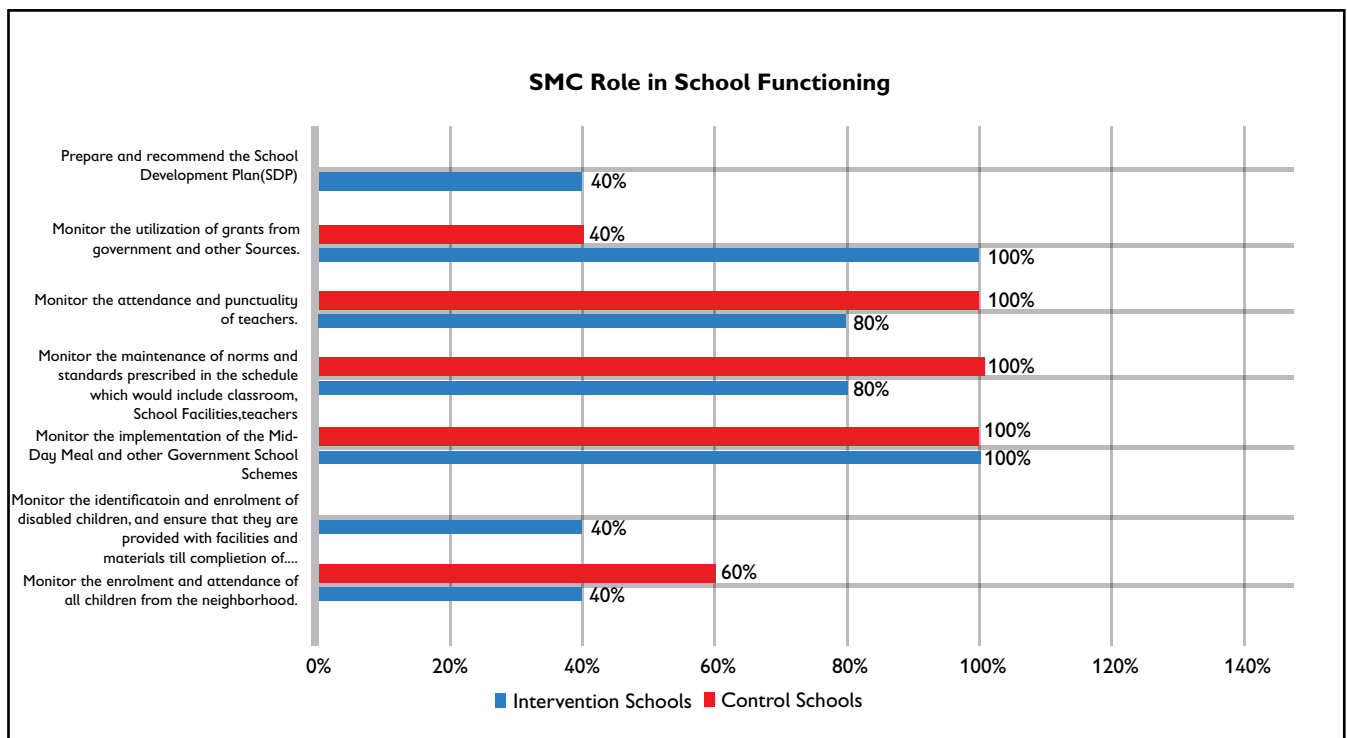
# COMMUNITY INSTITUTIONS FOR SCHOOL FUNCTIONING AND MANAGEMENT

The constitution of a School Management Committee (SMC) is an important provision of the RTE Act. This helps provide community oversight on the functioning of the schools. An SMC works toward achieving proper and smooth functioning of a school, by catering to its infrastructure needs, mid-day meal programs and ensuring a better learning environment for children. For the ICT project a functioning SMC will ensure pro-

ject buyin from the school and the community and ensure sustenance of the program. Also SMC has the potential to ensure an enabling environment for the ICT project to succeed.

For the baseline survey, one SMC member from each of the intervention and control school was interviewed to ascertain the current functioning of SMC on school management

### 6.1 Functioning of SMC



	Intervention Schools					Control Schools						
	Loni Kalbhori	Sidarm -mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes'. Schools	Shriram nagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes'. Schools
Prepare/Recommend SDP	Yes	No	Yes	No	No	2	No	No	No	No	No	0
Monitor grant utilisation	Yes	Yes	Yes	Yes	Yes	5	Yes	No	Yes	No	No	2
Monitor teacher attendance	Yes	Yes	No	Yes	Yes	4	Yes	Yes	Yes	Yes	Yes	5
Monitor school facilities	Yes	No	Yes	Yes	Yes	4	Yes	Yes	Yes	Yes	Yes	5
Monitor MDM	Yes	Yes	Yes	Yes	Yes	5	Yes	Yes	Yes	Yes	Yes	5

	Intervention Schools					Control Schools						
	Loni Kalbhor	Sidarm-mala	Rai-wadi	Manjri Khurd	Awhal-wadi	'Yes'. Schools	Shriram-nagar	Jayaprakash-nagar	Shindavane	Shivapur	Valti	'Yes'. Schools
Monitor enrolment of disabled children	Yes	No	Yes	No	No	2	No	No	No	No	No	0
Monitor children attendance	No	No	No	Yes	Yes	2	No	Yes	Yes	No	Yes	3

### Intervention Schools:

- In 40% (Loni & Raiwadi) of the schools, SMC actively involved in preparing School Development Plan
- All the SMCs keep oversight on the utilisation of government funds and other grants
- In 80% of the schools teacher attendance is monitored by SMC, the only exception being Raiwadi
- 80% of the SMCs monitor the critical ratios and facilities as indicated in the schedule like teacher-pupil ratio and school facilities, The only exception being the school at Sidarmmal
- All the SMCs monitor the implementation of the Mid-day meal scheme
- 40% (Lone & Raiwadi) of the SMCs monitor enrolment of children with special abilities
- 40% (Manjari Khurd & Awhalwadi) of the SMCs monitor school attendance

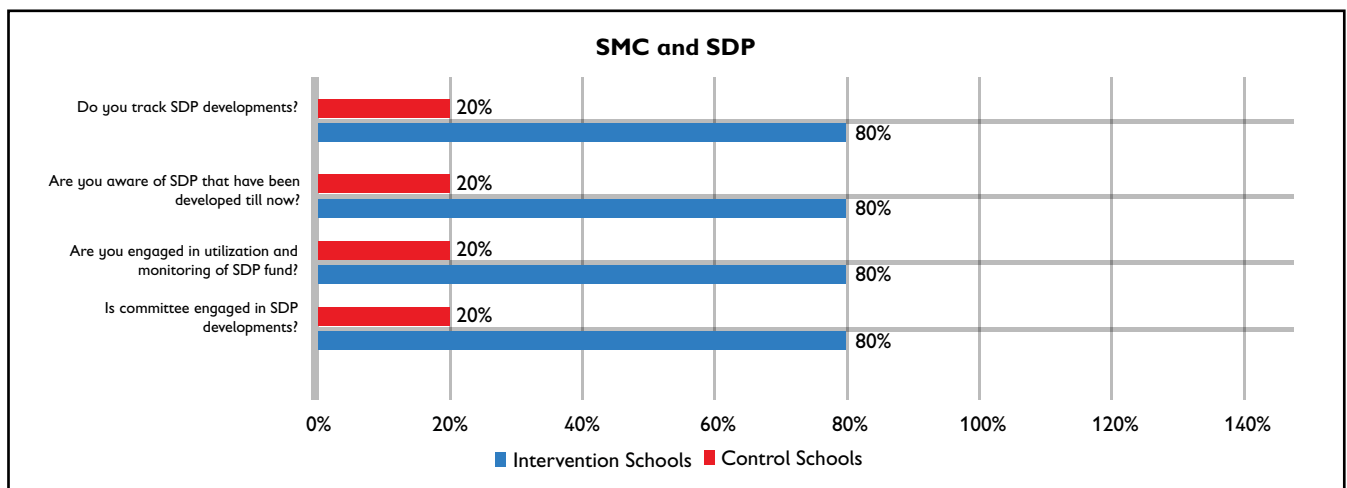
### Control Schools:

- None of the SMCs are involved in the preparation of the School Development Plan
- 40% (Shriramnagar & Valti) of the SMCs provide oversight on fund utilisation by the school
- All the SMCs are involved in monitoring of teacher attendance, mid-day meal scheme and school quality indicators as given in the schedule
- None of the SMCs were found to be monitoring enrolment of children with special needs, however 60% of the SMCs were involved in regular student enrolment and attendance

## 6.2 Monitoring the SDP(School Development Plan) by SMC

The RTE mandates that each school prepares a School Development Plan. It is a three year plan estimating student strength, teacher requirement under the prescribed PTR, additional infrastructure requirement, financial requirements etc.

it sets the long term vision and the short term milestones that will need to be achieved in pursuit of the vision. It is incumbent upon the SMC to monitor the implementation of the SDP.



### Intervention & Control Schools :

- 80% of the SMC members track the SDP developments, utilization and monitoring of funds and are also engaged in the functioning of the SDP. The only exception being school at Awhalwadi.
- In the Control Schools only the SMC at school at Shindavane pursues monitoring and functioning of SDP

### 6.3 Regularity of SMC Meetings

- It was observed that SMC meetings are held regularly in both the Intervention and Control Schools. The average frequency of meeting being held is similar for both the groups (3 meetings/6 months)
- The average attendance was better for the Control schools (9 members/meeting) as compared to Intervention schools (8 members/meeting)

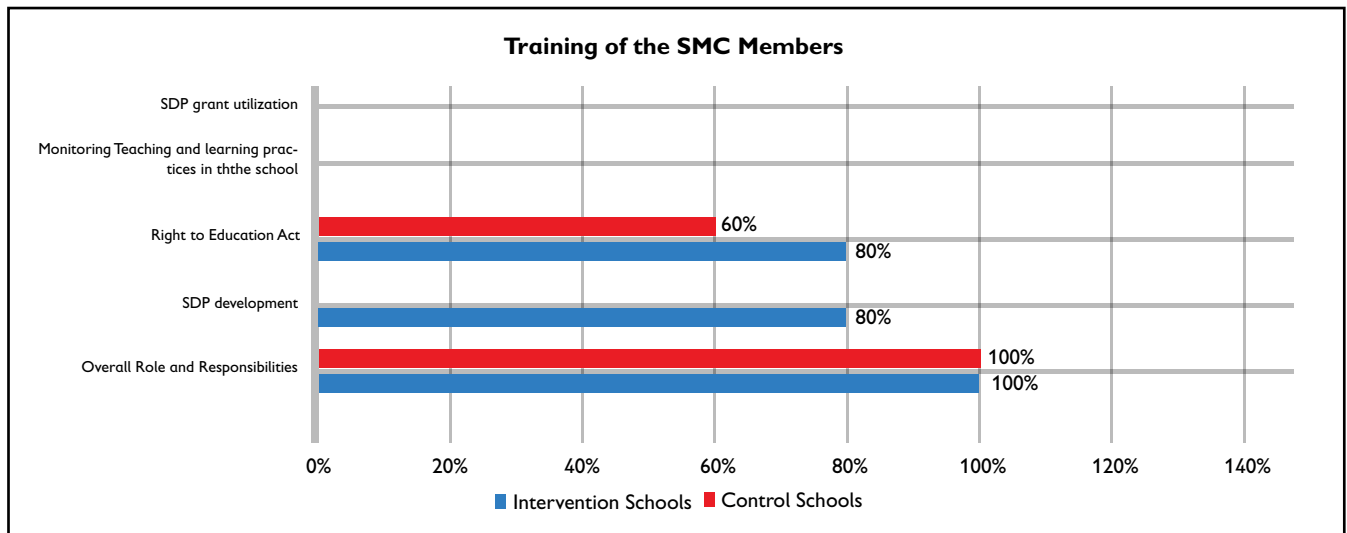
	Intervention Schools					'Yes'. Schools	Control Schools					
	Loni Kalbhor	Sidarm -mala	Rai-wadi	Manjri Khurd	Awhal-wadi		Shriram nagar	Jayaprakashnagar	Shindavane	Shivapur	Valti	'Yes'. Schools
<b>Frequency of Meeting in last 6 months</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>3</b>
<b>Number of members present in the last meeting</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>11</b>	<b>6</b>	<b>39</b>	<b>8</b>	<b>8</b>	<b>11</b>	<b>8</b>	<b>11</b>	<b>9</b>

### 6.4 Major issue raised in the SMC Meetings

In each school a number of issues regularly feature in the SMC meeting

- The major concerns related to the Intervention schools are – student's absenteeism, Electricity Bill, absence of library and computer lab.
- The major concerns related to the Controlled Schools are – Poor teacher-student ratio, poor condition of school buildings, lack of library, toilet, sports equipments and furniture.
- Although the issues have been raised in some schools but action is yet to be taken.

## 6.5 Training of SMC Members



SMC members received training in the following fields:-

- Overall Role and Responsibility – All the members received this training
- Right to Education Act – 100% SMC members in Intervention Schools and 60% SMC members in the Control Schools.
- SDP development - 80% SMC members of the Intervention schools received this training.
- No training was given to the SMC members on SDP grant utilisation and Monitoring teaching learning practices followed in the school.

## SUMMARY OF FINDINGS

- In the intervention schools in most cases (80%) the SMC was found to be actively involved in the functioning of the schools including preparing School Development Plan, keeping oversight on the utilisation of school grants, monitoring attendance, keep track of the critical ratios, and check the mid day meal program on regular basis
- The meetings of the SMC are held regularly
- Most of the SMC members in intervention schools have received training on school management
- Many of the members are aware of the importance of computer based education and some have got aired in SMC meetings in some of the intervention schools.

It is to the advantage of the project that the intervention schools have an aware, trained and engaged SMC.



## SECTION 4.F

### CHILDREN'S GROUP

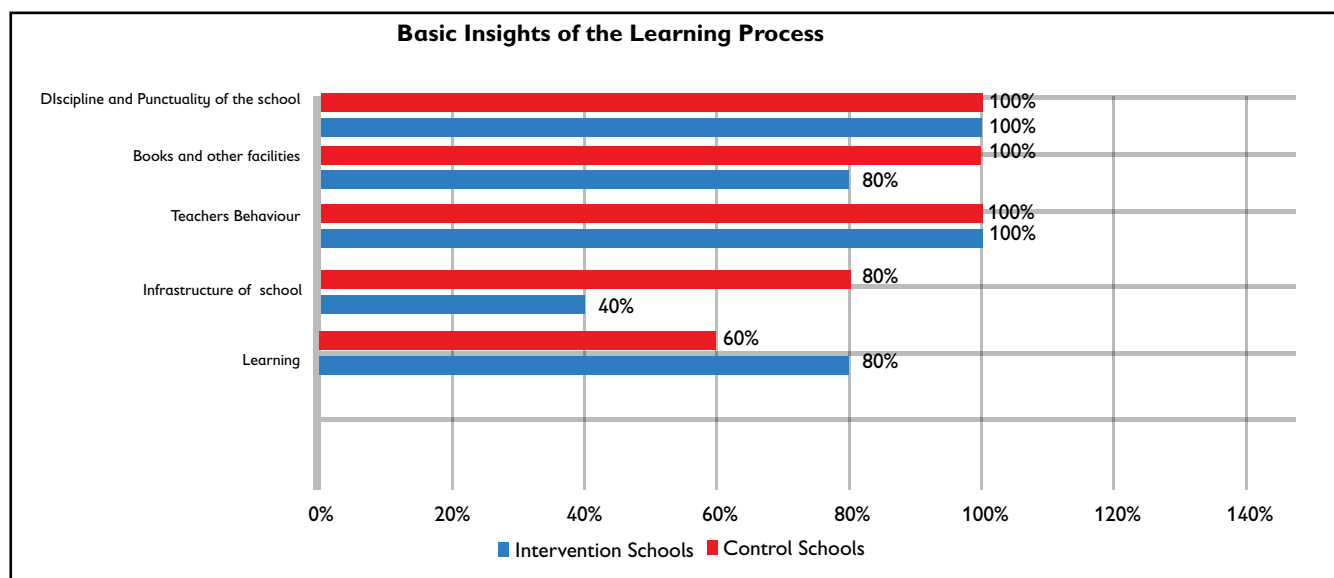
The Focused Group Discussion which was held in the schools with children, the primary stakeholders the children voiced their opinions regarding the functioning of the school. The primary stakeholders, the children, also came out with certain insights as to the things that would make the school a better place to study.

For the Baseline Survey, the members of the Children's Group in both the Intervention and Controlled School were questioned on understanding in detail the education system prevailing in the

schools.

#### 7.1 Aspects of the Learning Process

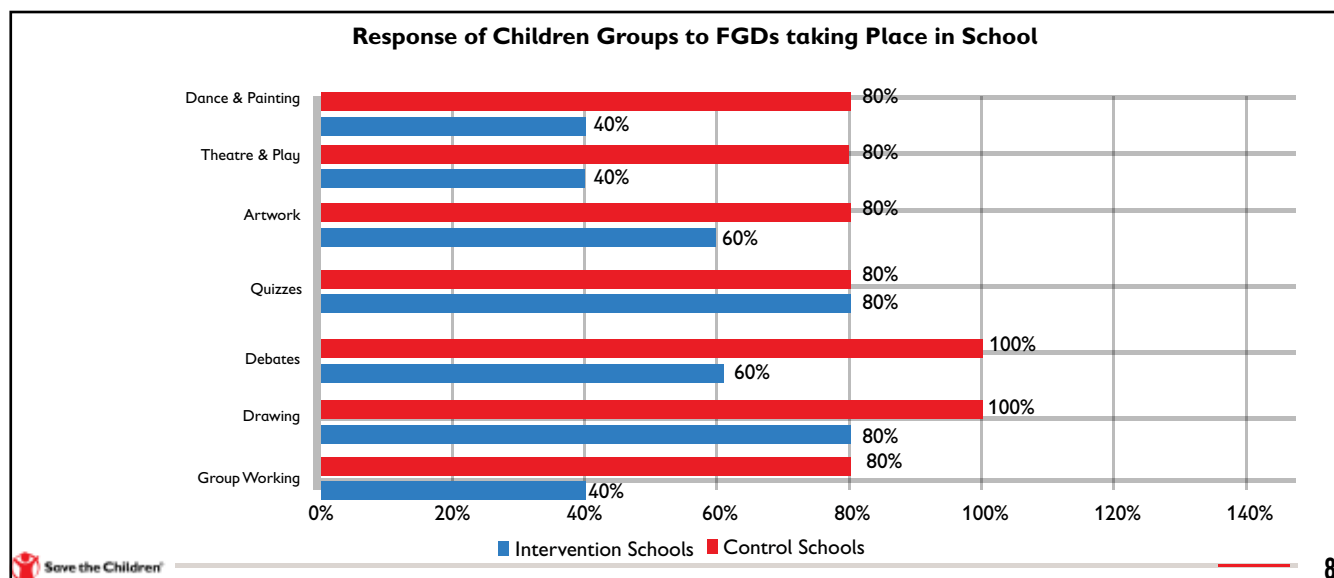
The basic aspects of the feedback on the learning processes present in the schools was recorded reflects that all schools gives high priority to discipline and punctuality. Teachers at all schools have very good behavior towards their children. However, the Learning taking place in the school was 60% in case of Control Schools and 80% in the case of Intervention Schools.



#### 7.2 Activities taking place in Schools

Apart from studies, children were asked about the activities that are being done in their schools. The data revealed that children in both the

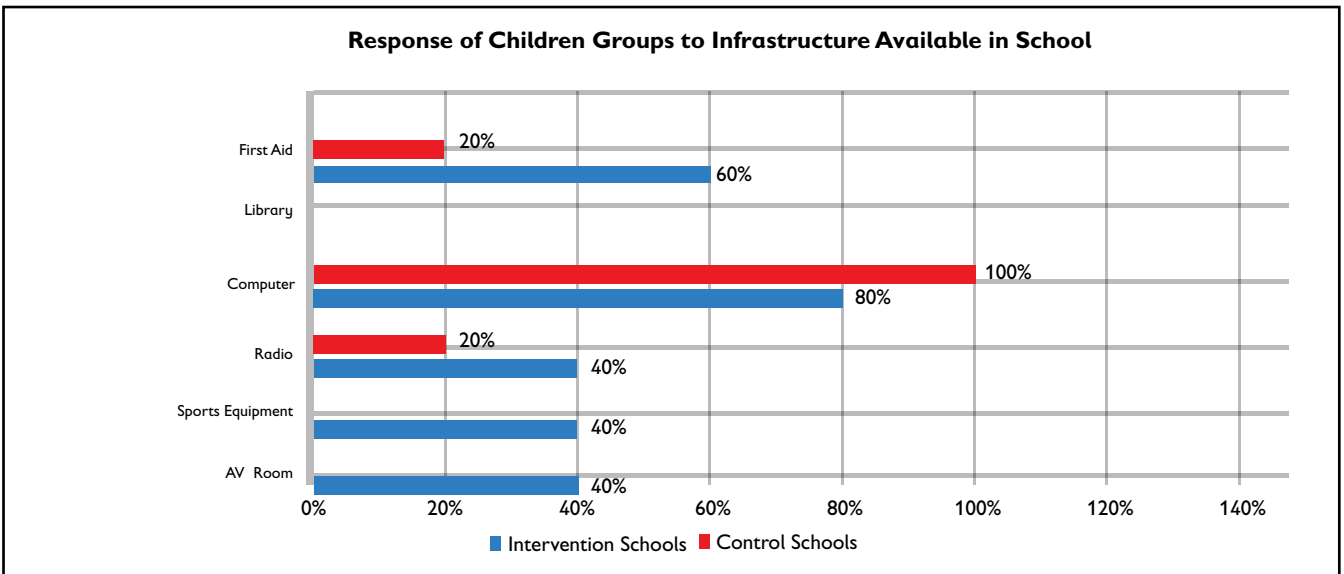
Intervention and Controlled Schools are involved in co-curricular activities like dance, painting, artwork, quizzes etc.



### 7.3 Availability of Infrastructure

For proper learning to happen in the classroom there are some facilitating factors (which we term as ‘teaching-learning circumstances’) which need to be in place. Such factors may be largely

physical in nature or they may be more closely linked to the social relationships which occur in the classroom and school settings.



## CHAPTER 5

# RECOMMENDATIONS

The role of ICT in improving learning outcomes in schools, especially in developing countries has two extremes and a middle path. At one extreme of the spectrum are the sceptics who are not convinced that ICT will bring pedagogical benefits (Peat and Franklin, 2003 and etal). On the other side of the spectrum are people who believe that ICT will answer all that is- sues which plague learning outcome of children (Negroponte, 1995- founder of MIT media labs). In between these two extremes lies the view that ICT can do much but not everything. This view holds that while if ICT enabled education if properly integrated has the potential to promote development of students' decision-making and problem solving skills, data processing skills, and communication capabilities. However it is not a replacement for the physical teacher present in the classroom. The recommendations made in this chapter take this middle path view.

### The need for proper infrastructural support

The baseline reveals that the ICT infrastructure in some schools though present are non-functional and in other cases entirely absent. The entire success of the project hinges on the provisioning of the proper hardware, software and, networks and Internet access, in order to provide the required logistical support to schools.

### Upgrading/Using existing ICT infrastructure

Some of the intervention schools have computer and AV systems. The project may consider using the existing infrastructure if possible by repairing, upgrading and recalibrating the same. Thus the existing infrastructure which lies in disuse most of the time can be productively deployed in the project.

### Follow-up on E-Lessons

The project envisages providing quality instruction through a centralised DIET facility to the target schools. E-lessons should not be a one off activity. The instructions need to be integrated with the curriculum, and follow up by the teach-

er ensured. Teacher follow-up can be in terms of teacher summarizing the lessons, taking quizzes and tests, doing activities in the class with the children on the e lecture delivered etc. This will help in retention and assimilation of the e-lessons in the children.

### Development of a set of educational technology standards

Though not strictly in the terms of reference, the project may use the pilot in establishing a technology standard for ease of replication across schools. The flexible technology-based learning environment is one which promotes and maintains full participation, open communication, and equal access. It addresses issues on open source software v/s proprietary software, shared computing power instead of captive, ruggedness of technology in field conditions and cheap transmission means like RF technology

### Technical support on contractual basis

Put in place hardware maintenance and education associates in schools to help the teacher in mainstreaming the e lessons into learning and retention amongst students. In the baseline the teacher reported of the heavy workload pertaining to non-teaching work which they have to do along with teaching. Time given to non teaching workload eats into the classroom time in many instances. In this context an education associate provided by the project at least in the initial days will help in handholding of the teacher, help in transition and also ensure that supervised learning happens through e-lectures even when the regular teacher is not present or attending to no-teaching duties. Additionally it is also critical that the existing hardware installed (modems, computers, RFD towers etc) at the schools to enable e-lectures are working. AMC may be given for regular maintenance and upkeep. This is important because the baseline revealed that many of the ICT related equipment remains in state of disrepair in the schools.

## Community Buyin

It is important that the community participates in the project so as to provide an enabling environment for the project to succeed. Also the project to be sustainable will require significant community involvement. The baseline revealed that SMCs in the intervention schools are active and are aware of their roles and responsibilities. In some of the SMCs computer education and ICT lead learning has been discussed. This reflects that getting buyin of the SMC in particular and the community at large should not be a difficult task if handled well.

## KSA (Knowledge, Skill, Attitude) upgrade for teachers to ease adoption and facilitation of ICT in teaching

Teachers are at the forefront when it comes to influencing the teaching-learning process inside the classroom. It is therefore important to change their attitude towards a computer-based learning environment. The project should encourage teachers to develop a positive attitude about computers and to have minimum skills in using computers for educational purposes. Significant training resources for training the teachers will have to be set aside under the project. Regarding knowledge and skill up gradation, training may be provided in the following aspects (not exhaustive):

- How introduction of technology may redefine the educational community, including the introduction of new partners in the learning process and the roles and relationships between the partners in the redefined educational community
- Restructuring of instruction and assessment methodologies
- Redefinition of the structures and technologies of the school, recognising that it is also a player in the educational process
- Redefinition of where learning takes place and what it means to be 'educated' (e literacy)
- Teachers to learn to use technology, to experiment with its use and to create effective lesson plans that contribute to the learning needs of students
- Ongoing needs assessment

Involving Teachers in the decision making functions of the Project: As a step towards securing the trust and commitment of teachers to the ICT integration endeavour is their inclusion in the project operation and decision making alongside the project managers and DIET. This will provide cross learning thereby making the lessons plans, the pedagogy and the e-lectures delivery will take into account the classroom dynamics which only the teachers on the ground are privy to. Teachers can be an excellent source of feedback for the project managers and DIET to do mid course correction.

## Taking a holistic view of ICT

The project should take a broader view of ICT based learning and many consider integration of the existing media like educational programs on Television, radio programs, internet based learning modules in project design.

## Taking the existing learning levels into account

The project should take the existing learning levels into account in the design. The baseline revealed English language handicap in students with respect to grade level expectations. This was followed by EVS and science. The project may accordingly consider prioritising its subject focus and the tools so that ICT may be able to make a significant contribution in turning around the low learning levels presently prevalent in the intervention schools. Experience shows that language teaching through e classes requires a very different approach than other subjects, since language requires felicity in reading, writing and comprehension. A strong in classroom support to supplement eLearning is critical for success.

## Extensive Documentation

The project should be looked as demonstration of a pilot to establish a new technique in imparting education to students in rural government schools. Not many such experiments have been done in the country and therefore it is extremely critical that the process, experiences, anecdotes, success and failures be carefully and extensively documented. This will be an original contribution to the existing meagre body of knowledge and practice in this domain in India.

### **ICT alone cannot do it**

ICT based learning on its own cannot be expected to bring about a dramatic turnaround in the learning levels of children. The supporting factors like physical infrastructure, basic facilities, teacher teaching skills, physical environs of the school, the efficacy of the traditional teaching methodologies, group activities in classroom, child friendly classrooms etc will play an impor-

tant part. Baseline data reveals that most of the schools fail in most of the parameters. E.g. none of the intervention schools have a library; therefore an e- learning lecture on English will remain incomplete if children cannot practice reading. Similarly lack of basic infrastructure like absence of safe drinking water in many of the intervention schools, reduces the attractiveness of the school for children and parents.

# ANNEXURE I

Learning Outcome Survey 2016

English (class IV)

Name:..... Class:.....

नाव :..... वर्ग :.....

School:.....

शाळा :.....

**Reading (वाचन)**

Total Marks - 20

1) Write the words given in the box in alphabetical order.

(Competency Tested -Understand series of oral instructions for performing an activities)

खालील बॉक्समधील शब्दे अक्षराच्या क्रमानुसार लिहा. (½ mark for each word – 10 words to be taken into consideration- 5 )

(क्षमता चाचणी : क्रिया करण्यासाठी तोंडी सुचनांची मालिका समजणे )

van, what, your, ball, game, jug,  
kite, down, tree, home, school

2) Read the following passages carefully and answer the questions that follow them.

खालील परिच्छेद काळजीपूर्वक वाचा व पुढील प्रश्नांची उत्तरे द्या.

(Competency tested: Understands the main idea, locates details in the text, Understands the form and functions of grammar in context and also Understands and uses different reference sources in reading.)

(क्षमता चाचणी : मुख्य विषय समजून घेणे, परिच्छेदातील विवरण शोधणे, व्याकरणाचे संदर्भ, कार्य आणि रूप समजणे आणि वेगवेगळ्या संदर्भाचा स्रोत शोधणे)|

Seema is a little girl. Her mother gave her a book. It had lot of stories and nice pictures. Seema reads it every morning on her way to school. She learned many words. Her teacher was very happy. The teacher gave Seema another book. It had more stories. She showed it to all her friends.

सीमा एक लहान मुलगी आहे. तिच्या आईने एक पुस्तक तिला दिले. त्यामध्ये खुप गोष्टी आणि सुंदर चित्रे होती. सीमा दररोज सकाळी शाळेत जाताना वाचाते. तिने अनेक शब्द शिकले. तिचे शिक्षक फार खुष होते. त्यांनी तिला अजून एक पुस्तक दिले. त्यामध्ये आणखी गोष्टी होत्या. तिने आपल्या सर्व मित्रांना दाखविल्या.

Q 1. What did Seema's mother give her? (1)

Ans.....

Q 2. What did Seema do with the book her mother gave her? (1)

Ans.....  
.....

Q 3. What did the teacher give Seema? (1)

Ans.....  
.....

3) Look at the pictures. Read the words and write 'one' or 'many'. (2)

The first one has been done for you.]

(Pg 8, English Book )


चित्रे पहा. शब्द वाचा आणि 'एक' किंवा 'अनेक' लिहा.

(पहिले चित्रे तुमच्यासाठी करण्यात आले आहे. )

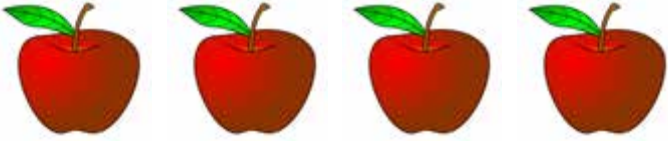
(Competency tested- Follows instructions and sentences spoken/used in class/school in English)

(क्षमताचाचणी-वर्ग/शाळेमध्ये वापरलेल्या इंग्रजी सुचना आणि वाक्यांचे अनुकरण करण्यात आलेले आहे)


apple ..... One  
सफरचंद ..... एक




apples ..... many apples  
सफरचंद ..... अनेक




leaf .....  
xxxxx .....




leaves .....  
xxxxx .....



flower .....  
फुल .....



flowers .....  
फुले .....



Writing (लिहणे)

4) Write down your name.(Pg 3 , English Book 4) (1)

तुमचे नाव लिहा. (पृष्ठ 3, इंग्लिश पुस्तक 4)

(Competency tested- Follows instructions and sentences spoken/used in class/school in English)

(क्षमता चाचणी :वर्ग/शाळेमध्ये वापरलेल्या इंग्रजी सुचना आणि वाक्यांचे अनुकरण करण्यात आलेले आहे )

.....

5) Complete the following table by making words with the first letters given in the chart.

(Pg20, English Book.)

दिलेले अक्षर वापरून शब्द लिहून खालील तक्ता पूर्ण करा. (पान २०, इंग्लिश पुस्तक) (4)

(Competency tested: Write coherently with a sense of audience and has a good vocabulary)

(क्षमता चाचणी : ऐकलेले शब्द तसेच शब्दसंग्रह वापरून सुसंगत लिहणे )

First Letter प्रथम अक्षर		
a	apple सफरचंद	axe कु-हाड
e		
p		
w		
s		

6) Match the pictures from Table A to the sentences in Table B(Pg 11,English Book 4) (3)

तक्ता ए चित्रांची तक्ता बी मधील वाक्यांशी जोडया लावा (पृष्ठ 11, इंग्लिश पुस्तक 4)

(Competency tested- Follows instructions and sentences spoken/used in class/school in English)

(क्षमता चाचणी :वर्ग/शाळेमध्ये वापरलेल्या इंग्रजी सुचना आणि वाक्यांचे अनुकरण करण्यात आलेले आहे)

Table A (तक्ता-अ)










Table B (तक्ता -ब)

It has a trunk and two big ears. पोट व दोन मोठे कान असतात.
It is white. It quacks.
She gives us milk.
It shines in the sky. It is hot.



7) Write the meaning of the words in Marathi (2)

मराठीमध्ये अर्थ लिहा

a) King .....

c) money .....

b) Garden .....

d) milk .....

Name:..... Class:.....  
 नाव :..... वर्ग :.....  
 School:.....  
 शाळा :.....

### Speaking/Oral

1.) Ask the child to read out the letters and words loudly in class. (The child must get at least five correct). (5)

प्रत्येक मुलास अक्षर आणि शब्द मोठ्याने बोलण्यास सांगावे. (प्रत्येक मुलाचे कमीत कमी पाच बरोबर यावेत).

(Competency tested: Familiarizing children with vocabulary associated with various professions by creating different learning situations. Also a test of their pronunciation)

(क्षमता चाचणी : मुलांना वेगवेगळ्या कामांचे शब्द संग्रहांची वेगवेगळ्या शैक्षणिक पध्दतीने ओळख करून द्यावी. तसेच उच्चारांची तपासणी करावी.)

m t a z k l  
o p s f j r

both, dog, cat, step, rope,  
hat, key, rose, man

2) Give two names each loudly in class. (5)

प्रत्येकी दोन नावे याप्रमाणे वर्गामध्ये मोठ्या आवाजात सांगावी.

(Fruits, vegetables, colours, birds, animals)

Fruits .....

Vegetables .....

Colours .....

Birds .....

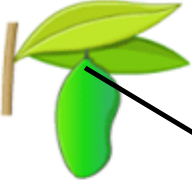



Animals .....

Name:..... Class:.....  
 नाव :..... वर्ग :.....  
 School:.....  
 शाळा :.....

1) Match the picture with the correct stage of the butterfly life-cycle. (Pg 6,EVS book 4)  
 फुलपाखराच्या जीवनचक्राचा चित्रांची योग्य टप्प्याशी जोडया जुळवा. (पृष्ठ 6, इव्हीएस पुस्तक 4)

(Competency to be tested-Observes and explores environmental objects, plants, animals, shelters, etc.)

(क्षमतेची चाचणी –पर्यावरणातील वस्तूंचे निरिक्षण आणि शोध घेणे, वनस्पती, प्राणी, निवारा, इत्यादी.) (1½)

	Butterfly
	Chrysalis
	Caterpillar
	Egg

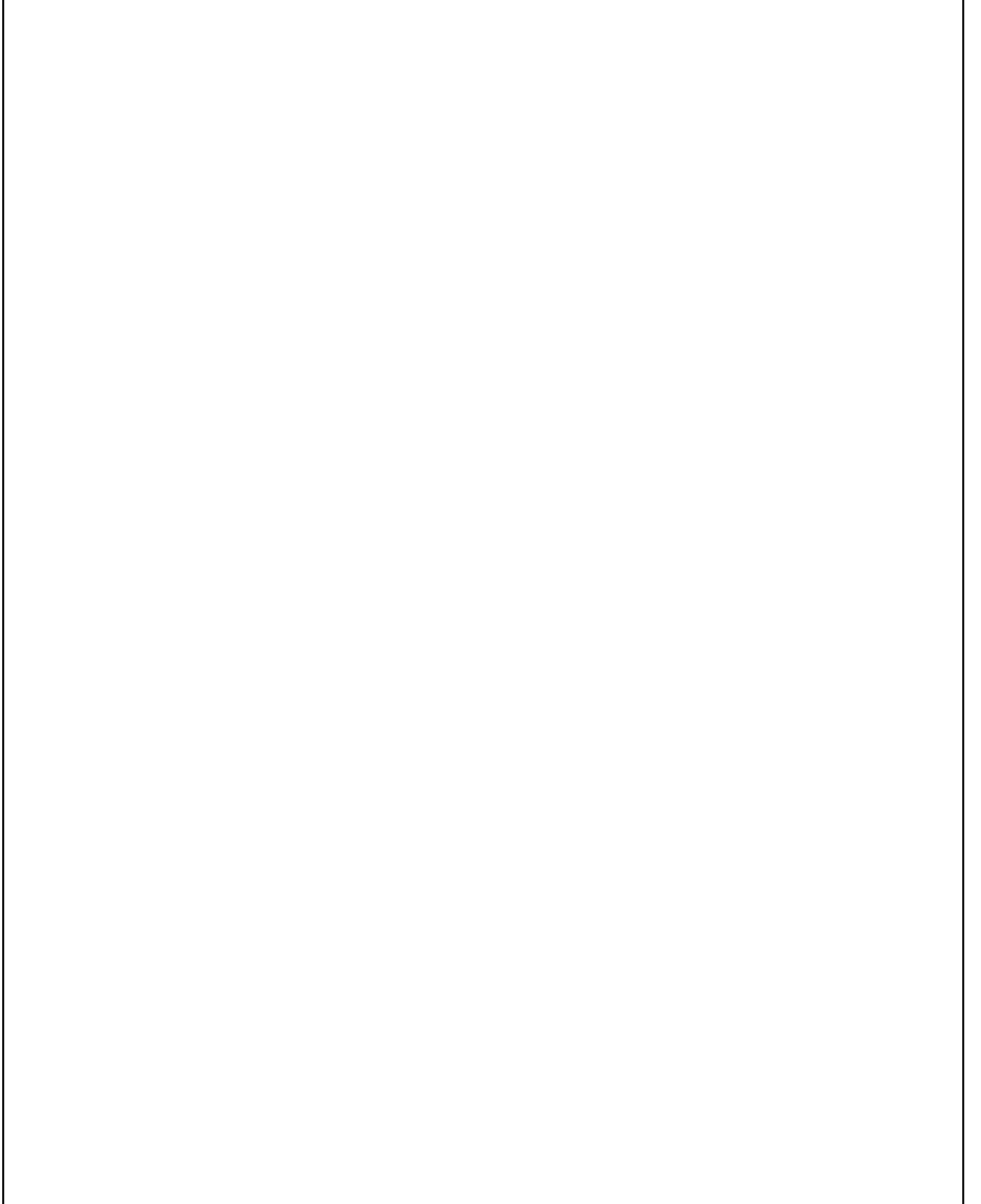
फुलपाखरु
कोष
सुरवंट
अंड

2) Draw and colour the picture of a Plain Tiger butterfly. (Pg 6,EVS book 4) (1 1/2)

(साध्या टायगर फुलपाखरुचे चित्र काढा आणि रंगवा)

(Competency to be tested- Observes and explores environmental objects, plants, animals, shelters, etc.)

(क्षमता चाचणी –पर्यावरणातील वस्तुंचे निरिक्षण आणि शोध, वनस्पती, प्राणी, निवारा, इत्यादी.)



3) Name the following leaves :( Pg 7 EVS Book 4) (3)

खालील पानांना नावे द्या – (पृष्ठ 7 इव्हीएस पुस्तक 4)

(Competency to be tested- Observes and explores environmental objects, plants, animals, shelters, etc.)

(क्षमता चाचणी - निसर्गातील गोष्टींचे निरिक्षण आणि शोध, वनस्पती, प्राणी, निवारा, इत्यादी.)



.....



.....



.....

4)For which fruits the following places in Maharashtra famous for?( Pg 15.EVS Book 4) (5)

महाराष्ट्रातील खालील स्थाने कोणत्या फळांसाठी प्रसिध्द आहेत ? (पृष्ठ 15, इव्हीएस पुस्तक 4)

(Competency to be tested- Observes and explores environmental objects, plants, animals, shelters, etc.)

(क्षमता चाचणी - निसर्गातील गोष्टींचे निरिक्षण आणि शोध, वनस्पती, प्राणी, निवारा, इत्यादी.)

Nagpur .....

नागपूर

Gholvad .....

घोलवड

Saswad .....

सासवड

Deogad .....

देवगड

Jalgaon .....

जळगाव

**5) Fill in the following table:**

(Pg 19.EVS Book 4) (4)

खालील तक्ता भरा -

(पृष्ठ 19, इव्हीएस पुस्तक 4)

(Competency to be tested-Expresses through gestures/ body movements, expresses verbally, expresses through drawing/writing/sculpting, expresses through creative writing.)

(क्षमता चाचणी – हावभाव करणे / अंगाच्या हालचाली करून प्रकट करणे, मुखाने व्यक्त करणे, चित्र काढून / लिहून / शिल्प तयार करून व्यक्त करणे, निर्मितीक्षम लिखाणाने व्यक्त करणे)

**6) A group of things are given in the box below. List them into proper places in the table. (4)**

Name two traditional methods of water storage ( Old Methods) पाणी साठविण्याच्या दोन पारंपरिक पध्दती लिहा (जुनी पध्दत)	Modern methods of water storage (New Methods) अधुनिक पाणी साठविण्याच्या पध्दती लिहा (नवीन पध्दती)

खालील तक्त्यात वस्तुंचा गट दिला आहे. तक्त्यामध्ये योग्य जागी ठेऊन यादी करा.

(Pg 26,EVS Book 4) (पृष्ठ 26, इव्हीएस पुस्तक 4)

(Competency Tested: – Reasoning, makes logical connections, describes thinks critically, and makes logical connections.)

(क्षमता चाचणी – विचार करणे, तर्कसंगत संबध लावणे, गोष्टींचा विचार गंभीरपणे करणे)

stones, little twigs, leaves, soil ,eraser, sharpener, steel spoon, screw,  
दगडी,छोटी डहाळी, पाने, माती, खोडरबर, शार्पनर, स्टीलचा चमचा, स्क्रू,  
coin, the compass, a plastic spoon, some groundnut shells,  
नाणे, कंपास, स्टीलचा चमचा, प्लास्टीकचा चमचा, शेंगदाण्याची टरफले,  
an iron nail, sugar, salt and sand.  
लोखंडी खिळा, साखर, मीठ आणि रेती.

Things that sink बुडणा-या वस्तु	Things that float तरंगणा-या वस्तु

7) Make a list of fruits and vegetables available in Maharashtra in the following seasons.(3)

खालील रकान्यात महाराष्ट्रातील फळांची आणि भाज्यांची ऋतूनुसारयादी बनवा

(Pg 38,EVS Book 4) (पृष्ठ 38, इव्हीएस पुस्तक 4)

(Competency Tested: – Reasoning, makes logical connections, describes thinks critically, and makes logical connections.)

(क्षमता चाचणी – विचार करणे, तर्कसंगत संबंध जोडणे, गंभीर विचार करून वर्णन करणे, तर्कसंगत संबंध लावणे.)

Summer उन्हाळा	The rainy season पावसाळा	Winter हिवाळा

8) Circle the odd one out in the given food items. Write why it is the odd one. (3)

खालील खाद्यपदार्थांमधील वेगळा पदार्थाला गोल करा. तो वेगळा का आहे ते लिहा.

(Pg 38, EVS Book 4) (पृष्ठ 38, इव्हीएस पुस्तक 4)

(Competency Tested: – Identifies objects-based on observable features, identifies similarities

क्षमता चाचणी –दर्शनी वैशिष्ट्यावरून वस्तु ओळखणे, वस्तुमधील समानता आणि फरक ओळखणे, दर्शनी and differences in objects, sorts/groups objects based on observable features. Compares

लक्षणावरून वस्तुंचे गट करणे वा वेगवेगळे करणे, भौतिक लक्षणावरून वस्तुमधील तुलना व वर्गीकरण करणे)

objects and classifies them based on physical features)

1. Mango pickle, mango, mango jam, mango pulp.

आंब्याचे लोणचे, आंबा, आंब्याचा मुरंबा, आंब्याचा रस

---

2. Pulao, paratha, dahibhat, biryani.

पुलाव, पराठा, दहिभात, बिर्यानी

---

3. Mysore pak, puranpoli, thalipeeth, jhunka-bhakar.

म्हैसुर पाक, पुरणपोळी, थालीपीठ, झुनका भाकर

---

9) Observe the foods below and then answer the following questions

(Pg 43,EVS Book 4) (6)

खालील खाद्यपदार्थ ओळखा व खाली दिलेल्या प्रश्नांची उत्तरे लिहा.

(पृष्ठ 43, इव्हिएस पुस्तक 4)

(Competency Tested: – Identifies objects-based on observable features, identifies

(क्षमता चाचणी – दर्शनी वैशिष्ट्यावरून वस्तु ओळखणे, सारखेपणा आणि फरक ओळखणे,

similarities and differences in objects, sorts/groups objects based on observable features.

वस्तुंमधील सारखेपणा आणि फरक ओळखणे, भौतिक वैशिष्ट्यावरून वस्तुंचे गट करणे,

Compares objects and classifies them based on physical features)

भौतिक गुणांवरून वस्तुंची तुलना वर्गीकरण करणे.)





10) Complete the table that is given below from the following list:

(Pg 144,EVS Book 4) (4)

खाली दिलेल्या यादी वापरून खालील तक्त्यात पूर्ण करा –

(पृष्ठ 144, इव्हिएस पुस्तक 4)

(Competency tested - Defines situations/ events, identifies/predicts possible causes of any

क्षमता चाचणी – परिस्थिती / घटना ओळखणे, संभाव्य परिस्थितीचा परिणाम ओळखणे / अंदाज घेणे,

Event/situation makes hypotheses and inferences)

कल्पना वा हस्तक्षेप करणे)

(1) Cyclone

चक्रीवादळ

(2) Collapse of an old house

जुने जीर्ण घर पडणे

(3) Death due to lightning

वीज चमकून मृत्यु पावणे

(4) Collision of two railway trains

दोन ट्रेनची धडक

(5) Children on a playground getting injured when a tree falls

मुले खेळत असताना वाळवी लागलेले पडले व मुले जखमी झाली.

(6) Normal life getting disturbed due to heavy snowfall

खुप बर्फ पडल्याने सामान्य जीवन विस्कळीत झाले.

(7) A fire caused by the explosion of a cooking gas cylinder

कुकींग गॅस सिलेंडरचा स्फोट झाल्याने आग लागली

(8) An air crash due to a mechanical fault.

यांत्रिक बिघाडामुळे विमान पडणे

Natural disaster नैसर्गिक आपत्ती	Man-made disaster मानवनिर्मित आपत्ती

Name:..... Class:.....  
 नाव :..... वर्ग :.....  
 School:.....  
 शाळा :.....

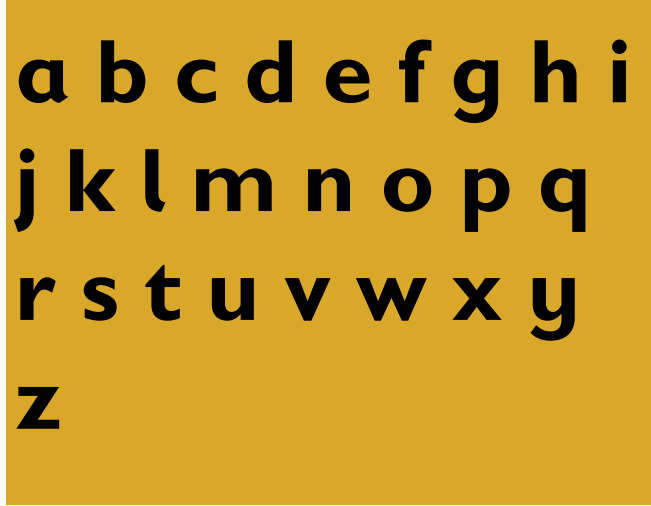
### Reading (वाचन)

1) Look at the letters in English. Read the words and circle the letters of your name. (Pg 3, English Book 5)

खालील अक्षरे वाचा, शब्द बनवा व आपल्या नावाचा अक्षरांना गोल करा. (1) (पृष्ठ 3, इंग्रजी पुस्तक 5)

(Competency tested- Follows instructions and sentences spoken/used in class/school in English)

(क्षमता चाचणी – वर्ग/शाळेतील सुचना व वाक्यांचे अनुकरण करण्यात आले आहे)



Write down your name. ....

2) Read and answer the following questions:- (Pg 55, English Book 5)

खालील ऊतारावाचून प्रश्नांची उत्तरे लिहा. (पृष्ठ 55, इंग्रजी पुस्तक 5)

(Competency tested- Understands the main idea, locates details in the text.)

(क्षमता चाचणी – मुख्य विषय समजून घेणे, परिच्छेदातील तपशील शोधणे)

Long, long ago in the faraway land of Korea, there was a minister. On the right of his house there; lived a blacksmith. On the left there lived a carpenter. The blacksmith and the carpenter began their work early in the morning. The blacksmith used to beat the iron loudly with his hammer. The carpenter worked with a small hammer. He also used his saw to cut the wood. They worked day and night and made a lot of noise.

a) Who lived between the blacksmith and the carpenter? (1)

.....

b) Who used a big hammer? (1)

.....

c) When did the blacksmith and the carpenter begin their work? (1)

.....

d) Make grammatically correct sentence with the above words:- (2x3=6)

i) carpenter .....

ii) noise .....

iii) loudly .....

3) Choose the suitable words given in the brackets. (2)

खालील कंसातील योग्य शब्द निवडा

( flock, pack, grove, bunch )

a) a ..... of trees.

b) a ..... of keys.

c) a ..... of dogs.

d) a ..... of birds.

4) Read the following questions and answer them. The first question has been done for you. (4)

खालील प्रश्न वाचा व उत्तरे लिहा. प्रथम प्रश्न आपल्यासाठी करण्यात आला आहे.

(Competency tested: Comprehends and understands questions.)

(Pg 47, English Book 4)

(क्षमता चाचणी – प्रश्नाचे आकलन व समज)

(पृष्ठ 47, इंग्रजी पुस्तक 4)

### My Daily Routine:

माझा रोजचा नित्यक्रम -

1. When do you get up in the morning?

तुम्ही सकाळी किती वाजता उठता ?

Ans) I get up at six a.m.

मी सकाळी सहा वाजता उठतो.

2. When do you brush your teeth?

Ans) I brush my teeth and take a bath at ..... a.m.

3. When do you have your breakfast?

Ans) I eat my breakfast at ..... a.m.

4. When do you go to school?

Ans) I go to school at ..... a.m.

5. When do you eat your lunch?

Ans) I eat lunch at..... p.m.

**Writing (लिखाण)**

5) You play many games. Make a list of games that you play inside the house and games that you play outside. ( 2 – Even if they write more )

तुम्ही अनेक खेळ खेळता. तुम्ही घरात खेळले जाणारे आणि बाहेर खेळणा-या खेळांची यादी बनवा.

(Competency tested-Expresses through creative writing.)

(क्षमता चाचणी – लिखाणातून व्यक्त करणे)

Games : played inside the house	Games : played outside the house

6) Write down any three meaningful commands using the words given in Table A and B. (3)

(Competency Tested: Grammar and creative writing)

(English Book 5 Page 13)

तक्ता ए आणि बी शब्द वापरून तीन अर्थपूर्ण आदेश लिहा.

(क्षमता चाचणी : व्याकरण आणि निर्मितीक्षम लेखन)

(इंग्रजी पुस्तक 5 पृष्ठ 13)

Table A	Table B
Stand, sing, walk	Fast ,sweetly, up

a) .....

b) .....

c) .....

7) Match the action words in column A with the words in column B ( 1 x 5= 5)

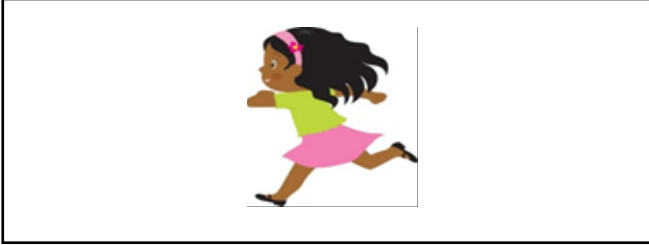
तक्ता ँ मधील क्रिया व तक्ता बी मधील शब्द यांच्या जोडया लावा.

(Competency Tested: Grammar and Vocabulary)

(क्षमता चाचणी : व्याकरण व शब्दसंग्रह)

(Pg 27, English Book 5)

(पृष्ठ 27, इंग्रजी पुस्तक 5)



**Eating**



**Sleeping**



**Running**



**Raining**



**Singing**



**Running**

8) Write a few lines on this picture. (4)

या चित्राबाबत काही ओळी लिहा.

(Competency Tested: Grammar and creative writing)

(क्षमता चाचणी : व्याकरण आणि कल्पक लिखाण)



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Name:..... Class:.....  
 नाव :..... वर्ग :.....  
 School:.....  
 शाळा :.....

1) The teacher asks some common questions to the children

(Pg 28,English Book 5)

शिक्षक मुलांना काही सामान्य प्रश्न विचारतात

(पृष्ठ 28, इंग्रजी पुस्तक 5)

[The child answers the questions orally. The teacher will assess their speaking skills from the answer that they give]

(मुल प्रश्नांची उत्तरे तोंडी देतील. शिक्षक त्यांचे संवाद कौशल्याचे मुल्यांकन त्यांच्या उत्तरावरून करतील)

(Competency tested: Engages in conversation with community and answers basic questions)

(क्षमता चाचणी – समाजातील संवादात भाग घेणे व मुलभूत प्रश्नांची उत्तर देतील)

a. Where do you live? \_\_\_\_\_ (1)

b. What subjects do you like? \_\_\_\_\_ (1)

c. What games do you play? \_\_\_\_\_ (1)

2) Match the words with their rhyming words in the table given below: (Pg 14, English Book 5)

खालील तक्त्यातील समान उच्चार (यमक) असलेले शब्द जोडा. (पृष्ठ 14, इंग्रजी पुस्तक 5)

(Competency tested- Follows rhyming words and uses English as a means of communication)

(क्षमता चाचणी – यमक असलेले शब्दांची समज आणि इंग्रजी भाषेचा संवादासाठी वापर) (7)

Table A	Table B
मार्ग way	free
झाड tree	plains
चालू on	say
रेल्वे trains	gone
माणूस man	rat
टब tub	fun
मांजर cat	rub
धावणे run	can

Name:..... Class:.....  
 नाव :..... वर्ग :.....  
 School:.....  
 शाळा :.....

1) In the picture below, the solar system is visible. Look at the picture of the solar system and

खालील चित्रामध्ये सौरमंडळ दिसत आहे. सौरमंडळाचे चित्र पहा आणि  
 answer the following questions.

(Pg 5,EVS Book5)

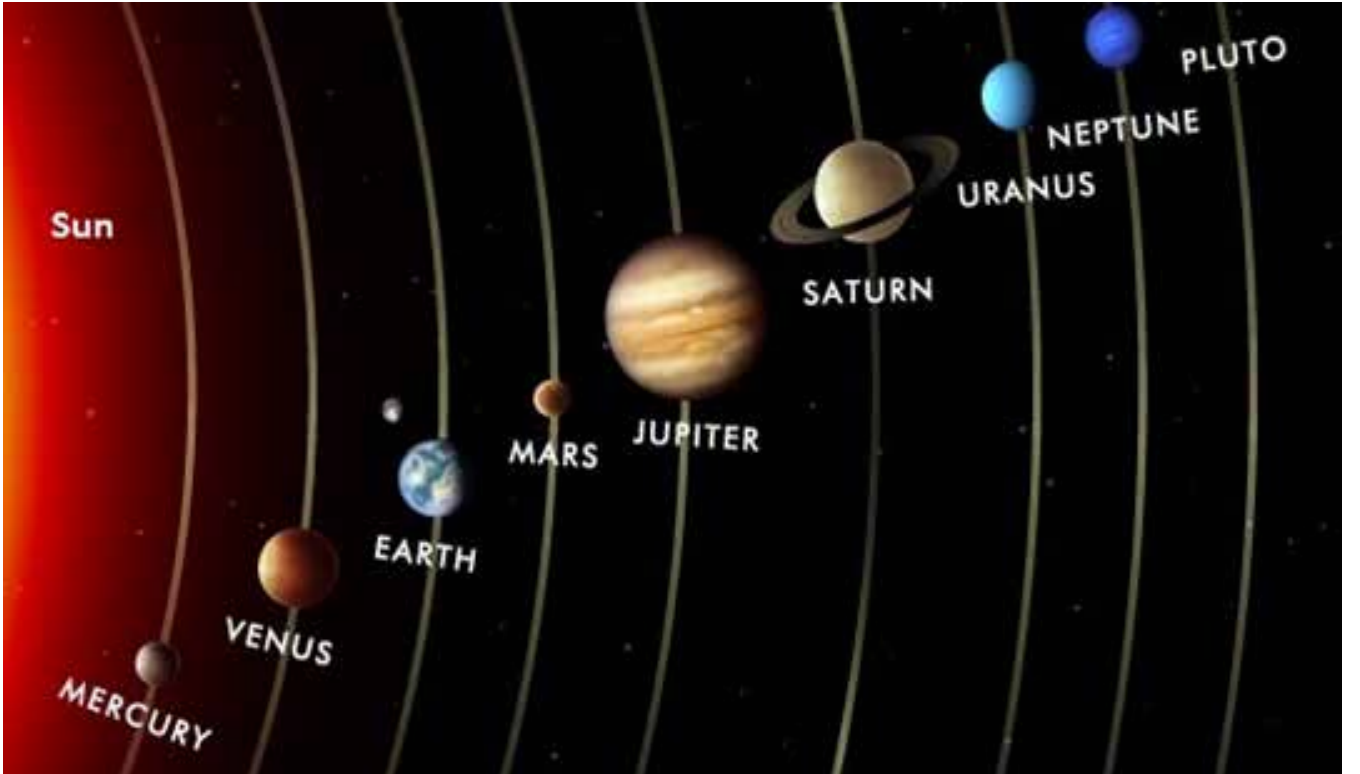
खालील प्रश्नांची उत्तरे लिहा.

(पृष्ठ 5, इव्हिएस पुस्तक 5)

(Competency tested: – Explores, shares, narrates and draws, picture-reading, makes pictures,

(क्षमता चाचणी – शोधणे, देणे, संक्षिप्त करणे व चित्र काढणे, चित्र वाचणे, चित्रे तयार करणे,  
 collects and records information tables and maps.)

माहिती जमा करणे आणि तक्त्यामध्ये व नकाशात नोंद घेणे)



(a) Which planet is nearest to the sun? (1)

कोणता ग्रह सुर्याच्या सर्वात जवळ आहे?

.....

(b) At what position is the earth from the sun? (1)

सुर्यापासून पृथ्वी कोणत्या स्थानावर आहे ?

.....



(c) Which planet is placed between the earth and Mercury? (1)

कोणता ग्रह पृथ्वी आणि बुधाच्यामध्ये आहे?

(d) Name the planets beyond the orbit of Mars in serial order. (2)

मंगळ नंतरच्या ग्रहांची नावे क्रमाने लिहा.

(e) Which planet in the solar system is furthest from the sun? (1)

कोणता ग्रह सूर्यापासून सर्वात लांबचा आहे ?

2) In the diagram given below, mark the following:

(Pg 6,EVS Book5) (3)

खाली दिलेल्या आकृतीमध्ये खालील चिन्हे नोंदवा

(पृष्ठ 6, इव्हिएस पुस्तक 5)

(Competency tested: – Explores, shares, narrates and draws, picture-reading, makes pictures,

(क्षमता चाचणी – शोधणे, भागीदारी करणे, संक्षिप्त करून चित्र काढणे, चित्र वाचणे, चित्रे तयार करणे, collects and records information tables and maps.)

माहिती जमा करणे आणि तक्त्यामध्ये व नकाशात नोंद घेणे)

a) Equator                      b) South Pole                      c) North Pole

विषुववृत्त

दक्षिण ध्रुव

उत्तर ध्रुव



3) Label as instructed and finish the water cycle in the following diagram.

(Pg 17,EVS Book5)

खालील आकृतीमध्ये सुचनेप्रमाणे नावे द्या आणि जलचक्र पूर्ण करा.

(Competency tested: – Explores, shares, narrates and draws, picture-reading, makes pictures,

(क्षमता चाचणी – शोधणे, भागीदारी करणे, संक्षिप्त करून चित्र काढणे, चित्र वाचणे, चित्रे तयार करणे, collects and records information tables and maps.)

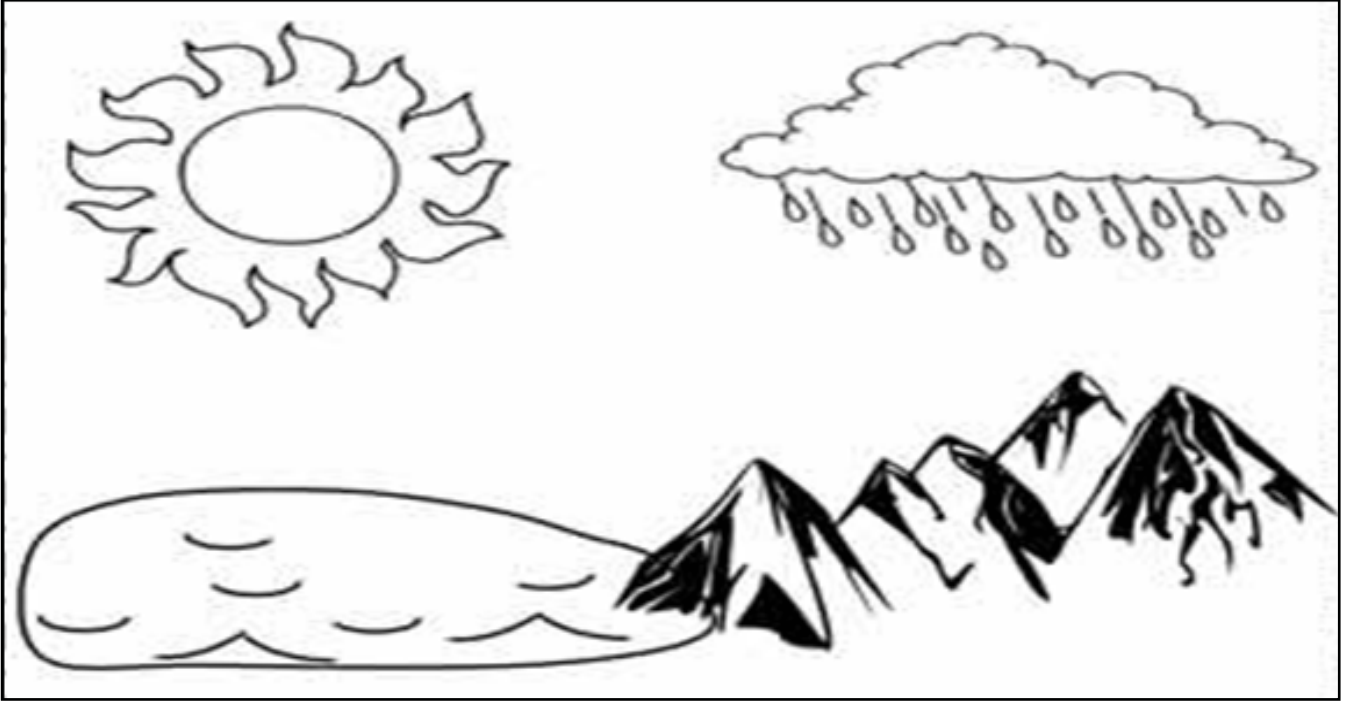
जमा करणे आणि तक्त्यामध्ये व नकाशात माहितीची नोंद घेणे)

a) Label the cloud, sun, land, water and rain. (1)

नावे लिहा ढग, सूर्य, जमीन, पाणी आणि पाऊस.

b) Draw arrows to show the water cycle. (1)

जलचक्र दाखविण्यासाठी बाणाचे चित्र काढा.



4) Make a list of the rules you follow in the following situations.

(Pg 31,EVS Book5) (4)

खालील परिस्थितीमध्ये कोणत्या नियमाने रहाल त्याची यादी बनवा.

(One has been done for you)

(एक तुमच्यासाठी करण्यात आलेले आहे.)

(Competency tested: – Listens, talks, expresses opinion, discovers)

(क्षमता चाचणी – ऐकणे, बोलणे, भावना व्यक्त करणे, शोधणे)

At the time of the School Assembly शाळेतील हॉलमध्ये असताना	During the lunch break दुपारच्या जेवणाची वेळी	On the playground मैदानावर असताना	In the school library शाळेतील लायब्ररीत असताना
Always Stand in a Straight Line सरळ रेषेत उभे रहाल	Wash your hands तुमचे हात धुवाल	Do not push कोणालाही धक्का देणार नाही	Maintain Silence शांतता ठेवू

5) Identify the following signs and symbols and explain the meaning of each symbol. (4)

खालील चिन्हे ओळखा आणि प्रत्येकाचा अर्थ स्पष्ट करा.

(The first one has been done for you)

(प्रथम तुमच्यासाठी करण्यात आलेले आहे)

(Competency tested: – Listens, talks, expresses opinion, discovers)

(क्षमता चाचणी – ऐकणे, बोलणे, भावना व्यक्त करणे, शोधणे)

(Pg 42, EVS Book5)

(पृष्ठ 42, इव्हिएस पुस्तक 5)



.....



.....



.....



.....



.....

6) Look at the map of India and answer the following questions:-

(Pg 47,EVS Book5)

खाली दिलेला भारताचा नकाशा पहा आणि खालील प्रश्नांची उत्तरे द्या.

(Competency Tested - Expresses through gestures/ body movements, expresses verbally, expresses through drawing/writing/sculpting, expresses through creative writing)

(क्षमता चाचणी – हावभाव करणे / अंगाच्या हालचाली करून प्रकट करणे, मुखाने व्यक्त करणे, चित्र काढून / लिहून / शिल्प तयार करून व्यक्त करणे, निर्मितीक्षम लिखाणाने व्यक्त करणे)

a) Find your State. Colour it with your favourite colour and write the name of its capital. (2)

तुमचे राज्य ओळखा. तुमच्या आवडत्या रंगाने रंगवा व मोठ्या अक्षरात लिहा.

b) Colour the northernmost state. (1)

उत्तरेकडील टोकाचे राज्य पिवळ्या रंगाने रंगवा.

c) Colour the largest state in India. (1)

सर्वात मोठे राज्य हिरव्या रंगाने रंगवा.



7) The structure of house changes from region to region. Match the following houses with the region they are found in. (4)

घरांची संरचना प्रदेशाप्रमाणे बदलते. खालील घरांच्या त्यांच्या प्रदेशांशी जोडया लावा.

(The first one has been done for you )

(Pg 52 , EVS Book 5)

(प्रथम तुमच्यासाठी करण्यात आलेले आहे)

(पृष्ठ 52, इव्हिएस पुस्तक 5)

(Competency tested - Defines situations/ events, identifies/predicts possible causes of any क्षमता चाचणी – परिस्थिती / घटना ओळखणे, संभाव्यपरिस्थितीचा परिणाम ओळखणे / अंदाज घेणे, event/situation, makes hypotheses and inferences)

कल्पना वा हस्तक्षेप करणे)

Houses घरे	Region that they belong to प्रदेश जेथे आढळतात
	<p>Plains पठार</p>
	<p>Desert Region वाळवंट</p>
	<p>Heavy Rainfall खुप पावसाचा प्रदेश</p>
	<p>Medium Rainfall मध्यम पावसाचा प्रदेश</p>
	<p>Mountainous region पर्वतीय प्रदेश</p>

8) Study the following pictures and answer the following questions:--

( Pg 68 , EVS Book 5)

खालील चित्रांचा अभ्यास करा आणि खाली दिलेल्या प्रश्नांची उत्तरे लिहा -

(पृष्ठ 68, इव्हिएस पुस्तक 5)

(Competency tested - Defines situations/ events, identifies/predicts possible causes of any

क्षमता चाचणी – परिस्थिती / घटना ओळखणे, संभाव्यपरिस्थितीचापरिणाम ओळखणे / अंदाज घेणे,

event/situation, makes hypotheses and inferences)

कल्पना वा हस्तक्षेप करणे)



1) Name the means of transport you see in the pictures? (1)

वर दिसत असलेल्या चित्रामधील वाहतुकीच्या साधनाचे नाव लिहा?

.....

2. Which of these three was the first to be used by man? (1)

वरील तीनपैकी कोणते माणसाने प्रथम वापरावयास सुरु केले ?

.....

3. Which part is common to all the three? (1)

कोणता भाग या तीनहीमध्ये समान आहे ?

.....

9) Name the kind of pollution you see in the following pictures. Write one line on the harm this

खालील चित्रामध्ये दिसत असलेल्या प्रदुषणाचा प्रकार लिहा. एका ओळीत त्यापासून आरोग्यास होणारा

pollution can cause to your health. (2)

धोका लिहा.

(Competency tested - Defines situations/ events, identifies/predicts possible causes of any

क्षमता चाचणी – परिस्थिती / घटना ओळखणे, संभाव्यपरिस्थितीचापरिणाम ओळखणे / अंदाज घेणे,

event/situation, makes hypotheses and inferences)

कल्पना वा हस्तक्षेप करणे)



.....



10) Classify the following as natural or man-made.

( Pg 95 , EVS Book 5) (3)

खालील गोष्टींचे नैसर्गिक आणि मानव निर्मित असे वर्गीकरण करा.

(पृष्ठ 95, इव्हीएस पुस्तक 5)

(Competency tested - Defines situations/ events, identifies/predicts possible causes of any क्षमता चाचणी – परिस्थिती / घटना ओळखणे, संभाव्य परिस्थितीचा परिणाम ओळखणे / अंदाज घेणे, event/situation, makes hypotheses and inferences)

कल्पना वा हस्तक्षेप करणे)

Soil, horse, stone, water hyacinth, book, sunlight, dolphin, pen, chair, water, cotton wool, table, trees, brick.

माती, घोडा, दगड, पाण्यामधील वनस्पती, पुस्तक, सुर्यप्रकाश, डॉल्फिन, पेन, खुर्ची, पाणी, कापूस, लोकर, टेबल, झाड, वीट

Man-Made Things मानवनिर्मित गोष्टी	Natural Things नैसर्गिक गोष्टी

Name:..... Class:.....  
 नाव :..... वर्ग :.....  
 School:.....  
 शाळा :.....

## Reading

1) Read the story carefully and answer the questions following it:-

(Pg 7&8, English Book -6)

खालील गोष्ट वाचून प्रश्नांची उत्तरे द्या.

(पृष्ठ 7 आणि 8, इंग्लिश पुस्तक -6)

(Competency tested- Follows and Understands English)

(क्षमता चाचणी – इंग्रजी भाषा आकलन)

One day, a wild boar was sharpening his tusks against the bark of a tree. He was doing it very carefully. There lived a fox in the same forest. He was always looking for a chance to make fun of other animals in the forest. When he saw the wild boar, he decided to tease him. He began to walk around the trees, looking left and right and up and down. He also began to act as if he was really scared. But the boar did not pay any attention to him. He kept right on with his work. At last, the fox said with a grin, "why that? I tried very hard, but I did not see any hidden enemy or danger." "True," replied the boar. "Just now there may not be any danger. But when it really comes, there won't be any time to sharpen my tusks. My weapons have to be ready for use then. If I am not ready, I will have to suffer!" This story tells us that it is best to be prepared. Don't leave things to be done at the last minute.

a) What was the boar doing? (1)

.....

b) Who lived in the same forest? (1)

.....

c) Who saw the wild boar? What did he decide to do? (1)

.....

d) Did the boar pay any attention to him? (1)

.....

e) Make Sentences with the following words:- (4)

1. tree .....

2. animal .....



2) any words as possible by combining one word each from (a) and (b).

(Pg 79,Eng Book 6) (2)

अ व ब तक्त्यातील शब्द जोडून जास्तीत जास्त शब्द बनवा.

(पृष्ठ 79, इंग्लिश पुस्तक 6)

(Competency Tested: Grammar and writes coherently with a sense of audience)

(क्षमता चाचणी : व्याकरण आणि सुसंगत लिहिणे)

a)	No	Every	Any	b)	Thing	Body	One	Where
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3) Tick ( ) the correct form of verb and write in the space provided: (3)

क्रियापदाचा बरोबर शब्द टिक करा आणि दिलेल्या जागेत लिहा

(Competency Tested: Grammar and Vocabulary)

(चाचणी : व्याकरण आणि शब्दसंग्रह)

- Neha ..... [smile, smiles]
- Birds ..... [chirp, chirps]
- The Sun ..... [shines, shine]
- Children ..... [play, plays]
- Bees ..... [buzz, buzzing]
- Watch ..... [say, says]

4) Read the passage and answer:-

(Pg46,English Book 6)

खालील परिच्छेद वाचून उत्तरे द्या :-

(पृष्ठ 46, इंग्लिश पुस्तक 6)

(Competency tested: Understands the main idea, locates details in the text, Understands the form

(क्षमता चाचणी : मुख्य विषयाची समज, परिच्छेदातील विवरणावरील लक्ष, व्याकरणाचे कार्य, रूप व संदर्भाची and functions of grammar in context and also Understands and uses different reference sources समज तसेच वाचताना वेगवेगळ्या संदर्भाचा स्रोताची समज) in reading.)

Glass is made by heating mixture of clean white sand and chemicals like soda and lime. The mixture is heated in a furnace till it turns into hot, liquid glass. When it cools down, it becomes stiff and hard. Glass can be recycled! Another unique feature of glass is that it is 100% recyclable. Old glass can be used to make new glass any number of times. Recycling glass in this manner is much cheaper than making new glass from raw materials. Liquid glass can also be drawn out into very thin fibres or glass wool.

a) What is glass made up of? (1)

.....

b) What can be done with liquid glass? (1)

.....

c) Give the opposites of the following words:- (2)

i) Liquid x .....

iii) hot x .....

ii) Old x .....

iv) hard x .....

d) Translate the following sentence in Marathi (2)

Old glass can be used to make new glass any number of times. Recycling glass in this manner is much cheaper than making new glass from raw materials.

.....

.....

.....

.....

### Writing (वाचन)

5) Some adjectives are given in the box. Use them with the suitable nouns given (3)

खालील तक्त्यामध्ये विशेषणे दिली आहेत. योग्य नामाबरोबर त्याचा उपयोग करा.

(Competency Tested: Grammar and Vocabulary)

(क्षमता चाचणी : व्याकरण आणि शब्दसंग्रह)

lovely    warm    bright    buzzing    tiniest  
 sleepy    warm    chirpy

a)..... day	e)..... blanket
b)..... bees	f)..... birds
c)..... head	g)..... sun

6) Write the following numbers in words (1)

खालील संख्या शब्दात लिहा.

1) 1000 .....

2) 500 .....

7) Fill in the blanks with the correct words. (1)

रिकाम्या जागेत योग्य शब्द भरा.(bigger, tougher,)

a) big \_\_\_\_\_ biggest

b) tough \_\_\_\_\_ toughest

8) Write two names of each of the following. (3)

प्रत्येकी दोन नावे लिहा.

1. Wild animals .....

2. Animals living in water .....

3. Domestic animals .....

9) Write a few sentences on your favourite festival and how you celebrate it:- (3)

तुमचा आवडता सण आणि तुम्ही कशाप्रकारे साजरा करता याबाबत थोडक्यात लिहा -

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Name:..... Class:.....  
नाव :..... वर्ग :.....  
School:.....  
शाळा :.....

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**Speaking (संवाद)**

- 1) Speak ten lines on any one of the following:-
  - a) My village or b) My school
- खालीलपैकी कोणत्याही एका विषयावर दहा ओळीत लिहा  
ए) माझं गाव बी) माझी शाळा

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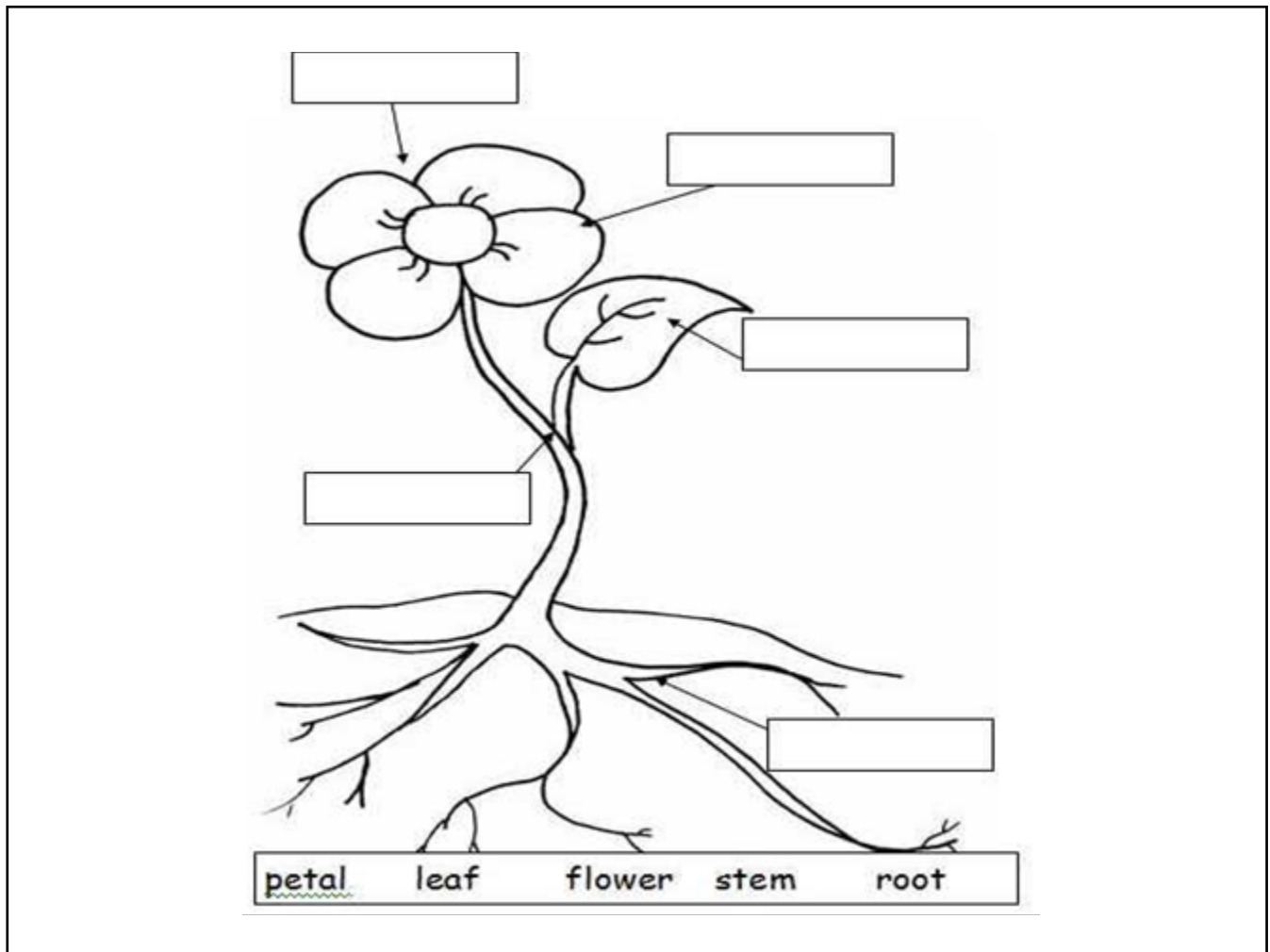
Name:..... Class:.....  
 नाव :..... वर्ग :.....  
 School:.....  
 शाळा :.....

1) Label the different parts of a flower and colour it:

(Pg 19,EVS Book-6) (5)

फुलाच्या वेगवेगळ्या भागांची नावे लिहा आणि रंग भरा

(पृष्ठ 19, इव्हिएस-6)



पाकळी पान फुल खोड मुळ

2) Fill in the following table.[The first one has been done for you] (7)  
(खालील तक्ता भरा) (पहिले तुमच्यासाठी करण्यात आले आहे)

Name of the animal प्राण्यांची नावे	Food the animal eats प्राण्यांचे खाद्य
Buffalo म्हैस	Grass गवत
Cat मांजर	Milk, fish दुध, मासे
Rat उंदीर	
Lion सिंह	
Tiger बाघ	
Spider कोळी	
Lizard पाल	
Cow गाय	
Human Beings माणूस	

3) Match the telephone nos with the people you will contact in case of a disaster. (3)

टेलिफोन नंबर आपत्तीच्या वेळी ज्यांना संपर्क करावयाचा त्यांच्याशी जोडया जुळवा.

(The first one has been done for you )

(Pg 28,EVS BOOK 6)

(प्रथम तुमच्यासाठी करण्यात आलेले आहे)

(पृष्ठ 28, इव्हिएस पुस्तक 6)

Telephone nos टेलिफोन क्रमांक	People to contact for disaster management आपत्ती व्यवस्थापनासाठी यांचेशी संपर्क करावा
100	Fire Brigade/Force फायर ब्रिगेड / सेना
108	Police पोलिस
101	Police पोलिस
101	Ambulance रुग्णवाहिका
102	Disaster Control Room आपत्ती निवारण कक्ष

4) List the objects that are made from the materials mentioned :- ( Pg42,EVS BOOK-6) (4)

खाली उल्लेख केलेल्या मालापासून तयार करण्यात येणा-या वस्तूंची यादी लिहा.

(पृष्ठ 42, इव्हिएस पुस्तक-6)

Material माल	Objects made from this material मालापासून बनविण्यात येणा-या वस्तू
Wood लाकूड	Chair, table, bullock cart खुर्ची, टेबल, बैलगाडी
Paper कागद	
Leather चामडे	
Plastic प्लास्टीक	
Cotton कापूस	

5) Fill in the table with items in the box below :-

(Pg 103, EVS Book 6) (3)

खालील तक्ता खाली दिलेल्या वस्तु लिहून भरा-

(पृष्ठ 103, इव्हिएस पुस्तक 6)

Shoe, nail, paper, pin, flower, iron  
बुट, खिळे, कागद, पिन, फुल, लोखंड







Attracted by Magnets चुंबकाने आकर्षित होणारे	Not attracted by magnets चुंबकाने आकर्षित न होणारे

6) Match the following :[One has been done for you]

(Pg 52,EVS Book 6) (2)

खालील जोड्या जुळवा – (एक तुमच्यासाठी करण्यात आले आहे)

(पृष्ठ 52, इव्हिएस पुस्तक 6)

Food Items खाद्य वस्तु	Vitamins we get from the food खाद्य पदार्थापासून मिळणारे जीवनसत्व
	Vitamin C जीवनसत्व सी
	Vitamin E जीवनसत्व ई
	Vitamin A जीवनसत्व ए
	Vitamin B1 जीवनसत्व बी1
	Vitamin B12 जीवनसत्व बी12
	Vitamin B9 जीवनसत्व बी9

7) Name two causes of :- (3)

प्रत्येकी दोन कारणे लिहा -

a) Water pollution - \_\_\_\_\_, \_\_\_\_\_

जल प्रदुषण -

b) Sound pollution - \_\_\_\_\_, \_\_\_\_\_

ध्वनी प्रदुषण

c) Air pollution - \_\_\_\_\_, \_\_\_\_\_

वायुप्रदुषण-



8) Complete the table:- (one has been solved for you)

(Pg 104,EVS Book 6)

(2)

तक्ता पुर्ण करा – (एक तुमच्यासाठी सोडविण्यात आले आहे)

(पृष्ठ 104, इव्हिएस पुस्तक 6)

Object/Material वस्तु / सामग्री	View through the object is possible/light can pass (fully/partially/not at all) वस्तु मधून बघता येते / प्रकाश आरपार जाऊ शकतो (पुर्ण / अर्धपारदर्शक/ अपारदर्शक)	Object is opaque/transparent or translucent वस्तु अपारदर्शक/ पारदर्शक किंवा अर्धपारदर्शक
Polythene packet प्लास्टिक पॅकेट	Fully	transparent
Wall भिंत		
Book पुस्तक		
Glass काच		
Plastic sheet प्लास्टिक शीट		

9) Find and circle the odd one out:- (4)

विसंगत वस्तु ओळखा व गोल करा -

a) Mango,banyan,neem, carrot

आंबा, केळी, कडूनिंब, गाजर

b) Grapes ,oranges, lemon, potato

द्राक्ष, संत्रा, लिंबू, बटाटा

c) Sunflower, rose, tulip, jowar

सुर्यफुल, गुलाब, फुल, ज्वारी

d) Cow, buffalo, dog, cat, sparrow

गाय, म्हैस, कुत्रा, मांजर, चिमणी

10) Make a list of three man – made disasters and three natural disasters. (2)

तीनमानवनिर्मित आपत्ती आणि तीन नैसर्गिक आपत्ती.

Man-made disaster मानवनिर्मित आपत्ती	Natural disaster नैसर्गिक आपत्ती



