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NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

सत्यमेव जयते

Ministry of Education
Government of India

FLS 2022

Foundational Learning Study

State Report

Mizoram

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FLS 2022

Foundational Learning Study

State Report

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ଧର୍ମେନ୍ଦ୍ର ପ୍ରଧାନ
Dharmendra Pradhan

सत्यमेव जयते

आज़ादी का अमृत महोत्सव

मंत्री
शिक्षा; कौशल विकास
और उद्यमशीलता
भारत सरकार

Minister
Education; Skill Development
& Entrepreneurship
Government of India

MESSAGE

The National Education Policy 2020 has most aptly pointed out that the ability to read and write, and perform basic operations with numbers, is a necessary foundation and an indispensable prerequisite for all future schooling and lifelong learning. The highest priority has therefore been awarded to achieving universal foundational literacy and numeracy at the end of Grade III, by 2026-27 through a National Mission i.e., the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat).

As a crucial step towards strengthening efforts for Foundational Literacy and Numeracy, the Ministry of Education has conducted a large scale nationwide Foundational Learning Study (FLS) in collaboration with the National Council of Educational Research and Training (NCERT) during March, 2022. The study is first of its kind in the world as it aims to set-up benchmarks for reading with comprehension in 20 Indian languages. More importantly, FLS will also provide data to report on Sustainable Development Goal (SDG) 4.1.1 indicators at the global level.

With great pride, I would like to underline the fact that this Foundational Learning Study is the largest one-on-one study with a sample size of 85000+ Grade 3 students. This is also the first time the policy linking method for setting global benchmarks has been implemented on one-on-one numeracy assessments.

I would like to take this opportunity to congratulate all partners who were involved in conceptualization and implementation of this critical study. The first hand inferences of learning levels of students in the foundational stage drawn from the Foundational Learning Study will go a long way towards establishing Foundational Literacy and Numeracy as an essential pre-requisite to learning.

I extend my best wishes to all stakeholders who would be involved in this tremendous task of translating the vision of NEP 2020 for achieving universal Foundational Literacy and Numeracy.

(Dharmendra Pradhan)

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आज़ादी का अमृत महोत्सव
अन्नपूर्णा देवी
ANNPURNA DEVI

सत्यमेव जयते

राज्य मंत्री
शिक्षा मंत्रालय
भारत सरकार
MINISTER OF STATE
FOR EDUCATION
GOVERNMENT OF INDIA

02 SEP 2022

MESSAGE

Attaining foundational literacy and numeracy for all children has been accorded utmost importance by the National Education Policy 2020. As a first step, the Department of School Education & Literacy has set up a National Mission for universalization of Foundational Literacy and Numeracy called National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat). The Mission aims to ensure that all children by the end of grade 3 achieve foundational learning standards by the year 2026-27.

Following the Mission mandate, the Ministry in collaboration with the National Council of Educational Research and Training (NCERT) has conducted a large scale Foundational Learning Study (FLS) in March, 2022. FLS covered Grade 3 students and aims to benchmark Foundational Literacy and Numeracy in 20 Indian languages, which will enable to track the progress of a child.

As this Foundational Learning Study provides insights into the learning level in Foundational Literacy and Numeracy skills, the interventions and the follow up steps will result in overall improvement in the system to provide required foundational literacy and numeracy skills to the learners.

I would like to extend my appreciation to the team who conducted this crucial study and convey my best wishes to all stakeholders who are involved in the mammoth task of attaining Foundational Literacy and Numeracy in consonance with the vision of NEP 2020.

Annpurna Devi

(ANNPURNA DEVI)

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अनीता करवल, भा.प्र.से
सचिव

Anita Karwal, IAS
Secretary

सत्यमेव जयते

स्कूल शिक्षा और साक्षरता विभाग
शिक्षा मंत्रालय
भारत सरकार
Department of School Education & Literacy
Ministry of Education
Government of India

Dated: 02nd September, 2022

Message

Early years of development of a young child is a period of rapid brain development. Research also indicates that 80-90 percent of the brain develops by the time a child is 6-7 years old. That is why the focus on building the strong foundation for better growth, development and learning in early years becomes one of the most important indicators for the development of a productive and efficient human capital. The National Education Policy, 2020 has also accorded the highest importance to the achievement of foundational literacy and numeracy skills and categorically recognizes that the rest of this policy will become relevant for our children only if this most basic learning requirement is first achieved.

Towards this end, a National Mission on Foundational Literacy and Numeracy known as NIPUN Bharat (National Initiative for Proficiency in Reading with Understanding and Numeracy) has been launched. The focus is on creating an enabling environment for ensuring universal acquisition of foundational literacy and numeracy, so that every child achieves the desired learning competencies in reading, writing and numeracy at the end of Grade III.

In keeping with this goal, we were able to conduct the largest one-on-one Foundational Learning Study in collaboration with other likeminded partners to establish reading proficiency benchmarks for fluency and comprehension in 20 Indian languages and proficiency benchmarks for numeracy. For the first time, policy linking method for setting global benchmarks has also been implemented on one-on-one numeracy assessments. Hence, the study aims to provide reliable, valid and comparable data that can be used to monitor the performance of the system in giving children a robust foundational education.

It gives me great pleasure to share the FLS report with all of you and to partner you in this incredible task ahead to achieve universal acquisition of foundational literacy and numeracy skills at the primary level.

(Anita Karwal)

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About FLS

Ministry of Education launched the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN) Bharat in July 2021. NIPUN was announced as a national mission to enable all children at the end of Grade 3 to attain foundational skills by the year 2026-2027. As a crucial step towards strengthening efforts for Foundational Literacy and Numeracy (FLN), a large-scale Foundational Learning Study (FLS) has been undertaken by National Council of Educational Research and Training (NCERT) in March 2022.

Objectives of the study

Assess learning outcomes: The study aims to provide reliable and valid data about Grade 3 students to know what they are able to do in foundational literacy and numeracy and the extent of learning outcomes being achieved.

Set baseline for NIPUN: The data derived from the FLS Study would help in establishing a baseline for the NIPUN Bharat mission.

Set benchmarks: The Study also aims to establish reading proficiency benchmarks for fluency and comprehension for each of the languages (20 in number) being assessed under the study and proficiency benchmarks for numeracy.

Report on SDG: This study will also provide data to report on SDG 4.1.1 indicators at the global level.

Coverage of the Study and Sample

Approx. 86,000 grade 3 students from 10,000 schools were covered. The Study sample included state government schools, government aided schools, private recognised and central government schools.

FLS
State Report
Mizoram

FLS was conducted in 20 languages which are being used as a medium of instruction in various state/UTs covering - Assamese, Bengali, English, Gujarati, Hindi, Kannada, Malayalam, Manipuri, Marathi, Mizo, Odia, Punjabi, Tamil, Telugu, Urdu, Bodo, Garo, Khasi, Konkani and Nepali.

Study Methodology

The FLS Study is a school-based performance assessment. Selected sample of children from grade 3 were assessed by a test administrator in a one-on-one setting where each child responded to a set of questions administered orally.

Several foundational literacy skills including oral language comprehension, phonological awareness, decoding, reading comprehension, oral reading fluency with comprehension were assessed as part of assessment. For foundational numeracy, number identification & comparison, number operations, multiplication and division facts, measurement, fractions, patterns, and data handling are included.

Study Achievements

Psychometric analysis of the data has been carried out. Benchmarks for oral reading fluency and comprehension in 20 languages and benchmarks for numeracy have been established.

A policy linking methodology has been implemented for the first time to arrive at the benchmarks in literacy and numeracy under the FLS 2022.

Foundational Learning Study 2022 is the largest study that assessed the learning levels of more than 86,000 students across India and is the only study that has been conducted in 20 different languages.

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PARTICIPATION

Number of **Schools**
157

Number of **Teachers**
368

Number of **Students**
1,835

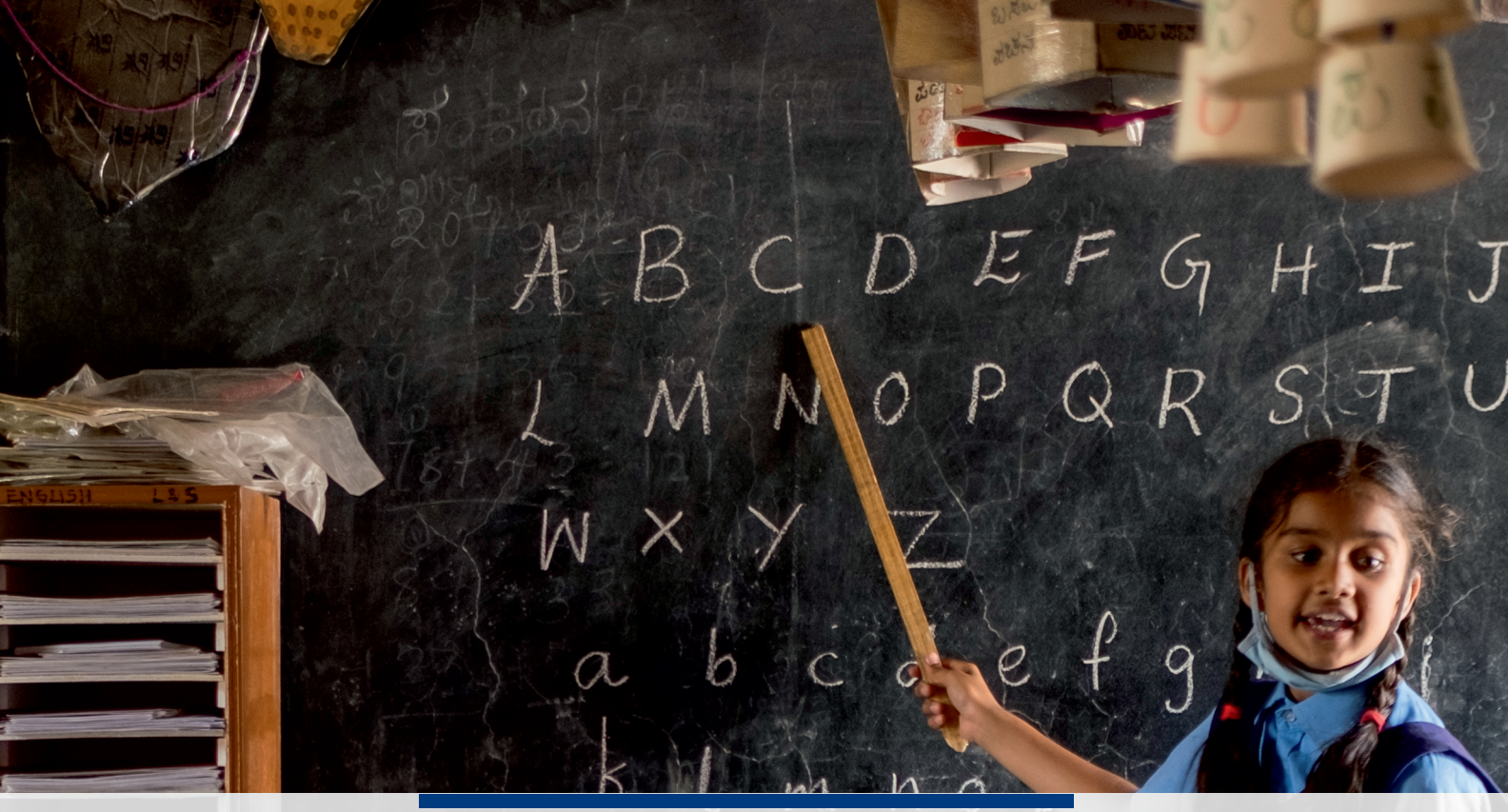
Educational Profile of The State/UT

1,956
Total number of schools with grade 3

8,996
Total number of teachers in primary grades

25,413
Total enrollment in grade 3

Source: U-DISE+, 2020-21

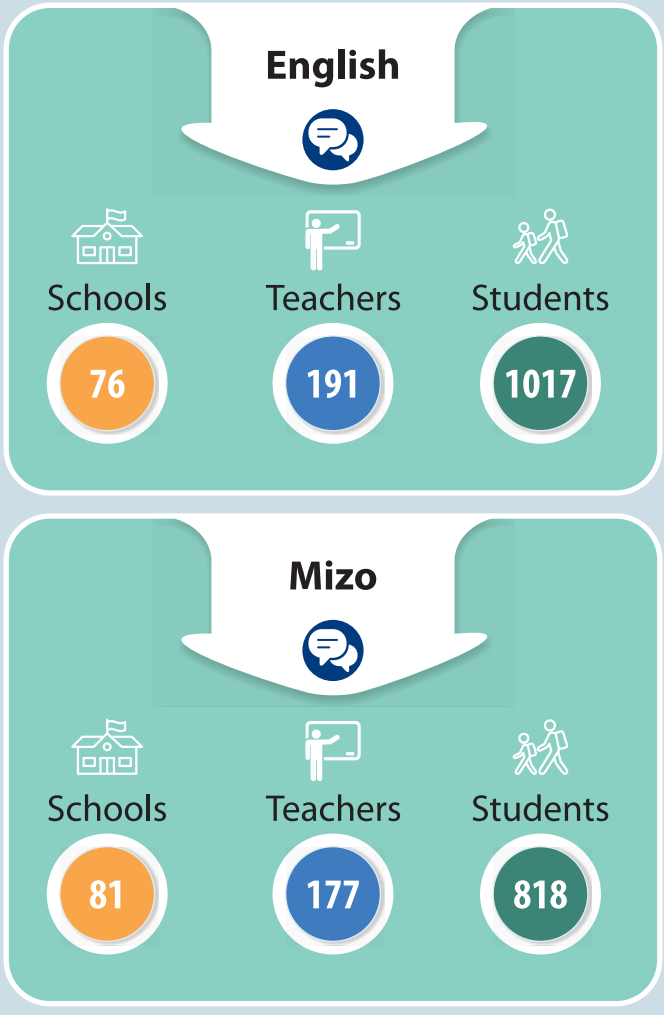


Foundational Literacy

Foundational Learning Study 2022

Languages Assessed in the State/UT

Mizoram



Foundational Literacy

Foundational Literacy comprises of the ability of reading, writing and communicating in a particular language. In the Foundational Learning Study, foundational literacy has been assessed through different sub-tasks as explained below:

Subtasks Assessed in Foundational Literacy

Subtask	Description of the subtask
Oral Language Comprehension	Listening to 5 different texts (Comprising 1 sentence, 2 sentences and 3 sentences) and matching the content of each of the texts with the given pictures.
Phonological awareness	The task was based on identifying the initial and final sounds in 12 grade level words
Decoding Letters	Reading aloud 100 individual (but repeated) letters and syllables of a particular language presented in the form of a grid
Decoding Words	Reading aloud 50 distinct grade level words
Decoding Non-words	Reading aloud 50 distinct grade level words
Picture Matching	Reading 5 different texts (Comprising 1 sentence, 2 sentences and 3 sentences) and matching the content of each of the texts with the given pictures
Oral Reading Fluency (ORF) and comprehension	Reading aloud two grade appropriate short stories and answering questions related to retrieval and inferences.

ENGLISH

Oral Language Comprehension

The ability to understand the meaning of language (through spoken stories or pictures)	The task comprised of listening to different texts (Comprising 1 sentence, 2 sentences and 3 sentences) and matching the content of each of the texts with the given pictures.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Listens and Comprehends four to five texts of varying lengths correctly	94	85

Average Score in Oral language Comprehension
(on a scale of 0 to 5)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

ENGLISH

Phonological Awareness

The ability to identify sounds within a given word	The task was based on identifying the initial and final sounds in grade level words

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Correctly identifies at least one initial sound in grade level words	81	95
Correctly identifies at least one final sound in grade level words	77	93
Not able to identify the initial sound and final sound in any of the given grade level words	18	4

Average Score in Identification of Initial and Final Sound of a Word (on a scale of 0 to 12)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

ENGLISH

Decoding Letters

The ability to sound out the symbols (akshara or letters)	The task comprised of reading aloud letters and syllables of a particular language.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads 80-100 letters correctly and fluently	99	95
Reads 50-79 letters correctly/reads some letters with self correction	1	3
Reads 10-49 letters correctly/hesitantly with self correction	0	2
Reads less than 10 letters correctly/hesitantly with self correction	0	1

Average Score in Identification of Symbol-Sound Correspondence (on a scale of 0 to 100)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

ENGLISH

Decoding Words

The ability to sound out grade-level real words

The task was based on reading aloud 50 grade level words.

On average students can read 45 words correctly.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads 80% and more words correctly and fluently	88	73
Reads 50% to Less than 80% words correctly (with self correction wherever needed)	9	13
Reads 10% to less than 50% words correctly (with self correction wherever needed)	1	8
Reads less than 10% words correctly (with self correction wherever needed)	2	7

Average Score in Decoding of Common, Isolated Words (on a scale of 0 to 50)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

ENGLISH

Decoding Non-Words

the ability to sound out non-words by identifying each symbol's (akshara or letter) sound

The task was based on reading aloud 50 non-words.

On average students can read 36 non-words correctly.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads 80% and more words correctly and fluently	64	62
Reads 50% to Less than 80% words correctly (with self correction wherever needed)	14	18
Reads 10% to less than 50% words correctly (with self correction wherever needed)	7	9
Reads less than 10% words correctly (with self correction wherever needed)	15	11

Average Score in Decoding of a Non-word/Non-sense word (on a scale of 0 to 50)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

ENGLISH

Picture Matching

The ability to understand the meaning of written text	The task comprised of reading different texts (Comprising 1 sentence, 2 sentences and 3 sentences) and matching the content of each of the texts with the given pictures

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads and Comprehends four to five texts of varying lengths correctly	97	87

Average Score on Picture Reading Comprehension
(on a scale of 0 to 5)

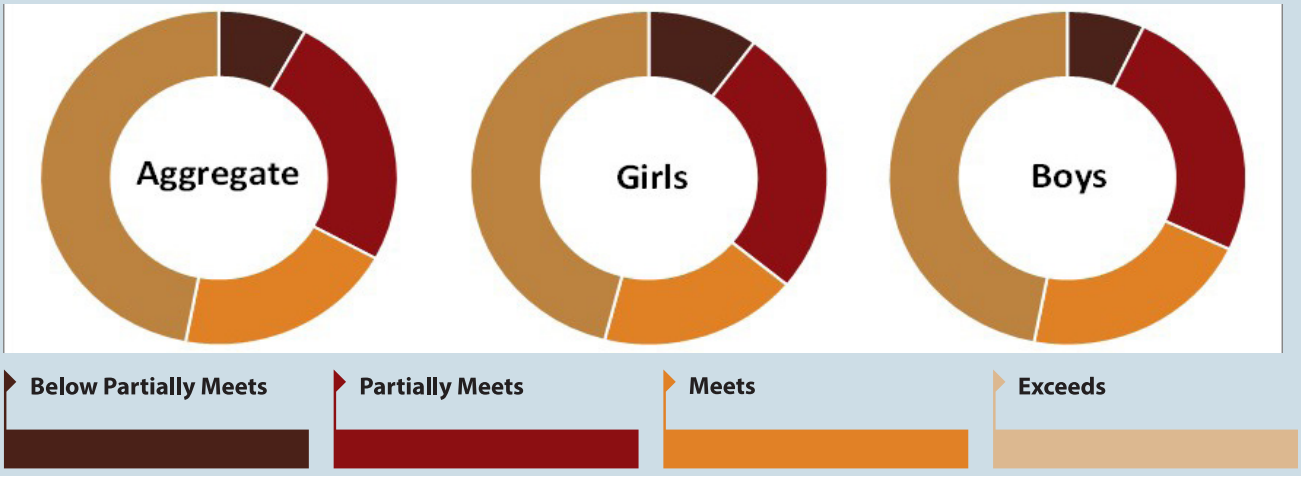
Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

ENGLISH

Benchmark of ORF with Comprehension and Student Performance

Global Proficiency Levels		Below Partially Meets Global Minimum Proficiency	Partially Meets Global Minimum Proficiency	Meets Global Minimum Proficiency	Exceeds Global Minimum Proficiency
Definition		Learners lack the most basic knowledge and skills. As a result, they generally cannot complete the most basic grade-level tasks.	Learners have limited knowledge and skills. As a result, they can partially complete basic grade-level tasks.	Learners have developed sufficient knowledge and skill. As a result, they can successfully complete the most basic grade-level tasks.	Learners have developed superior knowledge and skill. As a result, they can complete complex grade-level tasks.
Benchmark		**0 - 14** correctly read words with comprehension in one minute.	**15 - 34** correctly read words with comprehension in one minute.	**35 - 53** correctly read words with comprehension in one minute.	**54 and above** correctly read words with comprehension in one minute.
Percentage of Students meeting the standard	State/UT	8	25	20	47
	National	17	29	21	33
Percentage of Girls meeting the standard	State/UT	10	26	18	46
	National	17	29	21	33
Percentage of Boys meeting the standard	State/UT	7	25	21	47
	National	16	30	21	33

Distribution of Students by Global Proficiency Levels in the State/UT (In percentage)



Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

MIZO

Oral Language Comprehension

The ability to understand the meaning of language (through spoken stories or pictures)	The task comprised of listening to different texts (Comprising 1 sentence, 2 sentences and 3 sentences) and matching the content of each of the texts with the given pictures.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Listens and Comprehends four to five texts of varying lengths correctly	95	95

Average Score in Oral language Comprehension
(on a scale of 0 to 5)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

MIZO

Phonological Awareness

The ability to identify sounds within a given word

The task was based on identifying the initial and final sounds in grade level words

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Correctly identifies at least one initial sound in grade level words	95	95
Correctly identifies at least one final sound in grade level words	86	86
Not able to identify the initial sound and final sound in any of the given grade level words	5	5

Average Score in Identification of Initial and Final Sound of a Word (on a scale of 0 to 12)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

MIZO

Decoding Letters

The ability to sound out the symbols (akshara or letters)	The task comprised of reading aloud letters and syllables of a particular language.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads 80-100 letters correctly and fluently	97	97
Reads 50-79 letters correctly/reads some letters with self correction	1	1
Reads 10-49 letters correctly/hesitantly with self correction	1	1
Reads less than 10 letters correctly/hesitantly with self correction	1	1

Average Score in Identification of Symbol-Sound Correspondence (on a scale of 0 to 100)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

MIZO

Decoding Words

The ability to sound out grade-level real words

The task was based on reading aloud 50 grade level words.

On average students can read 39 words correctly.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads 80% and more words correctly and fluently	71	71
Reads 50% to Less than 80% words correctly (with self correction wherever needed)	14	14
Reads 10% to less than 50% words correctly (with self correction wherever needed)	6	6
Reads less than 10% words correctly (with self correction wherever needed)	9	9

Average Score in Decoding of Common, Isolated Words (on a scale of 0 to 50)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

MIZO

Decoding Non-Words

the ability to sound out non-words by identifying each symbol's (akshara or letter) sound

The task was based on reading aloud 50 non-words.

On average students can read 37 non-words correctly.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads 80% and more words correctly and fluently	65	65
Reads 50% to Less than 80% words correctly (with self correction wherever needed)	17	17
Reads 10% to less than 50% words correctly (with self correction wherever needed)	8	8
Reads less than 10% words correctly (with self correction wherever needed)	11	11

Average Score in Decoding of a Non-word/Non-sense word (on a scale of 0 to 50)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

MIZO

Picture Matching

The ability to understand the meaning of written text	The task comprised of reading different texts (Comprising 1 sentence, 2 sentences and 3 sentences) and matching the content of each of the texts with the given pictures

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Reads and Comprehends four to five texts of varying lengths correctly	87	87

Average Score on Picture Reading Comprehension
(on a scale of 0 to 5)

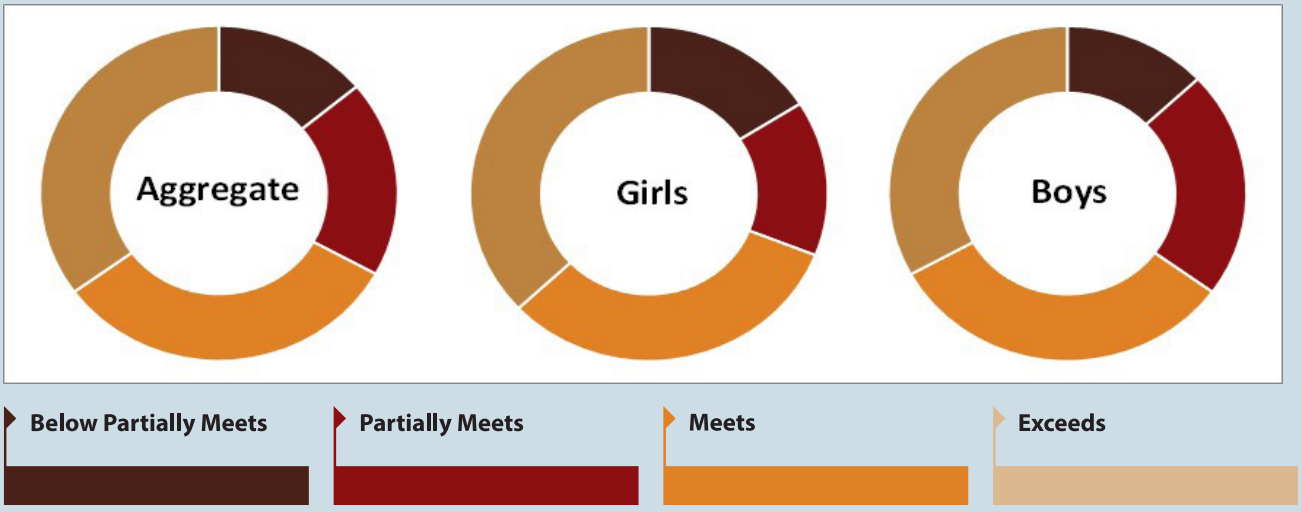
Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

MIZO

Benchmark of ORF with Comprehension and Student Performance

Global Proficiency Levels		Below Partially Meets Global Minimum Proficiency	Partially Meets Global Minimum Proficiency	Meets Global Minimum Proficiency	Exceeds Global Minimum Proficiency
Definition		Learners lack the most basic knowledge and skills. As a result, they generally cannot complete the most basic grade-level tasks.	Learners have limited knowledge and skills. As a result, they can partially complete basic grade-level tasks.	Learners have developed sufficient knowledge and skill. As a result, they can successfully complete the most basic grade-level tasks.	Learners have developed superior knowledge and skill. As a result, they can complete complex grade-level tasks.
Benchmark		**0 - 24** correctly read words with comprehension in one minute.	**25 - 42** correctly read words with comprehension in one minute.	**43 - 65** correctly read words with comprehension in one minute.	**66 and above** correctly read words with comprehension in one minute.
Aggregate Performance (%)	State/UT	14	19	32	35
	National	14	19	32	35
Performance of Girls (%)	State/UT	16	15	32	37
	National	16	15	32	37
Performance of Boys (%)	State/UT	13	22	32	33
	National	13	22	32	33

Distribution of Students by Global Proficiency Levels in the State/UT (In percentage)



Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Association of Background Variables with Literacy

The relationship between learning achievement of students and variables related to student's home background and school were analyzed by using different statistical technique. This chapter discusses the association of the different contextual variables with the achievements of the students.

1. Association Results : Student Profile

The given section details the association results regarding various student related variables.

Table 1.1: Language spoken by students at home is the same as medium of instruction

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.37	0.53
Phonological Awareness	-0.98	-0.31
Decoding Letters	-1.29	-0.16
Decoding Words	-4.92	-0.45
Decoding Non-words	-3.73	-0.28
Picture Matching	-0.33	-0.42
Oral Reading Fluency (ORF)	4.48	0.20
ORF with Comprehension	0.53	0.33

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 1.2: Attended pre-primary Classes/Anganwadi

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.02	0.03
Phonological Awareness	-0.23	-0.07
Decoding Letters	3.70	0.45
Decoding Words	4.58	0.41
Decoding Non-words	5.75	0.43
Picture Matching	0.01	0.01
Oral Reading Fluency (ORF)	5.03	0.23
ORF with Comprehension	0.47	0.29

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 1.3: Ask questions in the class

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**0.05**	**0.07**
Phonological Awareness	**0.45**	**0.14**
Decoding Letters	**0.37**	**0.04**
Decoding Words	**2.23**	**0.20**
Decoding Non-words	**1.15**	**0.08**
Picture Matching	**-0.01**	**-0.01**
Oral Reading Fluency (ORF)	**2.23**	**0.10**
ORF with Comprehension	**0.28**	**0.17**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 1.4: Reads other materials in addition to textbooks

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**-0.02**	**-0.03**
Phonological Awareness	**0.01**	**0.00**
Decoding Letters	**0.14**	**0.02**
Decoding Words	**0.81**	**0.07**
Decoding Non-words	**0.25**	**0.02**
Picture Matching	**0.03**	**0.04**
Oral Reading Fluency (ORF)	**1.75**	**0.08**
ORF with Comprehension	**0.23**	**0.14**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 1.5: Playing Game

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.00	0.00
Phonological Awareness	-0.02	-0.01
Decoding Letters	0.72	0.09
Decoding Words	0.83	0.07
Decoding Non-words	0.21	0.02
Picture Matching	-0.15	-0.19
Oral Reading Fluency (ORF)	1.50	0.07
ORF with Comprehension	0.12	0.07

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 1.6: Story telling with family members

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.16	0.22
Phonological Awareness	0.54	0.17
Decoding Letters	-0.39	-0.05
Decoding Words	0.78	0.07
Decoding Non-words	0.82	0.06
Picture Matching	0.14	0.18
Oral Reading Fluency (ORF)	-2.13	-0.10
ORF with Comprehension	0.22	0.14

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 1.7: Playing Game with family members

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.00	0.00
Phonological Awareness	0.18	0.06
Decoding Letters	-0.12	-0.01
Decoding Words	-0.14	-0.01
Decoding Non-words	-0.30	-0.02
Picture Matching	-0.02	-0.03
Oral Reading Fluency (ORF)	-1.20	-0.05
ORF with Comprehension	-0.14	-0.09

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 1.8: Time taken to go to school upto 30 mins.

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.17	0.23
Phonological Awareness	0.55	0.17
Decoding Letters	2.13	0.26
Decoding Words	5.14	0.46
Decoding Non-words	3.01	0.22
Picture Matching	0.15	0.19
Oral Reading Fluency (ORF)	10.39	0.47
ORF with Comprehension	0.82	0.51

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 1.9: Time taken to go to school more than 30 mins.

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**-0.17**	**-0.23**
Phonological Awareness	**-0.55**	**-0.17**
Decoding Letters	**-2.13**	**-0.26**
Decoding Words	**-5.14**	**-0.46**
Decoding Non-words	**-3.01**	**-0.22**
Picture Matching	**-0.15**	**-0.19**
Oral Reading Fluency (ORF)	**-10.39**	**-0.47**
ORF with Comprehension	**-0.82**	**-0.51**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

2. Association Results : Teacher Profile

The given section details the association results regarding various teacher related variables.

Table 2.1: Teaching at Foundational stage: less than 3 years/more than 3 years

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.06	-0.08
Phonological Awareness	-0.90	-0.29
Decoding Letters	-0.28	-0.03
Decoding Words	-1.21	-0.11
Decoding Non-words	0.90	0.07
Picture Matching	-0.01	-0.01
Oral Reading Fluency (ORF)	5.81	0.26
ORF with Comprehension	0.11	0.07

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 2.2: Attend any in-service workshop/Training to understand the learning needs and other developmental aspects in young children

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.03	-0.04
Phonological Awareness	-0.36	-0.11
Decoding Letters	-1.17	-0.14
Decoding Words	-2.09	-0.19
Decoding Non-words	-1.19	-0.09
Picture Matching	0.12	0.15
Oral Reading Fluency (ORF)	-2.40	-0.11
ORF with Comprehension	-0.10	-0.06

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 2.3: Highest educational qualification upto Higher Secondary

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**0.08**	**0.11**
Phonological Awareness	**-0.68**	**-0.22**
Decoding Letters	**-1.35**	**-0.16**
Decoding Words	**-4.47**	**-0.40**
Decoding Non-words	**-3.52**	**-0.26**
Picture Matching	**-0.21**	**-0.27**
Oral Reading Fluency (ORF)	**-2.21**	**-0.10**
ORF with Comprehension	**-0.13**	**-0.08**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 2.4: Technique used in assessing students: Observation (Never and Sometimes Vs. Most of the times and Almost Always)

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**-0.03**	**-0.04**
Phonological Awareness	**0.73**	**0.23**
Decoding Letters	**1.76**	**0.21**
Decoding Words	**3.84**	**0.34**
Decoding Non-words	**3.97**	**0.30**
Picture Matching	**0.06**	**0.08**
Oral Reading Fluency (ORF)	**4.29**	**0.19**
ORF with Comprehension	**0.25**	**0.15**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 2.5: Technique used in assessing students : Class Test (Never and Sometimes Vs. Most of the times and Almost Always)

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.20	-0.28
Phonological Awareness	-1.17	-0.37
Decoding Letters	-1.07	-0.13
Decoding Words	-1.93	-0.17
Decoding Non-words	-2.65	-0.20
Picture Matching	-0.17	-0.21
Oral Reading Fluency (ORF)	-1.20	-0.05
ORF with Comprehension	-0.36	-0.22

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 2.6: Technique used in assessing students : Group Activity (Never and Sometimes Vs. Most of the times and Almost Always)

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.02	0.03
Phonological Awareness	0.29	0.09
Decoding Letters	-0.03	0.00
Decoding Words	0.00	0.00
Decoding Non-words	0.46	0.03
Picture Matching	-0.10	-0.13
Oral Reading Fluency (ORF)	0.37	0.02
ORF with Comprehension	0.07	0.04

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 2.7: Technique used in assessing students : Peer Work (Never and Sometimes Vs. Most of the times and Almost Always)

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**0.02**	**0.03**
Phonological Awareness	**-0.15**	**-0.05**
Decoding Letters	**-0.70**	**-0.08**
Decoding Words	**-2.08**	**-0.18**
Decoding Non-words	**-1.20**	**-0.09**
Picture Matching	**-0.39**	**-0.49**
Oral Reading Fluency (ORF)	**-1.01**	**-0.05**
ORF with Comprehension	**0.37**	**0.23**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 2.8: Technique used in assessing students : Oral Work (Never and Sometimes Vs. Most of the times and Almost Always)

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**-0.11**	**-0.15**
Phonological Awareness	**-0.04**	**-0.01**
Decoding Letters	**-1.25**	**-0.15**
Decoding Words	**-1.66**	**-0.15**
Decoding Non-words	**-0.95**	**-0.07**
Picture Matching	**-0.08**	**-0.10**
Oral Reading Fluency (ORF)	**-3.44**	**-0.16**
ORF with Comprehension	**-0.52**	**-0.32**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 2.9: Maintain Teacher's Diary

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.06	-0.08
Phonological Awareness	-0.90	-0.29
Decoding Letters	-0.28	-0.03
Decoding Words	-1.21	-0.11
Decoding Non-words	0.90	0.07
Picture Matching	-0.01	-0.01
Oral Reading Fluency (ORF)	5.81	0.26
ORF with Comprehension	0.11	0.07

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 2.10: Teacher's uses portfolio to assess the progress of the child

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.10	-0.14
Phonological Awareness	-0.52	-0.16
Decoding Letters	-1.76	-0.21
Decoding Words	-1.07	-0.09
Decoding Non-words	-3.33	-0.25
Picture Matching	0.01	0.01
Oral Reading Fluency (ORF)	-2.84	-0.13
ORF with Comprehension	-0.59	-0.36

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 2.11: Time taken to go to school upto 30 mins.

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**-0.03**	**-0.04**
Phonological Awareness	**1.85**	**0.59**
Decoding Letters	**7.15**	**0.87**
Decoding Words	**11.35**	**1.03**
Decoding Non-words	**10.91**	**0.82**
Picture Matching	**0.25**	**0.32**
Oral Reading Fluency (ORF)	**21.46**	**0.99**
ORF with Comprehension	**1.35**	**0.84**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

3. Association Results : School Profile

The given section details the information gathered about schools regarding various school related variables.

Table 3.1: School Infrastructure: Electricity and proper lighting

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**0.05**	**0.07**
Phonological Awareness	**1.10**	**0.35**
Decoding Letters	**1.84**	**0.22**
Decoding Words	**7.08**	**0.64**
Decoding Non-words	**4.91**	**0.36**
Picture Matching	**0.28**	**0.35**
Oral Reading Fluency (ORF)	**2.07**	**0.09**
ORF with Comprehension	**0.22**	**0.14**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.2: School Infrastructure: Fully functional toilet for girls

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	**-0.28**	**-0.39**
Phonological Awareness	**0.89**	**0.28**
Decoding Letters	**-0.76**	**-0.09**
Decoding Words	**2.24**	**0.20**
Decoding Non-words	**2.55**	**0.19**
Picture Matching	**0.05**	**0.06**
Oral Reading Fluency (ORF)	**-3.94**	**-0.18**
ORF with Comprehension	**-0.60**	**-0.37**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 3.3: School Infrastructure: Fully functional toilet for boys

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.29	-0.41
Phonological Awareness	0.48	0.15
Decoding Letters	-0.96	-0.12
Decoding Words	1.64	0.15
Decoding Non-words	1.03	0.08
Picture Matching	0.08	0.10
Oral Reading Fluency (ORF)	-3.80	-0.17
ORF with Comprehension	-0.63	-0.39

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.4: School Infrastructure: Readily available medical room

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.03	-0.04
Phonological Awareness	0.05	0.02
Decoding Letters	0.07	0.01
Decoding Words	-0.47	-0.04
Decoding Non-words	2.88	0.21
Picture Matching	-0.09	-0.11
Oral Reading Fluency (ORF)	-2.91	-0.13
ORF with Comprehension	0.03	0.02

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 3.5: School Infrastructure: Safe windows and openings for ventilation

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.04	0.05
Phonological Awareness	-0.16	-0.05
Decoding Letters	1.44	0.17
Decoding Words	2.33	0.21
Decoding Non-words	2.29	0.17
Picture Matching	-0.23	-0.29
Oral Reading Fluency (ORF)	1.70	0.08
ORF with Comprehension	0.87	0.54

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.6: School Facility: Basic Drinking Water

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.20	-0.28
Phonological Awareness	0.28	0.09
Decoding Letters	1.05	0.13
Decoding Words	4.55	0.41
Decoding Non-words	4.22	0.31
Picture Matching	0.01	0.01
Oral Reading Fluency (ORF)	4.90	0.22
ORF with Comprehension	-0.17	-0.10

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 3.7: School Facility: Basic hand washing facility

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.12	-0.16
Phonological Awareness	-0.18	-0.06
Decoding Letters	0.08	0.01
Decoding Words	3.27	0.29
Decoding Non-words	2.66	0.20
Picture Matching	0.07	0.09
Oral Reading Fluency (ORF)	5.80	0.26
ORF with Comprehension	0.01	0.01

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.8: School Facility: Mid-day meals to the child on daily basis

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.25	0.35
Phonological Awareness	-0.73	-0.23
Decoding Letters	-0.93	-0.11
Decoding Words	-4.64	-0.42
Decoding Non-words	-1.07	-0.08
Picture Matching	-0.05	-0.06
Oral Reading Fluency (ORF)	-0.90	-0.04
ORF with Comprehension	0.79	0.50

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 3.9: School Facility: Primary Health Services

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.06	-0.08
Phonological Awareness	-0.58	-0.18
Decoding Letters	-0.73	-0.09
Decoding Words	-1.67	-0.15
Decoding Non-words	-2.47	-0.18
Picture Matching	0.07	0.09
Oral Reading Fluency (ORF)	1.03	0.05
ORF with Comprehension	-0.05	-0.03

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.10: School Facility: Accessible infrastructure for students with disabilities

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.00	0.00
Phonological Awareness	0.34	0.11
Decoding Letters	0.23	0.03
Decoding Words	0.94	0.08
Decoding Non-words	1.51	0.11
Picture Matching	0.01	0.01
Oral Reading Fluency (ORF)	2.41	0.11
ORF with Comprehension	0.31	0.19

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 3.11: Health checkup not being done

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	0.17	0.23
Phonological Awareness	0.46	0.15
Decoding Letters	0.78	0.09
Decoding Words	-0.26	-0.02
Decoding Non-words	-1.54	-0.11
Picture Matching	-0.06	-0.08
Oral Reading Fluency (ORF)	-1.94	-0.09
ORF with Comprehension	0.07	0.04

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.12: Classroom Equipment: Story Books

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.08	-0.11
Phonological Awareness	0.22	0.07
Decoding Letters	1.21	0.15
Decoding Words	2.01	0.18
Decoding Non-words	4.13	0.31
Picture Matching	0.06	0.08
Oral Reading Fluency (ORF)	1.22	0.06
ORF with Comprehension	0.42	0.26

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 3.13: Classroom Equipment: Toys/ Play equipment

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.09	-0.12
Phonological Awareness	0.40	0.13
Decoding Letters	2.00	0.24
Decoding Words	4.36	0.39
Decoding Non-words	5.33	0.40
Picture Matching	0.16	0.20
Oral Reading Fluency (ORF)	5.85	0.26
ORF with Comprehension	0.57	0.35

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.14: Classroom Equipment: Computers

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.16	-0.22
Phonological Awareness	0.47	0.15
Decoding Letters	0.01	0.00
Decoding Words	3.30	0.30
Decoding Non-words	3.46	0.26
Picture Matching	0.02	0.03
Oral Reading Fluency (ORF)	1.09	0.05
ORF with Comprehension	-0.18	-0.11

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Table 3.15: Classroom Equipment: Internet access

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.16	-0.22
Phonological Awareness	0.51	0.16
Decoding Letters	0.53	0.06
Decoding Words	2.32	0.21
Decoding Non-words	2.74	0.20
Picture Matching	0.15	0.19
Oral Reading Fluency (ORF)	1.29	0.06
ORF with Comprehension	-0.22	-0.14

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Table 3.16: Classroom Equipment: Textbooks/reading materials

Literacy Sub Task	Difference between mean Scores	Sig.*
Oral Language Comprehension	-0.05	-0.07
Phonological Awareness	-0.01	0.00
Decoding Letters	0.64	0.08
Decoding Words	1.50	0.13
Decoding Non-words	3.14	0.23
Picture Matching	0.01	0.01
Oral Reading Fluency (ORF)	9.62	0.44
ORF with Comprehension	0.63	0.39

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Foundational Numeracy

Foundational Numeracy

Foundational Numeracy skills comprise of the ability to understand numbers, perform basic operations with numbers and apply the understanding of patterns and numbers in real life situations. In the Foundational Learning Study, foundational Numeracy has been assessed through different sub-task as explained below:

Subtasks Assessed in Foundational Numeracy

Subtask	Description of the subtask
Number identification	Identifying and reading aloud 24 distinct numbers presented in the form of a grid (up to 9999)
Number discrimination	Comparing 14 pairs of numbers to identify the bigger number
Number operation (addition and subtraction)	Completing 4 Addition and 4 Subtraction facts
Word problems (addition and subtraction)	Solving 6 word problems based on the operation of addition and subtraction
Number operations (Division and Multiplication)	Constructing and using 4 multiplication facts (tables) of numbers 2 to 10 and using 4 division fact.
Measurement	Solving 6 problems based on measurement and estimation of volume, length, time using standard and non-standard units
Fractions	Answering 6 problems based on identification and representation of fraction values of half, one-fourth, three-fourth of a whole and of a collection of 12 objects.
Patterns	Identifying and extending & patterns comprising of numbers and shapes
Data Handling	Reading simple display of data and answering 6 questions based on the data display.

Number Identification

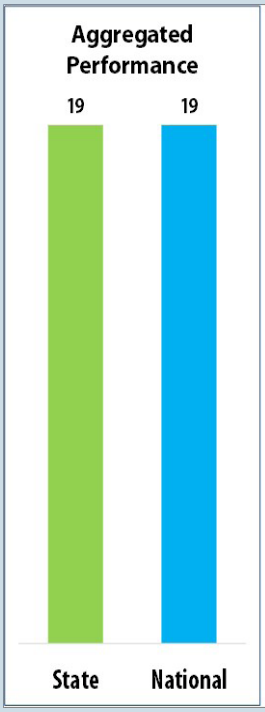
The task was based on recognising and reading aloud numbers (up to 9999) .

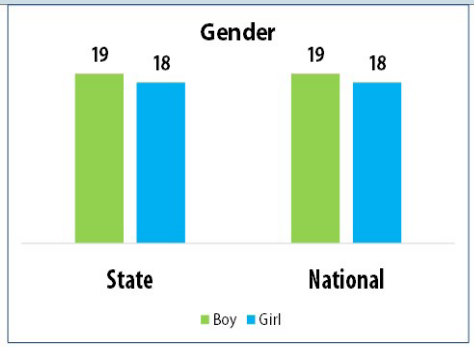
On average students read 19 numbers correctly.

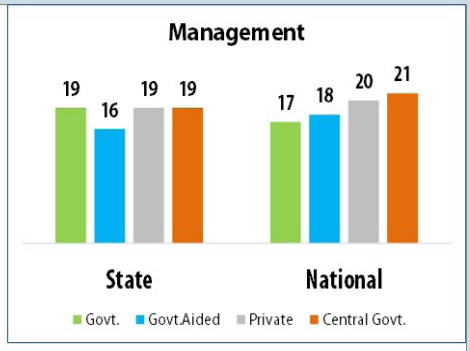
Percentage of Students

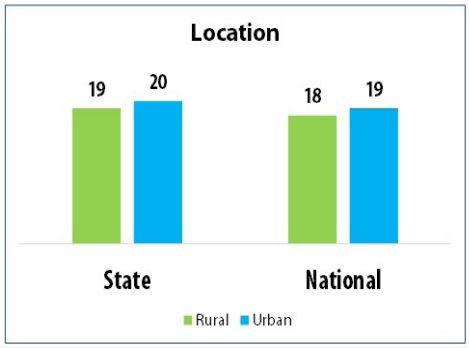
Descriptor	State Average Performance (%)	National Average Performance (%)
Reads numbers up to 9999	53	64
Reads numbers up to 999	30	24
Reads numbers up to 99	16	11
Does not respond	0	2

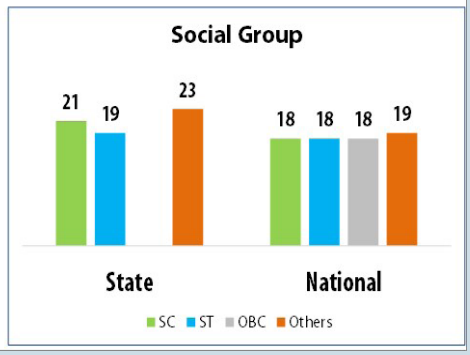
Average Score in Number Identification (on a scale of 0 to 24)











Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Number Discrimination

The task comprised of comparing pairs of numbers to identify the bigger number.

On average students identified 12 numbers correctly.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Discriminates numbers up to 9999	74	67
Discriminates numbers up to 999	17	23
Discriminates numbers up to 99	8	8
Discriminates numbers only up to 9	1	2

Average Score in Number Discrimination (on a scale of 0 to14)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Number Operation (Addition and Subtraction)

The task was based on completing addition and subtraction facts.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Adds numbers upto 999	42	53
Adds numbers upto 99	63	71
Adds numbers upto 9	95	92
Subtracts numbers upto 999	33	40
Subtracts numbers upto 99	53	62
Subtracts numbers upto 9	85	81

Percentage of Students Used Strategies to Solve the questions

	State Average Performance (%)	National Average Performance (%)
Finger/tick marks	24	15
Paper and pencil	67	77
Mental calculation	10	8

Average Score in Number Operation (Addition and Subtraction) (on a scale of 0 to 8)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Number Operation (Word Problems)

The task was based on solving word problems based on the operation of addition and subtraction.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Identifies the application of operation of addition in real life situations and provides the correct answer for questions based on addition only	54	54
Identifies the application of operation of subtraction in real life situations and provides the correct answer for questions based on subtraction only	44	42
Identifies the application of number operations in real life situations and provides the correct answers for 80% and above questions	53	52

Percentage of Students Used Strategies to Solve the Questions

	State Average Performance (%)	National Average Performance (%)
Finger/tick marks	27	16
Paper and pencil	54	71
Mental calculation	18	13

Average Score in Number Operation (word problems) (on a scale of 0 to 6)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Number Operation (Multiplication)

The task was based on Constructing and using multiplication facts (tables) of numbers 2 to 10 and using division facts

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Understands and applies correct multiplication facts in 80% and above questions	70	71
Understands and applies correct multiplication facts in 50% and less than 80% questions	14	16
Understands and applies correct multiplication facts in less than 50% questions	5	6
Does not respond	12	8

Average Score in Number Operation (Multiplication) (on a scale of 0 to 4)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Number Operation (Division)

The task was based on Constructing and using multiplication facts (tables) of numbers 2 to 10 and using division facts.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Understands and applies correct Division facts in 80% and above questions	44	49
Understands and applies correct Division facts in 50% and less than 80% questions	30	31
Understands and applies correct Division facts in less than 50% questions	6	6
Does not respond	20	14

Average Score in Number Operation (Division) (on a scale of 0 to 4)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Measurement (Calendar Reading)

The task comprised of solving word problems based on measurement and estimation of volume, length and time using standard and non-standard units

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Identifies the Month, Date and Day on the Calender	72	62
Identifies the month, date and day with help	14	20
Make mistakes in identifying the Month, date and day	5	6
Dose not respond	10	12

Average Score in Measurement (Calendar Reading)(on a scale of 0 to 3)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Measurement (Volume)

The task comprised of solving word problems based on measurement and estimation of volume, length and time using standard and non-standard units

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Can compare and estimate the volume of different containers	45	46
Can either compare or estimate the volume of different containers	47	47
Attempts but makes mistakes in estimating and comparing the volume	3	3
Dose not respond	6	4

Average Score in Measurement (Volume) (on a scale of 0 to 3)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Measurement (Time on clock)

The task comprised of solving word problems based on measurement and estimation of volume, length and time using standard and non-standard units

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Tells the time correctly	57	52
Tells the time correctly with the help of hint	38	36
Dose not respond	5	12

Average Score in Measurement (Time on Clock) (on a scale of 0 to 3)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Measurement (Length)

The task comprised of solving word problems based on measurement and estimation of volume, length and time using standard and non-standard units

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Applies the understanding of measurement of length and calculates the length of the object	60	62
Applies the understanding of measurement of length but miscalculates the length of the object when the object is not aligned with the 0 of the scale	34	27
Makes effort but not able to calculate the length of the object	5	6
Dose not respond	1	4

Average Score in Measurement (Length) (on a scale of 0 to 3)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Fractions

The task was based on identifying and representing fraction values of half, one-fourth, three-fourth of a whole and in a collection of 12 objects.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
correctly identifies one-half	68	70
correctly identifies one-fourth	52	47
correctly identifies three-fourth	64	61
correctly identifies all the fractions (one-half, one-fourth, three-fourth)	49	42
correctly represents one-half	66	68
correctly represents one-fourth	57	55
correctly represents three-fourth	51	46
correctly represents all the fractions (one-half, one-fourth, three-fourth)	45	40

Average Score in Fractions (on a scale of 0 to 6)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Pattern

The task comprised of identifying and extending patterns comprising of numbers and shapes.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Correctly identifies and completes patterns with shapes and numbers in 80% and above questions	63	61
Correctly identifies and completes patterns with shapes and numbers in 50% to less than 80% questions	27	28
Correctly identifies and completes patterns with shapes and numbers in less than 50% questions	8	8
Dose not respond	2	2

Average Score in Pattern (on a scale of 0 to 8)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Data Handling

The task was based on reading simple display of data and answering questions based on the data display.

On average students answered 5 questions correctly based on data display.

Percentage of Students

Descriptor	State Average Performance (%)	National Average Performance (%)
Answers 80% and above questions correctly	87	70
Answers 50% - less than 80% questions correctly	11	23
Answers less than 50% questions correctly	1	5
Answers less than 50% questions correctly	1	2

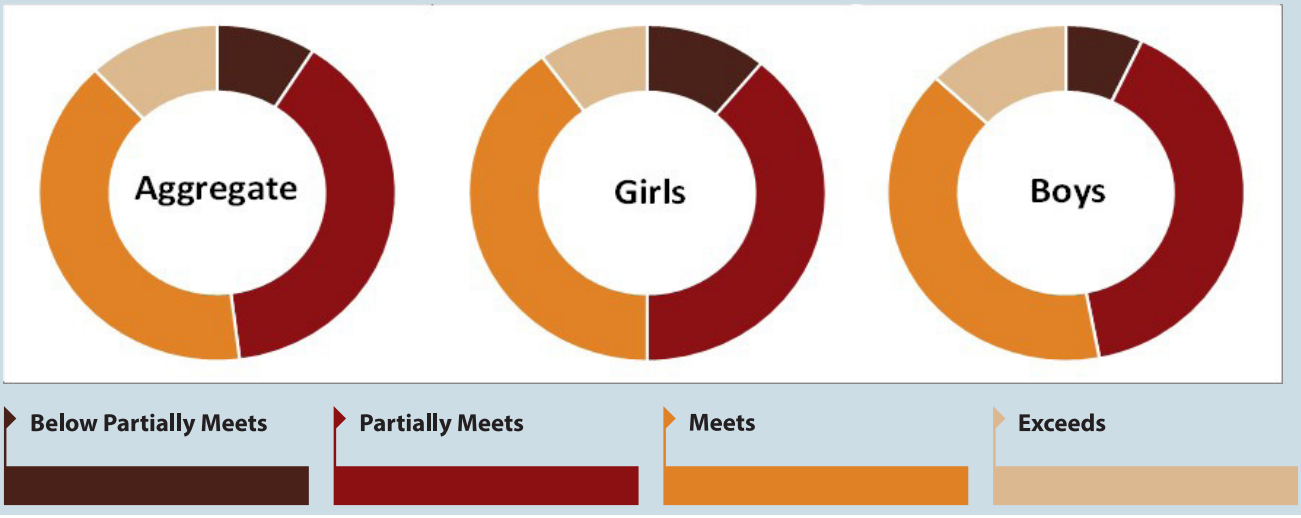
Average Score in Data Handing (on a scale of 0 to 6)

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Benchmark of Numeracy and Student Performance

Global Proficiency Levels		Below Partially Meets Global Minimum Proficiency	Partially Meets Global Minimum Proficiency	Meets Global Minimum Proficiency	Exceeds Global Minimum Proficiency
Definition		Learners lack the most basic knowledge and skills. As a result, they generally cannot complete the most basic grade-level tasks.	Learners have limited knowledge and skills. As a result, they can partially complete basic grade-level tasks.	Learners have developed sufficient knowledge and skill. As a result, they can successfully complete the most basic grade-level tasks.	Learners have developed superior knowledge and skill. As a result, they can complete complex grade-level tasks.
Benchmark		**0 - 42** Score Points.	**43 - 69** Score Points	**70 - 83** Score Points	**84 and above** Score Points
Percentage of Students meeting the standard	State/UT	9	39	40	12
	National	11	37	42	10
Percentage of Girls meeting the standard	State/UT	11	39	40	10
	National	11	38	41	10
Percentage of Boys meeting the standard	State/UT	7	40	40	13
	National	11	36	43	10

Distribution of Students by Global Proficiency Levels in the State/UT (In percentage)



Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Association of Background Variables with Numeracy

The relationship between learning achievement of students and variables related to student's home background and school were analyzed by using different statistical technique. This chapter discusses the association of the different contextual variables with the achievements of the students.

Numeracy score is a combined score including all subtasks and has a scale of 0 to 86.

1. Association Results : Student Profile

The given section details the association results regarding various student related variables.

Numeracy	Difference between mean score	Sig.*
Language spoken by students at home is the same as medium of instruction	**-0.14**	**-0.03**
Attended pre-primary Classes/Anganwadi	**0.83**	**0.15**
Ask questions in the class	**0.35**	**0.06**
Reads other materials in addition to textbooks	**0.15**	**0.03**
Playing Game	**0.07**	**0.01**
Story telling with family members	**0.12**	**0.02**
Playing Game with family members	**0.06**	**0.01**
Time taken to go to school upto 30 mins.	**0.40**	**0.07**
Time taken to go to school upto more than 30 mins.	**-0.40**	**-0.07**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

2. Association Results : Teacher Profile

The given section details the association results regarding various teacher related variables.

Numeracy	Difference between mean score	Sig.*
Teaching at Foundational stage : less than 3 years/more than 3 years	**0.02**	**0.00**
Attend any in-service workshop/Training to understand the learning needs and other developmental aspects in young children	**0.05**	**0.01**
Highest educational qualification upto Higher Secondary	**-0.39**	**-0.07**
Technique used in assessing students : Observation (Never and Sometimes Vs. Most of the times and Almost Always)	**0.46**	**0.08**
Technique used in assessing students : Class Test (Never and Sometimes Vs. Most of the times and Almost Always)	**-0.34**	**-0.06**
Technique used in assessing students : Group Activity (Never and Sometimes Vs. Most of the times and Almost Always)	**0.14**	**0.03**
Technique used in assessing students : Peer Work (Never and Sometimes Vs. Most of the times and Almost Always)	**0.18**	**0.03**
Technique used in assessing students : Oral Work (Never and Sometimes Vs. Most of the times and Almost Always)	**-0.16**	**-0.03**
Maintain Teacher's Diary	**0.02**	**0.00**
Teacher's uses portfolio to assess the progress of the child	**-0.53**	**-0.10**
Time taken to go to school upto 30 mins.	**1.44**	**0.26**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

3. Association Results : School Profile

The given section details the information gathered about schools regarding various school related variables.

Numeracy	Difference between mean score	Sig.*
School Infrastructure: Electricity and proper lighting	**0.81**	**0.15**
School Infrastructure: Fully functional toilet for girls	**0.23**	**0.04**
School Infrastructure: Fully functional toilet for boys	**0.05**	**0.01**
School Infrastructure: Readily available medical room	**0.33**	**0.06**
School Infrastructure: Safe windows and openings for ventilation	**0.32**	**0.06**
School Facility: Basic Drinking Water	**0.16**	**0.03**
School Facility: Basic hand washing facility	**0.31**	**0.06**
School Facility: Mid-day meals to the child on daily basis	**0.02**	**0.00**
School Facility: Primary Health Services	**-0.23**	**-0.04**
School Facility: Accessible infrastructure for students with disabilities	**0.36**	**0.07**
Health checkup not being done	**-0.14**	**-0.03**
Classroom Equipment : Story Books	**0.43**	**0.08**
Classroom Equipment : Toys/ Play equipment	**0.70**	**0.13**
Classroom Equipment : Computers	**0.37**	**0.07**
Classroom Equipment : Internet access	**0.43**	**0.08**
Classroom Equipment : Textbooks/reading materials	**0.66**	**0.12**

* A value of 0.2 represents a small effect size.
A value of 0.5 represents a medium effect size.
A value of 0.8 represents a large effect size.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Profiling of Backgrounds Variables

Student Demographic Profile

The FLS conducted on grade 3 students revealed that

37% students belong to the age group of 7-8 years.

45% students belong to families living BPL.

96% students have attended pre-primary school/ Anganwadi centre.

Activities that family members do with the children	Percentage of Students (State)			Percentage of Students (National)		
	Rarely	Sometimes	Often	Rarely	Sometimes	Often
Reading Books	31	61	9	24	55	21
Playing with toys	44	48	8	28	54	18
playing games	37	50	13	21	54	25
Outdoor activities like picnic etc.	32	61	7	21	64	15
Art and craft	43	52	5	30	56	14
Oral story telling	32	61	7	23	57	20

Activities children like to do	Percentage of Students (State)	Percentage of Students (National)
Art and Craft	87	91
Reading books (other than textbooks)	68	82
Playing with toys	78	85
Playing games	86	93
Exercise (Yoga etc.)	78	70
Looking after plants or/and animals	70	85

Mode of commuting to school	Percentage of Students (State)	Percentage of Students (National)
On foot	80	55
Bicycle	1	8
Public Transport (Bus/Train/Metro)	3	7
School provides transport	1	9
Own transport Two/three-wheeler	11	18
Own transport Four-wheeler	3	3

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Teacher Demographic and Professional Profile

64%
teachers shared that they have attended/ received some in-service workshop/training in last 3 years.

54%
teachers shared that they are aware of the NIPUN Bharat Lakshyas and Learning Outcomes (LOs).

99%
teachers reported that they teach in classrooms that are properly ventilated.

89%
teachers use portfolio to assess the progress of the child.

Infrastructure and resource used by the teacher	Percentage of Teachers (State)				Percentage of Teachers (National)			
	Never	Once a week	Everyday	Not Available	Never	Once a week	Everyday	Not Available
Spacious classrooms	2	14	82	2	3	17	73	7
Classroom with access to additional space	17	34	47	3	6	48	37	9
Space in Veranda/Corridor	28	40	29	4	17	46	27	10
Library	54	34	4	7	14	60	15	12
Hall	49	32	7	11	18	45	16	21
Play ground	7	76	12	5	8	47	36	9
Smart classroom	49	22	14	15	20	33	19	28

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Assessment techniques use by the teachers	Percentage of Teachers (State)				Percentage of Teachers (National)			
	Never	Sometime	Most of the time	Almost always	Never	Sometime	Most of the time	Almost always
Observations	5	53	30	13	7	13	39	41
Class test (paper-pencil)	0	28	65	7	1	21	49	30
Group activities	1	81	15	3	2	37	44	18
Peer work	10	78	11	0	2	40	40	18
Oral work	2	68	26	5	2	20	41	37

Educational Qualification	Percentage of Teachers (State)	Percentage of Teachers (National)
Higher Secondary	34	20
Graduation	53	45
M.Phil./Ph.D.	1	9
Post-Graduation	13	26

Teaching Experience at the foundational stage	Percentage of Teachers (State)	Percentage of Teachers (National)
Less the a year	4	9
1-3 years	28	24
5 years	8	11
More than 5 years	60	56

Teaching learning material used in the classroom at the foundational stage	Percentage of Teachers (State)				Percentage of Teachers (National)			
	Not available	Never	Sometime	Most of the time	Not available	Never	Sometime	Most of the time
Black Board	2	1	20	78	3	1	8	88
Text book(s)	2	1	16	81	1	1	12	86
Story Books	7	8	80	5	3	2	63	32
Toys	22	18	57	3	10	5	64	22
Play equipment	5	3	82	10	6	2	63	28
Locally available material	7	3	74	16	7	2	54	37
Computer resources (Audio visual aid)	44	25	27	4	28	6	40	27
Library resources	46	10	41	3	14	3	51	31

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

School Profile

78% schools have access to basic hand washing facility.

57% schools have pre-primary school/ Anganwadi.

79% schools conduct health checkup of students once every year.

19% schools have accessible infrastructure for students with disabilities.

8% schools have a readily available medical room.

Resources used in the classrooms at the Foundational Stage	Percentage of Schools (State)	Percentage of Schools (National)
Story Books	72	89
Toys/Play equipment	87	84
Locally available/developed Teaching Learning Materials	88	88
Computers	46	63
Internet access	27	56
Electricity and proper lighting	86	91
Safe windows and opening for ventilation	97	97
Textbooks/reading materials	95	97

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Source of drinking water for school	Percentage of Schools (State)	Percentage of Schools (National)
None	40	31
Well water	5	20
Hand pump	5	34
Tap	76	81
Rain water tank	59	20

School Managing Committee and Parent-Teacher Meeting (PTM)	Percentage of Schools (State)	Percentage of Schools (National)
Presence of school Managing Committee in the school	93	95
PTM held every month	7	52
PTM held every 3 months	29	56
PTM held every 6 months	82	42
PTM not been held/organised	7	17

Community support to the school	Percentage of Schools (State)	Percentage of Schools (National)
Providing infrastructure when required	85	67
Providing different usable resources when required	63	70
Providing resource persons for different purposes	40	68
Cooperating with school for awareness drives (cleanliness, enrollment etc.	83	88
There is not much involvement of the community	44	37

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

Language used at Home and in School

61%

students' home language is the same as the medium of instruction in the school.

60%

Language used by the teacher in the classroom is the same as the medium of instruction in the school.

67%

language of instruction in school at the foundational stage is the same as the medium of instruction in the school.

38%

teachers' home language is same as the medium of instruction in the school.

Note: Decimal figures in the data set has been rounded up to whole numbers and hence may not add up to 100.

FLS 2022 Team

Core Team

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Shri Vipin Kumar, Joint Secretary, DoSEL, Ministry of Education w.e.f. 26.05.2022

Shri Maneesh Garg, Joint Secretary, DoSEL, Ministry of Education upto 25.05.2022

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