

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी
NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

WHAT STUDENTS OF CLASS V KNOW AND CAN DO

A summary of India's National Achievement Survey, Class V (Cycle 4), 2015



Supported by SSA – TECHNICAL COOPERATION FUND

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Preface

Learning in schools is a matter of immense significance to students, parents, teachers, educationalists and policy makers. Assessment made at different levels i.e. school based assessment and examinations conducted by centralized agencies have played a crucial role in students learning and certification. The current attempt made by Educational Survey Division (ESD) , NCERT towards providing a systematic understanding of systemic support towards the learning through the nationwide achievement survey conducted at Class V (4th Cycle) in *Language, Mathematics and Environmental Studies* will go a long way in providing the feedback necessary.

The test is administered in 34 States/UTs after an elaborate procedure of identification of sample size, student population and test development. Modern techniques of analysis and interpretation of findings through item response theory are used. The findings are also presented in terms of category and location of students. In this report, the highlights of the 4th Cycle of the achievement survey are presented along with comparison of students performance with the previous Cycle-3 in *Language, Mathematics and Environmental Studies*. The statewise information provided on the three subject areas is useful not only from the point of view of comparison across the States, which is not the purpose with which it is reported, but to provide a snapshot of performance over the period of time (from Cycle 3 to 4) so that the progress of achievement could be monitored.

In this endeavour I thank the wholehearted support of Professor B.K. Tripathi, Director, NCERT in the conduct of the achievement survey. I also thank Ms. Sudeshna Sen, Secretary, NCERT for her continuous support. I appreciate and acknowledge unrelenting effort of the project team headed by Prof. Sridhar Srivastava and Dr. Santosh Kumar. I also thank the RMSA/ TCA team for their continuous support. The cooperation of the Ministry of Human Resource Development (MHRD) and States/UTs in this task was indispensable in completion of the current project.

(Y. Sreekanth)

Professor & Head

September, 2015

Introduction

The Government of India has entrusted NCERT, its academic and advisory body on school education, to conduct periodic largescale assessments at different grade levels.

How well are the students learning in our schools? Is our education system preparing students' with the necessary skills to cope with the demands of tomorrow's world and to become responsible citizens of our society? All the different stakeholders—parents, students, policy makers, educators, and public in general—want answers to these questions. There is also a need to determine what is working and what all needs improvement in the education system.

Governments and educators across the world have designed and put to use several tools and processes for monitoring and reporting learning outcomes and the performance of education systems in order to provide reliable and valid response to the above mentioned questions and to make informed choices related to improving education system that enhance student learning.

Largescale Assessment in education is one such tool that obtains information for the purposes of assessing the overall health of education system and if the students meet curricular standards, the findings could potentially lead to systemic reforms. Around the world there is growing interest since the mid-1980s to use Largescale Assessments for measuring, comparing and monitoring educational standards. Many countries now take part in international surveys of learner achievement such as Program for International Student Assessment (PISA), Progress in International Reading Literacy Study (PIRLS) and Trends in International Mathematics and Science Studies (TIMSS) in order to get an objective measure students' level of achievement in the country in comparison to those of other nations. In addition, many countries now conduct their own achievement surveys in order to judge educational standards against national expectations.

Since the year 2001 India has been implementing a rolling programme of sample based National Achievement Survey (NAS) aimed at Classes III, V and VIII under the Sarva Shiksha Abhiyan (SSA). This summary report summarises the findings of the National Achievement Survey Class V Cycle 4 that was conducted in 2014.

Key Features of the Class V (Cycle 4) study:

- Assessed student achievement in Language, Mathematics and Environmental Studies
- Item Response Theory (IRT) was used that measures
 - True ability of students to respond correctly to different levels of difficulty in tests
 - Allows comparison over time and increases the efficiency, accuracy and usefulness of results
- The survey was administered in 16 languages of instruction across the country, while ensuring linguistic quality assurance
- Three test booklets for each subject were used to increase the measurement points to conduct the assessment in greater depth.
- Effective monitoring ensured accountability of the processes.

Objectives

There are three key objectives of the National Achievement Survey:

1. To study the achievement level of students in different subjects at different grade levels;
2. To study the difference in achievement with respect to location/area, gender and social groups;
3. To study the effect of intervening variables like home, school and teacher on students' achievement.

Methodology

Subject wise multiple tests and questionnaires (school, pupil and teacher) were used to assess learning achievement data and background information. This survey was conducted on a sample comprising of 1,50,101 students in 8,266 schools across 34 States and Union Territories (UTs). Information was also gathered about background factors including the school environment; instructional practices, qualification and experience of teachers, and the home background of students, etc. through the questionnaires mentioned above to ascertain their influence on students' achievements.

Sample Selection

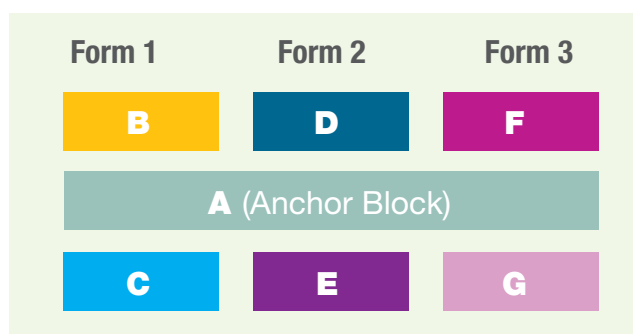
For selecting the representative sample, government and government aided schools with Class V were included in the sample frame. The selection involved Probability Proportional to Size (PPS) sampling procedures for district and school selection within the districts while simple random sampling was used for selection of students within schools. In schools where Class V had multiple sections, an extra stage of selection was added with one section being sampled at random.

Flash statistics of 8th AISES (2009) was used for sampling frame. The survey took place in all 34 States and UTs, except Lakshadweep.

Development of Tools

For conducting the survey, achievement tests for measuring learning levels and questionnaires for capturing the background information were developed through workshops and consultations.

- **Tests:** To measure the learning levels of Class V students in a valid and reliable manner, the achievement tests were developed in three subject areas viz. Language, Mathematics and Environmental Studies. An assessment framework was developed for each subject after careful



analysis of syllabi and textbooks of different states to ensure adequate and appropriate content areas. This framework enabled the development of adequate number of items to judge levels of learning at different levels of difficulty.

The Class V Cycle 4 survey used three test booklets per subject as in Cycle 3. To enable comparison across all three tests, a block of common questions or 'anchor items' were used in all booklets. In EVS and Mathematics, 20 anchor items were used. In Language, 15 items of reading comprehension and 5 items of language elements were used as anchor items. Therefore, three common passages were used in each booklet. And each booklet had a new passage also. The structure of the Mathematics and EVS booklet was as under:

In all the subjects, the concept/content areas were identified, which are as follows:

Language	Mathematics	EVS
Language Elements	Arithmetic	Social Studies
Reading Comprehension	Algebra	Science
Writing	Geometry	-

Items in different subjects covered the following content areas:

Language	Mathematics	EVS
Vocabulary (5 items)	Operations (17 items)	Family & Environment (30 items)
Tenses (5 items)	Geometry (17 items)	Food (10 items)
Preposition (5 items)	Measurement (20 items)	Shelter (4 items)
Linkers (5 items)	Number System (26 items)	Water (11 items)
Locate information (7 items)	-	Travel (9 items)
Grasp ideas/ Interpret (15 items)		Real life (16 items)
Infer/Evaluate (8 items)		-

- **Questionnaires:** The questionnaires for Class V Cycle 4 were developed based on the learning of previous NAS cycles. For the survey, three questionnaires were developed to collect information on a) schools, b) teachers and c) pupils and their backgrounds

Administration of Tools

NCERT was supported by state level agencies such as SCERT/SIEs in the States and UTs for fielding the survey. Each participating state designated a state coordinator, who in coordination with district coordinators implemented NAS as per the field operation's manual. State coordinators, associate state coordinators and district coordinators were trained by ESD-NCERT faculty on data collection in the field. In each selected district, approximately 10 to 12 teams of field investigators were appointed. Each team comprising of two field investigators who had received training on selection of section and students in the sampled schools and administration of tools. Sampled students responded on test booklets that were later transferred on a separate response sheet by the field investigator. The response sheets were then dispatched by the state coordinator to NCERT for scoring and analysis.

Introduction of Best Practices in Assessment

NAS Cycles 3 and 4 mainly used 'Item Response Theory' (IRT), while 'Classical Test Theory' (CTT) was used for that part of the analysis that provides percentage of correct answers.

IRT uses mathematical models that ensure statistical connection between the difficulty level of the test item, the ability of the student and the probability of that student being successful on a particular item. For example, students with higher ability scores are more likely to succeed on any item than their peers of lower ability.

Advantages of IRT over CTT:

- IRT measures the true ability of students regardless of different levels of difficulty of tests, by calculating the probability of a student to respond to an item correctly.
- IRT places students and test items on the same numerical scale and help us to create meaningful 'maps' of item difficulty and student ability.
- In IRT, the difficulty parameter for an item does not depend on the group of test takers.
- In IRT, multiple test booklets may be used to increase measurement points in any subject and these can also be linked.
- IRT makes it possible to compare scores from tests used in different NAS cycles or state test scores, which may help in monitoring progress in the system over time.

Monitoring

Monitoring was done at all the levels on a sample basis. In each district, 5-10 schools were selected for monitoring. This exercise was carried out by NCERT/RIE faculty to ensure quality.

Data Management and Analysis

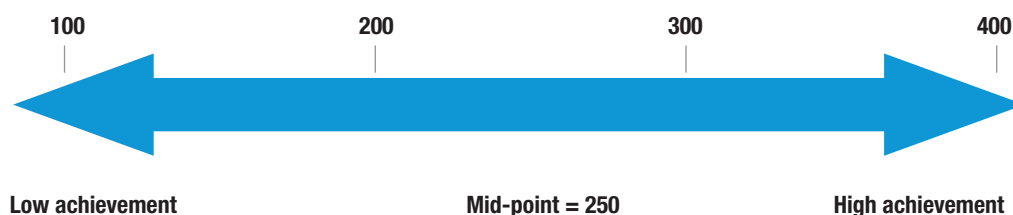
For transfer of data from paper to electronic format, data entry was outsourced to an agency. Data entry and analysis plan were developed by ESD keeping in mind the objectives of the study. The data entry plan was provided to the agency for undertaking the assigned task in a systematic manner. The project team checked and verified the quality of the data. Cleaned files were used for analysis. Data analysis was carried out by using both Classical Test Theory (CTT) and 2

PL model of IRT on unweighted¹ data. The scale score for each subject was adjusted on a scale of 0-500 with 250 as Mean and 50 as Standard Deviation.

Reporting

'Scale scores' are calculated using IRT and obtained by placing test difficulty level and student ability level on the same scale. As a crucial measure, the same scale has been fixed so that results from previous and future surveys can be easily compared and reported. It also provides adequate linking procedures through common items. It means, a score of, say, 270 in the present test is equivalent to a score of 270 in the previous cycle. Most of the items in Cycle 4 were used in Cycle 3 as well.

The Reporting Scale



¹ Unweighted data has been used for analysis in both Cycle 4 and Cycle 3

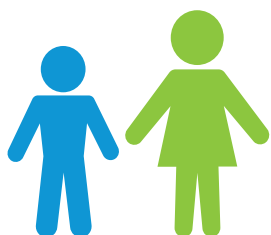
This report has two parts: the first part of this report is about the outcomes and findings of Cycle 4 and the second part compares the performance of students between Cycle 3 and Cycle 4.

Limitations

- There seemed to be significant discrepancies between the enrolment in schools that were sampled and the actual enrolments in the schools. .
- The comparison between Cycle 3 and Cycle 4 presented in the report are based on unweighted scores from both cycles. However, the Cycle 4 findings are based on weighted scores and may be generalised to the respective states.
- In most of the states, responsibility for data collection was given to DIET faculty who, in turn, used their students as field investigators. On reflection, the training and hands-on practice given to these field investigators may not have been sufficient resulting in inefficiencies in the data collection procedure.

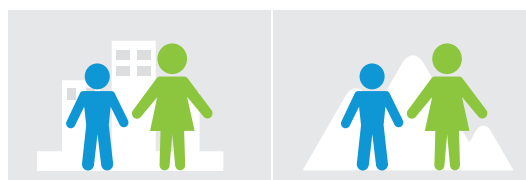
Overall Findings

Based on analysis, the overall findings are as follows:



An encouraging finding was reported on the gender wise parameter where it was found that on an average, girls are doing better than boys in all subjects.

Location wise, there was no significant difference found in the performance of students from rural or urban backgrounds.



Performance of SC/ST students was significantly below the 'Others' category of students.

Performance of students, on an average, in Cycle 4 as compared to Cycle 3² had gone down.



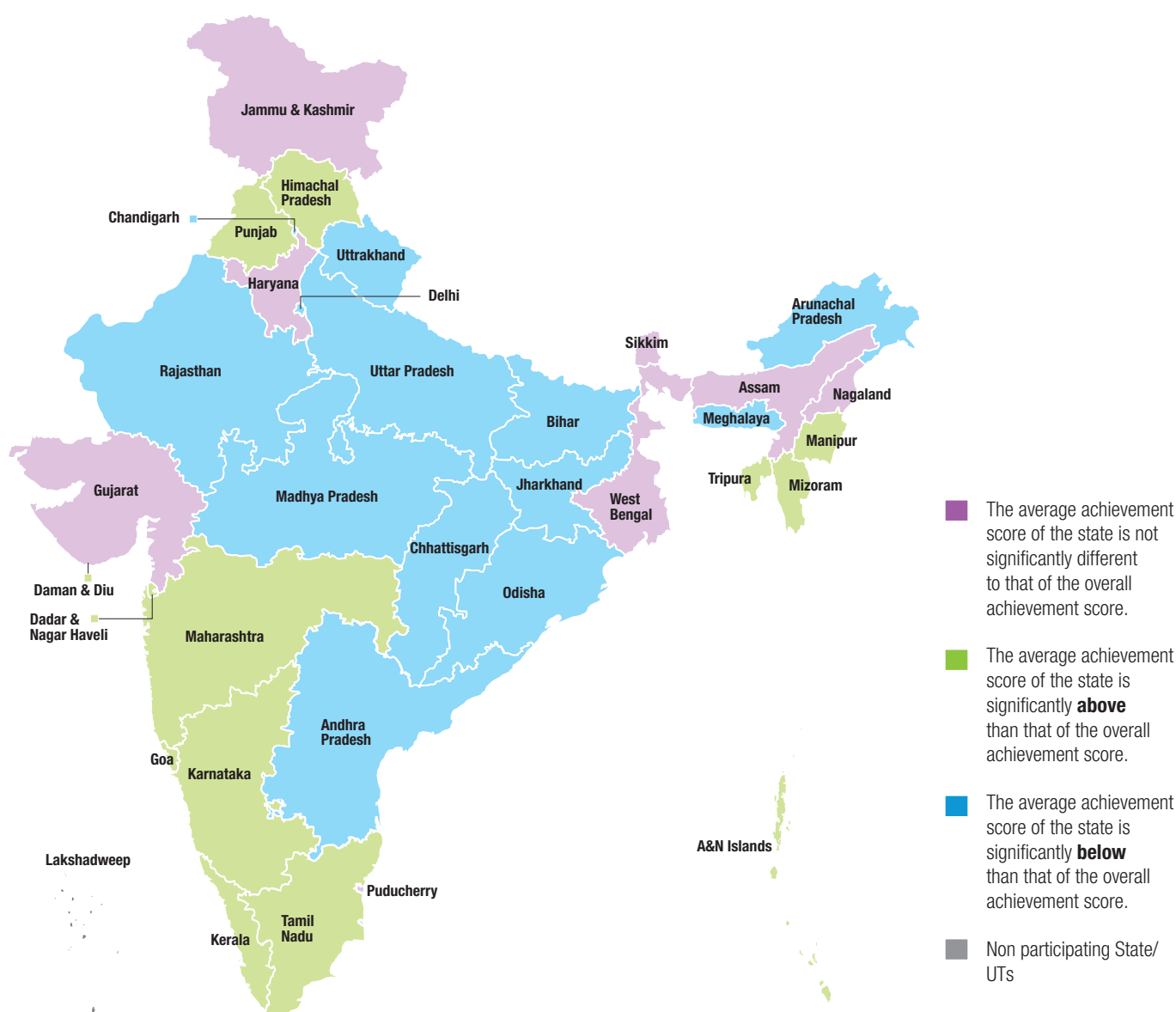
² In Cycle 3, 31 States/UTs participated (except Arunachal Pradesh, Manipur Lakshadweep and Dadra and Nagar Haveli).

Findings

Snapshot of the students' performance under subject wise achievement, gender, location and social categories.

Performance of Students in Class V (Cycle 4) by Subject

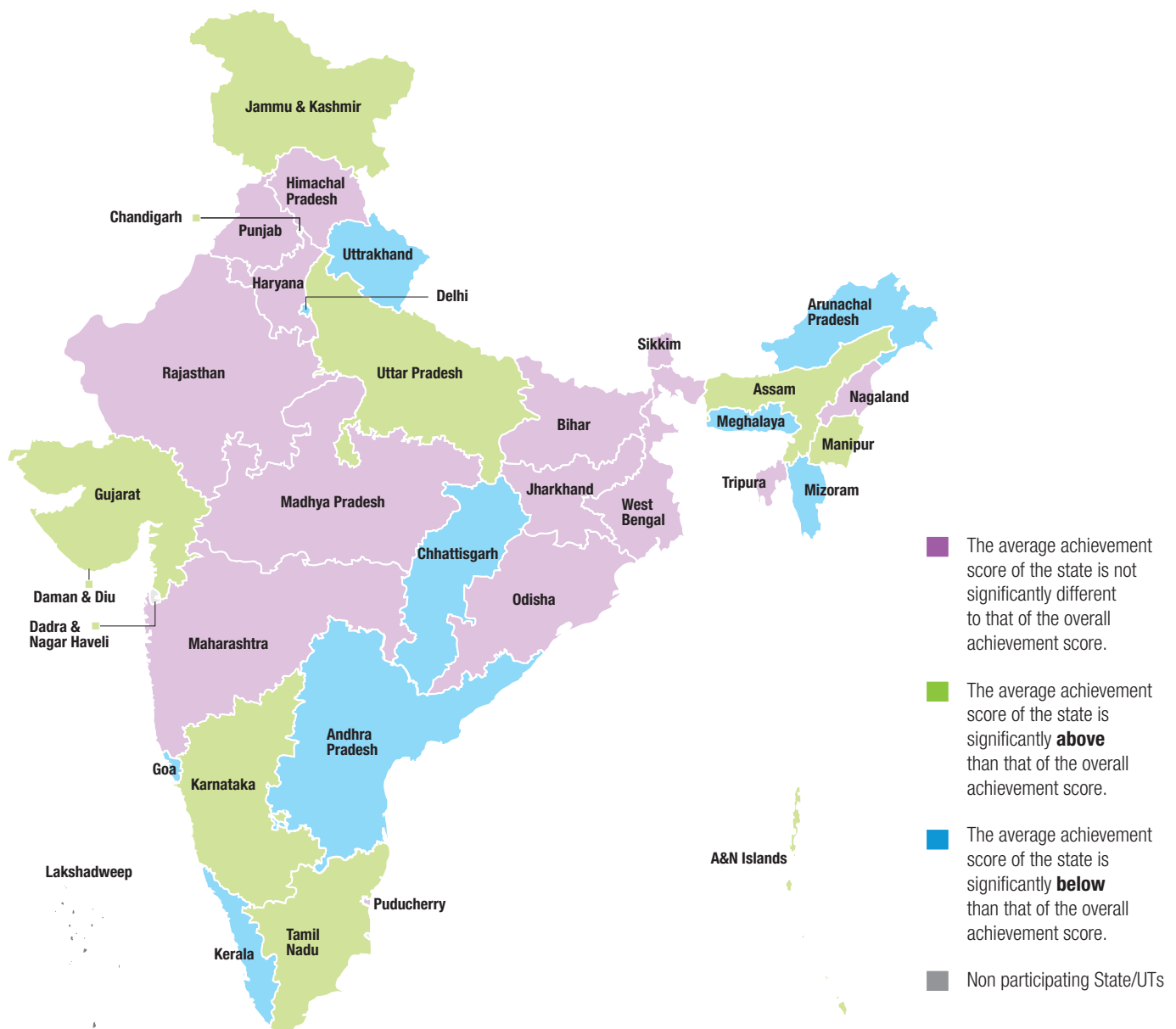
Reading Comprehension



State/Union Territory	Mean	SE	State/Union Territory	Mean	SE
Andhra Pradesh	237	2.1	Meghalaya	226	2.2
Arunachal Pradesh	227	2.4	Mizoram	257	1.7
Assam	243	3.2	Nagaland	246	3.3
Bihar	208	1.6	Odisha	232	2.2
Chhattisgarh	216	2.3	Punjab	249	1.9
Delhi	227	1.8	Rajasthan	233	2.1
Goa	254	2.0	Sikkim	245	2.5
Gujarat	243	2.3	Tamil Nadu	259	2.5
Haryana	239	2.6	Tripura	253	2.8
Himachal Pradesh	248	2.8	Uttar Pradesh	248	2.9
Jammu & Kashmir	239	3.0	Uttarakhand	223	2.2
Jharkhand	228	2.5	West Bengal	244	2.6
Karnataka	251	2.3	A&N Islands	249	3.6
Kerala	259	1.1	Chandigarh	236	2.3
Madhya Pradesh	229	2.4	Puducherry	238	2.3
Maharashtra	248	1.8	Dadra & Nagar Haveli	260	5.3
Manipur	256	3.3	Daman & Diu	260	5.1
Overall			241	0.5	

14 States/UTs performed significantly above and 12 States/UTs performed significantly below the average achievement score across states. In 8 States/UTs there was no significant difference observed.

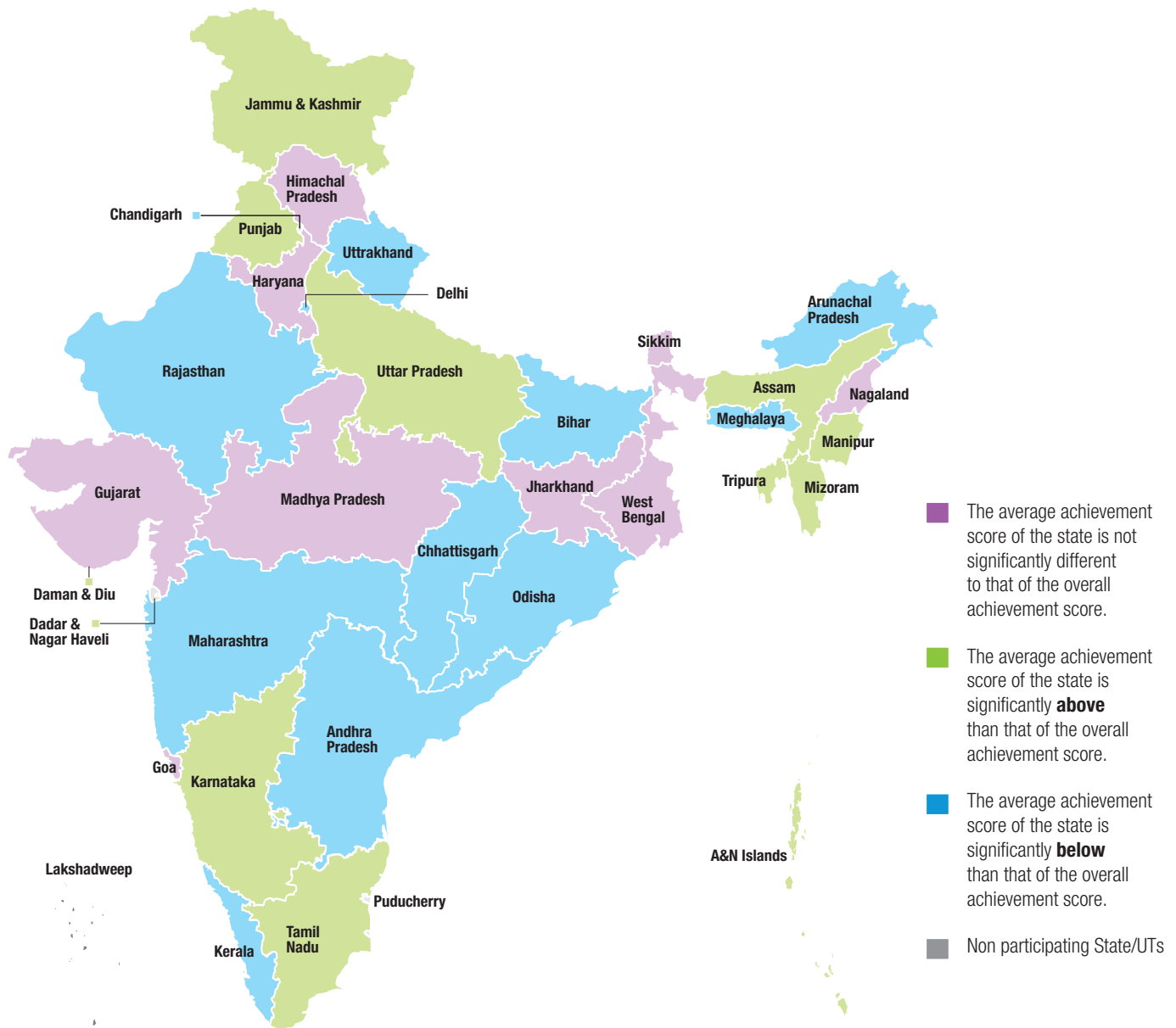
Mathematics



State/Union Territory	Mean	SE	State/Union Territory	Mean	SE
Andhra Pradesh	235	2.0	Meghalaya	228	2.6
Arunachal Pradesh	224	2.2	Mizoram	224	1.5
Assam	256	3.4	Nagaland	240	3.7
Bihar	235	3.0	Odisha	237	3.0
Chhattisgarh	208	1.7	Punjab	238	2.3
Delhi	223	2.2	Rajasthan	246	3.0
Goa	227	1.6	Sikkim	240	2.4
Gujarat	250	2.9	Tamil Nadu	264	2.7
Haryana	245	2.4	Tripura	245	2.7
Himachal Pradesh	246	2.9	Uttar Pradesh	257	2.6
Jammu & Kashmir	249	3.4	Uttarakhand	222	2.6
Jharkhand	237	2.9	West Bengal	241	2.7
Karnataka	260	2.5	A&N Islands	253	5.5
Kerala	230	1.1	Chandigarh	226	2.1
Madhya Pradesh	236	3.0	Puducherry	246	2.9
Maharashtra	237	2.4	Dadra & Nagar Haveli	261	3.9
Manipur	260	3.0	Daman & Diu	273	6.6
Overall			241	0.5	

10 States/UTs performed significantly above and 10 States/UTs performed significantly below the average achievement score across states. In 14 States/UTs there was no significant difference observed.

Environmental Studies



State/Union Territory	Mean	SE	State/Union Territory	Mean	SE
Andhra Pradesh	238	2.7	Meghalaya	236	2.8
Arunachal Pradesh	232	3.1	Mizoram	253	1.3
Assam	252	3.0	Nagaland	240	3.4
Bihar	226	2.6	Odisha	236	2.7
Chhattisgarh	212	2.3	Punjab	249	2.3
Delhi	223	1.9	Rajasthan	235	2.9
Goa	239	2.2	Sikkim	247	2.8
Gujarat	247	2.5	Tamil Nadu	267	2.9
Haryana	239	2.6	Tripura	257	2.9
Himachal Pradesh	246	3.1	Uttar Pradesh	260	3.1
Jammu & Kashmir	251	3.4	Uttarakhand	221	2.6
Jharkhand	237	3.4	West Bengal	243	2.5
Karnataka	262	2.7	A&N Islands	259	5.2
Kerala	240	1.0	Chandigarh	227	2.2
Madhya Pradesh	238	3.2	Puducherry	251	3.6
Maharashtra	235	2.0	Dadra & Nagar Haveli	265	5.4
Manipur	257	3.7	Daman & Diu	268	4.6
			Overall	244	0.5

13 States/UTs performed significantly above and 12 States/UTs performed significantly below the average achievement score across states. In 9 States/UTs no significant difference was observed.

Percentile Scores

Percentile scores and range between the quartile provides information about the range of achievement and spread within states and also help in comparison across different states. A bigger spread indicates that students are performing at varying levels of ability within the state. It is an important measure of the inequalities in learning and possibly of provision within the state. A smaller spread indicates homogeneity of the group. Different strategies need to be planned and deployed to address these different scenarios to improve learning for all students.

Reading Comprehension

State/Union Territory



Range 90-10

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100

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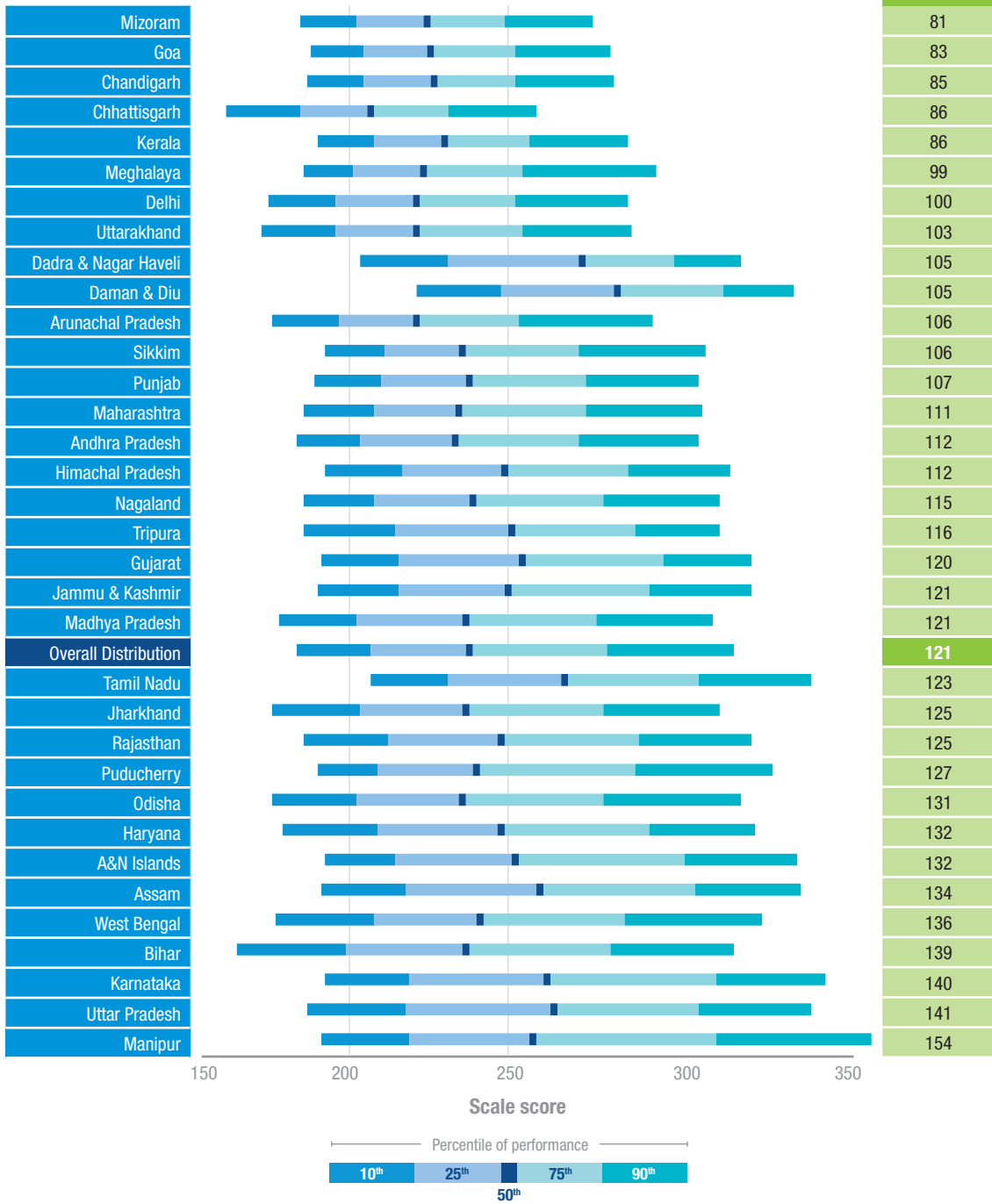
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The average score is the centre of the score distribution. In other words, it describes typical student's achievement. But what about students of low and high ability? To give extra information the scores gained by students at different parts of the ability distribution are reported. That is, at different "percentiles" or Percentile scores. These graphs show the spread of achievement in each state. Bigger spread indicates that students are performing at varied levels of ability in the State. It is an important measure of the inequities in the provision of education in that state. A smaller spread indicates homogeneity of the group. Different strategies to improve the learning of All students will be needed to address the two different scenarios.

- There are large variations in scale scores on different percentile across the States/UTs such as 25th percentile scores of Arunachal Pradesh (199), Bihar (186), Chhattisgarh (188), Mizoram (228) and Kerala (225).
- The range between the 90th and 10th percentile shows that Uttar Pradesh and Manipur are showing a bigger spread which indicates that students are at varied levels of ability in these states. Bihar and Meghalaya are showing a smaller spread indicating homogeneity of groups.

Mathematics

State/Union Territory

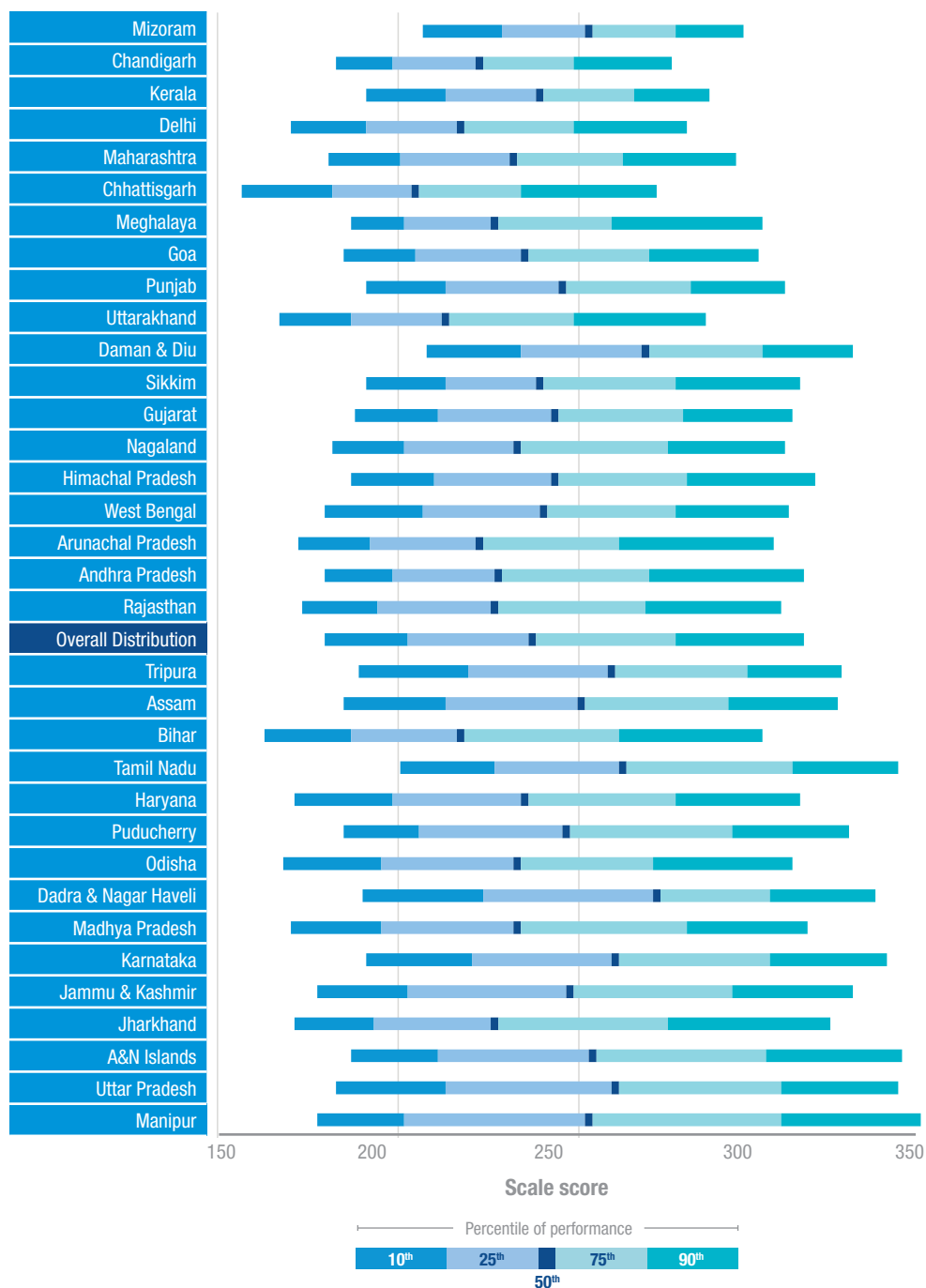


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- There are large variations in scale scores on different percentile across the States/UTs such as 25th percentile score of Arunachal Pradesh (197), Andhra Pradesh (203), Bihar (199), Tamil Nadu (225) and Manipur (217).
- The range between the 90th and 10th percentile shows that Uttar Pradesh and Karnataka are showing a bigger spread which indicates that students are at varied levels of ability in the states. Mizoram and Goa are showing a smaller spread indicating homogeneity of groups.

Environmental Studies

State/Union Territory



Range 90-10

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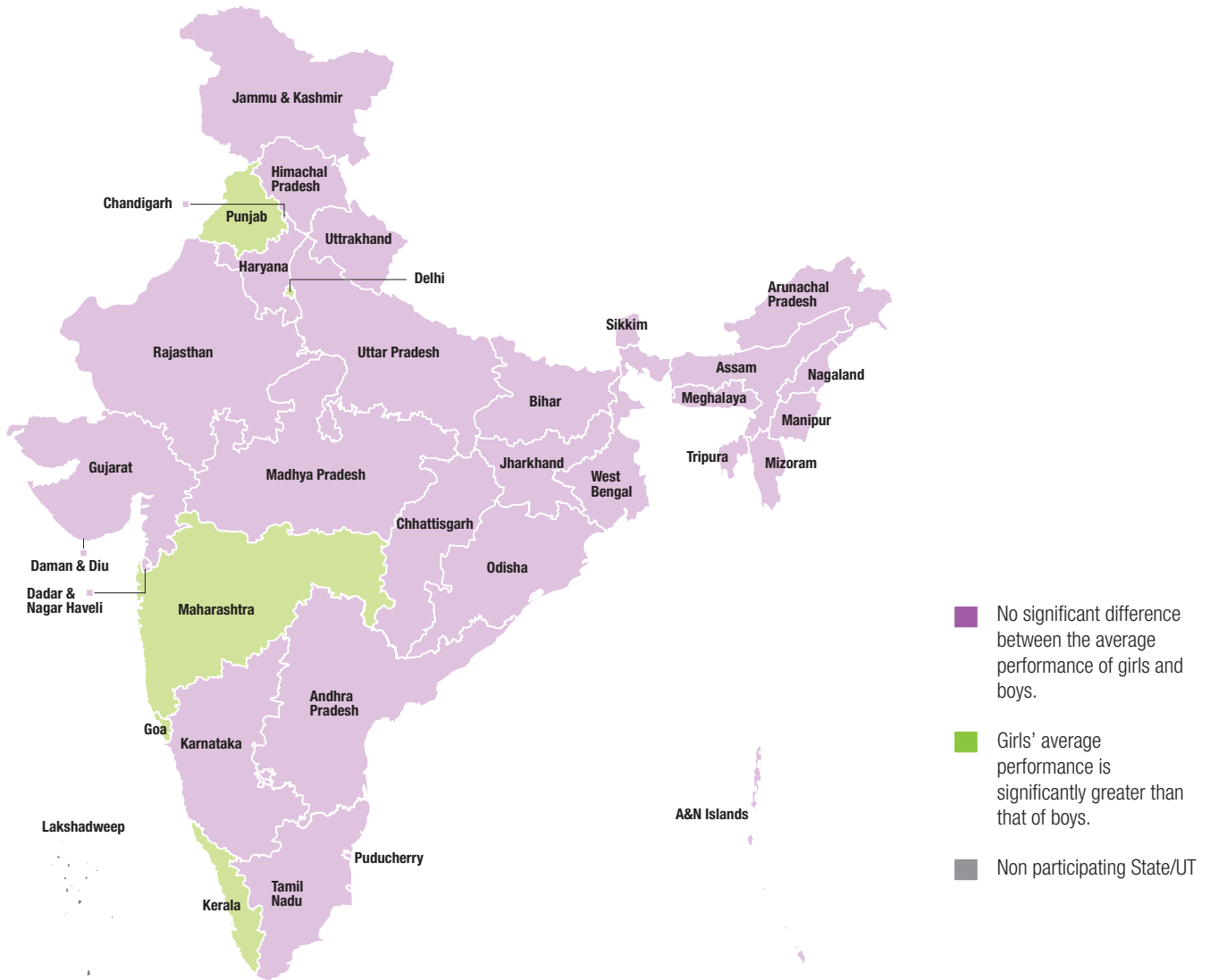
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The average score is the centre of the score distribution. In other words, it describes typical student's achievement. But what about students of low and high ability? To give extra information the scores gained by students at different parts of the ability distribution are reported. That is, at different "percentiles" or Percentile scores. These graphs show the spread of achievement in each state. Bigger spread indicates that students are performing at varied levels of ability in the State. It is an important measure of the inequities in the provision of education in that state. A smaller spread indicates homogeneity of the group. Different strategies to improve the learning of All students will be needed to address the two different scenarios.

- There are large variations in scale scores on different percentile across the States/UTs such as 25th percentile scores of Bihar (191), Chhattisgarh (186), Tamil Nadu (229) and Karnataka (223).
- The range between the 90th and 10th percentile shows that Uttar Pradesh and Manipur are showing a bigger spread which indicates that students are performing at varied levels of ability in the states. Mizoram and Chandigarh are showing a smaller spread indicating homogeneity of groups.

Performance by Gender

Reading Comprehension

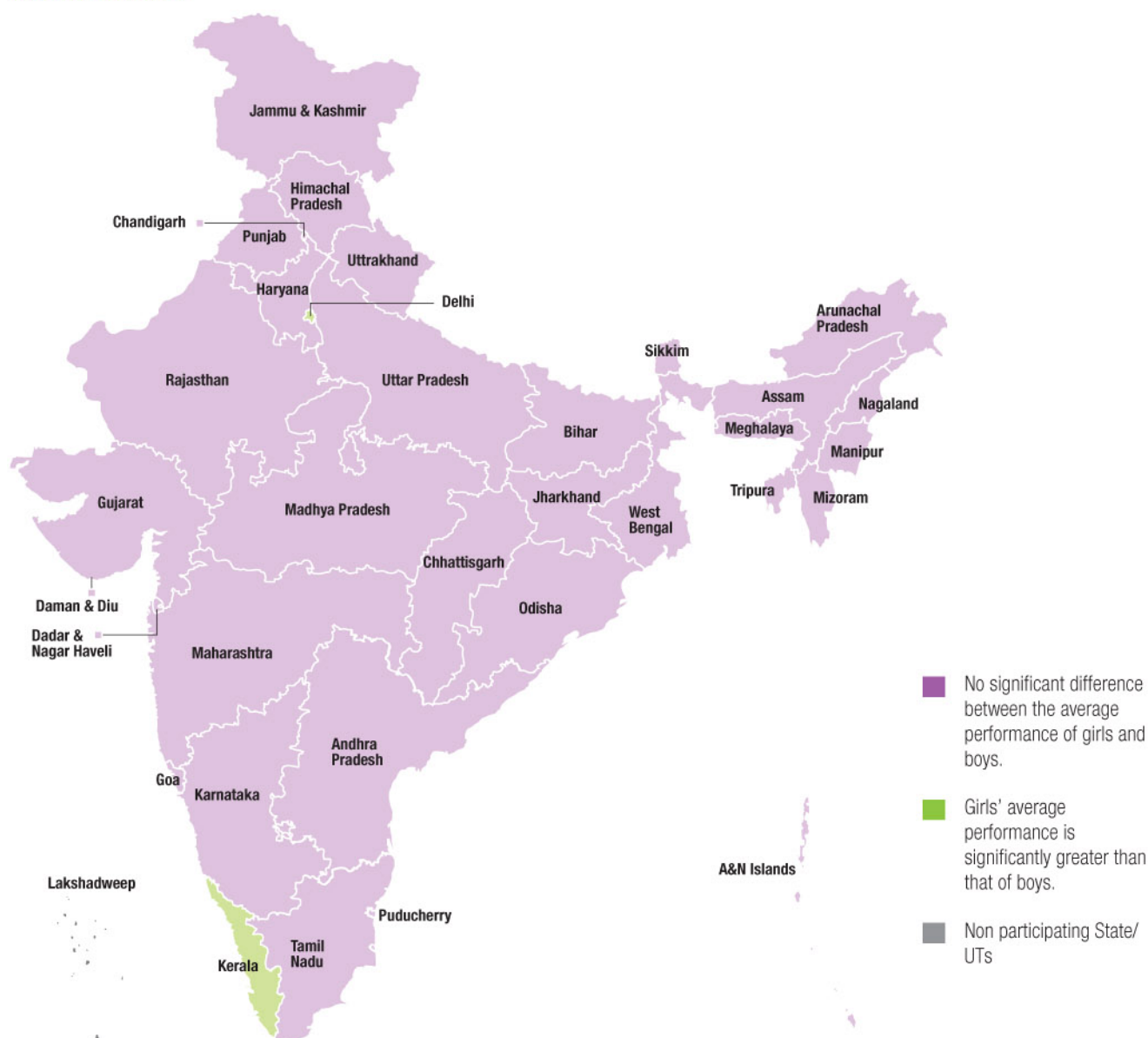


State/Union Territory	Boys	Girls
Andhra Pradesh	236 (2.3)	238 (2.3)
Arunachal Pradesh	226 (2.4)	229 (2.8)
Assam	241 (3.6)	244 (3.5)
Bihar	208 (1.6)	208 (1.9)
Chhattisgarh	214 (2.7)	218 (2.6)
Delhi	223 (2.3)	230 (2.5)
Goa	249 (2.3)	259 (2.4)
Gujarat	241 (2.4)	245 (2.8)
Haryana	238 (3.6)	241 (2.7)
Himachal Pradesh	243 (3.1)	252 (3.1)
Jammu & Kashmir	237 (3.6)	242 (3.1)
Jharkhand	225 (2.8)	230 (2.7)
Karnataka	250 (2.9)	253 (2.6)
Kerala	252 (1.3)	266 (1.3)
Madhya Pradesh	229 (2.6)	228 (3.2)
Maharashtra	245 (2.1)	251 (2.2)
Manipur	256 (3.9)	256 (3.3)

State/Union Territory	Boys	Girls
Meghalaya	225 (2.1)	226 (2.8)
Mizoram	255 (1.9)	260 (1.9)
Nagaland	246 (3.8)	246 (3.5)
Odisha	232 (2.3)	233 (2.5)
Punjab	246 (2.5)	253 (2.2)
Rajasthan	230 (2.5)	235 (2.5)
Sikkim	245 (2.5)	244 (2.8)
Tamil Nadu	256 (2.9)	262 (2.4)
Tripura	250 (3.2)	256 (3)
Uttar Pradesh	248 (3.2)	248 (3)
Uttarakhand	221 (2.3)	224 (2.6)
West Bengal	244 (3)	245 (3.2)
A&N Islands	244 (3.6)	252 (3.9)
Chandigarh	233 (2.6)	238 (2.5)
Puducherry	234 (2.5)	241 (2.4)
Dadra & Nagar Haveli	256 (5.8)	265 (5.2)
Daman & Diu	259 (4.4)	260 (6)
Overall	239 (0.5)	243 (0.5)

Girls in Delhi, Goa, Kerala, Maharashtra and Punjab did better than boys whereas in remaining States/UTs, there was no significant difference in scores of boys and girls.

Mathematics

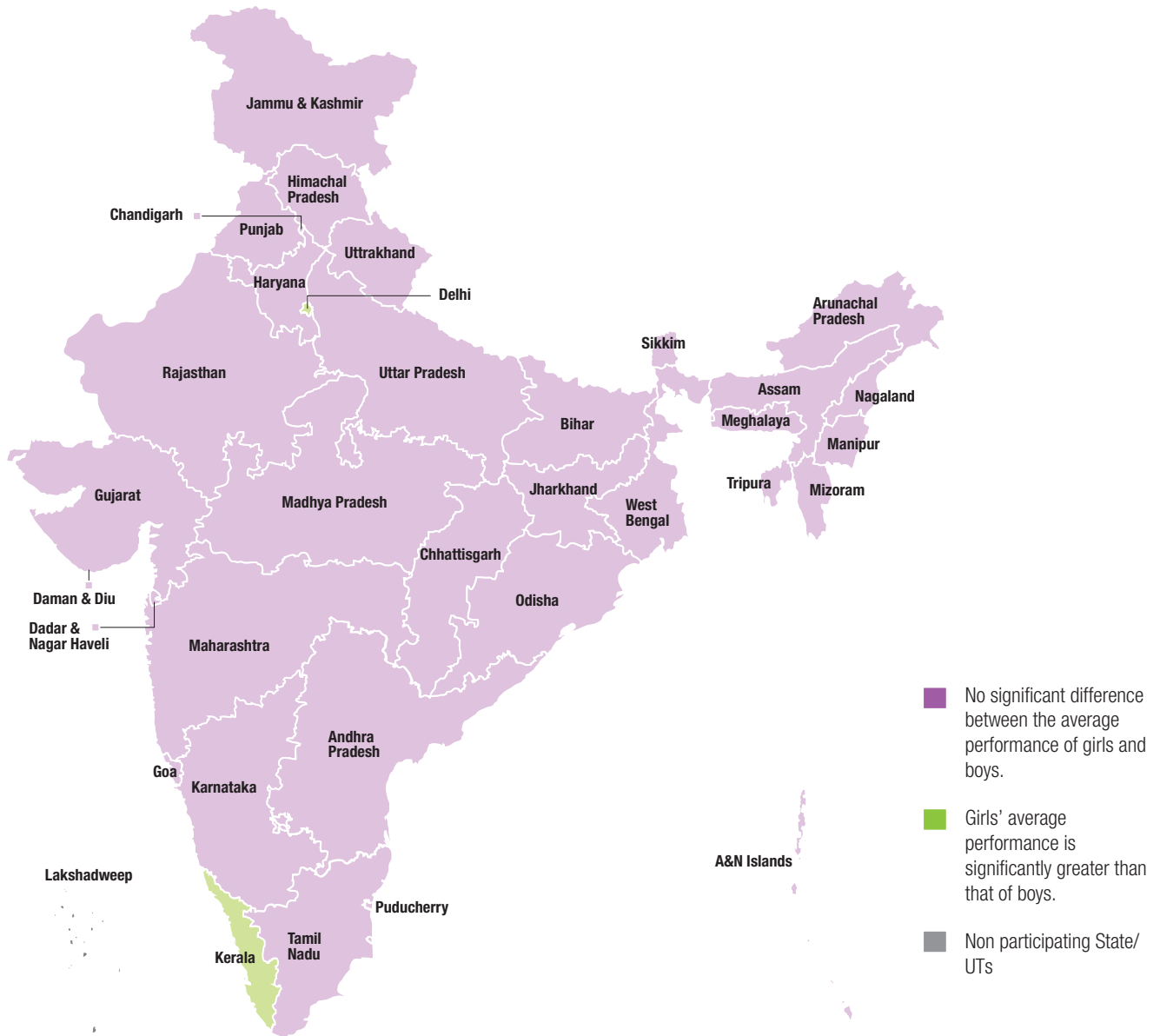


State/Union Territory	Boys	Girls
Andhra Pradesh	234 (2.2)	235 (2.3)
Arunachal Pradesh	224 (2.3)	225 (2.6)
Assam	254 (3.6)	258 (3.8)
Bihar	236 (3)	235 (3.5)
Chhattisgarh	207 (2)	208 (2)
Delhi	222 (3.4)	224 (2.7)
Goa	226 (1.6)	228 (2)
Gujarat	249 (3.3)	251 (3.2)
Haryana	242 (3.1)	249 (2.8)
Himachal Pradesh	244 (3.1)	248 (3)
Jammu & Kashmir	246 (3.9)	251 (3.5)
Jharkhand	239 (3.6)	235 (3.4)
Karnataka	259 (2.8)	260 (3)
Kerala	227 (1.3)	232 (1.2)
Madhya Pradesh	235 (3.4)	236 (3.5)
Maharashtra	234 (2.3)	240 (2.9)
Manipur	259 (3.7)	261 (3.1)

State/Union Territory	Boys	Girls
Meghalaya	226 (2.7)	229 (2.8)
Mizoram	225 (1.7)	223 (1.6)
Nagaland	241 (4.4)	240 (4)
Odisha	237 (3.3)	237 (3.1)
Punjab	237 (2.5)	239 (2.6)
Rajasthan	245 (3.2)	247 (3.4)
Sikkim	239 (2.5)	240 (2.7)
Tamil Nadu	262 (2.8)	265 (2.9)
Tripura	243 (2.9)	246 (3)
Uttar Pradesh	259 (2.9)	255 (2.9)
Uttarakhand	222 (2.5)	222 (2.8)
West Bengal	243 (3.2)	237 (3.6)
A&N Islands	255 (5.9)	252 (6.3)
Chandigarh	227 (2.2)	226 (2.4)
Puducherry	242 (3.3)	250 (3)
Dadra & Nagar Haveli	260 (4.2)	261 (4.1)
Daman & Diu	273 (7.6)	274 (9.1)
Overall	240 (0.6)	242 (0.6)

Girls did significantly better than boys only in Kerala whereas in the rest of the States/UTs, there was no significant difference in achievement of boys and girls in Mathematics.

Environmental Studies



State/Union Territory	Boys	Girls
Andhra Pradesh	237 (2.9)	238 (2.9)
Arunachal Pradesh	231 (3.2)	232 (3.5)
Assam	249 (3.2)	255 (3.2)
Bihar	227 (2.7)	225 (3)
Chhattisgarh	213 (2.8)	212 (2.8)
Delhi	223 (2.7)	224 (2.7)
Goa	237 (2.5)	242 (2.4)
Gujarat	245 (2.9)	248 (2.9)
Haryana	240 (2.9)	240 (3.1)
Himachal Pradesh	246 (3.7)	247 (3.2)
Jammu & Kashmir	248 (3.9)	253 (3.8)
Jharkhand	240 (4)	235 (4.2)
Karnataka	263 (3.1)	261 (3)
Kerala	236 (1.1)	243 (1.1)
Madhya Pradesh	237 (3.4)	239 (3.9)
Maharashtra	232 (2.1)	237 (2.3)
Manipur	255 (4)	259 (4.2)

State/Union Territory	Boys	Girls
Meghalaya	234 (3)	235 (3)
Mizoram	254 (1.6)	252 (1.5)
Nagaland	241 (3.3)	240 (4.2)
Odisha	237 (3.1)	235 (2.8)
Punjab	247 (2.7)	251 (2.5)
Rajasthan	232 (2.7)	237 (3.5)
Sikkim	246 (2.7)	249 (3.2)
Tamil Nadu	266 (3.1)	267 (3.2)
Tripura	253 (3.3)	261 (3.3)
Uttar Pradesh	259 (3.2)	261 (3.4)
Uttarakhand	221 (2.7)	222 (2.9)
West Bengal	244 (3.3)	243 (2.9)
A&N Islands	258 (5.4)	260 (5.7)
Chandigarh	225 (2)	229 (2.7)
Puducherry	248 (3.7)	254 (4.1)
Dadra & Nagar Haveli	260 (6)	268 (5.5)
Daman & Diu	269 (6.2)	267 (4.8)
Overall	243 (0.6)	245 (0.6)

Girls did significantly better than boys only in Kerala whereas in the rest of the States/UTs, there was no significant difference in achievement of boys and girls in Environmental Studies.

Performance by Urban Rural

Reading Comprehension



- No significant difference between the average performance of rural and urban students.
- Rural students' average performance is significantly higher than that of urban students.
- Rural students' average performance is significantly lower than that of urban students.
- Non participating State/UTs

State/Union Territory	Rural	Urban
Andhra Pradesh	238 (2.4)	234 (4.3)
Arunachal Pradesh	226 (2.5)	234 (6.8)
Assam	243 (3.5)	239 (6.6)
Bihar	208 (1.7)	213 (7)
Chhattisgarh	216 (2.3)	218 (7.7)
Delhi	228 (3.8)	226 (2.1)
Goa	253 (2.9)	256 (4)
Gujarat	241 (2.5)	254 (7.2)
Haryana	239 (2.9)	238 (7.9)
Himachal Pradesh	248 (2.7)	247 (19.6)
Jammu & Kashmir	241 (3.2)	222 (9.8)
Jharkhand	226 (2.5)	245 (9.5)
Karnataka	254 (2.8)	245 (5.5)
Kerala	259 (1.4)	259 (2.2)
Madhya Pradesh	231 (2.6)	220 (6.7)
Maharashtra	245 (2.2)	252 (3.3)
Manipur	252 (3.9)	266 (7.2)

State/Union Territory	Rural	Urban
Meghalaya	224 (2.6)	230 (4.4)
Mizoram	255 (2)	262 (2.9)
Nagaland	249 (3.5)	237 (5.8)
Odisha	232 (2.4)	232 (7)
Punjab	249 (2.1)	251 (4.4)
Rajasthan	231 (2.2)	243 (7.3)
Sikkim	245 (2.6)	240 (9.3)
Tamil Nadu	261 (3.6)	256 (4)
Tripura	252 (3.4)	257 (4.7)
Uttar Pradesh	250 (3)	223 (9.7)
Uttarakhand	222 (2.4)	228 (5.5)
West Bengal	242 (2.7)	255 (6.9)
A&N Islands	249 (3.6)	246 (12.7)
Chandigarh	238 (6)	235 (2.3)
Puducherry	240 (3.5)	235 (3.2)
Dadra & Nagar Haveli	262 (5.6)	246 (8.7)
Daman & Diu	260 (6.4)	259 (9.9)
Overall	241 (0.6)	241 (1.3)

- **There was no significant difference between the average performance of rural and urban students.**
- **In Uttar Pradesh, rural students' average performance was significantly higher than that of urban students.**

Mathematics



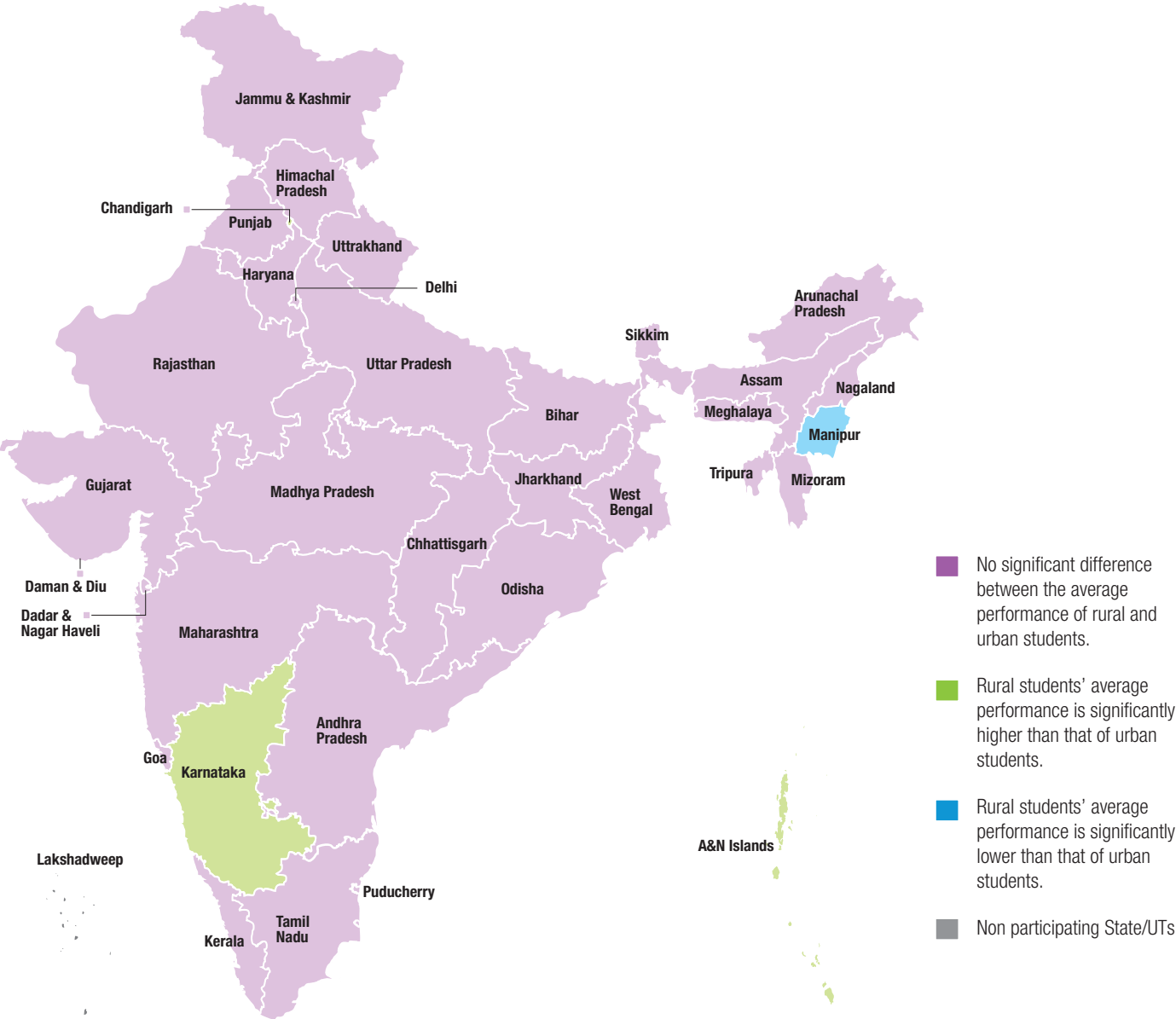
- No significant difference between the average performance of rural and urban students.
- Rural students' average performance is significantly higher than that of urban students.
- Rural students' average performance is significantly lower than that of urban students.
- Non participating State/UTs

State/Union Territory	Rural	Urban
Andhra Pradesh	237 (2.5)	226 (4.2)
Arunachal Pradesh	224 (2.3)	224 (5.9)
Assam	258 (3.7)	243 (8.5)
Bihar	235 (3.1)	237 (10.5)
Chhattisgarh	209 (1.8)	204 (5.8)
Delhi	219 (4)	224 (2.6)
Goa	227 (2.1)	226 (2.4)
Gujarat	250 (3)	248 (8)
Haryana	245 (2.8)	245 (8.6)
Himachal Pradesh	247 (2.7)	240 (19.6)
Jammu & Kashmir	249 (3.4)	245 (14)
Jharkhand	236 (3)	245 (10.6)
Karnataka	262 (3.5)	254 (4.4)
Kerala	230 (1.4)	231 (1.6)
Madhya Pradesh	237 (3.3)	233 (6.6)
Maharashtra	239 (3.5)	235 (3.3)
Manipur	255 (3.6)	269 (5.9)

State/Union Territory	Rural	Urban
Meghalaya	229 (3.1)	225 (4.5)
Mizoram	224 (2.1)	225 (2.2)
Nagaland	242 (4)	235 (8.5)
Odisha	238 (3.1)	231 (7.8)
Punjab	237 (3.1)	241 (3.9)
Rajasthan	247 (3)	241 (13.7)
Sikkim	241 (2.6)	221 (4.7)
Tamil Nadu	264 (3.8)	263 (3.8)
Tripura	242 (3)	255 (5.9)
Uttar Pradesh	259 (2.9)	234 (10.1)
Uttarakhand	223 (2.7)	221 (5.7)
West Bengal	240 (3.3)	246 (6.1)
A&N Islands	254 (5.3)	248 (20.7)
Chandigarh	230 (5.2)	225 (2.2)
Puducherry	251 (4)	238 (3.9)
Dadra & Nagar Haveli	259 (4.4)	269 (8.5)
Daman & Diu	273 (9.1)	272 (9.7)
Overall	242 (0.6)	239 (1.5)

- Overall, there was no significant difference between the average performance of rural and urban students.
- In Andhra Pradesh, Sikkim, Uttar Pradesh and Puducherry, rural students' average performance was significantly higher than that of urban students.

Environmental Studies



State/Union Territory	Rural	Urban
Andhra Pradesh	237 (3)	241 (5.9)
Arunachal Pradesh	232 (3.7)	228 (6.8)
Assam	253 (3.3)	247 (7.3)
Bihar	227 (2.8)	218 (6.8)
Chhattisgarh	211 (2.5)	225 (13.2)
Delhi	225 (4.1)	222 (2.3)
Goa	240 (3)	239 (3.1)
Gujarat	247 (2.7)	245 (6)
Haryana	239 (2.9)	240 (9.2)
Himachal Pradesh	245 (3.3)	266 (33)
Jammu & Kashmir	250 (3.3)	280 (31.9)
Jharkhand	238 (3.7)	235 (6.7)
Karnataka	267 (3.4)	251 (5.7)
Kerala	240 (1.3)	240 (2.3)
Madhya Pradesh	238 (3.3)	238 (10.5)
Maharashtra	235 (2.5)	234 (3.2)
Manipur	250 (3.9)	273 (8.1)

State/Union Territory	Rural	Urban
Meghalaya	236 (3.2)	234 (5.6)
Mizoram	253 (1.7)	254 (2.8)
Nagaland	241 (4.4)	237 (10.3)
Odisha	236 (2.8)	236 (5.5)
Punjab	247 (2.6)	252 (4.4)
Rajasthan	235 (2.8)	241 (15.9)
Sikkim	248 (2.8)	240 (16.6)
Tamil Nadu	269 (3.9)	262 (4.9)
Tripura	257 (3.3)	259 (6.4)
Uttar Pradesh	260 (3.1)	270 (21.4)
Uttarakhand	221 (2.9)	222 (6)
West Bengal	242 (2.9)	250 (5.7)
A&N Islands	265 (6)	237 (8.7)
Chandigarh	226 (4.1)	228 (2.6)
Puducherry	248 (4.7)	255 (5.3)
Dadra & Nagar Haveli	266 (5.8)	259 (14)
Daman & Diu	271 (5.1)	253 (17.6)
Overall	244 (0.6)	244 (2)

- Overall, there was no significant difference between the average performance of rural and urban students.
- In Karnataka and A&N Islands, rural students' average performance was significantly higher than that of urban students.

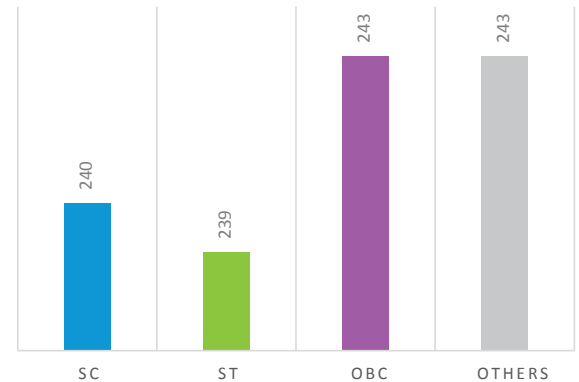
Performance by Social Group

Reading Comprehension

State/Union Territory	SC	ST	OBC	Others
Andhra Pradesh	236 (3.3)	233 (4.5)	236 (2.4)	246 (4.1)
Arunachal Pradesh	211 (7.8)	231 (2.7)	218 (8.1)	219 (2.6)
Assam	235 (4.5)	254 (8.7)	238 (6)	244 (3.9)
Bihar	208 (2.3)	205 (6.7)	207 (1.8)	213 (3.2)
Chhattisgarh	205 (3.4)	222 (4.3)	219 (3)	218 (5.6)
Delhi	220 (2.5)	217 (5.4)	229 (5.3)	230 (2.2)
Goa	248 (6.8)	248 (3.8)	255 (3.1)	255 (2.5)
Gujarat	243 (4.2)	242 (4.9)	244 (2.7)	243 (5.1)
Haryana	232 (3)	236 (9.7)	241 (3.7)	250 (3.4)
Himachal Pradesh	246 (3.4)	251 (10.9)	251 (5.1)	248 (3.5)
Jammu & Kashmir	218 (6.9)	233 (6.7)	257 (8.4)	240 (3.3)
Jharkhand	225 (4.1)	227 (4.5)	227 (3.4)	248 (7.5)
Karnataka	250 (3.2)	240 (5.1)	252 (2.7)	256 (4.8)
Kerala	248 (1.8)	229 (5.3)	260 (1.2)	271 (2.4)
Madhya Pradesh	229 (4)	235 (4.9)	229 (2.6)	236 (8.2)
Maharashtra	246 (2.3)	241 (3.7)	247 (2.4)	253 (2.4)
Manipur	294 (14.8)	246 (14.6)	257 (4.3)	252 (5.1)
Meghalaya	256 (22.5)	224 (2)	266 (40.7)	250 (16.8)
Mizoram	241 (17.1)	257 (1.7)	223 (10.3)	228 (23.5)
Nagaland	245 (4.5)	244 (3.9)	249 (21.1)	236 (4.1)
Odisha	229 (2.8)	224 (3.4)	236 (2.9)	242 (6.3)
Punjab	247 (2.3)	278 (13.1)	252 (2.8)	255 (2.8)
Rajasthan	233 (3.1)	224 (3.5)	236 (3.1)	236 (3.3)
Sikkim	243 (4)	244 (3.6)	250 (3)	243 (4.7)
Tamil Nadu	256 (3.2)	240 (8.2)	260 (2.7)	285 (5.1)
Tripura	255 (4.1)	249 (4.4)	252 (3.8)	253 (5.3)
Uttar Pradesh	245 (3.6)	231 (18.5)	251 (3.6)	245 (5)
Uttarakhand	224 (3)	226 (8.7)	222 (3.3)	223 (2.9)
West Bengal	241 (3.8)	239 (6.9)	239 (4.2)	247 (3.1)
A&N Islands	276 (0)	234 (5.6)	254 (5.5)	250 (4.3)
Chandigarh	233 (3.3)	242 (10.7)	243 (12.4)	236 (2.5)
Puducherry	240 (3.8)	252 (28.3)	238 (2.2)	225 (5.4)
Dadra & Nagar Haveli	241 (10.4)	263 (5.2)	251 (24)	234 (9.4)
Daman & Diu	261 (11.4)	259 (11)	266 (7)	246 (6.2)
Overall	240 (1.2)	239 (1.5)	243 (1.7)	243 (1.2)

Social Group	Average (SE)	SC	ST	OBC	Others
SC	240 (1.2)	-	●	●	●
ST	239 (1.5)	●	-	●	●
OBC	243 (1.7)	●	●	-	●
Others	243 (1.2)	●	●	●	-

- The average scores of the two categories being compared are not significantly different.
- The average score of the category given in the first column is significantly higher than that of the category with which it is being compared.
- The average score of the category given in the first column is significantly lower than that of the category with which it is being compared.



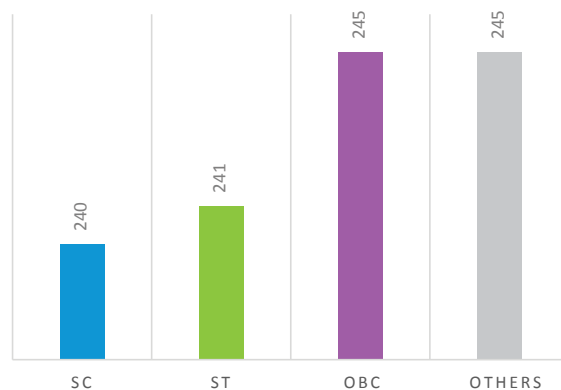
There was no significant difference in average achievement scores of SC, ST and OBC students. However, 'Others' category students scored significantly above than that of ST students in Reading Comprehension.

Mathematics

State/Union Territory	SC	ST	OBC	Others
Andhra Pradesh	230 (3.1)	240 (5.8)	235 (2.4)	240 (4.4)
Arunachal Pradesh	214 (6)	230 (2.5)	205 (5.5)	213 (3.6)
Assam	241 (7.7)	259 (9.6)	244 (6.1)	260 (4.3)
Bihar	235 (4.1)	239 (11.1)	236 (3.4)	232 (5.9)
Chhattisgarh	201 (2.2)	214 (3.4)	209 (2.1)	212 (4.8)
Delhi	218 (3.7)	219 (4.5)	217 (4.7)	225 (2.7)
Goa	227 (3.9)	224 (2.6)	228 (2.4)	227 (1.8)
Gujarat	242 (5)	251 (4.9)	249 (3.5)	257 (5.3)
Haryana	240 (2.7)	242 (10.3)	247 (3.8)	256 (4.4)
Himachal Pradesh	241 (3.1)	245 (8.4)	254 (5.2)	247 (3.7)
Jammu & Kashmir	237 (10.5)	243 (6.8)	255 (6.8)	252 (4.1)
Jharkhand	235 (5.1)	227 (3.8)	238 (3.6)	256 (6.6)
Karnataka	253 (4.4)	248 (6)	263 (3)	271 (4.5)
Kerala	221 (1.5)	211 (8.7)	232 (1.2)	235 (2.1)
Madhya Pradesh	237 (4.4)	236 (5.1)	235 (3.6)	242 (6.3)
Maharashtra	234 (2.7)	236 (4.7)	239 (2.9)	238 (3.3)
Manipur	269 (12.2)	245 (18.3)	262 (3.8)	251 (5.4)
Meghalaya	240 (11.5)	224 (2.5)	254 (21)	250 (11.3)
Mizoram	216 (10)	224 (1.5)	227 (16.9)	233 (8.3)
Nagaland	226 (6.3)	239 (4.2)	241 (17.6)	255 (13.9)
Odisha	238 (4.9)	222 (3.3)	240 (3.8)	251 (5.9)
Punjab	236 (2.8)	230 (13.1)	246 (3.8)	241 (3.7)
Rajasthan	247 (4.3)	233 (5.3)	250 (4)	249 (6)
Sikkim	237 (4.5)	236 (2.9)	243 (3.6)	244 (4)
Tamil Nadu	263 (3.7)	255 (7.9)	265 (3.1)	262 (14.8)
Tripura	243 (3.4)	240 (4.5)	249 (3.2)	247 (5.4)
Uttar Pradesh	259 (3.4)	241 (12)	257 (3.4)	252 (4.9)
Uttarakhand	221 (2.7)	240 (8.6)	218 (3.7)	228 (3.9)
West Bengal	236 (3.8)	234 (6.5)	233 (6.3)	246 (3.8)
A&N Islands	310 (0)	238 (6)	255 (8)	254 (6.5)
Chandigarh	219 (2.9)	220 (0)	226 (5.5)	227 (2.3)
Puducherry	246 (3.8)	226 (9.7)	245 (3.2)	239 (6.5)
Dadra & Nagar Haveli	255 (8.1)	262 (4.2)	242 (11)	256 (8.7)
Daman & Diu	277 (8.7)	264 (16.6)	283 (5.7)	252 (5.8)
Overall	240 (1)	236 (1.3)	242 (1.2)	244 (1.1)

Social Group	Average (SE)	SC	ST	OBC	Others
SC	240 (1)	-	●	●	⬇
ST	236 (1.3)	●	-	⬇	⬇
OBC	242 (1.2)	●	⬆	-	●
Others	244 (1.1)	⬆	⬆	●	-

- The average scores of the two categories being compared are not significantly different.
- ⬆ The average score of the category given in the first column is significantly higher than that of the category with which it is being compared.
- ⬇ The average score of the category given in the first column is significantly lower than that of the category with which it is being compared.



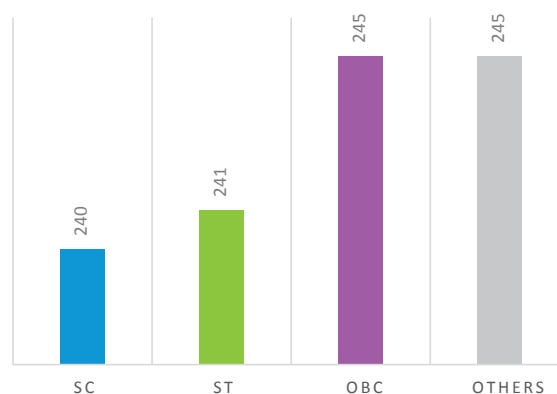
- **Overall SC and ST category students' average achievement was significantly below than the average achievement scores of the 'Others' category students.**
- **The average scores of SC and ST category were not significantly different in Mathematics.**

Environmental Studies

State/Union Territory	SC	ST	OBC	Others
Andhra Pradesh	237 (3.8)	233 (5.7)	237 (3)	243 (6)
Arunachal Pradesh	229 (12.7)	236 (3.2)	227 (5.1)	214 (4)
Assam	247 (4.3)	254 (8.3)	246 (6.5)	254 (3.6)
Bihar	224 (4.5)	224 (9.8)	226 (2.8)	228 (5.2)
Chhattisgarh	202 (3.5)	223 (4.6)	211 (2.3)	213 (6.1)
Delhi	219 (3)	209 (5.3)	225 (4.3)	224 (2.4)
Goa	230 (5.4)	232 (4.1)	243 (3.2)	241 (2.5)
Gujarat	245 (5.2)	251 (5.1)	245 (3)	257 (5.2)
Haryana	232 (2.8)	245 (6.4)	240 (3.6)	253 (4.1)
Himachal Pradesh	244 (3.7)	240 (13.5)	250 (5.1)	246 (4.4)
Jammu & Kashmir	239 (10.7)	254 (7.9)	255 (7.5)	252 (4.4)
Jharkhand	242 (4.9)	222 (4.6)	243 (4.7)	246 (9.9)
Karnataka	257 (5)	258 (6.9)	263 (3)	274 (5.9)
Kerala	235 (1.7)	215 (5.6)	240 (1.1)	249 (2.4)
Madhya Pradesh	240 (4.2)	243 (5.7)	236 (3.8)	253 (8.1)
Maharashtra	233 (3)	234 (3.9)	233 (3)	237 (2.4)
Manipur	271 (13.4)	249 (16.9)	257 (5.4)	253 (8.6)
Meghalaya	235 (6.7)	233 (2.6)	243 (12.2)	262 (17.6)
Mizoram	247 (6.1)	254 (1.4)	251 (6.9)	228 (6.2)
Nagaland	248 (11)	237 (3.5)	231 (10.8)	236 (5.3)
Odisha	233 (3.4)	222 (4.3)	242 (3.5)	246 (4.5)
Punjab	246 (2.5)	233 (5.5)	254 (4.6)	253 (3.2)
Rajasthan	231 (3.5)	220 (4.1)	241 (3.8)	243 (6.4)
Sikkim	246 (4.7)	245 (3.3)	250 (3.4)	249 (5.5)
Tamil Nadu	268 (4.7)	255 (6.9)	267 (3.1)	264 (13.5)
Tripura	255 (3.8)	252 (6.2)	262 (3.8)	258 (4.1)
Uttar Pradesh	261 (3.9)	253 (7.6)	261 (3.9)	252 (5.3)
Uttarakhand	215 (2.7)	219 (6)	220 (3.9)	231 (4.4)
West Bengal	240 (3.1)	243 (5.3)	232 (6.2)	248 (3.1)
A&N Islands	-	254 (13.1)	265 (8.9)	259 (5.7)
Chandigarh	225 (3.4)	189 (6)	234 (5.6)	227 (2.4)
Puducherry	251 (4.9)	311 (37.4)	251 (4.2)	241 (6)
Dadra & Nagar Haveli	248 (8.4)	267 (5.4)	276 (10.9)	245 (13.1)
Daman & Diu	256 (14.9)	277 (12.8)	277 (6.3)	243 (6.3)
Overall	240 (1.1)	241 (1.6)	245 (1)	245 (1.1)

Social Group	Average (SE)	SC	ST	OBC	Others
SC	240 (1.1)	-	●	⬇	⬇
ST	241 (1.6)	●	-	⬇	⬇
OBC	245 (1)	⬆	⬆	-	●
Others	245 (1.1)	⬆	⬆	●	-

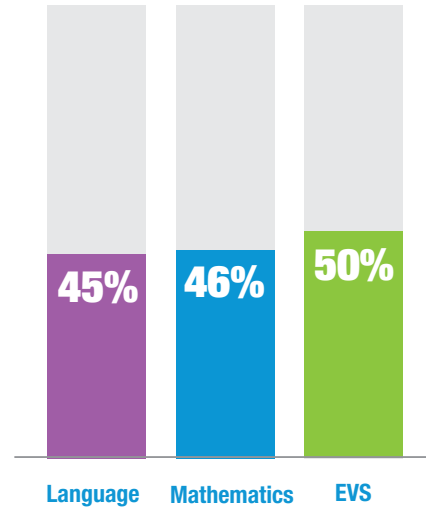
- The average scores of the two categories being compared are not significantly different.
- ⬆ The average score of the category given in the first column is significantly higher than that of the category with which it is being compared.
- ⬇ The average score of the category given in the first column is significantly lower than that of the category with which it is being compared.



- **Average scores of both OBC and 'Others' category students were significantly above than that of SC and ST category students in EVS.**
- **There was no significant difference in average scores of SC and ST category students in EVS.**

Overall Findings (in Percent Correct)

State/Union Territory	Percentage		
	Reading Comprehension	Mathematics	EVS
Andhra Pradesh	44	44	48
Arunachal Pradesh	39	39	46
Assam	47	53	54
Bihar	29	45	43
Chhattisgarh	34	32	37
Delhi	39	39	41
Goa	51	40	49
Gujarat	46	51	52
Haryana	45	49	49
Himachal Pradesh	49	49	51
Jammu & Kashmir	45	50	54
Jharkhand	39	45	48
Karnataka	50	55	58
Kerala	54	42	49
Madhya Pradesh	40	45	48
Maharashtra	49	45	47
Manipur	53	55	56
Meghalaya	38	41	47
Mizoram	54	39	54
Nagaland	48	46	49
Odisha	41	45	47
Punjab	49	45	53
Rajasthan	42	49	47
Sikkim	47	46	52
Tamil Nadu	54	56	60
Tripura	51	48	57
Uttar Pradesh	49	54	58
Uttarakhand	37	39	41
West Bengal	47	47	51
A&N Islands	49	52	57
Chandigarh	42	40	44
Puducherry	44	49	54
Dadra & Nagar Haveli	55	56	59
Daman & Diu	55	61	61
Overall	45	46	50



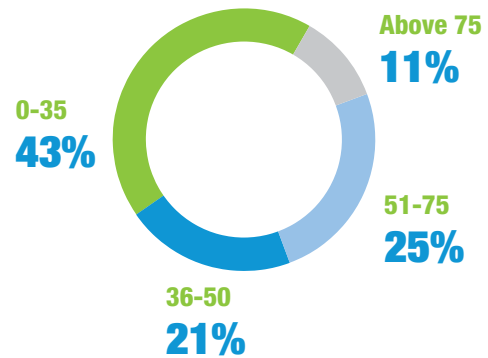
Overall, Class V (Cycle 4) students in 34 States/UTs were able to correctly answer 45% of Reading Comprehension items, 46% of Mathematics items and 50% of Environmental Studies items.

Distribution of Students by Performance: Percent Correct Answers

Reading Comprehension

State/Union Territory	Range of correct answers			
	0-35%	36-50%	51-75%	Above 75%
Andhra Pradesh	46	21	23	10
Arunachal Pradesh	54	22	18	6
Assam	43	19	24	14
Bihar	76	16	7	2
Chhattisgarh	65	17	12	6
Delhi	55	21	18	6
Goa	31	23	30	15
Gujarat	39	23	28	9
Haryana	45	19	23	13
Himachal Pradesh	35	23	28	14
Jammu & Kashmir	44	21	24	11
Jharkhand	54	20	19	7
Karnataka	36	19	27	17
Kerala	27	21	35	17
Madhya Pradesh	51	20	23	7
Maharashtra	37	21	28	13
Manipur	32	21	26	22
Meghalaya	57	25	15	3
Mizoram	23	24	39	14
Nagaland	37	24	27	12
Odisha	49	20	23	8
Punjab	32	24	32	12
Rajasthan	49	21	23	7
Sikkim	38	25	26	11
Tamil Nadu	30	20	32	18
Tripura	33	19	31	17
Uttar Pradesh	38	17	28	17
Uttarakhand	57	21	18	4
West Bengal	41	19	27	13
A&N Islands	36	22	28	14
Chandigarh	46	26	23	6
Puducherry	50	19	19	13
Dadra & Nagar Haveli	25	20	38	18
Daman & Diu	25	19	40	15
Overall	43	21	25	11

Range of correct answers

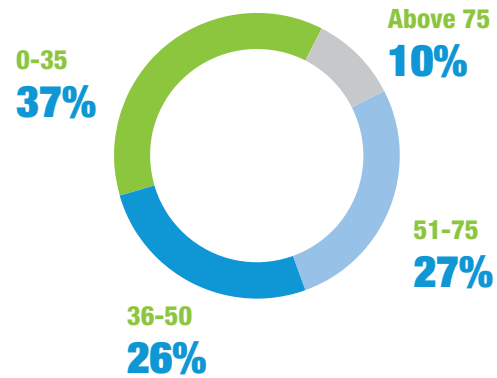


Overall, 64% students were in the range of 0-50% scores, out of that 43% students were in the range of 0-35% scores in Reading Comprehension.

Mathematics

State/Union Territory	Range of correct answers			
	0-35%	36-50%	51-75%	Above 75%
Andhra Pradesh	40	26	26	7
Arunachal Pradesh	51	26	18	5
Assam	27	21	33	19
Bihar	41	22	27	10
Chhattisgarh	67	23	8	2
Delhi	51	27	18	4
Goa	46	32	19	2
Gujarat	28	23	37	12
Haryana	34	22	32	13
Himachal Pradesh	30	26	34	10
Jammu & Kashmir	29	25	33	13
Jharkhand	38	25	28	9
Karnataka	27	20	30	23
Kerala	41	35	21	3
Madhya Pradesh	39	24	29	8
Maharashtra	40	27	26	7
Manipur	26	23	27	24
Meghalaya	49	27	19	5
Mizoram	47	34	17	2
Nagaland	36	26	30	8
Odisha	40	24	26	11
Punjab	36	29	28	7
Rajasthan	32	24	32	13
Sikkim	36	30	26	8
Tamil Nadu	18	25	37	20
Tripura	30	25	37	9
Uttar Pradesh	27	19	34	20
Uttarakhand	50	27	19	3
West Bengal	35	25	27	12
A&N Islands	30	22	31	17
Chandigarh	45	35	19	2
Puducherry	34	27	26	14
Dadra & Nagar Haveli	18	20	51	11
Daman & Diu	9	22	48	21
Overall	37	26	27	10

Range of correct answers

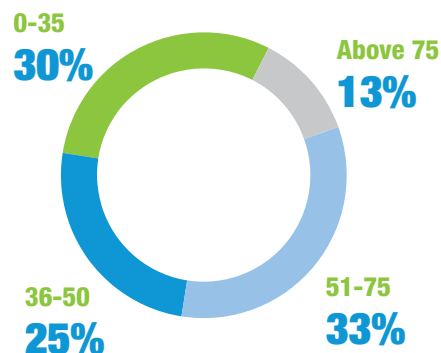


Overall, 63% students were in the range of 0-50% scores, out of that 37% students were in the range of 0-35% scores in Mathematics.

Environmental Studies

State/Union Territory	Range of correct answers			
	0-35%	36-50%	51-75%	Above 75%
Andhra Pradesh	35	27	26	12
Arunachal Pradesh	38	25	28	9
Assam	22	22	39	17
Bihar	44	22	25	9
Chhattisgarh	57	24	13	5
Delhi	43	29	24	4
Goa	27	29	35	8
Gujarat	23	26	39	11
Haryana	32	24	32	12
Himachal Pradesh	25	27	35	13
Jammu & Kashmir	27	18	35	19
Jharkhand	38	21	27	14
Karnataka	19	20	37	24
Kerala	22	33	42	3
Madhya Pradesh	34	22	31	13
Maharashtra	32	28	33	7
Manipur	28	16	28	27
Meghalaya	32	33	27	9
Mizoram	11	28	55	5
Nagaland	31	27	33	10
Odisha	34	23	32	11
Punjab	21	26	42	11
Rajasthan	36	25	28	11
Sikkim	21	32	35	12
Tamil Nadu	14	22	36	28
Tripura	19	19	42	21
Uttar Pradesh	22	18	33	27
Uttarakhand	47	26	22	5
West Bengal	26	26	37	12
A&N Islands	23	21	32	24
Chandigarh	35	36	26	3
Puducherry	26	21	34	18
Dadra & Nagar Haveli	18	15	44	23
Daman & Diu	11	20	48	22
Overall	30	25	33	13

Range of correct answers



Overall, 55% students were in the range of 0-50% scores, out of that 30% students were in the range of 0-35% scores in Environmental Studies.

Comparison between Cycle 3 and Cycle 4

Reading Comprehension



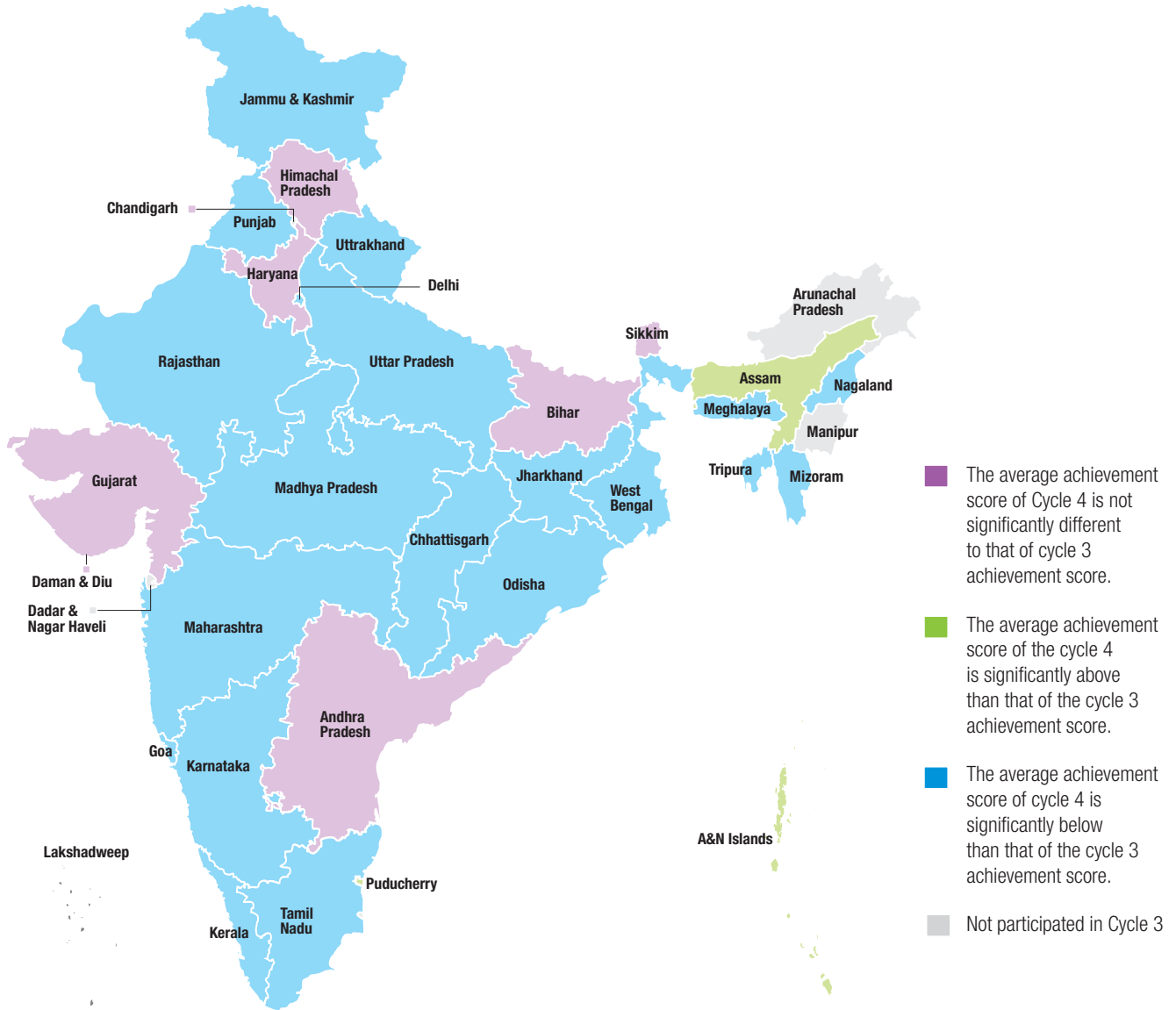
- The average achievement score of cycle 4 is not significantly different to that of cycle 3 achievement score.
- The average achievement score of the cycle 4 is significantly above than that of the cycle 3 achievement score.
- The average achievement score of cycle 4 is significantly below than that of the cycle 3 achievement score.
- Not participated in Cycle 3

State/Union Territory	Average Score (SE)	Average Score (SE)
	Cycle 3	Cycle 4
Andhra Pradesh	245 (2.1)	237 (2.1)
Arunachal Pradesh	-	227 (2.4)
Assam	240 (2.3)	243 (3.2)
Bihar	228 (2.7)	208 (1.6)
Chhattisgarh	229 (3.2)	216 (2.3)
Delhi	258 (3.4)	227 (1.8)
Goa	257 (4.4)	254 (2)
Gujarat	251 (2.7)	243 (2.3)
Haryana	236 (1.9)	239 (2.6)
Himachal Pradesh	241 (2.4)	248 (2.8)
Jammu & Kashmir	250 (2.8)	239 (3)
Jharkhand	236 (3.1)	228 (2.5)
Karnataka	262 (2.7)	251 (2.3)
Kerala	277 (1.9)	259 (1.1)
Madhya Pradesh	249 (3.9)	229 (2.4)
Maharashtra	266 (2.1)	248 (1.8)
Manipur	-	256 (3.3)

State/Union Territory	Average Score (SE)	Average Score (SE)
	Cycle 3	Cycle 4
Meghalaya	250 (2.5)	226 (2.2)
Mizoram	260 (1.1)	257 (1.7)
Nagaland	248 (2.8)	246 (3.3)
Odisha	253 (3.5)	232 (2.2)
Punjab	252 (2.7)	249 (1.9)
Rajasthan	251 (3)	233 (2.1)
Sikkim	246 (1.7)	245 (2.5)
Tamil Nadu	278 (2.5)	259 (2.5)
Tripura	253 (2.7)	253 (2.8)
Uttar Pradesh	282 (3.4)	248 (2.9)
Uttarakhand	232 (2.8)	223 (2.2)
West Bengal	265 (2.3)	244 (2.6)
A&N Islands	233 (2.1)	249 (3.6)
Chandigarh	245 (2.5)	236 (2.3)
Puducherry	222 (2.1)	238 (2.3)
Dadra & Nagar Haveli	-	260 (5.3)
Daman & Diu	255 (4.2)	260 (5.1)

- Out of 31 States/UTs common in both cycles, in 10 States/UTs the average achievement scores of Cycle 4 was not significantly different to that of Cycle 3 in Reading Comprehension.**
- Only in A&N Islands and Puducherry, the average achievement scores of Cycle 4 was significantly above than that of Cycle 3.**
- There are 19 states where the scores in Cycle 4 is significantly below Cycle 3.**

Mathematics



State/Union Territory	Average Score (SE)	Average Score (SE)
	Cycle 3	Cycle 4
Andhra Pradesh	238 (2.2)	235 (2)
Arunachal Pradesh	-	224 (2.2)
Assam	241 (2.3)	256 (3.4)
Bihar	242 (3.4)	235 (3)
Chhattisgarh	232 (3.4)	208 (1.7)
Delhi	261 (3.4)	223 (2.2)
Goa	241 (3.9)	227 (1.6)
Gujarat	256 (3.2)	250 (2.9)
Haryana	240 (2.5)	245 (2.4)
Himachal Pradesh	243 (2.4)	246 (2.9)
Jammu & Kashmir	262 (2.9)	249 (3.4)
Jharkhand	247 (3)	237 (2.9)
Karnataka	269 (2.9)	260 (2.5)
Kerala	244 (1.6)	230 (1.1)
Madhya Pradesh	265 (3.6)	236 (3)
Maharashtra	265 (3.1)	237 (2.4)
Manipur	-	260 (3)

State/Union Territory	Average Score (SE)	Average Score (SE)
	Cycle 3	Cycle 4
Meghalaya	244 (2.9)	228 (2.6)
Mizoram	233 (1)	224 (1.5)
Nagaland	252 (3.5)	240 (3.7)
Odisha	257 (3)	237 (3)
Punjab	252 (2.6)	238 (2.3)
Rajasthan	257 (3.2)	246 (3)
Sikkim	234 (1.8)	240 (2.4)
Tamil Nadu	279 (2.8)	264 (2.7)
Tripura	260 (3)	245 (2.7)
Uttar Pradesh	298 (3.1)	257 (2.6)
Uttarakhand	240 (2.7)	222 (2.6)
West Bengal	267 (2.5)	241 (2.7)
A&N Islands	226 (2.8)	253 (5.5)
Chandigarh	229 (2.1)	226 (2.1)
Puducherry	217 (3.6)	246 (2.9)
Dadra & Nagar Haveli	-	261 (3.9)
Daman & Diu	259 (5.7)	273 (6.6)

- Overall, in 8 States/UTs the average achievement scores of Cycle 4 were not significantly different to that of Cycle 3 in Mathematics.
- Overall only in 3 States/UTs the average achievement scores of Cycle 4 were significantly above than that of Cycle 3.
- There are 20 states where the scores in cycle 4 is significantly below cycle 3

Environmental Studies



State/Union Territory	Average Score (SE)	Average Score (SE)
	Cycle 3	Cycle 4
Andhra Pradesh	238 (2)	238 (2.7)
Arunachal Pradesh	-	232 (3.1)
Assam	239 (2.1)	252 (3)
Bihar	236 (3.1)	226 (2.6)
Chhattisgarh	234 (3.8)	212 (2.3)
Delhi	262 (3.2)	223 (1.9)
Goa	235 (3.2)	239 (2.2)
Gujarat	250 (2.8)	247 (2.5)
Haryana	232 (2.2)	239 (2.6)
Himachal Pradesh	243 (2.9)	246 (3.1)
Jammu & Kashmir	258 (2.9)	251 (3.4)
Jharkhand	245 (3.6)	237 (3.4)
Karnataka	276 (2.7)	262 (2.7)
Kerala	252 (1.6)	240 (1)
Madhya Pradesh	264 (3.3)	238 (3.2)
Maharashtra	263 (2.3)	235 (2)
Manipur	-	257 (3.7)

State/Union Territory	Average Score (SE)	Average Score (SE)
	Cycle 3	Cycle 4
Meghalaya	255 (2.7)	236 (2.8)
Mizoram	255 (1.1)	253 (1.3)
Nagaland	255 (3.7)	240 (3.4)
Odisha	253 (3)	236 (2.7)
Punjab	245 (2.8)	249 (2.3)
Rajasthan	247 (3.1)	235 (2.9)
Sikkim	245 (1.8)	247 (2.8)
Tamil Nadu	288 (2.8)	267 (2.9)
Tripura	257 (3.3)	257 (2.9)
Uttar Pradesh	284 (3.7)	260 (3.1)
Uttarakhand	237 (3)	221 (2.6)
West Bengal	265 (2.4)	243 (2.5)
A&N Islands	233 (3.1)	259 (5.2)
Chandigarh	226 (2.1)	227 (2.2)
Puducherry	222 (3.2)	251 (3.6)
Dadra & Nagar Haveli	-	265 (5.4)
Daman & Diu	255 (6.8)	268 (4.6)

- Overall, the average achievement scores of Cycle 4 were not significantly different to that of Cycle 3 in 12 States/UTs.
- In 4 States/UTs the average achievement scores of Cycle 4 were significantly above than that of Cycle 3 in Environmental Studies.
- There are 15 states where the scores of cycle 4 is significantly below cycle 3.

Performance in Different Cognitive Processes in Cycle 3 and Cycle 4

Reading Comprehension

State/Union Territory	Locating Information		Grasp Ideas/Interpret		Infer/Evaluate	
	Cycle 3	Cycle 4	Cycle 3	Cycle 4	Cycle 3	Cycle 4
Andhra Pradesh	52	48	44	40	51	46
Arunachal Pradesh	-	42	-	36	-	41
Assam	48	47	43	46	47	49
Bihar	42	31	37	27	42	35
Chhattisgarh	43	36	38	32	42	37
Delhi	58	41	51	37	56	41
Goa	62	60	47	46	53	52
Gujarat	52	48	47	43	60	54
Haryana	45	47	40	43	51	49
Himachal Pradesh	48	53	42	45	50	53
Jammu & Kashmir	53	49	47	42	56	49
Jharkhand	48	43	40	37	44	41
Karnataka	57	53	52	46	62	57
Kerala	68	65	58	46	64	56
Madhya Pradesh	50	41	47	38	56	46
Maharashtra	61	54	54	44	66	55
Manipur	-	58	-	50	-	52
Meghalaya	55	43	44	34	53	39
Mizoram	53	51	54	53	68	64
Nagaland	53	49	46	46	51	52
Odisha	54	43	49	40	53	43
Punjab	56	53	45	46	56	53
Rajasthan	53	46	47	39	56	44
Sikkim	53	51	42	44	51	50
Tamil Nadu	71	63	59	47	65	57
Tripura	55	56	47	47	56	55
Uttar Pradesh	68	53	62	47	67	52
Uttarakhand	46	40	38	35	44	39
West Bengal	64	54	51	42	62	49
A&N Islands	47	53	38	47	41	49
Chandigarh	52	48	44	39	52	44
Puducherry	42	49	31	40	41	45
Dadra & Nagar Haveli	-	56	-	52	-	64
Daman & Diu	56	54	49	53	59	64
Overall	54	49	47	42	55	49

Overall in all mental/cognitive processes of Reading Comprehension, the average achievement of students declined in Cycle 4 as compared to Cycle 3.

Reading Comprehension

Performance of top 25% and bottom 25% students on different cognitive processes

Cognitive Processes	Top 25%				Bottom 25%			
	Cycle-3		Cycle-4		Cycle-3		Cycle-4	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Locating information	84	14.5	80	16	23	16.6	19	15.3
Grasp ideas	80	13.1	73	14.8	20	12.1	17	11.7
Infer/Evaluate	88	18.7	84	21.6	21	24.1	18	22.4

- There is a large gap between top 25% and bottom 25% students on all the three mental processes tested in reading comprehension passages.
- Average score of both top 25% and bottom 25% students declined in cycle 4 from cycle 3 on all the cognitive processes of reading comprehension.

Sample Items

Read the following passage carefully and answer the questions given below it. Encircle the number of the correct answer.

Passage

Millions of people in the world are blind. Formerly people thought that blind people could not do anything. But now a days many blind schools have been opened. All these facilities are available to the blind for studying. Now many blind students are earning their livelihood after finishing their studies. Many blind people have become scholars in the world. Apart from this, the doctors are trying to prevent blindness among children by providing appropriate medical care and prescribing nutritious diet.

Today, many people donate their eyes. After their death, their eyes are transplanted in the blind people's eyes. Thus many blind persons are able to see.

Infer/Evaluate

Q. Why do many people donate their eyes?

1. Their eyes are weak.
2. Blind people can become scholars.
3. Their eyes will enable a blind to see.
4. They want to become famous.

CYCLE 3



CYCLE 4



Grasp Ideas/Interpret

Q. The blindness can be removed through

1. nutritious diet.
2. eye transplant.
3. higher education.
4. some training.

CYCLE 3



CYCLE 4



Grasp Ideas/Interpret

Q. The blind can become scholars by

1. taking nutritious diet.
2. getting back their eyesight.
3. eye transplant.
4. studying hard.

CYCLE 3



CYCLE 4



Locating Information

Q. What can a doctor do to prevent blindness?

1. Provide medical care.
2. Train blind people.
3. Provide nutritious diet.
4. Turn the blinds into scholars.

CYCLE 3



CYCLE 4



Grasp Ideas/Interpret

Q. What did people think about blind people in the past?

1. There is no cure for blindness.
2. Blind can get training.
3. Blind cannot do anything.
4. Blind can donate their eyes.

CYCLE 3



CYCLE 4



Performance in Different Content Areas in Cycle 3 and Cycle 4

Mathematics

State/Union Territory	Operations		Geometry		Measurement		Number System	
	Cycle 3	Cycle 4	Cycle 3	Cycle 4	Cycle 3	Cycle 4	Cycle 3	Cycle 4
Andhra Pradesh	49	48	42	42	44	42	48	44
Arunachal Pradesh	-	44	-	41	-	36	-	38
Assam	49	54	49	56	44	51	44	52
Bihar	49	46	46	45	44	41	49	45
Chhattisgarh	47	36	46	35	39	30	42	30
Delhi	56	40	59	43	51	37	54	36
Goa	50	45	49	42	42	37	47	38
Gujarat	55	54	55	55	50	47	51	49
Haryana	48	52	43	48	41	45	50	50
Himachal Pradesh	49	50	48	51	42	44	50	51
Jammu & Kashmir	59	54	57	52	52	46	55	49
Jharkhand	52	48	52	46	45	41	49	45
Karnataka	64	58	61	57	54	52	57	53
Kerala	53	49	52	49	43	37	46	35
Madhya Pradesh	62	48	57	44	54	42	56	44
Maharashtra	60	49	61	48	50	41	55	42
Manipur	-	58	-	56	-	50	-	56
Meghalaya	54	46	47	42	43	37	48	39
Mizoram	46	42	45	40	37	36	44	38
Nagaland	54	47	51	48	48	43	52	47
Odisha	58	50	55	46	49	42	52	42
Punjab	54	49	51	46	45	42	55	45
Rajasthan	56	52	56	52	51	46	52	47
Sikkim	50	50	42	51	35	41	45	44
Tamil Nadu	62	59	67	57	62	53	62	56
Tripura	57	50	54	52	53	51	56	43
Uttar Pradesh	72	57	72	55	67	51	69	53
Uttarakhand	49	41	49	41	42	36	46	37
West Bengal	56	47	55	48	53	42	64	50
A&N Islands	44	55	41	54	37	50	39	50
Chandigarh	42	42	44	42	37	37	42	40
Puducherry	39	52	36	51	34	46	35	47
Dadra & Nagar Haveli	-	59	-	60	-	51	-	54
Daman & Diu	58	65	55	66	53	59	51	57
Overall	54	49	52	48	47	43	51	45

Overall in each content area tested in Mathematics, the average achievement of students declined in Cycle 4 as compared to Cycle 3.

Mathematics

Performance of top 25% and bottom 25% students on different content areas

Content Areas	Top 25%				Bottom 25%			
	Cycle-3		Cycle-4		Cycle-3		Cycle-4	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Computations	80	14.2	76	14.7	29	15.7	25	14.8
Geometry	80	15.6	76	16.1	28	14.9	24	14.2
Measurement	75	16.2	71	16.7	25	13.9	21	13.4
Number System	80	13.3	75	14.2	24	13.1	19	11.7

- The probability of responding items correctly from content areas of Computation, Geometry and Number System was observed 75 percent and above but for content area Measurement, it was 71 percent in the group of top 25% scorer students.

Sample Items

Number System

Renu has the following three number cards:



Q. Which is the largest 3-digit number she can make using all cards?

- 578
- 857
- 875
- 999

CYCLE 3



CYCLE 4



Operations

Q. How much greater is 555 than 198?

1. 357
2. 358
3. 367
4. 753

CYCLE 3

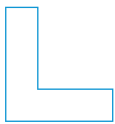


CYCLE 4



Geometry

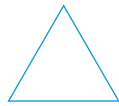
Q. Which of the following figures is a rectangle?



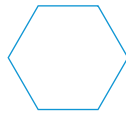
(a)



(b)



(c)



(d)

1. (a)
2. (b)
3. (c)
4. (d)

CYCLE 3



CYCLE 4



Measurement

Q. A four-hour movie ended at 7:15 p.m. At what time did it begin?

1. 11: 15 p.m.
2. 4: 00 p.m.
3. 3 : 15 p.m.
4. 3 : 15 a.m.

CYCLE 3



CYCLE 4



Performance in Different Content Areas in Cycle 3 and Cycle 4

Environmental Studies

State/Union Territory	Family and Environment		Food		Shelter		Water		Travel		Real Life	
	Cycle 3	Cycle 4	Cycle 3	Cycle 4	Cycle 3	Cycle 4	Cycle 3	Cycle 4	Cycle 3	Cycle 4	Cycle 3	Cycle 4
Andhra Pradesh	54	52	41	42	56	50	60	58	33	39	39	41
Arunachal Pradesh	-	49	-	41	-	47	-	52	-	44	-	38
Assam	53	57	43	50	52	59	58	61	41	51	39	47
Bihar	50	45	46	44	54	47	55	50	43	40	36	34
Chhattisgarh	49	41	40	33	52	35	56	47	41	32	36	28
Delhi	61	45	50	35	60	39	69	50	56	39	50	35
Goa	53	54	40	43	45	47	66	59	34	45	39	41
Gujarat	57	57	44	47	60	54	64	60	52	52	42	39
Haryana	47	51	43	42	49	54	57	60	40	47	36	39
Himachal Pradesh	53	56	45	43	55	57	58	60	45	47	41	41
Jammu & Kashmir	60	56	55	51	63	60	63	60	54	53	48	45
Jharkhand	53	50	50	47	53	52	60	56	48	45	40	38
Karnataka	66	61	59	52	78	71	75	67	58	51	52	47
Kerala	67	61	43	39	59	51	59	56	41	36	43	37
Madhya Pradesh	61	50	55	46	66	56	68	57	59	48	46	36
Maharashtra	63	51	56	43	65	49	65	56	55	43	47	36
Manipur	-	58	-	52	-	58	-	62	-	54	-	52
Meghalaya	59	51	49	44	61	52	66	54	52	43	44	37
Mizoram	65	62	38	38	63	61	73	72	53	52	36	38
Nagaland	59	54	46	43	58	54	65	55	54	44	47	41
Odisha	57	51	53	43	58	48	66	58	53	44	42	37
Punjab	54	56	49	46	52	56	62	62	50	57	39	39
Rajasthan	54	50	47	42	58	50	61	57	50	43	45	37
Sikkim	57	57	42	45	52	54	60	61	50	51	41	41
Tamil Nadu	71	65	67	61	75	61	76	70	64	50	63	50
Tripura	59	60	57	59	60	59	67	65	46	47	49	50
Uttar Pradesh	68	58	64	57	75	63	76	65	68	58	56	49
Uttarakhand	50	45	47	38	53	41	56	48	43	38	40	33
West Bengal	66	54	54	47	59	51	72	62	50	44	53	45
A&N Islands	50	61	41	50	43	57	57	65	44	55	37	48
Chandigarh	47	48	37	38	36	38	56	53	40	41	33	36
Puducherry	44	58	40	52	44	52	50	61	32	48	32	47
Dadra & Nagar Haveli	-	66	-	52	-	62	-	66	-	60	-	47
Daman & Diu	59	68	51	51	58	60	67	71	53	63	45	46
Overall	58	54	49	45	58	52	64	59	49	46	44	40

Overall in each content area tested in Environmental Studies, the average achievement of students declined in Cycle 4 as compared to Cycle 3.

Environmental Studies

Performance of top 25% and bottom 25% students on different content areas

Content Areas	Top 25%				Bottom 25%			
	Cycle-3		Cycle-4		Cycle-3		Cycle-4	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Family and Environment	84	10.4	81	11.1	30	13.5	26	12.6
Food	73	20.6	68	21.2	29	20.3	26	19.3
Shelter	91	15.8	87	18.8	25	23.6	21	22.1
Water	90	12.6	87	14.0	33	20.5	27	19.0
Travel	81	19.3	76	20.6	23	19	21	18.4
Real Life	71	17.7	66	18.3	22	15.9	21	15.6

- In Cycle-4, more than 80 percent of the students in the top 25% group could do the items based on the content areas of Family and Environment, Water and Shelter. In the same group above 76 percent of the students could respond correctly items based on content area of Travel. However, about 66 to 68 percent of students in the same group could answer correctly items related to content area Food and Real Life. Further, the gap in performance of top 25% high achiever students and bottom 25% low achievers is significantly high. Besides, the performance of students in cycle-4 was low as compared to cycle-3 in all content areas tested in EVS.

Sample Items

Family and Environment

Q. Which of the following birds can not fly?

1. Parrot
2. Crow
3. Eagle
4. Ostrich

CYCLE 3



81%

CYCLE 4



78%

Food

Q. Night-blindness is due to the deficiency of _____.

1. Proteins
2. Vitamin C
3. Vitamin A
4. Carbohydrates

CYCLE 3



CYCLE 4



Shelter

Q. Dams are constructed mainly for _____.

1. shifting the surrounding villages
2. tourism purposes
3. producing electricity and for irrigation
4. making fish ponds

CYCLE 3



CYCLE 4

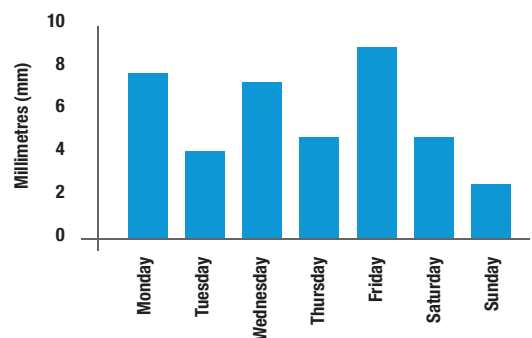


Water

Direction: Renu's classmates measured rainfall for a week. Based on the chart please answer question 53 and 54.

Q. What was the rainfall on Wednesday?

1. 8 mm
2. 7 mm
3. 5 mm
4. 4 mm



CYCLE 3



CYCLE 4



Travel

Q. Which one of the following sources of energy produces carbon dioxide?

1. Solar energy
2. Energy from coal
3. Wind energy
4. Hydrothermal energy

CYCLE 3



CYCLE 4



Real Life

Q. A part of the mirror clouds up when you breathe on it because of _____.

1. water vapour from your breath
2. carbon dioxide from your breath
3. oxygen from your breath
4. nitrogen around you

CYCLE 3



CYCLE 4



Conclusion

Analysis of the National Achievement Survey Class V Cycle 4 data brings to fore several crucial issues that need immediate attention from stakeholders in the education system. Efforts need to be made by all stakeholders in their respective areas to promote quality delivery by the education system to ensure learning.

Teachers need to work with students to develop their competence in reading at various levels. Most of the language assessment in our country is textbook based and only tests recall of information from the seen texts. As a result, students find it difficult to tackle questions based on unseen texts. Presenting students with different forms of unseen texts and asking them to read, understand and answer the given questions often during an academic session would improve their reading and comprehension skills.

Students are lagging behind in some specific areas of Mathematics. Teachers need to identify whether it is due to lack of conceptual understanding or due to lack of practice and guidance on routine mistakes committed by students. Based on the findings, there could be re-teaching of the concepts and drilling through practice for reinforcement of the concepts and mitigating chances of routine mistakes by students. Organising activities around developing conceptual understanding might also be helpful in addressing the problems being faced by students.

Lack of conceptual clarity and understanding has been found in most of the themes tested under EVS. Further probing is required to develop appropriate strategy for making students understand the difficult concepts.

The findings of the study need to be included in teachers training (pre and in service) programmes to improve pedagogical aspects related to facilitating reading, mathematics and environmental studies. This would also enable the teachers to use innovative methodology for motivating students during the teaching-learning process.

Way Forward

This summary report based on unweighted data highlights the performance of Class V students across the country in National Achievement Survey Cycle 4. There is a possibility that the findings might change by one or two score points once weighted data is used for the final analysis. Nevertheless the findings provide a number of insights for all stakeholders—policy planners, curriculum developers, trainers and educators—to bring about change in the current education system.

Any assessment, including Large Scale Assessment like the NAS, does not bring about change to improve quality, unless the system is ready to reflect on the findings and use that for improving systems and processes. The results of Class V NAS reveal that the average score of pupils in Reading Comprehension, Mathematics and Environmental Studies are below the scale score average in most cases. There is, thus, a need to carefully understand the findings and have consultations to devise appropriate strategy to address the same. This understanding could then be used to redesign interventions such as teacher training, curriculum and textbook design and on-site teacher support, so as to improve students' learning. This also has implications for performance of schools, their monitoring and the roles and responsibilities of teacher/school/ support institutions like CRCs/BRCs/ DIETs/SCERTs.

It is also critical to disseminate the NAS findings in an easily understandable manner and to discuss them with all relevant stakeholders, especially teachers, teacher support institutions and educational functionaries, to build their capacity to understand and reflect on the findings and take appropriate action thereafter.

The purpose of such largescale assessments will only be fulfilled when the findings get translated into action within the classroom and result in improvement in students' learning. There are various things that teachers can do at their level, in light of the findings of the NAS study. In Language, teachers could provide more opportunities during the teaching-learning process for students to both read and listen to a wide variety of reading materials. Students should then be given the opportunity to explain the meaning of the text in their own words, discuss with their peers, ask questions, express the meaning creatively through drawing or acting out, etc. Similarly in Mathematics, students are not doing well on practical application questions related to various content areas covered in syllabi. Perhaps teachers can spend more time in relating these concepts to practical examples from children's everyday lives and surroundings and use locally available materials such as sticks, stones, beans to help children understand abstract concepts of Number System, Operations, Measurement and Geometry. Ultimately, it would be most useful if teachers themselves can regularly assess their own students and identify which students require additional support on specific topics. Such simple efforts by teachers would have a huge impact in enhancing students' learning.

In Environmental Studies, teachers could give emphasis on activities, project work and assignments and through practicals with the help of kits developed by NCERT or any other source.

These efforts would help to design appropriate interventions to improve student learning. Tracking improvements in learning over time can help assess the impact of specific quality-related interventions and help policy and decision makers to take evidence-based decisions.

Examinations

An examination is a formal test of an individual student's knowledge or proficiency in a subject on the curriculum. The results of examinations apply to individual students, enabling them to progress through school or apply for further education or employment. Taken together, examination results provide an overall snapshot of students' performance at the end of a school year or course of learning. Examination results do not indicate the reasons behind high or low achievement of students.

Assessment Surveys

Assessment Surveys provide a measure of learning across a representative sample of students. They allow classification of students at a specific grade level by their ability (what students know and can do) in different subjects on the curriculum. National Assessment Surveys provide a "Health Check" to the education system by analysing achievement based on a range of background factors (school, home, teachers). They potentially enable policy makers and practitioners to address the challenges to enhance student learning.