



**Ministry of Education**  
Government of India



# PARAKH RASHTRIYA SARVEKSHAN 2024

State Report

**Uttarakhand**





शिक्षा मंत्रालय  
MINISTRY OF  
EDUCATION

विद्यया ऽ मृतमश्नुते



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NCERT

# PARAKH RASHTRIYA SARVEKSHAN 2024

STATE REPORT  
**Uttarakhand**



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**PARAKH Rashtriya Sarvekshan 2024  
State Report Uttarakhand**

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**Shri Sanjay Kumar**  
*Secretary*



Department of School  
Education & Literacy,  
**Ministry of Education**  
Government of India



## MESSAGE

PARAKH Rashtriya Sarvekshan 2024 is a significant step forward in our ongoing efforts to assess and enhance the quality of education in India. This national survey marks a significant milestone in our journey towards educational excellence, reflecting our unwavering commitment to the transformative goals set forth by the National Education Policy (NEP) 2020.

The NEP 2020 envisions an education system that is holistic, flexible, multidisciplinary, and aligned with the needs of the 21st century, aiming to bring out the unique capabilities of each student. Central to this vision is the emphasis on competency-based learning and assessment, ensuring that our students not only acquire knowledge but also develop critical thinking, problem-solving abilities, and a love for lifelong learning. PARAKH Rashtriya Sarvekshan 2024 assessed these competencies across diverse stages of schooling, providing us with invaluable insights into the effectiveness of our educational interventions.

The findings from PARAKH Rashtriya Sarvekshan 2024 help identify both our achievements and the challenges that lie ahead. They provide a clear roadmap for targeted interventions, enabling us to channel our resources and efforts where they are most needed. Moreover, this survey fosters a culture of accountability and continuous improvement, encouraging educators, administrators, and policymakers to collaborate effectively in enhancing the competencies of our students.

Moving beyond the assessment itself, the next phase of this initiative is focused on enabling systemic action. To facilitate this, a comprehensive multi-level strategy has been planned to translate the findings of the PARAKH Rashtriya Sarvekshan 2024 into meaningful actions. This includes a phased dissemination of data through workshops at the national, regional, state, and district levels. These workshops will focus not only on understanding the survey results but also on preparing district-specific roadmaps, where roles and responsibilities are clearly defined. A layered set of interventions—short-, mid-, and long-term—will support this process. These range from teacher training and community engagement to the development of intervention handbooks, digital learning materials, and a Management Information System for continued data use. The integration of survey insights into Annual Work Plans and Budgets (AWPBs) will help embed these efforts into ongoing planning cycles, ensuring that the survey serves as a lever for sustained system strengthening.

Let us celebrate our successes, learn from our shortcomings, and renew our commitment to providing an education that equips our students to navigate and contribute positively to an ever-evolving world.



**Shri Anandrao V Patil**  
*Additional Secretary*



Department of School  
Education & Literacy,  
**Ministry of Education**  
Government of India



## MESSAGE

Education is not just about imparting knowledge; it is about nurturing minds, shaping perspectives, and equipping students with the skills to navigate an ever-changing world. The PARAKH Rashtriya Sarvekshan 2024 serves as a critical initiative that helps us understand how well we are achieving these objectives. By assessing students' competencies across various educational stages, this survey enables us to measure learning outcomes, evaluate educational policies, and enhance the teaching-learning process in schools across the country.

One of the most significant contributions of this initiative is its role in bridging the gap between assessment and action. The findings from the PARAKH Rashtriya Sarvekshan provide an accurate reflection of student performance, allowing for targeted interventions that cater to the diverse learning needs of children across geographies, socio-economic backgrounds, and linguistic diversities. Furthermore, the survey brings into focus the importance of teacher training, curriculum refinement, and pedagogical innovations in improving learning outcomes.

The National Education Policy 2020 advocates for a shift toward competency-based education, where learning is not just about memorization but about understanding, application, and problem-solving. This survey plays a key role in evaluating this transition, ensuring that students are not only absorbing knowledge but also developing critical skills that will prepare them for future academic and professional challenges.

As we move into the implementation phase, the focus shifts to helping states and districts make effective use of the findings through structured and responsive planning. The post-survey interventions are being designed to support this shift, beginning with detailed workshops that bring together local education officials, academic experts, and practitioners to examine their district-level data in depth. These workshops will inform the creation of action-oriented district plans, tailored to address specific learning needs. Alongside these efforts, practical tools are being developed, such as subject- and stage-specific handbooks, orientation guides for training functionaries, and digital resources, to assist teachers and school leaders in translating insights into instructional practices. The emphasis is on usability, clarity, and adaptability, so that those at the frontlines of education have what they need to respond effectively. These initiatives are not isolated but are being integrated with broader administrative cycles, such as state academic planning and budgeting, to ensure coherence and long-term continuity in interventions.

I would like to express my sincere gratitude to the Secretary (Department of School Education & Literacy), the State Project Directors (SPDs), Directors of SCERTs, and the Principals of State Institutes of Education (SIEs) for their tireless efforts in facilitating the successful execution of this nationwide assessment. Their leadership, commitment, and coordination have been invaluable in ensuring that this initiative reaches schools across the country.

I also extend my gratitude to Central Board of Secondary Education (CBSE) for their valuable support in facilitating the administration of the PARAKH Rashtriya Sarvekshan 2024. Their cooperation in ensuring smooth coordination and execution has contributed to the successful completion of this large-scale assessment.



**Prof. Dinesh Prasad Saklani**  
*Director*



**National Council of Educational  
Research and Training**



## FOREWORD

Education serves as the foundation for a nation's progress, and ensuring its quality, accessibility, and relevance is a continuous endeavour. PARAKH Rashtriya Sarvekshan 2024 is a significant step in this direction, offering a comprehensive, data-driven insight into student learning outcomes, school environments, and educational effectiveness across India. This initiative reflects our commitment to evidence-based reforms, providing key findings that will guide future educational strategies and help bridge gaps in learning.

In an era of rapid socio-economic and technological transformation, education must equip students with competencies that go beyond rote learning. The focus should be on critical thinking, creativity, problem-solving, and adaptability, ensuring that learners are prepared for a dynamic future. The findings from this survey enable schools, teachers, and policymakers to assess how effectively these competencies are being nurtured at different stages of schooling. By analyzing student performance in language, mathematics, science, and social sciences, alongside teacher training, infrastructure, and pedagogical approaches, the survey provides a holistic overview of the current education landscape.

One of the most valuable aspects of PARAKH Rashtriya Sarvekshan 2024 is its role in facilitating targeted interventions. The data collected does not merely identify learning gaps—it serves as a catalyst for informed decision-making, curricular improvements, and teaching innovations. This approach is essential in ensuring that our education system is inclusive, equitable, and aligned with the principles of competency-based learning as envisioned in NEP 2020.

As we analyze and act upon these findings, our collective goal should be to create an education system that is responsive, forward-thinking, and centered on student development. This requires collaboration among educators, policymakers, and communities to implement meaningful changes that enhance both teaching and learning experiences.



# Preface

PARAKH Rashtriya Sarvekshan 2024 is a significant step toward understanding and improving student learning outcomes and overall school effectiveness across India. This nationwide survey serves as a comprehensive reflection of the education system, offering valuable insights into how students at different stages of schooling develop competencies and how various factors contribute to their learning experiences. Designed as a large-scale competency-based assessment, the survey provides a structured analysis of student achievement, teacher preparedness, school infrastructure, and pedagogical practices. Through this initiative, we aim to bridge the gap between policy and classroom realities, ensuring that education remains dynamic, inclusive, and aligned with contemporary learning needs.

At the core of this survey is the principle that education should not only focus on content mastery but also on the development of critical thinking, problem-solving, and application-based skills. By examining student performance in language, mathematics, science, and social sciences, the study highlights both areas of progress and challenges that require targeted interventions. The findings provide a deeper understanding of learning trends across different regions and socio-economic backgrounds, emphasizing the need for a more equitable and responsive education system. The survey also explores how teachers are equipped to facilitate meaningful learning, assessing their engagement with professional development programs, use of technology in teaching, and implementation of innovative classroom strategies. The role of school infrastructure and access to digital learning tools is also examined, underscoring the importance of creating an environment that supports holistic education.

One of the key takeaways from this study is the need to transform data into action. The insights gained from the survey must serve as a foundation for informed decision-making, guiding improvements in curriculum design, teacher training, and resource allocation. The assessment is not merely a measurement of where we stand today but a tool to shape the future of education in the country. Strengthening foundational skills, ensuring inclusive learning opportunities, and fostering an adaptive and innovative approach to teaching will be critical in achieving the objectives envisioned under the National Education Policy (NEP) 2020. The findings also emphasize the importance of integrating technology into

learning processes, addressing regional disparities in student performance, and enhancing social-emotional learning to create a more supportive educational framework.

To ensure that the findings of PARAKH Rashtriya Sarvekshan 2024 lead to meaningful interventions, a multi-level post-survey intervention strategy has been planned. Workshops at the national, regional, state, and district levels will be organized to disseminate results, analyze key insights, and develop targeted action plans. These workshops will bring together education department officials, SCERTs, school leaders, and teachers to collectively interpret the survey results, identify learning gaps, and formulate strategies to strengthen the teaching-learning process. The district-level workshops, in particular, will play a crucial role in enabling local functionaries, including teachers, principals, and community stakeholders, to engage with the findings and develop district-specific interventions. These efforts will help in formulating short-, mid-, and long-term strategies aimed at addressing gaps in student learning and enhancing the overall quality of education.

As we look ahead, PARAKH Rashtriya Sarvekshan 2024 stands as a cornerstone for shaping the future of assessment-driven education in India. The journey toward an inclusive, competency-based, and future-ready education system requires sustained commitment and continuous reflection. Through collaboration and innovation, we can ensure that every learner, regardless of background or location, has access to meaningful learning experiences that empower them for life. It is my hope that this report will serve as a catalyst for positive change, fostering an education system that is both forward-looking and deeply rooted in the principles of equity and excellence.

**Prof. Indrani Bhaduri**

*Programme Co-ordinator*

*CEO and Head PARAKH, NCERT*



## PARAKH Rashtriya Sarvekshan 2024

PARAKH Rashtriya Sarvekshan 2024 was conducted by PARAKH, NCERT under the aegis of the Department of School Education and Literacy, Ministry of Education, to understand the baseline performance in the development of competencies at the end of the Foundational, Preparatory, and Middle stages at the district level for Grades 3, 6, and 9 respectively. Through Rashtriya Sarvekshan 2024, PARAKH provides a system-level reflection on effectiveness of school education.

### State Report: Uttarakhand



Languages in which  
Survey was Administered

ENGLISH, HINDI, SANSKRIT,  
URDU



#### Total Number of Schools Participated

Grade 3	Grade 6	Grade 9
487	579	656



#### Total Number of Teachers Participated

Grade 3	Grade 6	Grade 9
1,258	1,678	2,539



#### Total Number of Students Participated

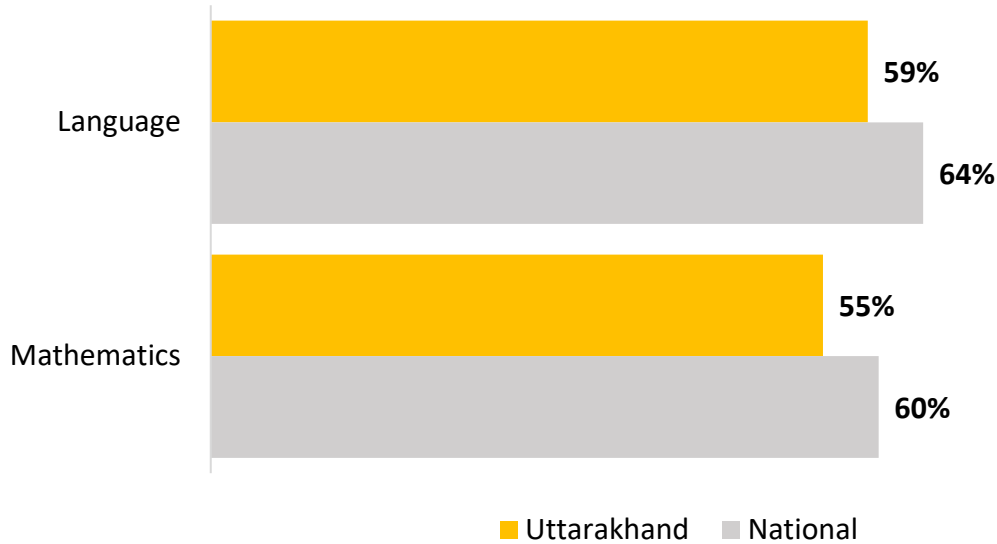
Grade 3	Grade 6	Grade 9
9,293	12,384	16,705



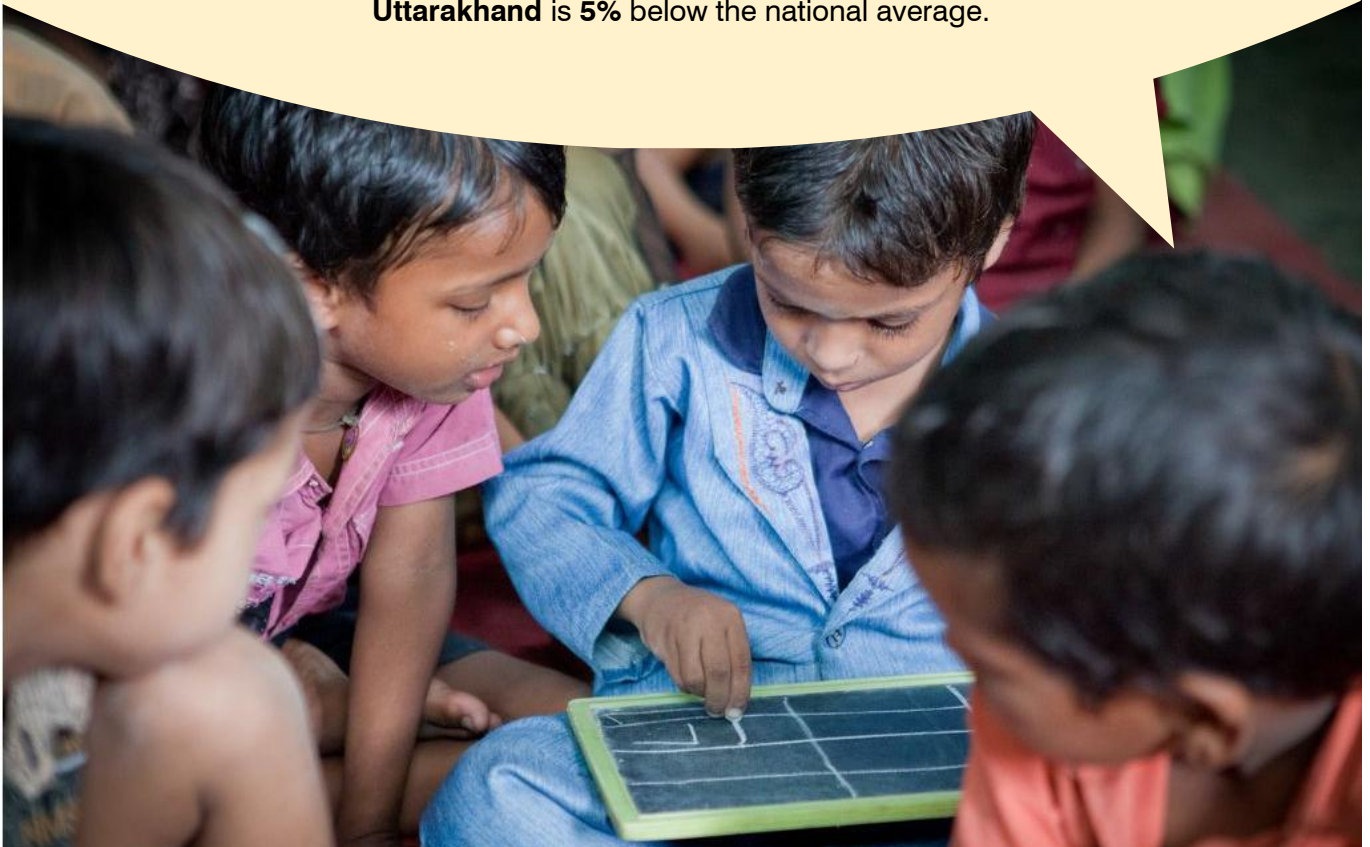


## Assessing Foundational Stage Competencies (Grade 3)

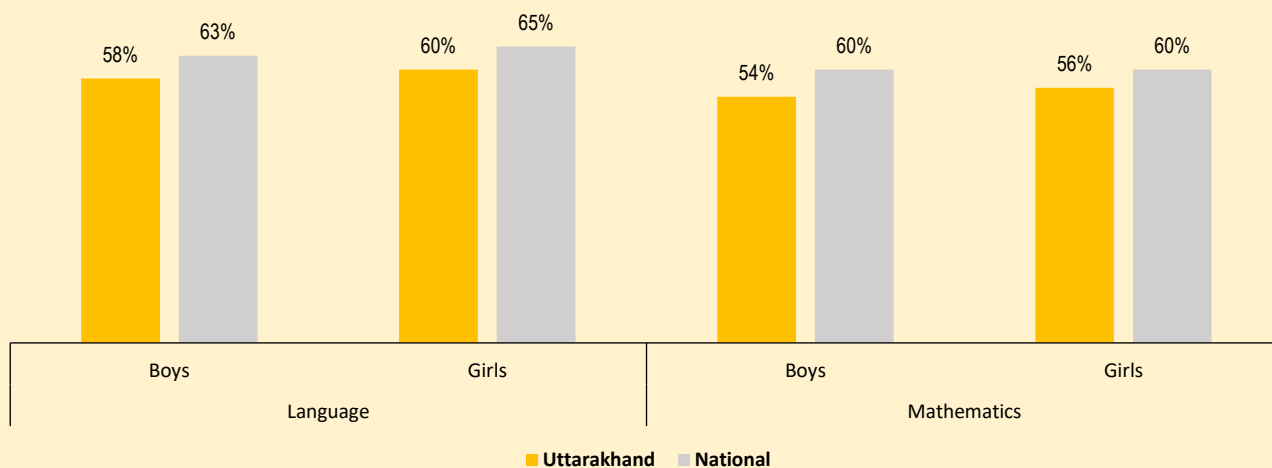
Comparison of State Average with National Average Across Subjects



In **Language** and **Mathematics**, the average performance of students in **Uttarakhand** is 5% below the national average.



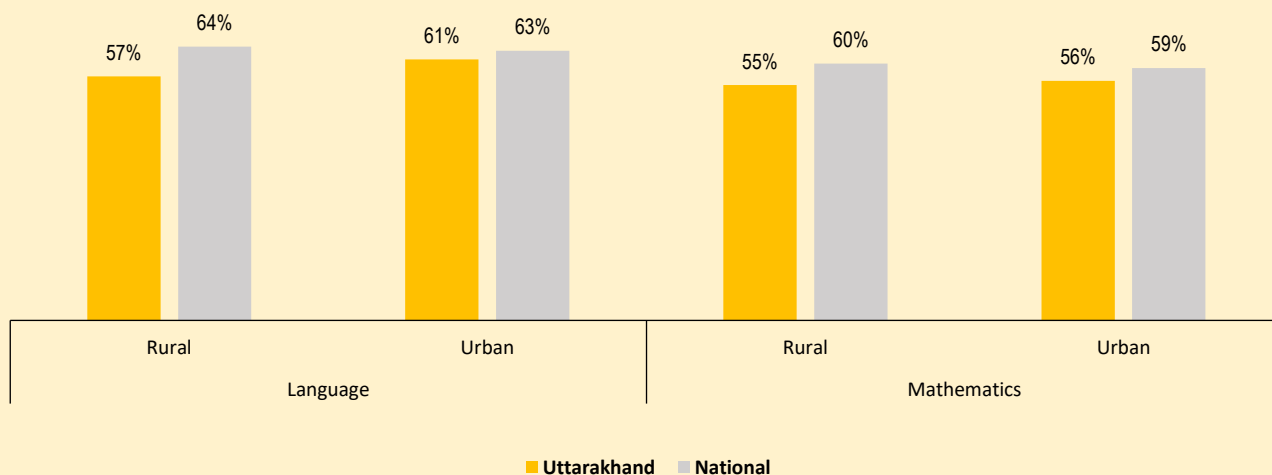
## Performance by Gender



### Key highlights

- In Language, both boys and girls performed 5% lower than the national average.
- In Mathematics, boys' performance was 6% lower than the national average and girls scored 4% lower than the national average.

## Performance by Location

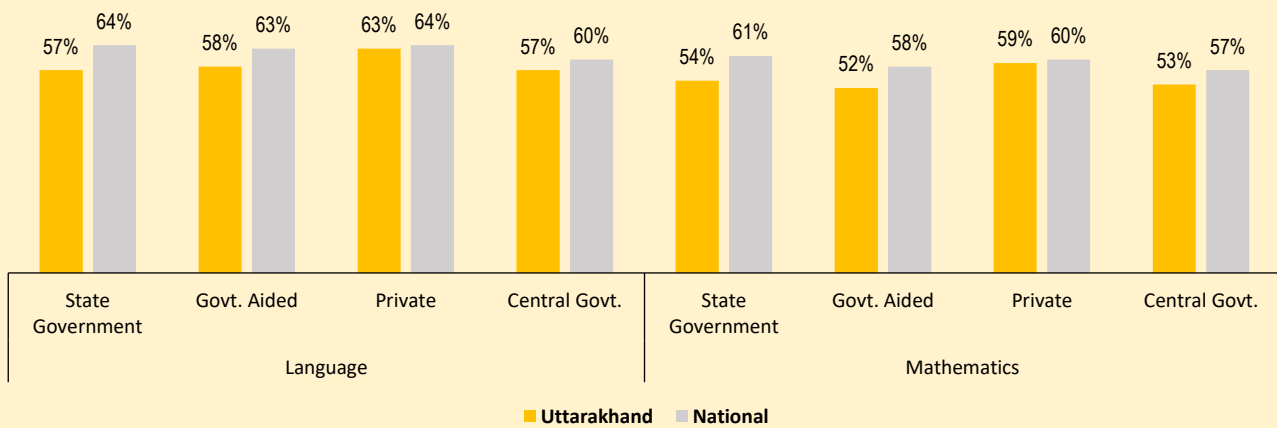


### Key highlights

- Students from rural schools performed lower than the national average, with a 7% lower score in Language and 5% lower score in Mathematics.
- Students from urban schools performed lower than the national average, with a 2% lower score in Language and 3% lower score in Mathematics.

\*The mean difference has not been represented statistically

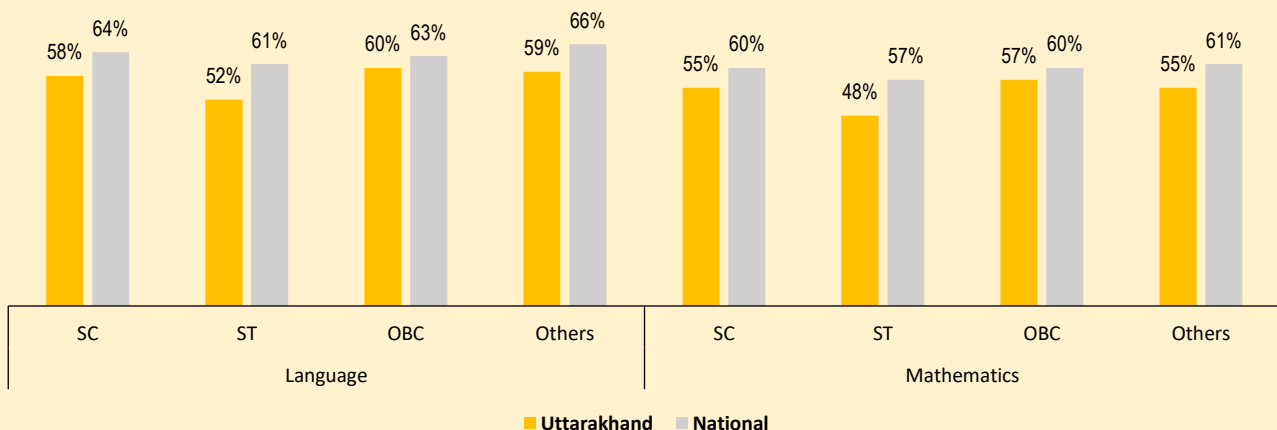
## Performance by School Management Type



### Key highlights

- State Government schools performed below the national average, with students scoring 7% lower in Language and Mathematics.
- Government-aided schools performed below the national average, with students scoring 5% lower in Language and 6% lower in Mathematics.
- Private schools performed below the national average, with students scoring 1% lower in Language and Mathematics compared to the national average.
- Central Government schools performed below the national average, with a 3% lower score in Language and 4% lower score in Mathematics.

## Performance by Social Group



### Key highlights

- Among SC students, scores were 6% lower in Language and 5% lower in Mathematics than the national average.
- Among ST students, scores were 9% lower in Language and Mathematics than the national average.
- Among OBC students, scores were 3% lower in Language and Mathematics than the national average.
- Among students from other social groups, scores were 7% lower in Language and 6% lower in Mathematics than the national average.

\*The mean difference has not been represented statistically



## Competency-wise Performance (Grade 3)

The tables below show the average percentage of correctly answered questions related to each competency in the state, compared to the national average. For example, in competency C-10.7 (Language, Grade 3) in Uttarakhand, the state average of 57% represents the proportion of correctly answered questions, while the national average for same competency was 61%.

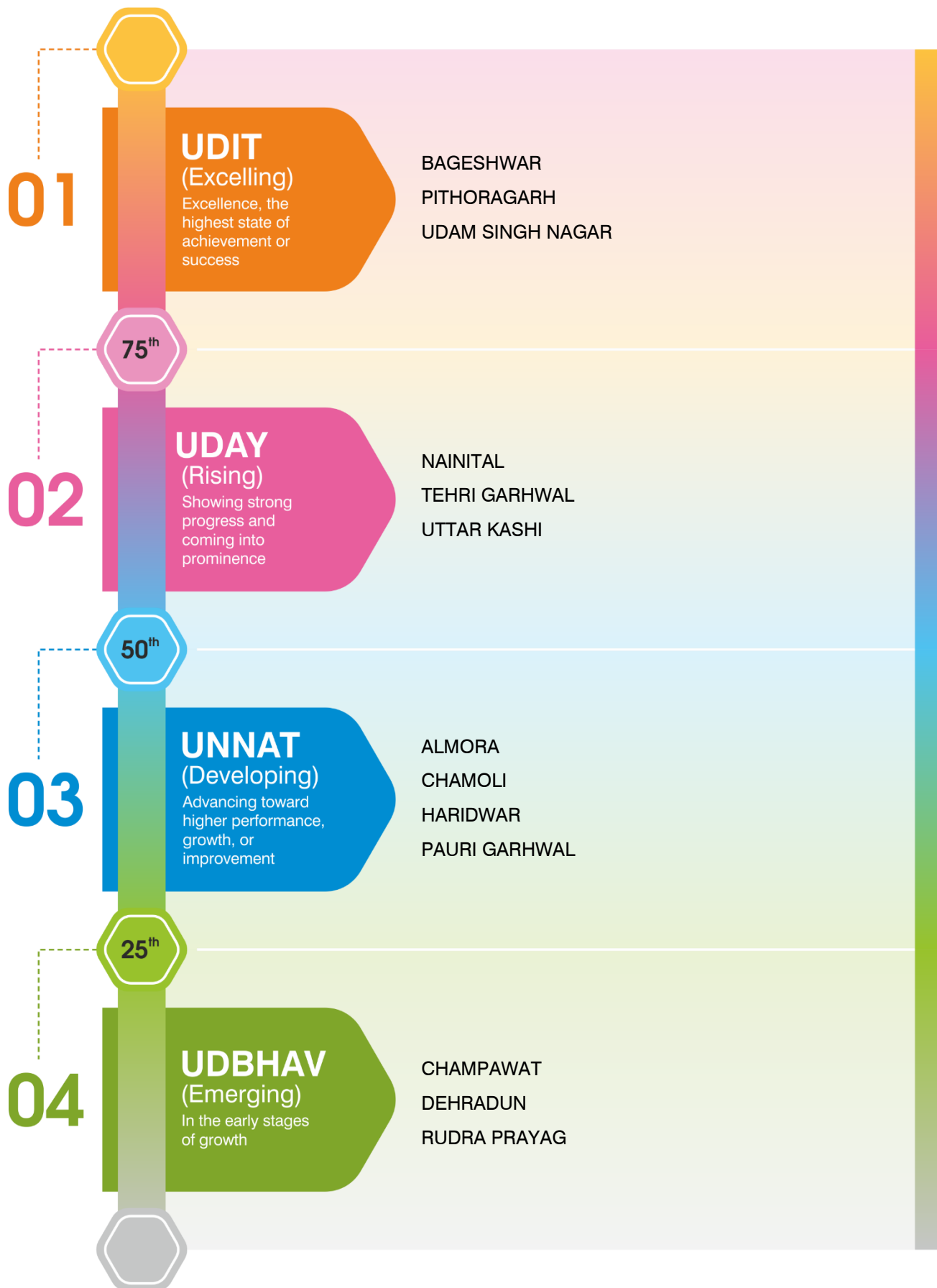
### Language

Competency Code	Competency Description	State	National
C-9.7	Knows and uses enough words to carry out day-to-day interactions effectively and can guess the meaning of new words by using existing Vocabulary	63%	67%
C-10.5	Reads short stories and comprehends their meaning - by identifying characters, storyline and what the author wants to say - on their own	54%	60%
C-10.7	Reads and comprehends the meaning of short news items, instructions and recipes, and publicity material	57%	61%

### Mathematics

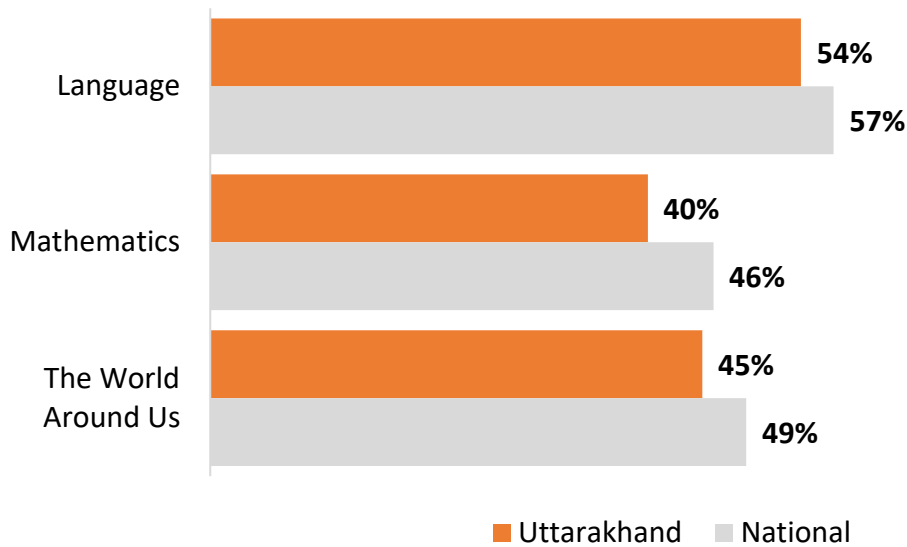
Competency Code	Competency Description	State	National
C-8.1	Sorts objects into groups and sub-groups based on more than one property	66%	68%
C-8.2	Identifies and extends simple patterns in their surroundings, shapes, and numbers	67%	69%
C-8.4	Arranges numbers up to 99 in ascending and descending order	49%	55%
C-8.5	Recognises and uses numerals to represent quantities up to 99 with the understanding of decimal place value system	56%	61%
C-8.6	Performs addition and subtraction of 2-digit numbers fluently using flexible strategies of composition and decomposition of both numerical and word problems	53%	58%
C-8.7	Recognises multiplication as repeated addition and division as equal sharing	48%	54%
C-8.8	Recognises, makes, and classifies basic geometric shapes and their observable properties, and understands and explains the relative relation of objects in space	44%	50%
C-8.9	Selects appropriate tools and units to perform simple measurements of length, weight, and volume of objects in their immediate environment	59%	62%
C-8.10	Performs simple measurements of time in minutes, hours, day, weeks, and months	56%	61%
C-8.11	Performs simple transactions using money up to INR 100	45%	50%
C-8.12	Develops adequate and appropriate vocabulary for comprehending and expressing concepts and procedures related to quantities, shapes, space, and measurements	50%	55%
C-8.13	Formulates and solves simple mathematical problems related to quantities, shapes, space, and measurements	50%	55%

## Performance of Districts (in percentile scale) Grade 3



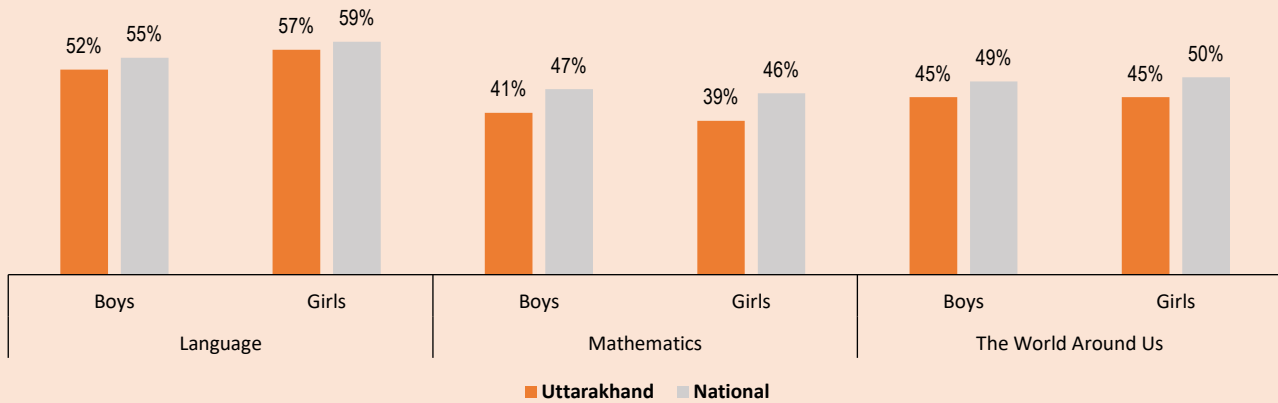
## Assessing Preparatory Stage Competencies (Grade 6)

Comparison of State Average with National Average Across Subjects



In **Language**, **Mathematics**, and **The World Around Us**, the average performance of students in Uttarakhand is lower than the national average. The performance gap is **3%** in Language, **6%** in Mathematics, and **4%** in The World Around Us.

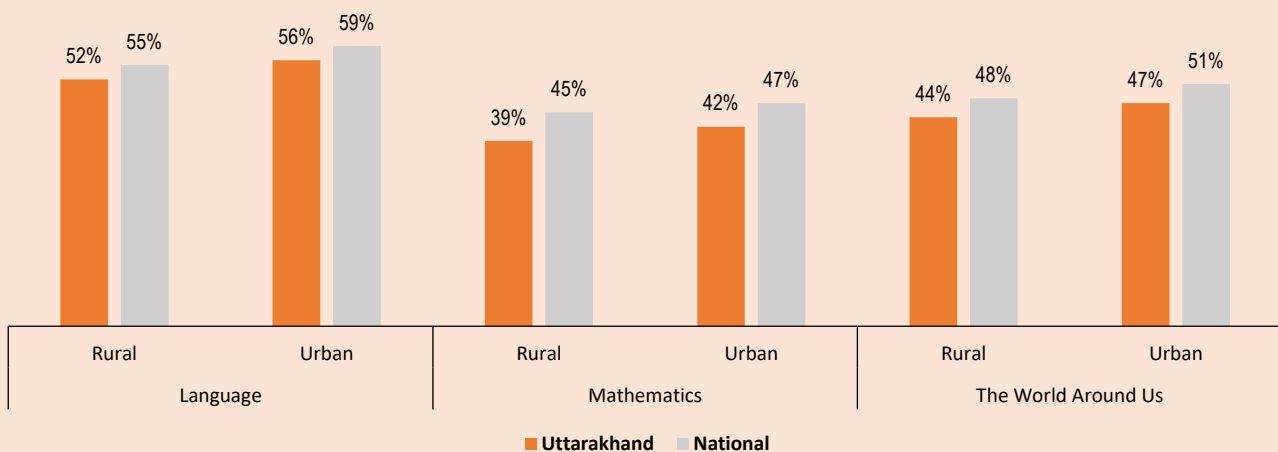
## Performance by Gender



### Key highlights

- In Language, boys scored 3% lower and girls 2% lower than the national average.
- In Mathematics, boys scored 6% lower and girls 7% lower than the national average.
- In The World Around Us, boys scored 4% lower, while girls scored 5% lower compared to the national average.

## Performance by Location

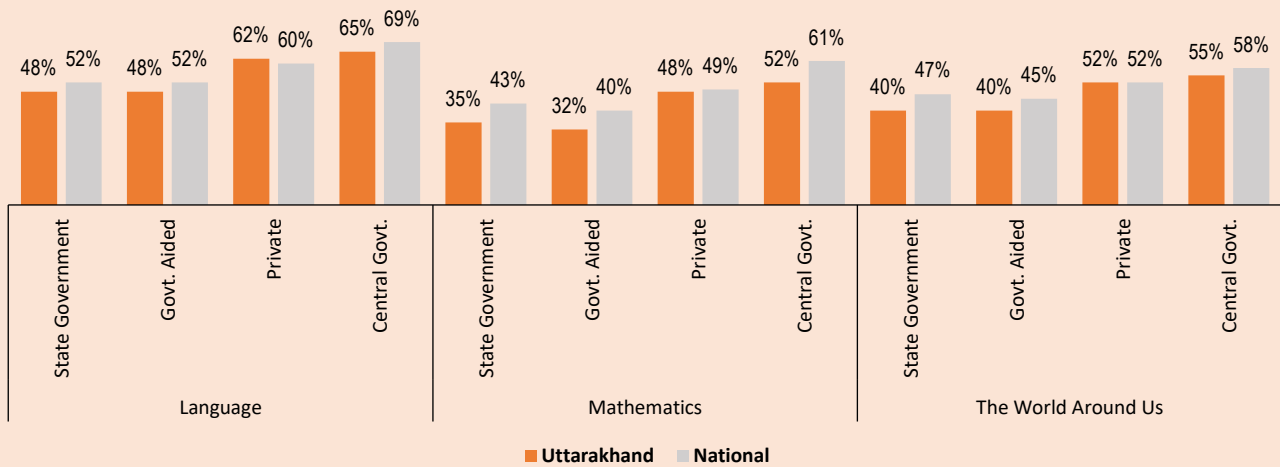


### Key highlights

- In rural schools, students scored 3% lower in Language, 6% lower in Mathematics, and 4% lower in The World Around Us than the national average.
- In urban schools, students scored 3% lower in Language, 5% lower in Mathematics, and 4% lower in The World Around Us than the national average.

\*The mean difference has not been represented statistically

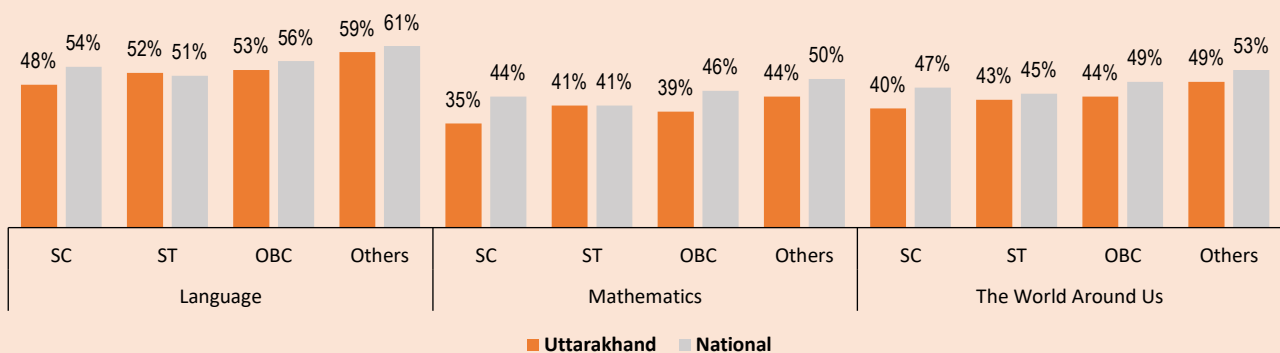
## Performance by School Management Type



### Key highlights

- In State Government schools, students scored 4% lower in Language, 8% lower in Mathematics, and 7% lower in The World Around Us than the national average.
- In Government-aided schools, students scored 4% lower in Language, 8% lower in Mathematics, and 5% lower in The World Around Us than the national average.
- In Private schools, students scored 2% higher in Language and 1% lower in Mathematics. The students' performance was at par with the national average in The World Around Us.
- In Central Government schools, students scored 4% lower in Language, 9% lower in Mathematics, and 3% lower in The World Around Us than the national average.

## Performance by Social Group



### Key highlights

- Among SC students, scores were 6% lower in Language, 9% lower in Mathematics, and 7% lower in The World Around Us compared to the national average.
- Among ST students, scores were 1% higher in Language and 2% lower in The World Around Us than the national average. The students' performance was at par with the national average in Mathematics.
- Among OBC students, scores were 3% lower in Language, 7% lower in Mathematics, and 5% lower in The World Around Us than the national average.
- Among students from other social groups, scores were 2% lower in Language, 6% lower in Mathematics, and 4% lower in The World Around Us than the national average.

\*The mean difference has not been represented statistically

## Competency-wise Performance (Grade 6)

The tables below show the average percentage of correctly answered questions related to each competency in the state, compared to the national average. For example, in competency C-2.1 (Language, Grade 6) in Uttarakhand, the state average of 53% represents the proportion of correctly answered questions, while the national average for same competency was 56%.

### Language

Competency Code	Competency Description	State	National
C-2.1	Applies varied comprehension strategies (inference, prediction, visualisation) to understand different texts	53%	56%
C-2.2	Understands main ideas and draws essential conclusions from the material read	55%	58%

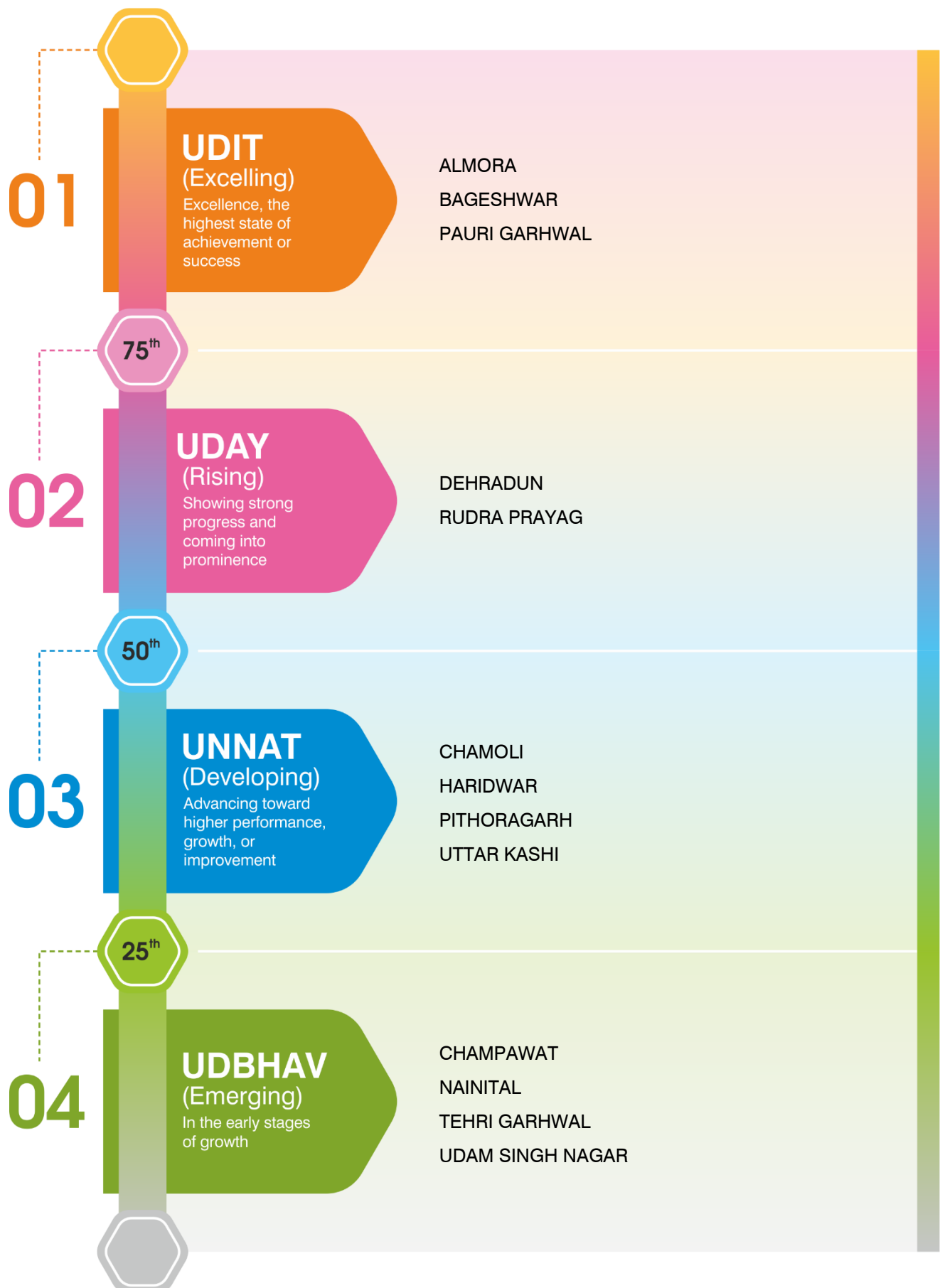
### Mathematics

Competency Code	Competency Description	State	National
C-1.1	Represents numbers using the place value structure of the Indian number system, compares whole numbers, and knows and can read the names of very large numbers	46%	54%
C-1.2	Represents and compares commonly used fractions in daily life (such as $\frac{1}{2}$ , $\frac{1}{4}$ ) as parts of unit wholes, as locations on number lines and as divisions of whole numbers	24%	29%
C-1.3	Understands and visualises arithmetic operations and the relationships among them, knows addition and multiplication tables at least up to $10 \times 10$ (Pahade) and applies the four basic operations on whole numbers to solve daily life problems	48%	53%
C-1.4	Recognises, describes, and extends simple number patterns such as odd numbers, even numbers, square numbers, cubes, powers of 2, powers of 10, and Virahanka–Fibonacci numbers.	44%	49%
C-2.2	Describes location and movement using both common language and mathematical vocabulary; understands the notion of map (Najri Naksha)	36%	41%
C-2.4	Discovers, recognises, describes, and extends patterns in 2D and 3D shapes	42%	48%
C-3.3	Carries out simple unit conversions, such as from centimetres to metres, within a system of measurement	32%	38%
C-3.5	Devises strategies for estimating the distance, length, time, perimeter (for regular and irregular shapes), area (for regular and irregular shapes), weight, and volume and verifies the same using standard units	36%	42%
C-4.1	Solves puzzles and daily-life problems involving one or more operations on whole numbers (including word puzzles and puzzles from 'recreational' areas, such as the construction of magic squares)	33%	38%
C-4.3	Selects appropriate methods and tools for computing with whole numbers, such as mental computation, estimation, or paper pencil calculation, in accordance with the context	40%	49%

### The World Around Us

Competency Code	Competency Description	State	National
C-1.1	Observes and identifies the natural (insects, plants, birds, animals, geographical features, sun and moon, stars, planets, natural resources) and social (houses, relationships) components in their immediate environment	40%	44%
C-1.3	Asks questions and makes predictions about simple patterns (season change, food chain, phases of the moon, movement of stars and planets, shapes of trees, plants, leaves, and flowers, rituals, celebrations) observed in the immediate environment	32%	38%
C-1.4	Explains the functioning of local institutions (family, school, bank/post office, market, and panchayat) in different forms (story, drawing, tabulating data, reports), and analyses their roles	53%	56%
C-2.1	Identifies natural and human-made systems that support their lives (water supply, water cycle, river flow systems, seasons, life cycle of plants and animals, food, household items, transport, communication, electricity in the home)	44%	51%
C-2.2	Describes the relationship between the natural environment and cultural practices in their immediate environment (nature of work, food, festivals, traditions)	30%	38%
C-3.1	Describes the basic safety needs and protection (health and hygiene, food, water, shelter, precautions, awareness of emergency situations, abuse, and unsafe situations) of humans, birds, and animals	58%	57%
C-3.2	Discusses how to prepare for emergency situations (smoke, fire, small injuries, burns, electrical safety, unseasonal rains, fallen trees) based on discussions with family and community, or personal experiences	44%	45%
C-4.1	Observes and describes diversity among plants, and birds and animals in their immediate environment (shape, sounds, food habits, growth, habitat)	50%	54%
C-4.3	Describes usage of natural resources in their immediate environment	46%	50%
C-4.7	Learns about basic social and behavioural norms, values, and dispositions that benefit our social and natural environments and that help our society function smoothly (using dustbins, standing in queues, conserving water, using public transportation, keeping one's environment clean, always helping others in need regardless of background)	47%	51%
C-5.3	Reads simple maps of city, state, and country to identify natural and human-made features (well, lake, post office, school, hospital) with reference to symbols and directions	42%	46%

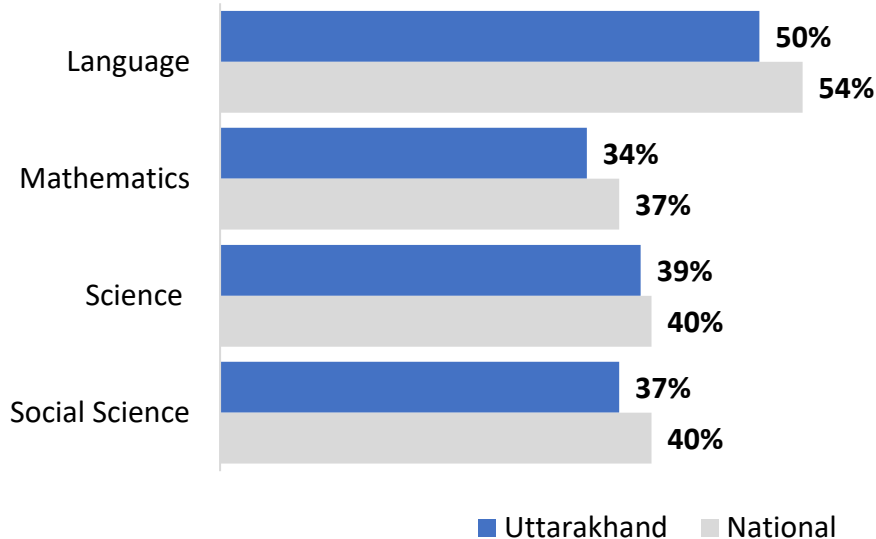
## Performance of Districts (in percentile scale) Grade 6





## Assessing Middle Stage Competencies (Grade 9)

Comparison of State Average with National Average Across Subjects

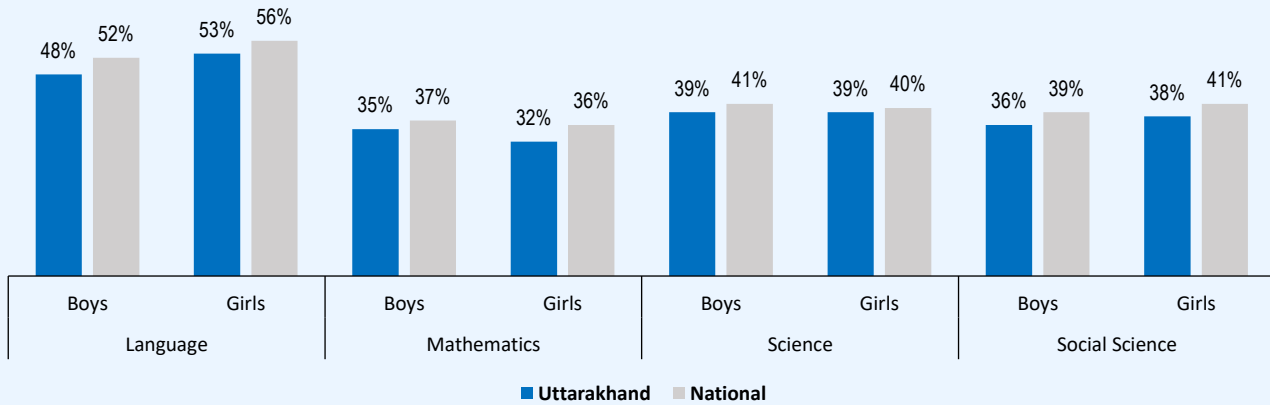


In **Language, Mathematics, Science, and Social Science**, the average performance of students in **Uttarakhand** is lower than the national average. The performance gap is **4%** in Language, **3%** in Mathematics, **1%** in Science, and **3%** in Social Science.





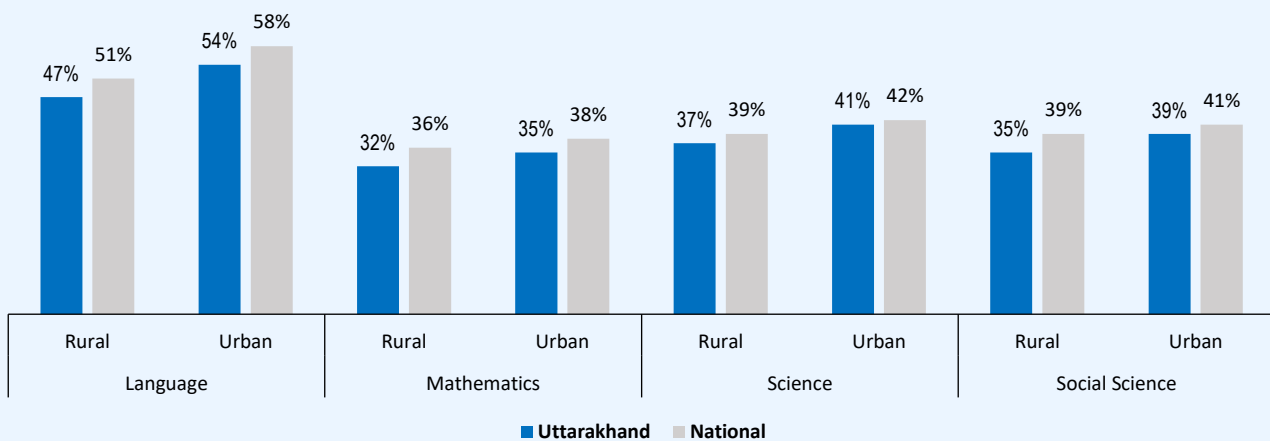
## Performance by Gender



### Key highlights

- In Language, boys scored 4% lower and girls 3% lower than the national average.
- In Mathematics, boys scored 2% lower and girls 4% lower than the national average.
- In Science, boys scored 2% lower and girls 1% lower than the national average.
- In Social Science, both boys and girls scored 3% lower than the national average.

## Performance by Location

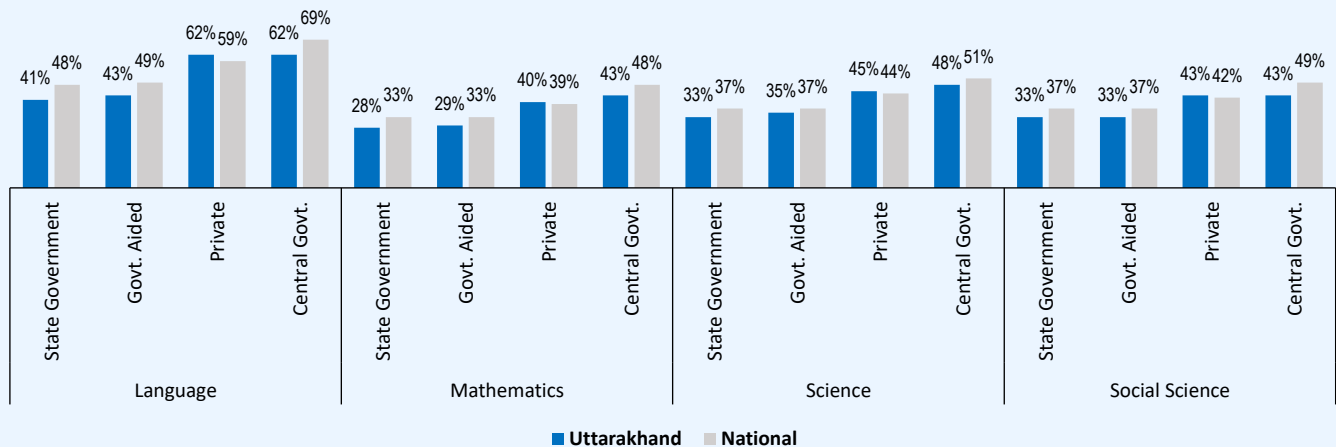


### Key highlights

- In rural schools, students scored 4% lower in Language, Mathematics, and Social Science than the national average. The students performed 2% lower than the national average in Science.
- In urban schools, students scored 4% lower in Language, 3% lower in Mathematics, 1% lower in Science, and 2% lower in Social Science than the national average.

\*The mean difference has not been represented statistically

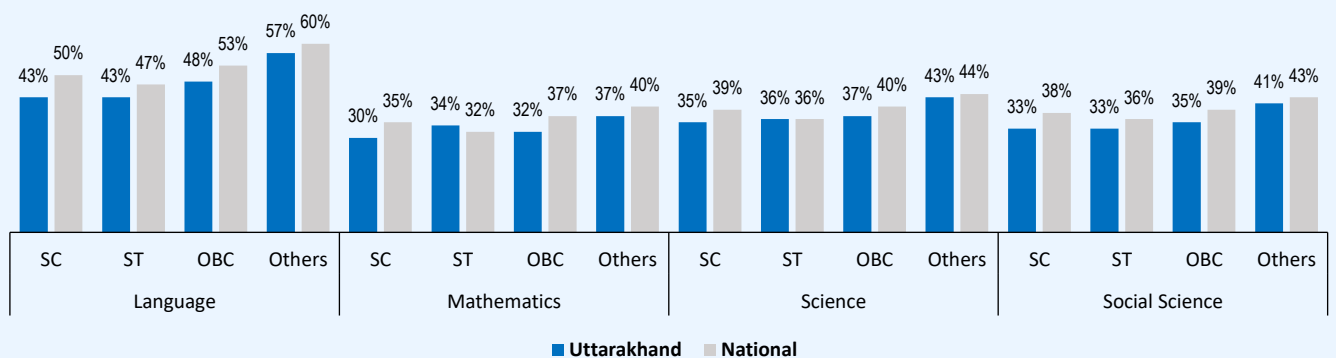
## Performance by School Management Type



### Key highlights

- In State Government schools, students scored 7% lower in Language, 5% lower in Mathematics, and 4% lower in Science and Social Science than the national average.
- In Government-aided schools, students scored 6% lower in Language, 4% lower in Mathematics, 2% lower in Science, and 4% lower in Social Science than the national average.
- In Private schools, students scored 3% higher in Language and 1% higher in Mathematics, Science, and Social Science than the national average.
- In Central Government schools, students scored 7% lower in Language, 5% lower in Mathematics, 3% lower in Science, and 6% lower in Social Science than the national average.

## Performance by Social Group



### Key highlights

- Among SC students, scores were 7% lower in Language, 5% lower in Mathematics and Social Science, and 4% lower in Science than the national average.
- Among ST students, scores were 4% lower in Language, 2% higher in Mathematics and 3% lower in Social Science compared to the national average. The students' performance was at par with the national average in Science.
- Among OBC students, scores were 5% lower in Language and Mathematics, 3% lower in Science and 4% lower in Social Science compared to the national average.
- Among students from other social groups, scores were 3% lower in Language and Mathematics, 1% lower in Science, and 2% lower in Social Science than the national average.

\*The mean difference has not been represented statistically

## Competency-wise Performance (Grade 9)

The tables below show the average percentage of correctly answered questions related to each competency in the state, compared to the national average. For example, in competency C-1.1 (Language, Grade 9) in Uttarakhand, the state average of 50% represents the proportion of correctly answered questions, while the national average for same competency was 54%.

### Language

Competency Code	Competency Description	State	National
C-1.1	Identifies main points and summarises from careful listening or reading of the text (news articles, reports, editorials)	50%	54%

### Mathematics

Competency Code	Competency Description	State	National
C-1.2	Discovers, identifies, and explores patterns in numbers and describes rules for their formation (e.g., multiples of 7, powers of 3, prime numbers), and explains relations between different patterns	37%	39%
C-1.4	Explores and understands sets of numbers, such as whole numbers, fractions, integers, rational numbers, and real numbers, and their properties, and visualises them on the number line	28%	31%
C-1.5	Explores the idea of percentage and applies it to solve problems	24%	28%
C-1.6	Explores and applies fractions (both as ratios and in decimal form) in daily-life situations	29%	31%
C-2.2	Extends the representation of a number in the form of a variable or an algebraic expression using a variable	39%	44%
C-2.3	Forms algebraic expressions using variables, coefficients, and constants and manipulates them through basic operations	35%	38%
C-2.5	Develops own methods to solve puzzles and problems using algebraic thinking	35%	37%
C-3.2	Outlines the properties of lines, angles, triangles, quadrilaterals, and polygons and applies them to solve related problems	35%	37%
C-3.5	Understands congruence and similarity as it applies to geometric shapes and identifies similar and congruent triangles	36%	40%
C-4.1	Discovers, understands, and uses formulae to determine the area of a square, triangle, parallelogram, and trapezium and develops strategies to find the areas of composite 2D shapes	36%	39%
C-5.1	Collects, organises, and interprets the data using measures of central tendencies such as average/mean, mode, and median	38%	41%
C-6.1	Applies both inductive and deductive logic to formulate definitions and conjectures, evaluate and produce convincing arguments or proofs to turn these definitions and conjectures into theorems or correct statements, particularly in the areas of algebra, elementary number theory, and geometry	26%	29%

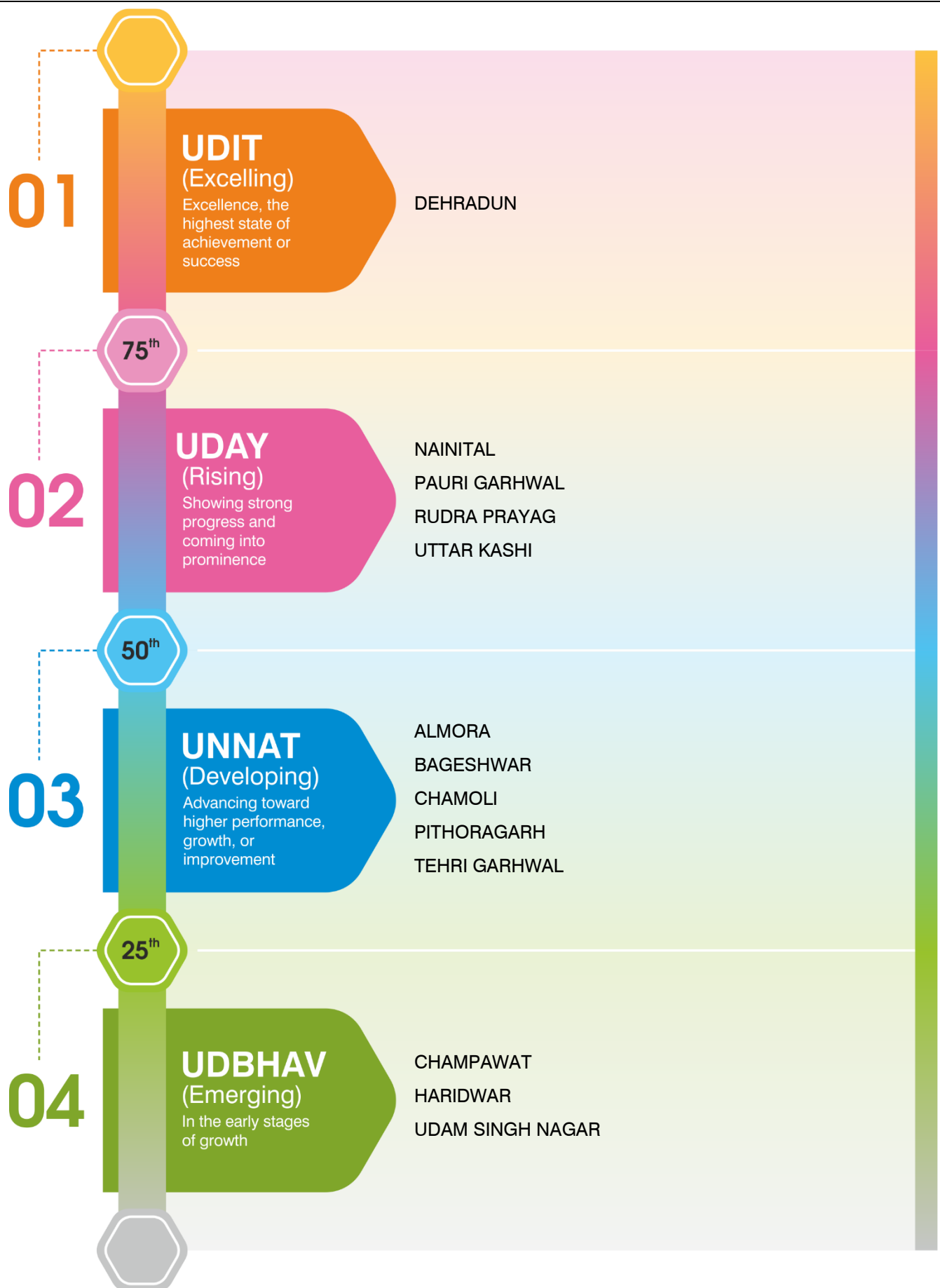
### Science

Competency Code	Competency Description	State	National
C-1.1	Classifies matter based on observable physical (solid, liquid, gas, shape, volume, density, transparent, opaque, translucent, magnetic, non-magnetic, conducting, non-conducting) and chemical (pure, impure; acid, base; metal, non-metal; element, compound) characteristics	35%	36%
C-1.2	Describes changes in matter (physical and chemical) and uses particulate nature to represent the properties of matter and the changes	38%	38%
C-1.4	Observes and explains the phenomena caused due to differences in pressure, temperature, and density (e.g., breathing, sinking-floating, water pumps in homes, cooling of things, formation of winds)	36%	37%
C-2.1	Describes one-dimensional motion (uniform, nonuniform, horizontal, vertical) using physical measurements (position, speed, and changes in speed) through mathematical and diagrammatic representations	39%	41%
C-2.2	Describes how electricity works through manipulating different elements in simple circuits and demonstrates the heating and magnetic effects of electricity	30%	33%
C-2.3	Describes the properties of a magnet (natural and artificial; Earth as a magnet)	39%	41%
C-2.4	Demonstrates rectilinear propagation of light from different sources (natural, artificial, reflecting surfaces), verifies the laws of reflection through manipulation of light sources and objects and the use of apparatus and artefacts (such as plane and curved mirrors, pinhole camera, kaleidoscope, periscope)	41%	45%
C-3.1	Describes the diversity of living things observed in the natural surroundings (insects, earthworms, snails, birds, mammals, reptiles, spiders, diverse plants, and fungi), including at a smaller scale (microscopic organisms)	38%	47%
C-3.2	Distinguishes the characteristics of living organisms (need for nutrition, growth and development, need for respiration, response to stimuli, reproduction, excretion, cellular organisation) from non-living things	32%	34%
C-4.1	Undertakes a nutrition-based analysis of food components with special reference to Indian culinary practices and modern understanding of nutrition, and explains the effect of nutrition on health	55%	53%
C-4.3	Describes biological changes (growth, hormonal) during adolescence, and measures to ensure overall well-being	36%	37%
C-7.3	Represents real world events and relationships through diagrams and simple mathematical representations	36%	38%

**Social Science**

Competency Code	Competency Description	State	National
C-1.1	Collects and interprets multiple sources of information (primary and secondary) to understand the historical, cultural, geographical, and socio-political aspects of human life	30%	32%
C-1.2	Represents and analyses data related to various aspects of human life given in the form of text, tables, charts, diagrams, and maps	50%	53%
C-2.1	Explains and analyses major changes in the past and their impact on society	37%	39%
C-2.2	Recognises elements of the continued prevalence of certain beliefs, relationships, practices, and activities in human society, notwithstanding major changes in society	36%	38%
C-3.1	Analyses the effect of various changes in early human society from nomadism to settled life and early civilisation (such as, the emergence of agriculture, changes in food habits, basic technologies like construction, transport, pottery, metallurgy), and changes in human habitation, family structures and relationships, the nature of work, people's socio-cultural beliefs and concepts over time (e.g., <i>Ahimsa</i> , and the fallout of major wars or invasions) that significantly impacted human societies	33%	36%
C-4.2	Assesses the influence of social, cultural, and political institutions on an individual or group or community or society in general	44%	46%
C-6.1	Explains key natural phenomena, such as, climate, weather, ocean cycles, soil formation, the flow of rivers, and how they are spatially distributed	29%	33%
C-6.2	Identifies the distribution of resources, such as, water, agriculture, raw materials, and services across geographies	32%	38%
C-6.3	Analyses Indian perspectives on and efforts towards conservation and sustainability in society, and advocates the importance of the same, and what more needs to be done in these directions including in the context of global climate change	44%	46%
C-6.4	Correlates the existence of different patterns of livelihoods with different types of landforms, availability of resources, and climatic conditions and changes (in local, regional, national, and global contexts)	38%	39%
C-7.1	Explains India's unity in diversity by recognising commonalities in its rich and diverse cultural elements, languages, art, philosophical ideas, values, clothing, cuisines, traditions, festivals, trade, commerce, and health practices including <i>Ayurveda</i> and yoga	33%	36%
C-7.2	Discovers the topographical diversity of the Indian landmass from the semi-arid zone in the west and the areas of heavy rains in the north-east to the long coastal areas in the south and the snow-clad mountains in the north, as well as the rich biodiversity of the country	30%	34%
C-8.2	Explains the process of formation of the Indian Constitution and understands the ideas and ideals of the Indian national movement enshrined in it as well as those drawn from India's civilisational heritage	43%	45%
C-8.3	Explains the working of the three tiers of local self-government and appreciates its significance in upholding democracy at the grassroot level	37%	39%
C-9.1	Explains the key elements of trade and commerce (commodity, production, consumption, and capital) and its impact on individual life and society	49%	50%

## Performance of Districts (in percentile scale) Grade 9



# Recommendations for Targeted Interventions

This subsection presents the gaps identified across three grades and different subjects using the achievement test, pupil questionnaire, teacher questionnaire, and school questionnaire.



## 1. Bridging the Gaps in Learning Levels

The percentages for competency-wise performance in each grade covered in preceding sections represent the proportion of students in Grades 3, 6, and 9 in Uttarakhand who correctly answered questions for each competency in the subjects tested. The percentages offer valuable insights into the students' performance across different competencies, aiding identification of areas that may require targeted support.

Instances where less than 50% of students in the state were able to answer correctly indicate learning gaps. These learning gaps highlight the need for focused interventions to strengthen students' skills, refine instructional strategies, and provide additional learning support. Addressing these areas effectively will help improve overall student learning outcomes in the state.



## 2. Use of Innovative Assessment Strategies

The use of innovative assessment strategies like peer assessment, self-assessment, portfolio, and project work are key to effective learning. The following graph illustrates the percentage of teachers who reported using the aforementioned assessment strategies and reported their use as **regularly** or **sometimes**.

Please note, the survey originally included four response options: Never, Rarely, Sometimes, and Regularly. This analysis focuses on the combined percentage of the following categories, regularly and sometimes, to assess the adoption of these assessment strategies.

A **50% benchmark** is used to identify gaps in adoption. Any assessment strategy where less than **50%** of teachers reported using it at least 'Sometimes' is considered an area needing **targeted interventions**.



Self-assessment, peer assessment, and project work are widely adopted, indicating that students are being encouraged to reflect on their learning, engage collaboratively, and apply knowledge in practical contexts. Portfolio-based assessments, while still used by many schools, show slightly lower uptake compared to the other strategies, suggesting room for further promotion and support in this area.

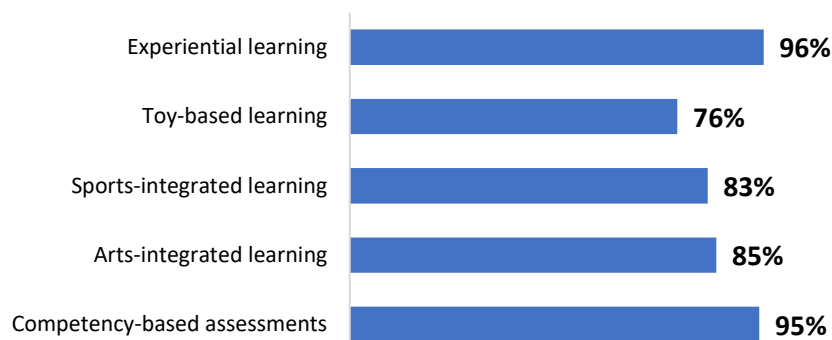


### 3. Integration of Diverse Pedagogical Approaches in Teaching

The integration of diverse pedagogical approaches contributes to the teaching-learning process. The following graph illustrates the percentage of teachers who reported incorporating the following pedagogical approaches: sports integration, arts integration, toy-based, and experiential learning, and reported their use as **regularly** or **sometimes**.

Please note, the survey originally included four response options: Never, Rarely, Sometimes, and Regularly. This analysis focuses on the combined percentage of the following categories, regularly and sometimes, to assess the adoption of these assessment strategies.

A **50% benchmark** is used to identify gaps in adoption. Any pedagogical approach where less than **50%** of teachers reported using it at least 'Sometimes' is considered an area needing **targeted interventions**.

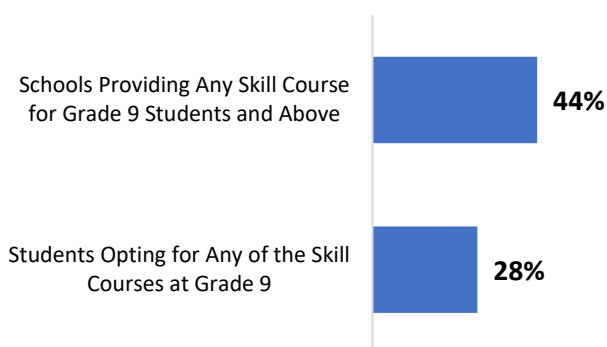


Experiential learning and competency-based assessments appear to be more commonly implemented. Arts- and sports-integrated methods are also being used in several schools, contributing to a more engaging learning environment. Toy-based learning is in place in some schools, though its adoption seems relatively lower compared to other approaches.



#### 4. Skill Education in Schools

In the 21st century, skill education equips learners to develop specific job-ready skills and competencies and adapt to the changing workforce requirements. The following table shows the percentage of schools that provide skill courses for students Grades 9 and above, and students who have opted for skill courses at Grade 9. The responses for both items were reported as **yes** or **no**.



A **50% benchmark** is used to identify gaps. Either criterion where less than **50%** of schools reported as 'Yes' is considered an area needing **targeted interventions**.

The findings highlight the need for greater integration of skill education in schools. Policymakers can use this data to **introduce diverse skill courses**, provide **funding and infrastructure support**, and **raise awareness among students** about career opportunities. Strengthening industry partnerships and aligning courses with job market needs can enhance **skill development and employability**.

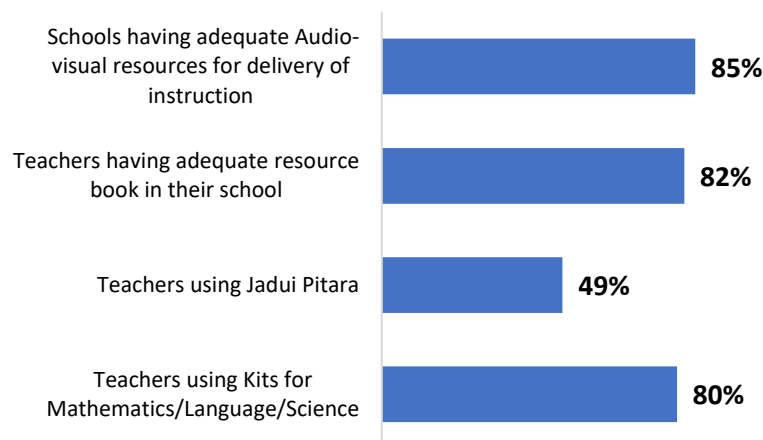
Less than half of the schools are offering courses aimed at building practical skills for students in Grade 9 and above. However, the participation of students in these courses remains comparatively low. This suggests the need for greater awareness, encouragement, and alignment of course offerings with students' interests and aspirations.

## 5. Learning Teaching Material at School

Access to diverse learning and teaching materials plays a crucial role in enhancing the quality of education. A variety of resources, such as audio-visual aids, teacher resource books, subject-specific kits, and interactive learning tools like Jadui Pitara, contribute to making classroom instruction more engaging and effective. These materials help facilitate better understanding, encourage active participation, and enhance the overall quality of education. Ensuring access to diverse and adequate learning resources is essential for fostering an interactive and well-rounded learning environment.

The following graph presents the percentage of schools that have access to essential teaching-learning resources, including textbooks, digital content, and other instructional materials.

A **50% benchmark** is used to identify gaps. Any category where less than 50% of schools reported availability of materials is considered an area requiring intervention.

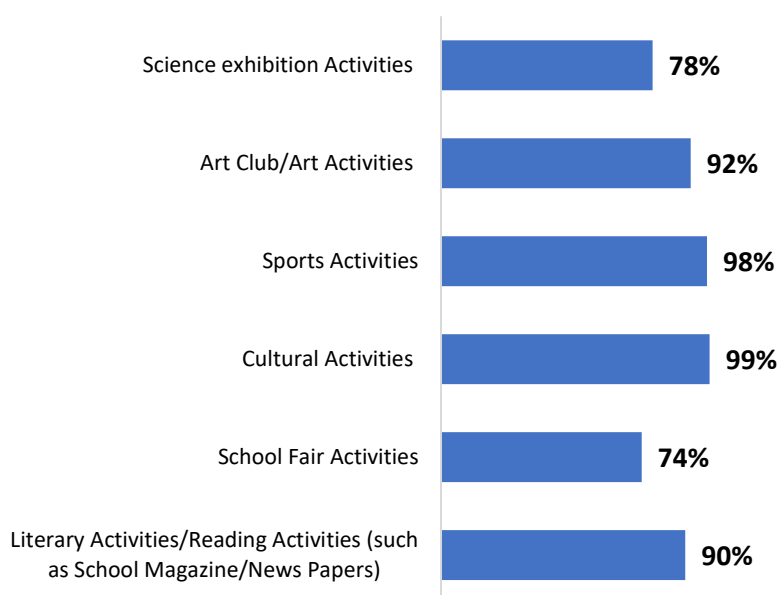


A large number of schools report the availability of audio-visual resources and resource books to support instruction. Most teachers also have access to teaching kits for subjects like Mathematics, Language, and Science. However, the use of Jadui Pitara is lower, indicating room for expanding its adoption as part of classroom teaching practices.

## 6. Experiential Learning Opportunities in School

Experiential Learning is a core aspect of teaching-learning practices and contributes to active learning. The following graph illustrates the percentage of teachers who reported availability of the following experiential learning opportunities in school: art activities, cultural activities, literary/reading activities, school fairs, science exhibitions, and sports activities, and reported their availability as yes or no.

A **50% benchmark** is used to identify gaps in availability. Any experiential learning opportunity where less than **50%** of schools reported its availability as 'Yes' is considered an area needing **targeted interventions**.

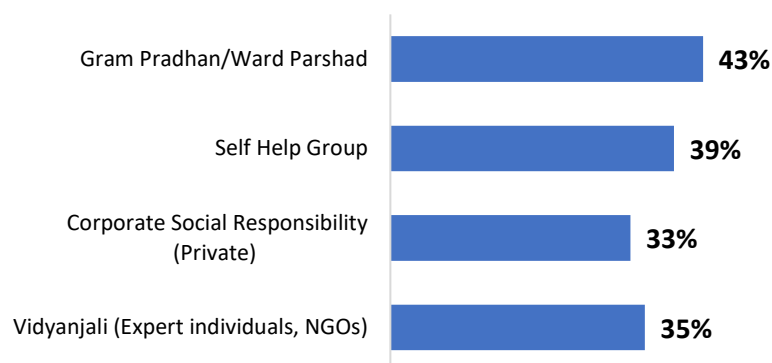


Experiential learning opportunities such as sports, cultural activities, and art-based engagements are widely implemented across schools. Literary activities and science exhibitions are also available in many schools, while the inclusion of school fairs appears somewhat less frequent in comparison.



## 7. Community Participation

Active participation from the community plays a crucial role in enhancing the quality of education and overall school development. Support from local governance bodies, NGOs, self-help groups, and corporate social responsibility (CSR) initiatives can contribute significantly to a school's resources and learning environment. The chart below illustrates the current levels of community support in schools, highlighting areas where increased engagement can make a meaningful impact.



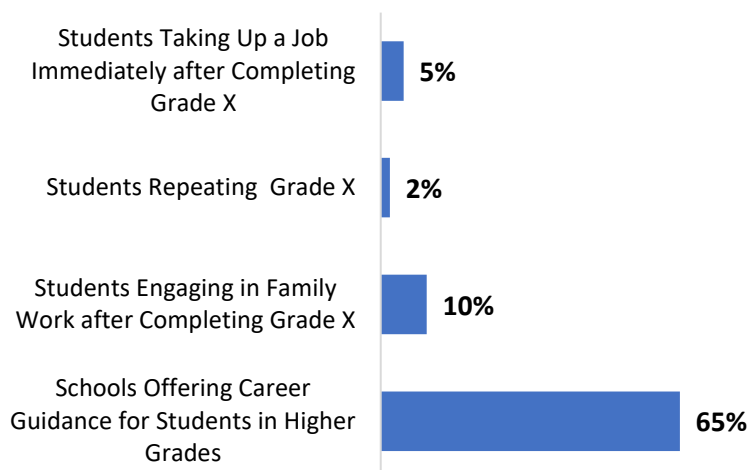
A **50% benchmark** is used to identify gaps in participation of the community.

The participation of community stakeholders in schools varies across different groups. Engagement from local bodies like the Gram Pradhan or Ward Parshad appears somewhat more frequent than others, while involvement from Self Help Groups, NGOs through Vidyanjali, and private CSR initiatives is comparatively lower. Efforts should be made to enhance collaboration with these stakeholders to build stronger school-community partnerships and support holistic student development.

## 8. Students Outside the Educational System

Students exit the education system after Grade 10 because of different reasons like taking up a job, doing a skill course, doing an apprenticeship, repeating the grade, and participating in family work. Schools reported the exit of students through percentages (0-25%, 26-50%, 51-75%, 76-100%). E.g., 26-50% of students took up a job.

A **50% benchmark** is used to identify gaps in the system. Aspects that schools reported as 51-75% or 76-100% are considered as areas needing **targeted interventions** to reduce the percentage of students exiting the education system.



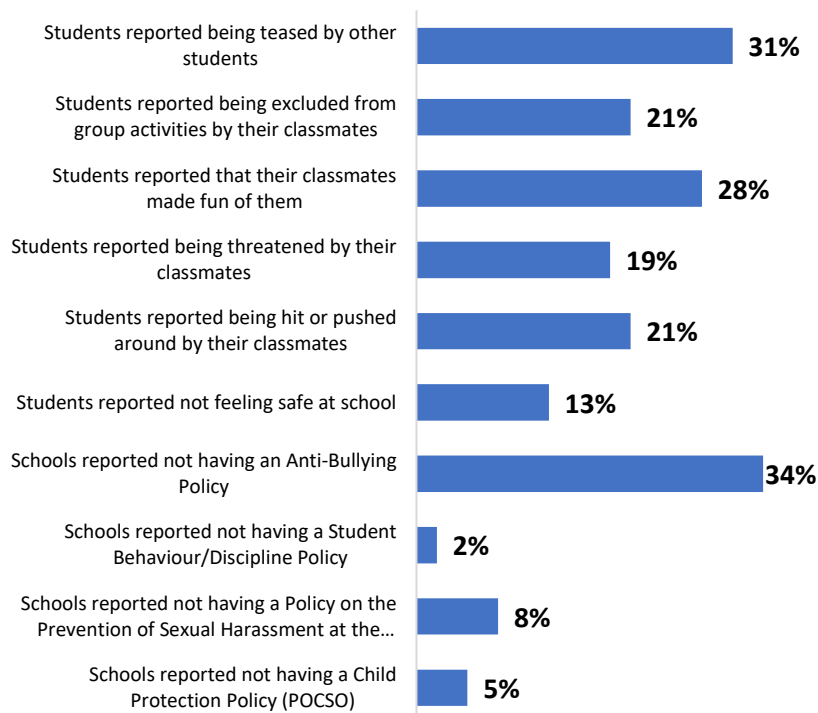
Even though the percentages appear low, the fact that some students are taking up jobs, repeating Grade X, or engaging in family work after completing Grade X highlights the need for continued attention to this issue. The presence of career guidance in a number of schools is a positive sign. However, more focused efforts are required to expand access to such support and ensure students are better equipped to stay on their educational path.



## 9. Safe and friendly school environment

A positive school environment is essential for students' well-being and academic success. The survey findings indicate areas where improvements are needed to promote safety, inclusivity, and emotional security in schools. Strengthening anti-bullying measures, fostering peer inclusivity, and implementing key protection policies can significantly enhance the overall learning experience. The graph below highlights critical areas requiring attention to create a safer and more student-friendly school environment.

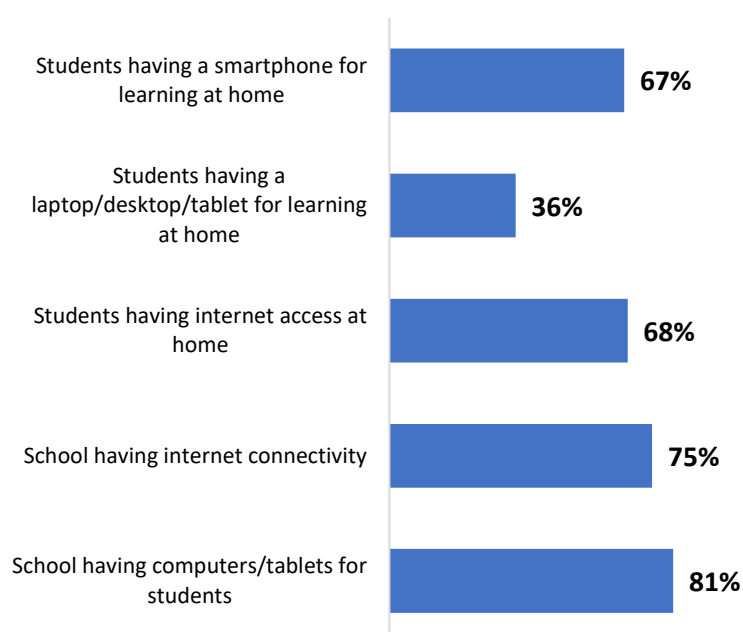
School leaders and/or policymakers must provide special attention to the situations/cases where the proportion reported in the graph is **higher than 50%**.



Reports of students being teased, excluded, made fun of, threatened, or physically pushed by their peers indicate ongoing issues related to peer interactions and school safety. Some students also expressed that they do not feel safe within the school environment. Although most schools have put in place behaviour and protection policies, the absence of anti-bullying policies in several schools highlights the need for more focused attention. Strengthening preventive measures, promoting respectful peer relationships, and creating support mechanisms can help ensure a safer and more inclusive atmosphere for all students.

## 10. Use/availability of Technology for Better learning

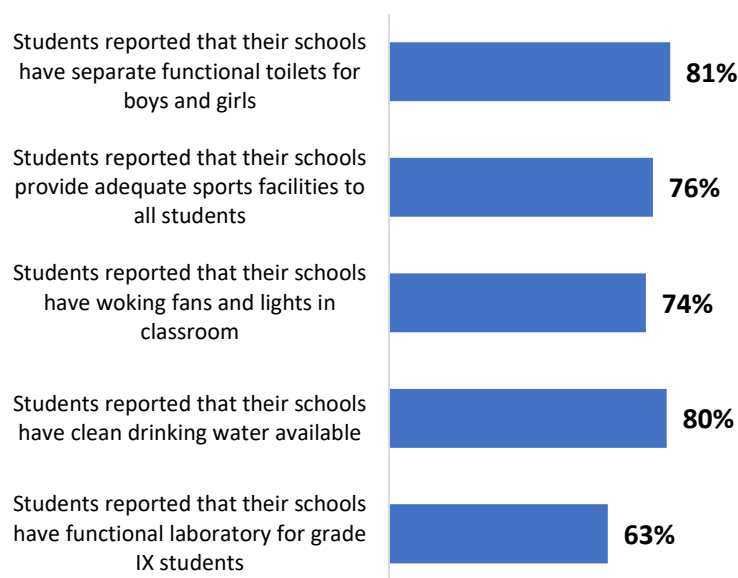
In the last few decades, access to technology has become imperative for effective learning. The graph below illustrates the access to technology and digital devices at school and home. Instances where access is below 50% need targeted interventions.



Many students mentioned having access to smartphones and internet connectivity at home to support their studies. However, access to devices like laptops, desktops, or tablets remains comparatively low. On the other hand, schools appear to be better equipped, with a greater availability of internet facilities and computers or tablets for student use. It remains important to strengthen efforts aimed at improving digital access at the student level, especially for learning at home.

## 11. Essential School Facilities

School facilities play an important role in the teaching-learning process. The graph below illustrates the availability of essential school facilities like sports facilities, drinking water, functional fans and lights, science lab, and separate functional toilets. Instances where availability is below **50%** need targeted interventions.



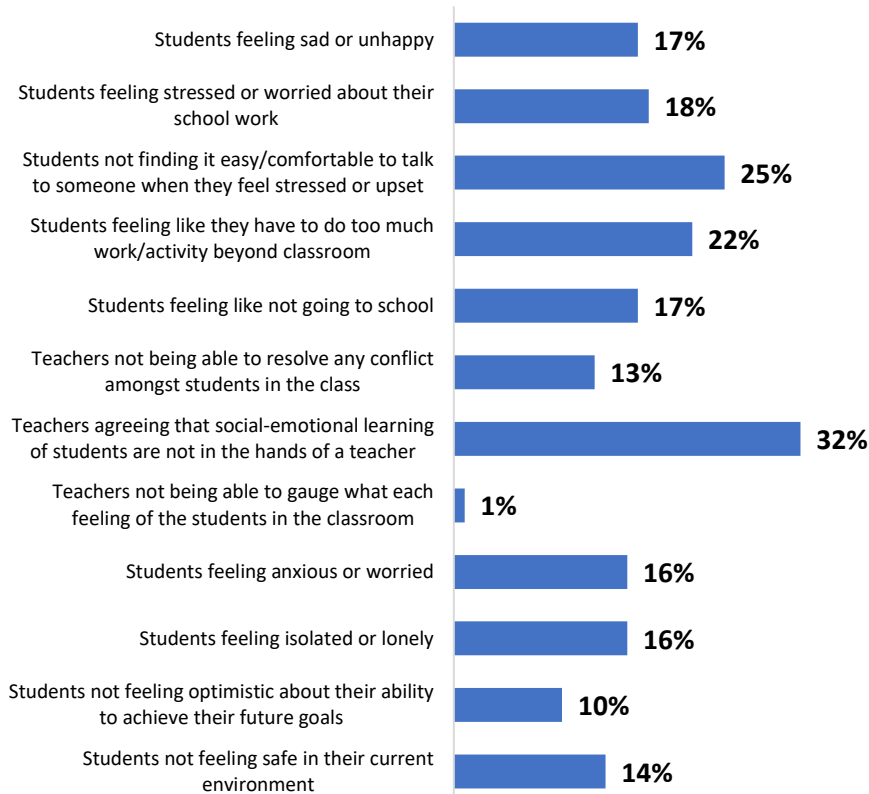
Several schools have ensured the availability of basic infrastructure such as functional toilets for boys and girls, clean drinking water, and sports facilities. A fair proportion of students also mentioned the presence of functional fans and lights in classrooms. However, the availability of functional laboratories for Grade IX students is relatively lower, suggesting the need for continued investment in science infrastructure to support subject-specific learning needs.





## 12. Need to focus on Social Emotional Learning

Social-Emotional Learning (SEL) plays a crucial role in students' well-being and academic success. The survey responses highlight areas where **greater attention is needed** to support students' emotional health and equip teachers with strategies to foster a positive learning environment. Schools where less than **50% of students and teachers** report positive SEL experiences should focus on **strengthening mental health support, conflict resolution training, and emotional awareness initiatives**.



Feelings of stress, sadness, and emotional isolation were reported by several students. Some students shared that they find it difficult to talk to someone when feeling upset or stressed, while some expressed being overwhelmed with work or lacking motivation to attend school.

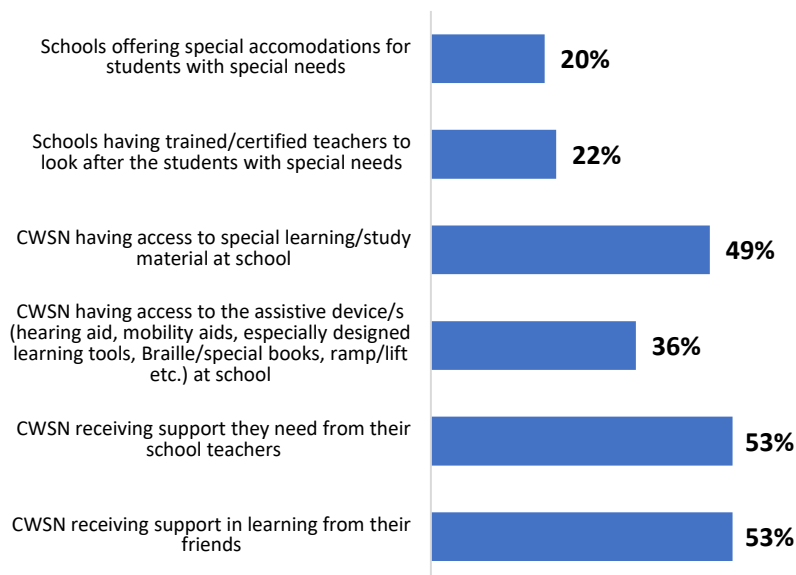
From the educators' perspective, a number of teachers indicated that the responsibility of students' social-emotional development does not entirely rest with them, and some also reported difficulty in resolving conflicts among students.

Efforts are required to foster a more emotionally supportive environment in schools. Strengthening teacher training in social-emotional learning, facilitating peer support, and creating open channels for student expression may contribute meaningfully to students' overall well-being.

### 13. Inclusiveness at the school level

Inclusive education is essential for fostering a supportive learning environment where Children with Special Needs (CWSN) receive the necessary accommodations, resources, and support. The table below highlights survey responses regarding inclusivity at the school level.

For areas where less than **50%** of schools currently implement inclusive measures, additional efforts are needed to ensure that all students, including those with special needs, have equal access to learning opportunities. Strengthening teacher training, providing assistive resources, and fostering peer support can significantly enhance inclusivity in schools.



Support systems for Children with Special Needs (CWSN) are present in several schools, particularly in the form of learning support from teachers and peers. Some students also reported having access to study materials suited to their needs. However, fewer schools have provisions such as trained personnel, assistive devices, or specially designed learning tools in place. The relatively limited availability of accommodations and resources suggests the need for increased efforts to build a more inclusive school environment. Strengthening infrastructural support and equipping teachers through targeted training can help address the learning needs of all students more effectively.

## 14. Continuous Professional Development

Professional development is crucial for empowering teachers and school leaders with modern teaching strategies, leadership skills, and student support techniques. The table below highlights the details of teachers and school leaders participating in the various professional development programs. A **50% benchmark** is used to identify the gaps. The table highlights the key areas where improvements can be made to ensure effective training and skill-building opportunities for educators.

Description	%
Teachers Participating in Professional Development Programmes in the Last 12 months	21%
Teachers Participating in the 'Mentoring and/or Peer Observation and Coaching as part of a formal school management in BRCs/CRCs' activity in the last 12 months	28%
Teachers Participating in the ICT related training during the last 12 months	33%
School principals/head teachers undergone training on NEP2020/NCF-FS2022/NCF-SE2023/HPC	42%
School principals/head teachers undergone school leadership training programme organized by NIEPA or state government	35%
Schools organized teacher training session/workshop on Stress Management in the past two academic years	59%
Schools organized teacher training session/workshop on Managing emotions/Emotional Intelligence in the past two academic years	62%
Schools organized teacher training session/workshop on Mental Health awareness in the past two academic years	72%
Schools organized any teacher training session/workshop on Behavioural Management in a classroom in the past two academic years	77%
Schools organized teacher training session/workshop on Managing and understanding Adolescent behaviour in the past two academic years	74%
Schools organized teacher training session/workshop for parents around 'understanding their children better/managing their behaviour'	85%
Schools offering any regular Professional Development sessions for teaching staff in the past two academic years	56%

Teacher and school leader training activities show variation in engagement levels. Participation of teachers in professional development programmes, mentoring, peer observation, ICT-related training and school leadership training programme over the past year remains limited.

Training coverage among school principals and head teachers, particularly in areas related to NEP2020, NCF, and HPC, is quite limited.

Schools have made visible efforts to organise training sessions on mental health, emotional intelligence, and behavioural management during the last two academic years. Workshops for parents on understanding and managing child behaviour have also been prioritised in many schools.

Regular professional development sessions are being held in only a few schools. Strengthening and expanding such opportunities could help build more consistent support for teaching staff across all institutions.





