Shodh Sari-An International Multidisciplinary Journal

2025, Vol. 04, Issue 03, 338-361
ISSN: 2959-1376
DOI: https://doi.org/10.59231/SARI7858

Trends In Foundational Learning Achievement in Manipur: A Critical Study of Grade 3 Language and Mathematics in Nas (2017 - 2024)

Singh, Naorem Ingochouba[1] and Meitei, Akoijam Pete[2]

[1]Assistant Professor, Ibotombi Institute of Education, Canchipur, & Research Scholar, Department of Education, Dhanamanjuri University, Manipur

[2]Assistant Professor, Ibotombi Institute of Education, Canchipur, & Research Scholar, Department of Education, Manipur University, Canchipur

Abstract

This study presents a longitudinal analysis of foundational learning outcomes among Grade 3 students in Manipur, using data from the National Achievement Survey (NAS) cycles of 2017, 2021, and 2024. The findings reveal a three-phase trajectory: a pre-pandemic baseline, significant learning loss during the pandemic, and a strong post-pandemic recovery. Between 2017 and 2021, overall scores in Language dropped from 71% to 64% and in Mathematics from 68% to 57%, reflecting an average 8-percentage-point decline attributed to school closures, digital inaccessibility, and socio-economic barriers. However, by 2024, language scores had rebounded to 71% and mathematics to 66%, demonstrating a 6.5-point overall recovery. Disaggregated data highlight persistent disparities. Boys experienced a 9-point drop (2017–2021) versus 7 points for girls, though girls outperformed boys across all three cycles. Rural students faced sharper declines than urban peers but surpassed urban performance in 2024 (Language: 73% rural vs. 65% urban). SC and ST groups showed the steepest losses in Mathematics (SC: -16%, ST: -14%) but demonstrated substantial gains by 2024. Competency-wise, reading comprehension and spatial reasoning exhibited continued deficits (e.g., L304 fell from 71% in 2017 to 64% in 2024; M309 from 88% to 43%). The study underscores the efficacy of post-pandemic interventions under NIPUN Bharat and calls for sustained remedial programs, teacher training, curriculum reform, digital equity, and targeted support for disadvantaged groups to bridge enduring learning gaps.

Keywords: Foundational Learning, National Achievement Survey (NAS), Language Achievement, Mathematical Achievement, Competency Gaps, Manipurs

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

1. Introduction

Foundational learning, which encompasses basic literacy and numeracy skills acquired during early education, is paramount for a child's academic success and overall cognitive development. A robust foundation in reading, writing, and mathematics has been shown to facilitate the comprehension of more complex concepts and encourage lifelong learning engagement. These fundamental skills represent the bedrock upon which all subsequent learning and human capital development are built, making their mastery not merely an educational aspiration but a critical prerequisite for individual empowerment and national progress. Without a robust foundation in these areas, individuals face significant barriers to acquiring higher-order skills, participating effectively in the labour market, and contributing meaningfully to economic growth.

Recognizing the critical role of foundational learning in shaping both individual potential and national development, the Government of India has introduced key policy measures such as the NIPUN Bharat Mission and NEP, 2020 (Ministry of Education, 2020). These initiatives underscore the urgent need to ensure that all children acquire foundational literacy and numeracy (FLN) skills by the end of Grade 3 (Government of India, 2020). This urgency is particularly relevant in a developing country like India, where many school-aged children lack basic reading and mathematical abilities (UNESCO, 2021). In the Annual Status of Education Report (ASER), FLN shortfalls have been a persistent concern. According to ASER data, 40% of Standard V pupils in rural government schools could not read texts at the Standard II level as early as 2005 (ASER Centre, 2025). Although some gains have been made, recent data from 2023 show persistent gaps: nearly one in four youth aged 14-18 still cannot fluently read a Standard II-level passage in their regional Language, and over half struggle with basic arithmetic operations like division that should be mastered by Standard III or IV (ASER Centre, 2023).

These learning shortfalls have far-reaching implications. Despite years spent within formal schooling, many children emerge without the competencies essential for further learning or gainful employment, suggesting systemic challenges beyond mere access or infrastructure. The economic costs are equally grave. According to the World Bank, poor foundational learning in early grades

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

can result in a 9% reduction in future earnings per individual, ultimately diminishing national economic productivity and exacerbating social inequalities (Britto et al., 2017). Thus, bridging FLN gaps is an educational priority and a foundational step toward inclusive and sustainable development.

1.1. History and Evolution of the National Achievement Survey (NAS) in India

The National Achievement Survey (NAS) is a cornerstone in India's educational landscape, serving as a vital large-scale assessment tool that reflects the overall health and efficacy of the nation's schooling system. The initiative can be traced back to an independent endeavour by the National Council of Educational Research and Training (NCERT, 2021). Recognizing its alignment with the broader national objective of achieving universal literacy, NAS was formally integrated into the Sarva Shiksha Abhiyan (SSA) in 2000, a flagship program then managed by the Ministry of Human Resource Development (MHRD), now known as the Ministry of Education (Ministry of Education, 2000).

Since its inception in 2001, NAS has been conducted periodically every three years to systematically monitor the government education system's performance. The initial cycles included the Baseline Achievement Survey (2001–2004) and the Mid-term Achievement Survey (2005–2008), which assessed students in Classes III, V, and VII/VIII. Over time, the scope of NAS expanded to cover students in Classes 3, 5, 8, and 10 across various types of institutions, including state government schools, government-aided schools, private unaided schools, and central government schools. NAS has been conducted eight times since its inception till the survey held on November 12, 2021, following delays caused by the COVID-19 pandemic (Azim Premji University, 2022).

A significant methodological leap occurred from Cycle 3 onwards, notably with NAS 2010/11, through adopting Item Response Theory (IRT) for data analysis (NCERT, 2011). It marked a crucial shift from the earlier Classical Test Theory (CTT) model. IRT, a sophisticated psychometric framework, enables a more accurate measurement of students' actual underlying abilities, facilitating more meaningful and precise comparisons of scores over time, thereby enhancing the results' efficiency, accuracy, and overall utility. For NAS 2017, the IRT scores were standardised to a scale

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

ranging from 100 to 500, with a mean of 300 and a standard deviation of 50, to simplify interpretation (NCERT, 2017). Furthermore, the competency-based test questions developed for NAS 2017 and NAS 2021 directly reflected the Learning Outcomes (LOs) formulated by NCERT, aligning the assessments with contemporary educational philosophies and the NEP, 2020 (Ministry of Education, 2020).

NAS's reports do not provide individual student, school, or district results; instead, they present a whole picture at the state and national levels. The National Achievement Survey (NAS) 's main objectives are to assess students' learning levels, identify learning gaps, and guide the implementation of targeted remedial measures across national, state, and district levels. The survey provides critical insights into students' knowledge and understanding in specific grades, influencing policy decisions and program interventions, such as those under the Sarva Shiksha Abhiyan (SSA). NAS 2017 and 2021 findings have contributed significantly to NITI Aayog's Project SATH-Education, supporting efforts to enhance learning outcomes (NITI Aayog, 2022). A significant transformation under the NEP 2020 culminated in 2023 with the establishment of PARAKH (Performance Assessment, Review and Analysis of Knowledge for Holistic Development) as the National Assessment Centre (Ministry of Education, 2024) One of PARAKH's key mandates is to organize these achievement surveys, leading to the survey's renaming for 2024 to Performance Assessment, Review, and Analysis of Knowledge for Holistic Development Rashtriya Sarvekshen (PARAKH RS). PARAKH RS is tasked with standardizing assessment practices across diverse school boards, fostering competency-based learning, and providing comprehensive insights into student learning outcomes, thereby serving as a critical tool for evidence-based policymaking, particularly in achieving the goals of foundational literacy and numeracy under the NIPUN Bharat Mission (PARAKH, 2024).

Under its new designation, PARAKH RS continues to conduct large-scale assessments designed to gauge foundational literacy, numeracy, Language, and mathematics competencies at the end of foundational, preparatory, and middle stages of schooling. The latest edition of this nationwide assessment, conducted on December 4, 2024, assessed approximately 8.5 million learners from Grades 3, 6, and 9 across 30

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

States/Union Territories (PARAKH RS, 2024). The immense scale of NAS, involving millions of students and thousands of schools, for instance, 3.4 million students from 118,000 schools participated in NAS 2021, ensures national and district-level representativeness (PARAKH Rashtriya Sarvekshen, 2024). The comprehensive structure of NAS includes achievement tests and Pupil, Teacher, and School Questionnaires, designed to gather vital contextual data on school environment, teaching practices, and demographic factors (NCERT, 2021). This multi-component data collection strategy underscores the survey's design as a longitudinal diagnostic instrument. Its triennial nature allows for systematic tracking of educational progress over time, providing essential feedback on the efficacy of implemented education policies and interventions. The explicit focus of the 2021 survey on the impact of the COVID-19 pandemic further exemplifies its adaptability and responsiveness to pressing national educational challenges, highlighting NAS's structure to support an adaptive policymaking framework.

1.2. Rationale of the Study The pandemic and school closures caused many children to fall behind in their learning, worsening the situation. The study is especially true in poor and middle-income countries, where ten-year-olds who cannot read, write, or understand simple texts went up from 57% in 2019 to 70% in 2022. It shows that we must monitor how well students learn and deal with problems quickly.

Manipur, a north-eastern state of India, presents a unique context for studying foundational learning trends due to its geographical constraints, socio-economic disparities, and limitations in digital infrastructure. In 2017, NAS data showed that Grade 3 students in Manipur performed above the national average in Language and Mathematics, indicating strong basic learning skills. However, the 2021 NAS data showed a significant drop in how well students did in these subjects. The pandemic-induced school closures, coupled with inadequate access to digital learning resources, disproportionately affected students, particularly those in rural areas and marginalized communities.

a) Therefore, a comparative analysis of NAS 2017, NAS 2021, and the recently conducted NAS 2024 data for Manipur is crucial. Such a study allows for:

- Tracking the impact of national education policies, such as NEP 2020 and the

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

NIPUN Bharat Mission, on foundational learning outcomes, particularly in Manipur.

- Assessing the effects of pandemic-related school closures on students' achievement in Manipur.
- Identifying key competency gaps in Language and Mathematics by Grade 3 in Manipur.
- Informing policymakers, educators, and stakeholders about necessary interventions to enhance foundational learning in the state, ensuring that young learners receive the support needed to build a strong academic foundation and thrive in future learning experiences.

b) This study aims to provide evidence-based insights into the evolving trends of foundational learning outcomes for Grade 3 students in Manipur, supporting data-driven educational strategies aligned with the goal of the NIPUN Bharat Mission toward universal foundational literacy and numeracy by 2026-27.

c) This study focuses explicitly on Manipur as a critical case study due to its unique socio-economic and geographical characteristics, which profoundly influence educational access and outcomes. The existing data from NAS 2017 and 2021 already highlights significant disparities and learning losses within the state, making it a pertinent area for in-depth examination.

d) Importantly, including NAS 2024 data enables an evaluation of the recovery trajectory following the pandemic. By comparing outcomes across the three survey rounds, this study assesses whether recent interventions, such as remedial programs, digital learning initiatives, and enhanced teacher training, have successfully reversed learning losses and promoted academic resilience in Manipur.

2. Methodology

This study employs a quantitative, comparative research design, primarily relying on secondary data derived from the official National Achievement Survey (NAS) reports for 2017, 2021, and PARAKH Rashtriya Sarvekshan 2024 (NAS, 2024). The principal data sources are the comprehensive NAS reports specifically focusing on the learning outcomes of Grade 3 students within Manipur. The analysis is strictly confined to foundational learning achievements in Language and Mathematics, aligning precisely with the predefined research objectives. The integrity and official nature of the data are substantiated by explicit references to the "National Council of Educational Research and Training

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

(NCERT) National Achievement Survey Manipur State Learning Report" for both 2017 and 2021, and PARAKH Rashtriya Sarvekshan 2024. Data collection involved disaggregating performance by gender, location, social group, school type, and district.

The core analytical approach is centred on a rigorous comparative analysis across the three survey cycles (2017, 2021, and 2024). This comparison aims to identify overarching trends, patterns of change, and crucially, the recovery trajectories in student performance. Percentage point changes were taken to measure shifts in achievement over time quantitatively. The collected data were meticulously disaggregated and analysed following the five stated objectives. All findings are interpreted within the broader context of existing literature concerning learning loss, the pervasive impact of the COVID-19 pandemic on educational systems, and the persistent educational disparities observed across India (Azim Premji University, 2022). The availability of 2024 competency data allow for a detailed recovery assessment at this specific skill level. The methodology's strength lies in informing broad policy and resource allocation. However, effective implementation of remedial programs at the grassroots level necessitates developing and deploying additional, localized diagnostic assessments that can provide actionable data at the school or classroom level.

3. Objectives of the Study

The primary objectives of the study are:

1) To examine the overall foundational learning achievement in Language and Mathematics (Manipur, Grade 3) from NAS 2017-2024.

2) To evaluate gender-wise variations in foundational learning achievement in Language and Mathematics among Grade 3 students across NAS 2017, 2021, and 2024 in Manipur.

3) To analyse location-wise (rural-urban) disparities in foundational learning achievement in Language and Mathematics among Grade 3 students across NAS 2017, 2021, and 2024 in Manipur.

4) To assess social group-wise (SC, ST, OBC, General) differences in foundational learning achievement in Language and Mathematics among Grade 3 students across NAS 2017, 2021, and 2024 in Manipur.

5) To compare foundational learning achievement in Language and Mathematics among Grade 3 students based on school management types (Government, Aided,

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

Private, Central) across NAS 2017, 2021, and 2024 in Manipur.

6) To identify district-wide variations and trends in foundational learning achievement in Language and Mathematics among Grade 3 students across NAS 2017, 2021, and 2024 in Manipur.

7) To evaluate the learning gap in competencies in Language and Mathematics for Grade 3 students in Manipur across NAS 2017, 2021, and 2024.

4. Results and Discussion

The findings from the comparative analysis of Grade 3 student performance in Manipur across the NAS 2017, 2021, and 2024 cycles, according to the objectives, are analysed as follows:

4.1. Overall Foundational Learning Achievement in Language and Mathematics

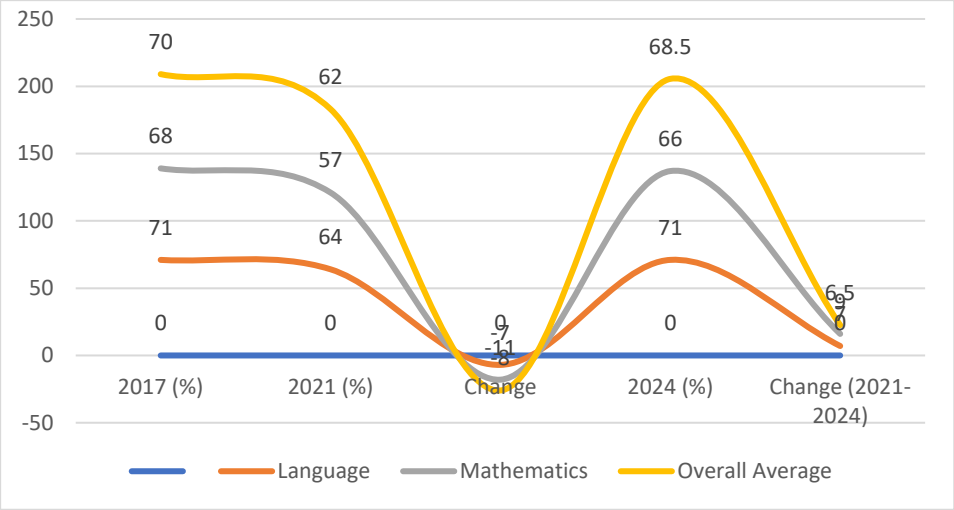

Figure 1: Foundational Learning Achievement of Students

Table 1: Overall Foundational Learning Achievement in Language and Mathematics

Subject	2017 (%)	2021 (%)	Change (2017-2021)	2024 (%)	Change (2021-2024)
Language	71	64	- 7	71	+ 7
Mathematics	68	57	- 11	66	+ 9
Overall Average	70	62	- 8	68.5	+ 6.5

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

Table 1 shows a clear three-phase trend in foundational learning achievement among Grade 3 students in Manipur across the years 2017, 2021, and 2024. In Language, the performance dropped from 71% in 2017 to 64% in 2021, a decline of 7 percentage points, mainly reflecting the impact of pandemic-related school closures and disrupted learning environments. However, by 2024, Language performance had rebounded to 71%, fully recovering to pre-pandemic levels and exceeding the national average of 64% by 7 percentage points. Mathematics showed a more severe drop, declining from 68% in 2017 to 57% in 2021, a loss of 11 percentage points. Nevertheless, it recovered to 66% in 2024, registering a 9-point gain over 2021 and surpassing the national average of 60% by 6 percentage points. The overall average score, which had declined from 70% in 2017 to 62% in 2021 (a drop of 8 percentage points), improved to 68.5% in 2024, indicating a strong 6.5-point recovery. This U-shaped trajectory, initial stability, a sharp mid-period decline, and significant recovery suggest that the learning loss experienced during the pandemic has been substantially mitigated through post-pandemic interventions. The full recovery in Language and near-complete recovery in Mathematics reflect learners' resilience and the impact of targeted foundational learning programs, particularly those under the NIPUN Bharat Mission. Furthermore, Manipur's performance in 2024 stands above the national average (68% in Language and 64% in Mathematics) in both subjects, highlighting the relative success of the state's education system in navigating and recovering from the learning crisis.

4.2. Performance by Gender

Table 2: Performance by Gender

Subject	Gender	2017 (%)	2021 (%)	Change (2017-2021)	2024 (%)	Change (2021-2024)
Language	Boys	71	64	- 7	71	+ 7
	Girls	71	66	- 5	72	+ 6
Mathematics	Boys	68	57	- 11	66	+ 9
	Girls	68	60	- 8	67	+ 7

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

A gender-wise analysis of foundational learning outcomes in Manipur, as shown in **Table 2**, reveals key patterns in how the COVID-19 pandemic differently impacted boys and girls and how they recovered across the NAS cycles of 2017, 2021, and 2024. Between 2017 and 2021, boys and girls experienced learning setbacks, but the decline was more severe among boys. Between 2017 and 2021, boys' performance showed a notable decrease. Language scores dropped by 7 percentage points (71% to 64%), and Mathematics scores fell sharply by 11 percentage points (68% to 57%). In contrast, girls' scores were relatively more stable. Language dropped from 71% to 66% (5-point decline) and Mathematics from 68% to 60% (8-point decline). Consequently, the overall learning loss for boys was 9 percentage points (from 69% to 60%), compared to 7 points for girls (from 70% to 63%). This disparity suggests that boys may have faced greater difficulties during school closures, possibly due to lower engagement with remote learning, limited home support, or socio-cultural factors that deprioritized their academic engagement during the pandemic. Girls' relatively better performance in 2017 and 2021 indicates stronger academic resilience and consistency.

By 2024, both groups demonstrated strong recovery. Boys' Language scores returned to 71%, regaining the pre-pandemic level, while girls' scores improved to 72%, surpassing their 2017 benchmark. In Mathematics, the number of boys increased from 57% to 66%, and the number of girls increased from 60% to 67%. Notably, girls consistently outperformed boys in both subjects across all three cycles. These trends highlight the importance of gender-responsive educational planning. The stronger recovery among girls underscores the need to understand and replicate the factors supporting their resilience, while also developing targeted support strategies to address the specific challenges boys faced during learning disruptions. Ensuring equity in foundational education demands nuanced interventions for gender-based learning dynamics.

4.3. Detailed Analysis of Performance by Location (Rural vs. Urban)

Table 3: Performance by Location (Rural-Urban)

Subject	Location	2017 (%)	2021 (%)	Change (2017-2021)	2024 (%)	Change (2021-2024)

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

Language	Rural	71	65	- 6	73	+ 8
	Urban	68	65	- 3	65	0
Mathematics	Rural	69	58	- 11	68	+ 10
	Urban	64	60	- 4	62	+ 2

The performance trends by location illustrated in **Table 3** highlight a clear rural-urban divergence in foundational learning outcomes in Manipur over the NAS cycles of 2017, 2021, and 2024. Between 2017 and 2021, rural students experienced a significant decline in overall achievement, with their average score dropping from 70% to 62%, a loss of 8 percentage points. Mathematics sharply declined from 69% to 58%. Urban students, in contrast, experienced a smaller overall decline of just 3 percentage points, with Language dropping from 68% to 65% and Mathematics from 64% to 60%. Specifically, language scores in rural areas fell from 71% to 65%. This disparity is likely linked to limited digital access in rural areas, only 27.5% of students had access to digital learning devices during the school closures, combined with existing teacher shortages and socio-economic barriers that disproportionately affected rural communities during the pandemic. However, the 2024 data reveal a striking reversal of this trend. Rural students recovered and surpassed their 2017 performance in Language, achieving 73%, an 8-point improvement from 2021 and a 2-point gain from 2017. In Mathematics, rural students reached 68% in 2024, just one point below their 2017 level. Meanwhile, urban students showed limited improvement. Their language scores remained stagnant at 65%, failing to recover from the 3-point decline 2017. In Mathematics, urban performance improved slightly from 60% in 2021 to 62% in 2024, still trailing their 2017 score of 64%.

This surprising rural rebound suggests that targeted FLN interventions, particularly those under the NIPUN Bharat Mission, may have had more tangible impacts in rural contexts. It also highlights the potential limitations of remote learning in urban settings. Returning to

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

in-person education may have benefited rural learners more effectively. These findings offer critical policy insights and warrant further study to understand and replicate the success of rural recovery in other contexts.

4.4. Detailed Analysis of Performance by School Management Type

Table 4: Performance by School Management Type

Subject	Management	2017 (%)	2021 (%)	Change (2017-2021)	2024 (%)	Change (2021-2024)
Language	Government	70	66	- 4	72	+ 6
	Aided	72	71	- 1	74	+ 3
	Private	-	64	-	69	+ 5
	Central	-	67	-	70	+ 3
Mathematics	Government	68	61	- 7	68	+ 7
	Aided	68	65	- 3	69	+ 4
	Private	-	58	-	64	+ 6
	Central	-	57	-	63	+ 6

The analysis of foundational learning outcomes by school management type in Manipur, as presented in **Table 4**, reveals essential trends in how different school categories were impacted by the pandemic and how they recovered by 2024. Between 2017 and 2021, government and aided schools experienced an overall decline of 6 percentage points, while private schools showed a slightly lower decline of 5 points, likely due to comparatively better access to online resources and instructional continuity during school closures. In Language, government schools declined from 70% in 2017 to 66% in 2021. They aided schools from 72% to 71%. In comparison, private and central schools stood at 64% and 67% in 2021 (no 2017 data available for these categories). In Mathematics, government schools declined from 68% to 61%, aided schools from 68% to 65%, private schools recorded 58%, and central schools 57% in 2021.

However, by 2024, a striking recovery is visible across all school types, with government and aided schools leading the resurgence. Government schools improved to

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

72% in Language, surpassing their 2017 benchmark, and 68% in Mathematics, fully recovering to their 2017 level. Aided schools outperformed all others, reaching 74% in Language and 69% in Mathematics, exceeding their previous scores. Private schools also improved, with Language scores rising from 64% to 69% and Mathematics from 58% to 64%. Central schools followed a similar trend, improving from 67% to 70% in Language and 57% to 63% in Mathematics.

This performance challenges the often-assumed superiority of private education, particularly in times of crisis. The substantial gains in government and aided schools indicate that public education systems can drive significant improvements when supported by targeted interventions, such as teacher training, remedial learning programs, and NIPUN Bharat initiatives. These outcomes underscore the capacity of public institutions to deliver equitable and quality education, especially for disadvantaged learners, and highlight the success of policies prioritizing foundational literacy and numeracy within government-managed schools.

4.5. Detailed Analysis of Performance by Social Group

The analysis of foundational learning achievement across different social groups in Manipur, Scheduled Caste (SC), Scheduled Tribe (ST), Other Backward Classes (OBC), and General categories, reveals significant disparities in the impact of educational disruptions and subsequent recovery.

Table 5: Performance by Social Group

Subject	Social Group	2017 (%)	2021 (%)	Change (2017-2021)	2024 (%)	Change (2021-2024)
Language	SC	65	56	- 9	70	+ 14
	ST	75	66	- 9	76	+ 10
	OBC	67	64	- 3	68	+ 4
	General	63	67	+ 4	69	+ 2
Mathematics	SC	69	53	- 16	67	+ 14
	ST	72	58	- 14	68	+ 10
	OBC	65	62	- 3	67	+ 5

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

	General	60	60	0	63	+ 3

Table 5 highlights both the disproportionate impact of the COVID-19 pandemic on marginalized communities and the strong recovery achieved by 2024. Between 2017 and 2021, the most severe declines occurred among Scheduled Caste (SC) and Scheduled Tribe (ST) students. In Language, SC students' scores dropped from 65% to 56% and ST students from 75% to 66%, showing a 9-point decline. The situation was even more acute in Mathematics, with SC students falling from 69% to 53% (16-point drop) and ST students from 72% to 58% (14-point drop). These sharp declines reflect the vulnerability of these groups, who often face socio-economic disadvantages, limited access to learning resources, and systemic inequities that were exacerbated during school closures.

In contrast, OBC students experienced only a 3-point decline in Language (67% to 64%) and Mathematics (65% to 62%). In comparison, students from the General category saw no decline in Mathematics (maintaining 60%). A 4-point increase in Language (from 63% to 67%) suggests better resilience due to relatively higher resource access and support.

By 2024, a strong and encouraging recovery was evident across all groups, especially among SC and ST students. SC students improved to 70% in Language and 67% in Mathematics, exceeding or nearing their 2017 scores. ST students rebounded to 76% in Language and 68% in Mathematics, surpassing pre-pandemic levels in Language. OBC students improved to 68% in Language and 67% in Mathematics, while the General group reached 69% in Language and 63% in Mathematics.

These results reflect the positive impact of targeted interventions, such as those under the NIPUN Bharat Mission, focused on foundational literacy and numeracy for disadvantaged groups. The data underscore the potential of equity-oriented educational policies to close longstanding achievement gaps and foster inclusive progress.

4.6. Detailed Analysis of District-Wise Performance

Table 6: District-Wise Performance of Grade 3 Students in Language and Mathematics

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

Sl. No.	District	2017 (%)	2021 (%)	Change (2017-2021)	2024 (%)	Change (2021-2024)
1	Tamenglong	79	62.4	-16.6	75	+12.6
2	Ukhrul	77	62.6	-14.4	78	+15.4
3	Chandel	71	61.5	-9.5	71	+9.5
4	Senapati	70	69.5	-0.5	76	+6.5
5	Churachandpur	68	59.0	-9.0	74	+15.0
6	Thoubal	68	59.6	-8.4	69	+9.4
7	Imphal East	66	56.6	-9.4	67	+10.4
8	Bishnupur	65	57.4	-7.6	68	+10.6
9	Imphal West	63	66.6	+3.6	70	+3.4
10	Jiribam	-	65.2	-	64	-1.2
11	Kakching	-	54.4	-	62	+7.6
12	Kamjong	-	7.8	-	75	+67.2
13	Noney	-	63.2	-	75	+11.8
14	Kangpokpi	-	63.9	-	81	+17.1
15	Pherzawl	-	60.1	-	69	+8.9
16	Tengnoupal	-	60.6	-	72	+11.4

Note: Data for Jiribam, Kakching, Kamjong, Noney, Kangpokpi, Pherzawl, and Tengnoupal are covered in 2024 only.

An analysis of district-wise performance in foundational learning for Grade 3 students in Manipur, as shown in Table 6, reveals significant disparities in the extent of learning loss during the pandemic and the strength of subsequent recovery by 2024. Between 2017 and 2021, several districts experienced steep declines. Tamenglong dropped from 79% to 62.4%, a 16.6-point decrease, while Ukhrul fell from 77% to 62.6% (14.4-point loss). Other districts such as Chandel (-9.5%), Churachandpur (-9.0%), Imphal East (-9.4%), and Thoubal (-8.4%) also faced moderate setbacks. These losses

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

reflect the impact of remote locations, socio-economic barriers, and poor access to digital infrastructure. Conversely, Senapati saw minimal decline, dropping only 0.5 percentage points from 70% to 69.5%, suggesting more effective learning continuity strategies. Notably, Imphal West was the only district to show an improvement during this period, increasing from 63% to 66.6%, indicating stronger institutional resilience and likely better access to learning resources. By 2024, nearly all districts demonstrated robust recovery. Tamenglong rebounded to 75%, almost regaining its 2017 level. Ukhrul surged to 78%, even exceeding its pre-pandemic performance. Chandel returned to 71%, matching its 2017 level, while Senapati rose to 76%, surpassing its 2017 score. Imphal West continued its upward trend, reaching 70%. Among the newly reported districts, Kangpokpi showed the highest performance at 81%, followed by substantial gains in Kamjong (from 7.8% in 2021 to 75%) and Noney (to 75%).

This wide-ranging recovery suggests that district-specific interventions, localized planning, and returning to in-person schooling were critical in addressing learning deficits. The progress in districts like Tamenglong and Ukhrul, which previously suffered the most, illustrates the effectiveness of targeted remediation, improved resource allocation, and community engagement. These findings reaffirm the importance of decentralized strategies tailored to regional needs in improving foundational learning outcomes post-pandemic.

4.7 Competency Gaps in Foundational Learning in Language and Mathematics for Grade 3 students in Manipur, based on NAS 2017, 2021, and 2024

Table 7: Competency-Level Performance in Foundational Learning – Language and Mathematics

Subject	Competency Description	Code	2017 (%)	2021 (%)	Change (2017–2021)	2024 (%)	Change (2021–2024)
Language	Reads small texts with comprehension	L304	71	66	− 5	64	− 2

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

	Reads printed scripts on classroom walls	L312	69	63	− 6	58	− 5
	Uses vocabulary for daily interaction	C-9.7	–	–	–	75	–
	Reads and comprehends short stories	C-10.5	–	–	–	67	–
	Interprets news items, instructions, and publicity materials	C-10.7	–	–	–	70	–
Maths.	Solves 3-digit addition and subtraction problems	M303	64	56	− 8	53	− 3
	Constructs and uses multiplication facts	M304	69	60	− 9	61	+ 1
	Explains division via equal grouping	M306	61	46	− 15	47	+ 1
	Identifies and makes 2D shapes	M309	88	41	− 47	43	+ 2
	Sorts objects into groups/subgroups.	C-8.1	–	–	–	76	–
	Recognises geometric shapes and spatial relationships	C-8.8	–	–	–	56	–
	Performs money transactions up to ₹100	C-8.11	–	–	–	57	–

Table 7 reveals specific learning gaps that persist despite overall recovery trends. In Language, comprehension skills show a steady decline. The competency L304 - " Reads small texts with comprehension" - fell from 71% in 2017 to 66% in 2021, and further declined to 64% in 2024, marking a 7-point drop across the three cycles. Similarly,

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

L312 - "Reads printed scripts on classroom walls", dropped significantly from 69% to 58%, an 11-point decline, suggesting weakened engagement with environmental print and reading fluency, likely impacted by school closures and reduced classroom exposure. However, new competencies introduced in 2024 indicate progress in applied language skills. C-9.7 (Uses vocabulary for daily interaction) was reported at 75%, C-10.5 (Reads and comprehends short stories) at 67%, and C-10.7 (Interprets news items and instructions) at 70%, reflecting a relatively strong foundation in functional literacy and communication.

In Mathematics, the steepest decline is seen in M309 - "Identifies and makes 2D shapes", which fell sharply from 88% in 2017 to 41% in 2021, recovering slightly to 43% in 2024, a net drop of 45 points. Similarly, M306 (division through equal grouping) declined from 61% to 46%, reaching only 47% in 2024. Basic arithmetic skills under M303 (3-digit addition/subtraction) dropped from 64% to 53%, showing persistent difficulty in foundational numeracy. Minimal improvement was seen in M304 (multiplication facts), increasing just 1 point from 60% to 61%.

Conversely, competencies involving real-life applications such as C-8.1 (sorting objects: 76%) and C-8.11 (money transactions: 57%) indicate a better grasp of practical math. While broad performance trends show improvement, the data points to enduring gaps in reading comprehension and mathematical reasoning, highlighting the need for targeted, competency-specific remediation under NIPUN Bharat to ensure deep conceptual understanding in early grades.

5. Main Findings

The comprehensive analysis of NAS 2017, 2021, and 2024 data for Grade 3 students in Manipur yields several key findings:

a) **Significant Learning Loss (2017-2021)**: Manipur experienced a substantial drop in overall Grade 3 learning outcomes from NAS 2017 to NAS 2021, with the average score declining by 8 percentage points (70% to 62%). This downturn was consistently observed across Language, Mathematics, and EVS, with Mathematics showing the steepest decline (-9 percentage points). This negative trend is attributable mainly to the widespread educational disruptions caused by the COVID-19 pandemic and limited access to learning resources.

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

b) **Shift to Lower Proficiency Levels (2017-2021)**: The period between 2017 and 2021 saw a concerning increase in the proportion of students categorized as "Below Basic" (e.g., Language from 6.5% to 27%) and a significant decrease in those achieving "Advanced" proficiency (e.g., Language from 48.1% to 17%) across all subjects. It indicates a broad regression in foundational skills, and fewer students excel academically.

c) **Widening Demographic Disparities (2017-2021)**: Learning losses were higher among boys, rural students, SC/ST groups, and government school students compared to their respective counterparts, with boys (-9), rural (-8), and SC/ST students (-9) showing greater declines than girls (-7), urban (-3), and OBC/General students.

d) **Persistent Competency Gaps (2017-2021)**: Specific learning outcomes deteriorated significantly, particularly in areas requiring higher-order thinking and application. In Language, reading comprehension, and understanding printed scripts declined. In mathematics, core operations like addition, subtraction, multiplication, and concepts such as division through equal grouping (-15 points) and identifying 2D shapes (a drastic -47 points) saw severe drops in proficiency. EVS competencies related to family relationships and the importance of food and water also declined.

e) **Uneven District-wise Impact (2017-2021)**: The impact of learning loss was not uniform across Manipur's districts. While some districts like Tamenglong (-16.6 points) and Ukhrul (-14.4 points) experienced very sharp declines, Imphal West showed an improvement (+3.6 points) in performance. Senapati remained relatively stable (- 0.5 points) between 2017 and 2021. It highlights regional disparities in educational resilience and intervention effectiveness.

f) **Remarkable Recovery and Improvement (2021-2024)**: The latest PARAKH Rashtriya Sarvekshan 2024 data reveals a significant positive trend, indicating a substantial recovery in learning levels for Grade 3 students in Manipur. The state's average performance in both Language (71%, surpassing 2021's 65% and exceeding the national average of 64%) and Mathematics (67%, surpassing 2021's 59% and exceeding the national average of 60%) has returned closer to the strong performance observed in 2017 (Language 71%, Mathematics 68%). This recovery is observed across various demographic groups

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

and school types in 2024, with all categories performing above national averages.

g) **Differential Impact and Recovery by Gender**: While both genders experienced learning loss from 2017 to 2021, boys showed a greater initial drop. However, both genders demonstrated strong recovery by 2024, with girls slightly surpassing their 2017 Language scores (72% in 2024 vs 71% in 2017), suggesting a potentially stronger adaptive capacity or more effective support mechanisms.

h) **Paradoxical Rural Recovery**: Rural students experienced a sharper performance decline between 2017 and 2021 (from 70% to 62%) compared to urban students (65% to 62%). However, 2024 data reveal a notable recovery among rural students, with Language scores rising to 73%, surpassing their 2017 levels. In contrast, urban students showed limited improvement, remaining below their 2017 performance in both subjects. This trend suggests that targeted interventions or returning to traditional classroom learning may have been more effective in rural areas.

i) **Rebound of Public Education**: While private schools initially showed a smaller decline during the pandemic, government and aided schools demonstrated a more dramatic and significant recovery by 2024, with many even surpassing their 2017 performance levels (e.g., government Language 72% in 2024 vs 70% in 2017). It indicates the effectiveness of post-pandemic policies and resource allocation within the public education system in bridging achievement gaps.

j) **Strong Recovery in Marginalized Groups**: SC and ST students experienced the most significant learning losses between 2017 and 2021. However, by 2024, these groups showed substantial recovery, with SC and ST students in Language surpassing their 2017 levels (SC 70% in 2024 vs 65% in 2017; ST 76% in 2024 vs 75% in 2017). It highlights the effectiveness of targeted support for disadvantaged groups in mitigating learning loss.

k) **Widespread District Recovery**: District-wise analysis revealed uneven initial impacts. By 2024, a widespread and substantial recovery was observed across most districts, including those with the most severe initial setbacks like Tamenglong (from 62.4% in 2021 to 75% in 2024) and Ukhrul (from 62.6% in 2021 to 78% in 2024), indicating the potential success of localized interventions.

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

l) **Specific Competency Gaps Remain**: Despite overall recovery, granular analysis of competencies shows that some particular areas, particularly "Identifies and makes 2D shapes" in Mathematics (which recovered only slightly from 41% in 2021 to 43% in 2024, still far below its 2017 level of 88%), remain significantly below pre-pandemic levels. Additionally, specific language competencies like "Reads small texts with comprehension" and "Reads printed scripts on classroom walls" also showed continued decline from 2021 to 2024, despite overall language score recovery. It underscores the need for precise, targeted pedagogical interventions.

6. Recommendations and Conclusions

Based on the identified learning trends and gaps, especially the significant decline observed between 2017 and 2021 and the subsequent recovery in 2024, the following recommendations are crucial for sustaining and enhancing foundational learning outcomes in Manipur.

a) **Sustain and Scale Remedial Learning:** Targeted remedial programs must be continued and expanded to address persistent gaps in specific competencies, such as reading comprehension in Language and operations, division, and spatial reasoning in Mathematics. These efforts should be integrated as long-term interventions rather than short-term measures.

b) **Strengthen Teacher Capacity and Pedagogical Support:** Professional development must be restructured to provide teachers with tools to identify and address learning gaps effectively. Emphasis should be placed on child-friendly, activity-based pedagogies, experiential learning, and on-site mentoring. Regular student assessments should be built into daily classroom practice to detect and address learning deficits early.

c) **Curriculum and Textbook Reforms:** Curriculum content and textbooks must be aligned with foundational learning goals. Textbooks should include local context, real-life applications, and visual aids to make abstract concepts more relatable, especially in early mathematics and reading comprehension.

d) **Expand Digital Learning Infrastructure:** To bridge the digital divide, particularly in rural and remote areas, ICT-enabled learning resources should be made more accessible and linked to NAS findings. Digital libraries and interactive tools can reinforce classroom learning and ensure continuity during disruptions.

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

e) **Improve Monitoring and Use of NAS Data:** Strengthening monitoring systems and ensuring the integrity of assessment data is critical. NAS findings should be shared widely with teachers and integrated into Annual Work Plans and Budgets (AWPBs) to guide evidence-based planning at the school and district levels.

f) **Focus on Equity:** Address demographic learning gaps by providing targeted support for SC/ST students, boys, and rural learners. Equity-focused programs must prioritize children from underprivileged and first-generation backgrounds.

g) **Enhance Community and Parental Engagement:** Schools should build stronger connections with families and local communities. Awareness campaigns and community-based programs can promote home literacy practices, reinforcing what children learn in school.

Ultimately, Manipur's post-pandemic rebound in Grade 3 learning showcases the success of targeted, evidence-based interventions. Continued alignment with NIPUN Bharat and learnings from states like Punjab and Himachal Pradesh will be crucial to sustaining momentum and ensuring inclusive, high-quality foundational education across the state.

Conclusion

The comparative analysis of Grade 3 foundational learning outcomes in Manipur across NAS 2017, NAS 2021, and PARAKH Rashtriya Sarvekshan 2024 reveals critical trends in early-grade education. Between 2017 and 2021, student performance significantly declined due to the COVID-19 pandemic, which caused widespread school closures and learning disruptions. This decline was particularly evident across socio-economic groups, school types, and gender, with competency gaps in reading comprehension, numerical problem-solving, spatial reasoning in Mathematics, and environmental awareness. The assessment of 2024 data show a strong recovery, with Language scores matching 2017 levels and a notable improvement in Mathematics. Rural students and those in government and aided schools made significant gains, often surpassing pre-pandemic performance, reflecting the impact of targeted interventions like the NIPUN Bharat Mission. However, challenges persist, particularly in areas such as spatial reasoning in Mathematics, indicating the need for continued, skill-specific support.

The study emphasizes that large-scale assessments like NAS must inform

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

actionable strategies at the classroom level, going beyond scores to support holistic development, including critical thinking and teacher-student relationships. Continued teacher training, curriculum reforms, and equitable resources are essential for sustaining progress. Lessons from states like Punjab and Himachal Pradesh, where NAS-driven strategies led to improved outcomes, can guide Manipur's path forward in strengthening foundational learning for all.

7. References

1. Aayog, N. (2022) [Report] (pp. 2022–2023). 1–164. https://www.niti.gov.in/sites/default/files/2023-02/Annual-Report-2022-2023
2. ASER Centre. (2024). *The annual status of education report (rural) 2023*. Pratham Education Foundation. https://asercentre.org/wp-content/uploads/2022/12/ASER-2023-Report-1.pdf
3. Azim Premji University. (2022). *Impact of the COVID-19 pandemic on student learning in India: Evidence from large-scale assessments*.
4. Britto, P. R., Yoshikawa, H., & Boller, K. (2017). *Early childhood development interventions: Effective systems for maximizing impact*. World Bank Publications.
5. Centre, A. (2025). *Impact of NEP 2020 on foundational literacy and numeracy*. ASER Centre.
6. Ministry of Education. (2020). National education Policy 2020. Government of India. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
7. Ministry of Education. (2024). PARAKH Rashtriya Sarvekshan 2024—Assessment framework. Government of India. https://ncert.nic.in/parakh/pdf/Assessment_Framework.pdf
8. Ministry of Education, & Government of India. (2021). *NIPUN Bharat: National mission on foundational literacy and numeracy*.
9. Kumar, S., & Simran, S. (2024). Psychological impact of physical distancing due to covid 19 pandemic on school and higher education students. *Edumania-An International Multidisciplinary Journal*, *02*(04), 101–112. https://doi.org/10.59231/edumania/9076

@2025 International Council for Education Research and Training
ISSN: 2959-1376
2025, Vol. 04, Issue 03, 338-361
DOI: https://doi.org/10.59231/SARI7858

10. National Council of Educational Research and Training (NCERT). (2017). *National achievement survey 2017: Manipur State learning report*.
11. National Council of Educational Research and Training (NCERT). (2021). *National achievement survey 2021: Manipur State learning report*.
12. Bawa, N., & Lawal, N. I. (2024). Ergonomics, Students' Well-being, and Technology-Enhanced Learning at Usmanu Danfodiyo University, Sokoto, Nigeria. *Shodh Sari-An International Multidisciplinary Journal*, *03*(04), 170–182. https://doi.org/10.59231/sari7754
13. National Council of Educational Research and Training (NCERT), & T. (2021). Learning outcomes at the elementary stage: Competency-based assessment framework. *NCERT*.
14. NCERT. (2011). Index for inclusive schools. *In Education*. New Delhi. https://ncert.nic.in/degsn/pdf/IndexforInclusiveSchools.pdf.
15. NCERT. (2017). *NATIONAL ACHIEVEMENT SURVEY—NAS (survey of learning outcomes) district report card: 2017*. https://nas.gov.in/download-data-district-wise-2017
16. United Nations Educational, Scientific and Cultural Organization. (2021). *The state of the education report for India 2021: No teacher*. United Nations Educational, Scientific and Cultural Organization.

Received on May 05, 2025
Accepted on June 20, 2025
Published on July 01, 2025