

NATIONAL ASSESSMENT FOR READING AND NUMERACY

(GRADE 3)

2024



Government of Nepal
Ministry of Education and Sports
Education Review Office
Sanothimi, Bhaktapur

National Assessment for Reading and Numeracy: Grade 3

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FOREWORD

National Assessment for Reading and Numeracy (NARN), the second cycle of nationwide assessment of Grade 3 students, presents the status of reading and numeracy competencies in Nepal. Foundational literacy and numeracy are the two pillars of students' future learning and performance. The development of reading and mathematical-concept-application skills in the early grades enhances students' ability to succeed in the future. To determine the current milestone, the Education Review Office (ERO), under the Ministry of Education and Sports, has continued its commitment to providing key evidence of students' learning by conducting the National Assessment for Reading and Numeracy.

The large-scale assessment, NARN, has been conducted across all seven provinces, based on responses from 7,531 students of 579 schools in Nepal. It has generated information on the achievement of grade three students in reading and numeracy. In the study, reading fluency, accuracy, listening comprehension, decoding, and related measures were examined. At the same time, understanding of basic mathematical concepts, recognition of geometric shapes, currency identification, and daily-life mathematical skills are assessed in numeracy. This report also provides crucial insights into variation in students' achievement by geographical region, gender, socio-economic status, and learning environments at home and at school, among other factors.

This report serves as evidence for policymakers, government, schools, universities, stakeholders, teachers, and educators in taking timely actions and interventions to empower students' foundational learning. The findings and recommendations conclude with a strong interest in advancing reform of essential literacy and numeracy skills from the early stages of schooling.

I would like to express my gratitude to the individuals and organizations for their support and efforts throughout the development of this report. Similarly, my sincere appreciation goes to the Central level agencies, EDCU Officials, ERO officials, students, teachers, schools, local governments, enumerators, supervisors, and technical experts who contributed continuously throughout the assessment cycle. I also acknowledge the valuable support and collaboration from the data analysis and report-writing team. The completion of NARN 2024 was possible after the collective effort of all of them.

I am indebted to the Ministry of Education and Sports, Hon. Minister Sasmit Pokharel, and the respected secretary, Mr. Choodamani Poudel, for overall guidance. I strongly believe that the evidence and findings presented in this report will serve as an additional resource and a key milestone for formulating educational plans and policies, implementing programs, and empowering teachers and students to improve learning outcomes. It is our shared responsibility to ensure that every student acquires basic reading and numeracy competencies to lay a strong foundation for education. So, this report will support the analysis of the situation from the classroom level to the policy level for enhancing quality education in Nepal. I truly appreciate the constructive feedback and suggestions from readers and experts to further innovate in student assessment.

Jayaram Adhikari
Director General

Abbreviations and Acronyms

BS	Bikram Sambat
CB-EGRA	Classroom-Based Early Grade Reading Assessments
CDC	Curriculum Development Center
CWPM	Correct Word Per Minute
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EMIS	Educational Management Information System
ERO	Education Review Office
ICAN	International Common Assessment of Learning
KU	Kathmandu University
LSAs	Large-Scale Assessments
LSDA	Large Scale Data Analysis
MoEST	Ministry of Education, Science, and Technology
NAPLAN	National Assessment Program – Literacy and Numeracy
NARN	National Assessment for Reading and Numeracy
NASA	National Assessment of Student Achievement
NCF	National Curriculum Framework
NEB	National Examination Board
NEGRP	National Early Grade Reading Program
OECD	Organization for Economic Co-Operation and Development
ORF	Oral Reading Fluency
PD	Picture Description
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PPS	Probability Proportional to Size
PSU	Primary Sampling Unit
RC	Reading Comprehension
SESP	School Education Sector Plan
SPSS	Statistical Package for Social Sciences
SSDP	School Sector Development Plan
TIMSS	Trend in International Mathematics and Science Study
TV	Television
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
WI	Word Identification

EXECUTIVE SUMMARY

Introduction

The National Assessment for Reading and Numeracy (NARN) assesses how grade three students in Nepal perform in reading and basic numeracy. It provides feedback for policies and programs at the national and provincial levels. Drawing on international examples such as EGRA and EGMA, as well as Nepal's past efforts, including National Assessment of Student Achievement (NASA) and some versions of EGRA and EGMA, ERO designed NARN, a single assessment that comprises both reading and numeracy skills. NARN replaces the earlier NASA for grade three by incorporating elements from those assessments, as well as other assessments such as EGRA and EGMA.

The Education Review Office (ERO) conducted the first round of NARN in 2020. Then, in 2024, ERO conducted the second round of NARN using an updated framework. The goals of NARN include assessing students' performance in reading and numeracy; identifying how factors such as socio-economic background, geographical region, parental support and home environment, and school practices influence their achievements; and suggesting better policy options based on the evidence. It also helps track students' progress in reading and numeracy over the year.

Method and Process

ERO used a multi-stage sampling method to select 7,531 students from 579 schools across 33 districts. To represent provinces as well as ecological regions, seven provinces are taken as explicit strata and three ecological regions as implicit strata when selecting the sample. Schools were selected from each selected district using the probability proportional to size (PPS) sampling method. For testing, if there were more than 15 students in grade 3, a random sampling method was used to select 15 students from each school, and if there were 15 or fewer students in the grade, all students were selected for testing. However, schools with fewer than 5 students in grade 3 were excluded from the sample.

The assessment of reading covers components such as word identification, dictation, vocabulary, picture description, oral reading fluency and comprehension in Nepali language. Numeracy includes recognizing shapes, number sense, performing basic mathematical/arithmetic operations, working with fractions, telling time on clocks, recognizing currency, and reading graphs. All these components are based on the national curriculum for grade three. Additionally, while designing the assessment framework and developing tools, global competencies in early reading and mathematics were considered.

Assessment tools were designed to assess reading skills such as dictation, vocabulary, picture description, oral reading fluency and comprehension. Students' numeracy skills were assessed using tools related to identifying shapes and numbers, the four basic operations, fractions, telling time on clocks, identifying currency, and reading graphs. All these sub-skills of reading and numerical abilities were based on Nepal's Grade 3 national curriculum, and when developing tools, global competencies related to early reading and mathematical skills were

also considered. The national assessment of reading and numerical skills included both group and individual tests. Individual oral tests were conducted to assess oral reading fluency, comprehension and numerical competence, while other reading and numerical skills were assessed through group-administered written tests.

In this assessment, in addition to assessing reading and numerical skills, questionnaires were prepared for students, teachers, and head teachers to identify how economic, social, family, and school-related factors affect students' reading and numerical achievement. For this purpose, the necessary information was collected using these questionnaires from the concerned students, teachers, and head teachers.

It analyzed the data using Classical Test Theory (CTT), breaking it down by national, provincial, and other factors such as socio-economic and geographic factors, which helped clearly identify differences in achievement.

Overall achievement

- When it comes to overall achievement, the 2024 NARN results show only a small increase in reading compared with four years ago, as the average score rose from 43.5% to 44.9%, just 1.4 % points higher. It points to the need for more interventions in teaching reading skills in Nepali. On the other hand, in numeracy, students performed better, raising the average score from 37.22% to 50.16%, a 12.94% increase, indicating stronger achievement in basic numeracy skills.
- In reading sub-tasks, students did well, with the average scores in identifying words at 58.4%, comprehension at 57.5%, and vocabulary at 52.9%. But the average score for dictation was low at 36.9%, and the average score for describing pictures was even lower at 26.7%. For numeracy, students' achievement in real-life skills was high, with average scores of 78.2% for reading graphs and 73.2% for currency identification. Weaker areas include the average scores for clock reading (time) at 38.7%, fractions at 43.6 %, and geometric shape identification at 44.7%.
- In oral reading fluency, the average correct words per minute was only 22, with some noticeable decline from the 2020 NARN (which was 25 cwpm), which is far lower than the proficient level (35 cwpm). Similarly, the average achievement in one-to-one reading comprehension was 48.6%, with only a small improvement (increased by 0.9%) from the 2020 NARN.

Proficiency levels

- Looking at proficiency levels, most of the students are struggling in reading fluency. About 75.3% read fewer than 35 correct words per minute, which is below the proficient level. In comprehension, a large portion of students are at the pre-basic level (nearly 51%), with only 24.5% achieving the proficient and above levels. In numeracy, students are classified into proficiency levels based on achievement as follows: 14.4% below basic, 43.9% basic, 26.4% proficient, and 15.4% advanced. It shows that the majority of students (58.3%) are below the proficient level.

Provincial and ethnic disparities

- Disparities show up a lot across provinces and ethnic groups. In reading, Gandaki Province topped at 61.4%, while Madhesh at 38.7% and Karnali at 38.8% were way behind. Numeracy followed similar patterns, with Gandaki at 61.1%, Karnali at 42.2%, and Lumbini at 44.8%.
- Ethnic differences vary by subject. Pahadi and Janajati groups performed better in reading, but Madhesi groups and some Himali did not achieve the same level of performance. In numeracy, the Madhesi group scored highest, whereas the Himali groups, particularly those classified as ‘others’ in that category, scored the lowest in most areas.

Socio-economic, geographical and educational factors and their effects on achievement

- There is a little bit of a gap in gender. Girls performed slightly better in reading than boys, with small differences across subtasks. Boys performed slightly better in numeracy, particularly in currency tasks, and, to a lesser extent, in other areas.
- If children travel over an hour to school, reading scores drop. Spending free time on homework helps both reading and numeracy.
- Having midday meals every day is linked to higher scores, and locally grown meals have better impacts on students’ achievement.
- Consistent teacher presence in classes gives better reading and numeracy outcomes.
- Family help with studies, parents who can read, especially fathers, and checking on school activities can help achieve better performance.
- Greater opportunities to study or do homework at home have a positive impact on achievement.
- Students from urban locations performed better in comparison to their rural peers in both reading and numeracy.

Key areas for policy intervention

The NARN 2024 findings suggest the following key areas for policy interventions toward improving early reading and numeracy achievement.

- Strengthening foundational reading:** Targeted interventions are required due to low proficiency levels and reading achievement. This involves expanding access to a range of reading materials, strengthening early-grade reading programs, and improving teacher preparation and development in foundational literacy.
- Closing achievement gaps in numeracy:** Although there has been progress in numeracy, many students are still at basic or below-basic level, especially when it comes to abstract concepts like fractions and clock reading. The shift from number knowledge to applied mathematical thinking needs better support in curriculum and instruction.
- Reducing regional and ethnic disparities:** There are notable differences between provinces and ethnic groups. Policy interventions must be sensitive to ethnicity and

geography, focusing on underperforming regions and supporting marginalized communities.

- d) **Improving teacher effectiveness:** Better results are associated with consistent teacher presence in the classroom and positive teacher-student relationships. Fostering supportive classroom environments, professional development, and teacher attendance, as well as improving teacher time on task, should be the focus of policy interventions.
- e) **Increasing parental and community support:** The benefits of community-based programs, parental involvement, and family support underscore the significance of collaborative mechanisms between the home, school, and community
- f) **Improving the provision of midday meals:** Students' academic performance is positively impacted by the regular provision of midday meals at school that are made with local ingredients, suggesting that midday meal provision needs to be further improved.
- g) **Designing and implementing differentiated provisions:** Various socio-cultural, economic, geographical, and home-related factors affect students' performance on reading and numeracy, which suggests differentiated and diverse provisions and teaching-learning practices for improving the reading and numeracy skills of students.

कार्यकारी सारांश

परिचय

शैक्षिक गुणस्तर परीक्षण केन्द्रद्वारा सञ्चालन गरिएको पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षण (National Assessment for Reading and Numeracy, NARN) ले नेपालमा कक्षा तीनका विद्यार्थीहरूले पढाइ तथा आधारभूत गणितीय सिपहरूमा के कस्तो उपलब्धि हासिल गरेका छन् भन्ने कुराको परीक्षण गर्दछ। यसले प्राप्त नतिजाका आधारमा सङ्घीय तथा प्रदेश स्तरमा नीति र कार्यक्रमका लागि पृष्ठपोषण प्रदान गर्दछ। प्रारम्भिक कक्षा पठन सिप परीक्षण (EGRA) र प्रारम्भिक कक्षा गणितीय सिप परीक्षण (EGMA) जस्ता अन्तर्राष्ट्रिय परीक्षणका साथै नेपालमा यसभन्दा पहिला सञ्चालित विद्यार्थी उपलब्धिको राष्ट्रिय परीक्षण (NASA) र प्रारम्भिक कक्षा पठन सिप परीक्षणसम्बन्धी अभ्यासहरूका अनुभवको समीक्षा गर्दै शैक्षिक गुणस्तर परीक्षण केन्द्रले पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षणको सुरुवात गरेको हो। यस परीक्षणमा पढाइ तथा गणितीय दुवै सिपहरू समावेश गरिएका छन्। पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षणमा प्रारम्भिक कक्षा पठन सिप परीक्षण र प्रारम्भिक कक्षा गणितीय सिप परीक्षणलगायत कक्षा तीनमा सञ्चालन गरिने परीक्षणका विभिन्न सिपहरूलाई समेत समायोजन गरिएको हुँदा यसले कक्षा तीनका विद्यार्थीका लागि सञ्चालित विद्यार्थी उपलब्धिको राष्ट्रिय परीक्षण (NASA) लाई समेत प्रतिस्थापन गरेको छ।

शैक्षिक गुणस्तर परीक्षणले सन् २०२० मा पहिलो पटक पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षण सञ्चालन गरेको थियो। त्यसपछि सन् २०२४ मा शैक्षिक गुणस्तर परीक्षण ढाँचा अद्यावधिक गरी पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षणको दोस्रो चरण सञ्चालन गर्‍यो। पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षण २०२४ को मुख्य लक्ष्य पढाइ र गणितीय सिपमा विद्यार्थीहरूको उपलब्धि स्तरको परीक्षण गर्नु हो। यसले विद्यार्थीको सामाजिक-आर्थिक पृष्ठभूमि, भौगोलिक परिवेश, अभिभावकको सहयोग तथा घरको वातावरण र शिक्षण सिकाइमा विद्यालयका अभ्यासहरूजस्ता तत्त्वहरूले उपलब्धिलाई कसरी प्रभाव पार्छन् भनेर पहिचान गर्ने र प्रमाणमा आधारित भई सिकाइ सुधारका लागि नीतिगत विकल्पहरूको सुझाव दिन्छ। त्यस्तै, यसले विभिन्न समयमा विद्यार्थीहरूको पढाइ र गणितीय सिपमा भएको प्रगतिलाई पनि अभिलेखन र तुलना गर्न मद्दत गर्छ।

विधि तथा प्रक्रिया

शैक्षिक गुणस्तर परीक्षण केन्द्रले सन् २०२४ को पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षण सञ्चालनका लागि प्रतिनिधिमूलक नमुना छनोट गरिएका विद्यार्थीहरूमा परीक्षण सञ्चालन गरेको थियो। यसका लागि शैक्षिक गुणस्तर परीक्षण केन्द्रले बहुचरण नमुना छनोट विधि (Multi-stage sampling method) प्रयोग गरी ३३ जिल्लाका ५७९ विद्यालयहरूबाट ७,५३१ विद्यार्थीहरू छनोट गरेको थियो। यसरी छनोट गरिएका नमुनाले प्रदेशहरू र विभिन्न भौगोलिक क्षेत्रहरूलाई समेट्ने गरी सात प्रदेशहरूलाई प्रत्यक्ष खण्डहरू (Explicit strata) र विभिन्न भौगोलिक क्षेत्रहरूलाई अप्रत्यक्ष खण्डहरू (Implicit strata) रूपमा लिने गरी विभिन्न भौगोलिक क्षेत्रहरूको प्रतिनिधित्व हुने गरी प्रत्येक प्रदेशबाट जिल्लाहरू छनोट गरिएको थियो। छनोट गरिएका प्रत्येक जिल्लाबाट विद्यार्थी सङ्ख्याको अनुपातमा छनोट हुने सम्भावना सुनिश्चित हुने गरी (Probability proportional to size) विद्यालय छनोट गरिएको थियो भने परीक्षणका लागि कक्षा ३ मा १५ भन्दा बढी विद्यार्थी भएमा सम्भावनायुक्त नमुना छनोट (Random sampling) विधि प्रयोग गरी प्रत्येक विद्यालयबाट १५ जना र १५ वा

सोभन्दा कम विद्यार्थी भएमा सबै विद्यार्थी परीक्षणका लागि छनोट गरिएको थियो। तर कक्षा ३ मा ५ जनाभन्दा कम विद्यार्थी भएका विद्यालयलाई भने नमुनामा समावेश गरिएको थिएन।

पढाइ सिपको परीक्षणका लागि शब्दहरू पहिचान, श्रुतिलेखन, शब्दभण्डार, चित्रहरू वर्णन तथा सस्वर पढाइको गति र पढेको विषय बोध गर्ने लगायतको क्षमता परीक्षण गर्ने साधनहरू प्रयोग गरिएको थियो। विद्यार्थीको गणितीय सिपको परीक्षणका लागि ज्यामितीय आकारहरूको पहिचान, सङ्ख्याहरूको पहिचान/ज्ञान, सङ्ख्याका चार आधारभूत क्रियाहरू, भिन्नहरू, घडीमा समय बताउने, मुद्रा पहिचान गर्ने र ग्राफहरू पढ्ने क्षमताको मापन गर्ने साधनहरू समावेश गरिएको थियो। पढाइ र गणितीय सिपका यी सबै सहायक सिपहरू नेपालको कक्षा ३ को राष्ट्रिय पाठ्यक्रममा आधारित हुनाका साथै परीक्षण ढाँचा विकास गर्दा र ती सिपहरू मापनका लागि साधनहरू विकास गर्दा प्रारम्भिक पढाइ र गणितीय सिपसम्बन्धी वैश्विक अभ्यासहरूलाई पनि विचार गरिएको थियो। पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षणमा समूहगत परीक्षण र व्यक्तिगत परीक्षण दुवै समावेश गरिएको थियो। मौखिक पठन प्रवाह र गणितीय सिपको परीक्षणका लागि व्यक्तिगत मौखिक परीक्षण सञ्चालन गरिएको थियो भने अन्य पढाइ तथा गणितीय सिपको परीक्षण समूहमा सञ्चालित लिखित परीक्षाको माध्यमबाट गरिएको थियो।

यस परीक्षणमा पढाइ सिप तथा गणितीय सिपको परीक्षणका विद्यार्थीको आर्थिक, सामाजिक, पारिवारिक तथा विद्यालय आदि सम्बन्धित तत्त्वहरूले उनीहरूको पढाइ तथा गणितीय उपलब्धिमा के कस्तो प्रभाव पार्दछन् भन्ने कुरा पहिचान गर्नका लागि विद्यार्थी, शिक्षक र प्रधानाध्यापकका लागि प्रश्नावलीहरू तयार गरी सम्बन्धितबाट विवरण सङ्कलन गरिएको थियो।

यसमा शास्त्रीय परीक्षण सिद्धान्तको प्रयोग गरी तथ्याङ्क विश्लेषण गरिएको छ। परीक्षणको नतिजालाई राष्ट्रिय तथा प्रादेशिक स्तरमा विभिन्न सामाजिक-आर्थिक तथा भौगोलिकलगायत नतिजालाई प्रभाव पार्ने विभिन्न तत्त्वहरूका आधारमा व्याख्या गरिएको छ। यस्तो व्याख्याले उपलब्धिहरूमा रहेको भिन्नता र यसका कारणहरू पहिचान गर्न सहयोग पुग्ने छ।

समग्र उपलब्धि

- समग्रमा सन् २०२४ को पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षणको नतिजाले चार वर्षअघिको गरिएको परीक्षणको तुलनामा पढाइ सिपमा सामान्य वृद्धि भई ४३.५% बाट ४४.९% पुगेको छ। पढाइ सिपमा सिकाइ उपलब्धि केवल १.४% ले मात्र बढेको छ। यसले नेपालीमा पठन सिपका लागि थप प्रयासको आवश्यकतालाई औल्याउँछ। अर्कोतर्फ, गणितीय सिपमा विद्यार्थीहरूले राम्रो प्रगति गरेको देखिन्छ। यसमा सन् २०२० को राष्ट्रिय परीक्षणको औसत अङ्क ३७.२२% बाट बढेर ५०.१६% पुगेको छ। गणितीय सिपको सिकाइ उपलब्धि १२.९४% ले बढेको देखिन्छ। यसले आधारभूत गणितीय सिपमा राम्रो प्रगति भएको देखाउँछ।
- पठन सिपअन्तर्गतका उपकार्यका रूपमा विद्यार्थीहरूले शब्दहरू पहिचान, बोध र शब्दभण्डारमा क्रमशः ५८.४%, ५७.५% र ५२.९९% औसत अङ्क हासिल गरेका छन्। तर अनुलेखनमा औसत अङ्क ३६.९% र चित्रहरू वर्णनमा २६.७% मात्र रहेको छ। यसले लिखित वर्णनमा विद्यार्थीहरूमा कठिनाई रहेको देखाउँछ। गणितीय सिपअन्तर्गत वास्तविक जीवनसँग सम्बन्धित सिपहरूमा विद्यार्थीको उपलब्धि राम्रै देखिएको छ जस्तै: ग्राफको पढाइमा औसत अङ्क ७८.२% र मुद्रासँग सम्बन्धित सिपमा औसत

अङ्क ७३.२% रहेको छ। गणितीय सिपअन्तर्गत घडी हेर्ने, भिन्न र ज्यामितीय आकारहरू पहिचानसँग सम्बन्धित सिपमा औसत अङ्क क्रमशः ३८.७% ४३.६% र ४४.७% रही उपलब्धि कमजोर देखिन्छ।

- यस परीक्षणले पढाइतर्फ मौखिक पठन प्रवाह (ORF) मा औसत प्रति मिनेट मात्र २२ शब्द शुद्ध उच्चारण देखाएको छ, जुन सन् २०२० को राष्ट्रिय परीक्षणमा २५ ठिक शब्द प्रतिमिनेट (cwpm) रहेको थियो। यसले मौखिक पठन प्रवाहमा केही गिरावट हुनाका साथै निपुणताको स्तर (३५ cwpm) भन्दा धेरै कम उपलब्धि रहेको देखाउँछ। त्यसै गरी, व्यक्तिगत मौखिक परीक्षणतर्फको पठनबोधमा औसत उपलब्धि ४८.६% रही सन् २०२० को परीक्षणको तुलनामा थोरै मात्र, अर्थात् ०.९% ले सुधार आएको छ।

प्रवीणताको स्तर

- मौखिक परीक्षणमा अधिकांश विद्यार्थीहरू पठन प्रवाहसँग सङ्घर्ष गरिरहेका देखिन्छन्। नतिजाअनुसार करिब ७५.३% ले विद्यार्थीले प्रति मिनेट ३५ भन्दा कम शब्दहरू ठिकसँग पढ्न सक्छन्, जुन निपुणताको स्तरभन्दा कम छ। करिब २५% विद्यार्थीमात्र प्रतिमिनेट ३५ शब्दभन्दा बढी ठिकसँग पढ्न सक्छन्। त्यस्तै, पठनबोधतर्फ विद्यार्थीहरूको ठुलो हिस्सा पूर्व-आधारभूत तहमा (लगभग ५१%) रहेको र करिब २४.५% ले मात्र प्रवीणता र सोभन्दा माथिको स्तर हासिल गरेका छन्।
- गणितीय सिपतर्फ आधारभूत तहभन्दा तल १४.४%, आधारभूत तहमा ४३.९%, प्रवीण तहमा २६.४% र उच्च तहमा १५.५% रही आधारभूत र त्यसभन्दा तल्लो तहमा धेरै विद्यार्थी (५८.३%) रहेका छन् भने प्रवीण स्तर र उच्च स्तरमा करिब ४१.७% जति विद्यार्थी रहेका छन्।

प्रादेशिक र जात/जातीय असमानता

- सिकाइ उपलब्धिमा प्रादेशिक र जातजातीय समूहहरूमा असमानता धेरै देखिन्छ। पढाइ सिपमा गण्डकी प्रदेशको औसत अङ्क ६१.४% रही अग्रस्थानमा रहेको छ भने मधेश प्रदेश ३८.७% र कर्णाली प्रदेश ३८.८% रही पछाडि रहेका छन्। गणितीय सिपमा गण्डकी प्रदेशको औसत अङ्क ६१.१%, कर्णाली प्रदेशको ४२.२% र लुम्बिनी प्रदेशको ४४.८% रहेको छ।
- जात/जातीय रूपमा सिकाइ उपलब्धिमा विषयअनुसारको विविधता रहेको छ। पढाइ सिपमा पहाडी र जनजाति समूहले तुलनात्मक रूपमा राम्रो गरेका छन् भने मधेसी समूहहरूको औसत उपलब्धि कमजोर देखिन्छ। गणितीय दक्षतामा मधेसी समूहको औसत अङ्क सबैभन्दा बढी रहेको छ।

उपलब्धिमा सामाजिक, आर्थिक, भौगोलिक र शैक्षणिकलगायतका अन्य तत्त्वको प्रभाव

- पढाइ सिपमा समग्रमा लैङ्गिक हिसाबले उपलब्धिमा ठुलो अन्तर छैन। छात्राहरूले छात्रहरूभन्दा पढाइ सिपमा केही राम्रो उपलब्धि हासिल गरेका छन् तापनि यसमा उपकार्यगत केही भिन्नताहरू रहेका छन्। गणितीय सिपतर्फ छात्राभन्दा छात्रको उपलब्धि केही राम्रो रहेको छ। विशेष गरी मुद्रासँग सम्बन्धित कार्यमा छात्रहरूको उपलब्धि अलि राम्रो छ।
- बालबालिकाहरूलाई विद्यालय जान एक घण्टाभन्दा बढी समय लाग्ने अवस्थामा पढाइ सिपको अङ्क घटेको छ। गणितीय सिपतर्फ विद्यालय जान ४५ मिनेटभन्दा बढी समय लाग्ने बालबालिकाको सिकाइ उपलब्धि घटेदो क्रममा देखिन्छ। त्यस्तै, खाली समय गृहकार्यमा बिताउनाले पढाइ र गणितीय दुवै सिप बृद्धि भएको छ।

- हरेक दिन दिवा खाजाको प्रबन्धले विद्यार्थीलाई सिकाइ उपलब्धि बढाउन सहयोग गरेको छ। अझ स्थानीय उत्पादनमा आधारित खाजाको प्रबन्धले विद्यार्थीहरूको उपलब्धिमा सकारात्मक प्रभाव पार्ने गरेको छ।
- कक्षाहरूमा शिक्षकको निरन्तर उपस्थितिले पढाइ तथा गणितीय सिपमा राम्रो परिणाम दिएको छ।
- अध्ययनमा पारिवारिक सहयोग, लेखन पढ्न सक्ने अभिभावकहरू, विशेष गरी बुबाहरू र अभिभावकहरूले विद्यालयका गतिविधिहरूमा चासो राख्ने गर्दा उपलब्धिमा सकारात्मक नतिजा दिएको छ।
- घरमा अध्ययन गर्ने वा गृहकार्य गर्ने बढी अवसरहरूले उपलब्धिमा सकारात्मक प्रभाव पारेको छ।
- सहरी क्षेत्रका विद्यार्थीहरूले पढाइ तथा गणितीय सिप दुवैमा ग्रामीण क्षेत्रका विद्यार्थीको तुलनामा राम्रो उपलब्धि प्राप्त गरेका छन्।

नीतिगत हस्तक्षेपका लागि प्रमुख क्षेत्रहरू

पढाइ तथा गणितीय सिपको राष्ट्रिय परीक्षण २०२४ को नतिजाले प्रारम्भिक पढाइ र गणितीय उपलब्धि सुधार गर्न नीतिगत सुधार तथा कार्यप्रयत्न (Interventions) का लागि निम्नलिखित प्रमुख क्षेत्रहरूमा सुझाव दिएको छ:

- आधारभूत पढाइलाई सुदृढ पार्ने:** पढाइ सिपमा देखिएको न्यून उपलब्धि स्तरलाई बढाउन लक्षित कार्यक्रम, कार्यप्रयत्न आवश्यक छन्। यसमा विभिन्न पठन सामग्रीहरूमा पहुँच विस्तार गर्नु, प्रारम्भिक कक्षा पठन कार्यक्रमहरूलाई सुदृढ पार्नु र आधारभूत साक्षरताका लागि शिक्षक तयारी र विकासको अभ्यासमा सुधार गर्नु आवश्यक देखिन्छ।
- गणितीय उपलब्धिमा रहेका अन्तरहरूलाई कम गर्ने:** यद्यपि गणितीय क्षमतामा केही प्रगति भएको छ तापनि धेरै विद्यार्थीहरू अझै पनि आधारभूत वा सोभन्दा तल्लो स्तरमा छन्। विशेष गरी भिन्न र घडी हेर्ने सिपजस्ता अमूर्त अवधारणाहरूमा विद्यार्थीहरूको उपलब्धि अझ कमजोर छ। सङ्ख्याको ज्ञानबाट यसको प्रयोगमा जोड दिने गरी गणितीय सोचमा परिवर्तन गर्ने दिशामा पाठ्यक्रम र शिक्षण सिकाइलाई परिमार्जन गर्नु आवश्यक छ।
- प्रादेशिक र जात/जातीय असमानताहरू कम गर्ने:** प्रदेशगत र विभिन्न जात/जातीय समूहहरूबिच उपलब्धिमा उल्लेखनीय भिन्नताहरू छन्। नीतिगत हस्तक्षेपहरू गरी जात/जातीय विविधता र भूगोलप्रति संवेदनशील भई कमजोर उपलब्धिका क्षेत्र तथा समूहहरू पहिचान गरी लक्षित कार्यक्रम सञ्चालनका साथै सीमान्तकृत समुदायहरूलाई विशेष सहयोग प्रदान गर्नु आवश्यक छ।
- शिक्षणको प्रभावकारितामा सुधार:** कक्षाकोठामा निरन्तर शिक्षक उपस्थिति र सकारात्मक शिक्षक-विद्यार्थी सम्बन्धले राम्रो नतिजालाई प्रोत्साहित गरेका छन्। यसका लागि कक्षाकोठाको वातावरण, शिक्षकको पेसागत विकास र शिक्षक उपस्थितिलाई बढाउनुका साथै सिकाइ कार्यमा शिक्षकको समय बढाउने र प्रयत्नमा सुधार गर्नेजस्ता नीतिगत सुधार तथा कार्यप्रयत्न (Interventions) लाई केन्द्रित गर्नुपर्छ।
- अभिभावक र समुदायको सहयोगमा वृद्धि:** विद्यालयका समुदायमा आधारित कार्यक्रमहरू, विद्यालयमा अभिभावकको संलग्नता र विद्यार्थीको सिकाइमा पारिवारिक सहयोगबाट हुने फाइदालाई अधिकतम बनाउन घर, विद्यालय र समुदायबिचको सहकार्य संयन्त्रमा जोड दिनु आवश्यक छ।

- च) **दिवा खाजाको व्यवस्थामा सुधार:** विद्यालयमा स्थानीय उत्पादन प्रयोग गरेर बनाइने दिवा खाजाको नियमित व्यवस्थाले विद्यार्थीहरूको शैक्षिक उपलब्धिमा सकारात्मक प्रभाव पारेको देखिएको हुँदा दिवा खाजाको व्यवस्थामा थप सुधार गर्न आवश्यक रहेको देखिन्छ ।
- छ) **फरक फरक प्रावधानहरूको डिजाइन र कार्यान्वयन:** विभिन्न सामाजिक-सांस्कृतिक, आर्थिक, भौगोलिक र घरसँग सम्बन्धित तत्वहरूले विद्यार्थीहरूको पढाइ र गणितीय दक्षताको विकासमा प्रभाव पार्ने भएकाले विद्यार्थीहरूको पढाइ र गणितीय सिपमा सुधार गर्न फरक फरक र विविध प्रावधान तथा शिक्षण सिकाइ अभ्यासहरूको विकास र प्रयोग गर्नुपर्ने हुन्छ ।

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CHAPTER I

INTRODUCTION

1.1 Introduction

The Education Review Office (ERO) has been conducting the National Assessment of Student Achievement (NASA) in grades 5, 8, and 10, and the National Assessment for Reading and Numeracy (NARN) in grade 3. The NARN is a student assessment designed to assess the literacy and numeracy skills of students in Nepal, often focusing on early grades of basic education. It aims to assess how well students are progressing in key areas of learning such as oral reading fluency, reading comprehension, mathematical understanding, and problem-solving skills. The results of these assessments provide valuable insights into the effectiveness of the education system and inform strategies for educational improvement.

Reading and mathematics skills are fundamental to children's future development. Recognizing their importance, these skills have been incorporated into the school-level curriculum in Nepal. Various school-based assessments are conducted to determine students' achievement levels and provide feedback to improve teaching and learning practices. Nepal also conducted several national assessments of student achievement to provide feedback on policies and programs. The examples of national assessments are: National Assessment of Student Achievement (NASA) in grades 5, 8, and 10, and the National Assessment for Reading and Numeracy (NARN) in grade 3. Focusing on National Early Grade Reading Program (NEGRP) districts, Nepal also conducted Early Grade Reading Assessments (EGRAs) in 2016, 2018, and 2020 to monitor the progress of the National Early Grade Reading Program (NEGRP) and Classroom-Based Early Grade Reading Assessments (CB-EGRA) in 2017 and 2018. Considering the findings from these assessments of Nepal, as well as a review of international practices in EGMA and EGRA, ERO designed NARN in 2017.

Several education systems around the world have their own national-level assessments at different grades. Besides, several education systems around the world have participated in various international assessments, such as the Trends in International Mathematics and Science Study (TIMSS) for grades 4 and 8 students, the Progress in International Reading Literacy Study (PIRLS) for grade 4 students, and the Program for International Student Assessment (PISA) for 15-year-old students. Similarly, several education systems around the globe have been conducting Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) in grades 2 or 3 of school education. Besides, some regional consortium of several education systems have developed their own regional assessments. ERO decided to develop an assessment tool to assess the reading and mathematics skills of early-grade children, considering various international assessment practices and Nepal's own initiatives such as NASA, EGRA, and CB-EGRA. This framework is a result of the discussions aimed at creating a comprehensive assessment tool and process for grade three. The primary purpose of the National Assessment for Reading and Numeracy (NARN) in Nepal is to provide feedback for policy and program development at both national and provincial levels. The assessment data

offer insights into the support students need to enhance their literacy and numeracy skills. NARN replaces grade 3 NASA and includes content domains from both EGRA and EGMA.

NARN is a large-scale assessment conducted to identify the current status of grade three students' reading and numeracy skills, also known as foundational skills. ERO conducted the first NARN in 2020. Building on the experiences gained from the first NARN in 2020, ERO also updated the 2017 NARN framework to align with Nepal's existing curriculum. Following this framework, the second NARN was conducted in 2023/24 (i.e., 2080/81 BS). This report has been prepared based on the database prepared by the ERO from the NARN conducted in 2024.

1.2 Objective of the NARN

As per the revised 2023 NARN framework, the objectives of the NARN are as follows:

1. To identify the current status of students' achievement and basic skills in reading and numeracy.
2. To identify the effects of students' socio-economic and geographical conditions on achieving the minimum level of reading and numeracy skills.
3. To provide evidence-based suggestions for revising policies and programs to improve achievement levels.

1.3 Large-Scale Assessment for Reading and Numeracy

Large-scale assessments (LSAs) of reading and numeracy are systematic student assessments designed to measure what students know and can do at key stages of schooling. These assessments provide governments and education systems with reliable data on learning outcomes, equity, and trends in learning achievements over time. The Progress in International Reading Literacy Study (PIRLS), conducted by the International Association for the Evaluation of Educational Achievement (IEA), is an international assessment that measures reading literacy in 4th-grade students (typically ages 9–10) (TIMSS & PIRLS International Study Center, 2021). PIRLS measures reading comprehension through both literary and informational texts (TIMSS & PIRLS International Study Center, 2019). PIRLS has increasingly transitioned to digital assessments, reflecting evolving educational technologies. It also encompasses reflecting on written texts and other sources of information as tools for attaining individual and societal goals, also known as “reading to do” (Stiggins, 1982). Emphasis is shifting from demonstrating fluency and basic comprehension to applying what is understood to new situations and projects. In addition to international and regional assessments, several well-established national LSAs focus on foundational literacy and numeracy. Nepal's NASAs for grades 5, 8, and 10, and NARN for grade 3, are examples of national LSAs.

In the domain of early grade learning, specialized tools have emerged to measure foundational skills more precisely. The Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA) are widely used diagnostic tools that capture students' decoding, fluency, comprehension, and basic numeracy skills in Grades 1–3 (RTI International, 2016).

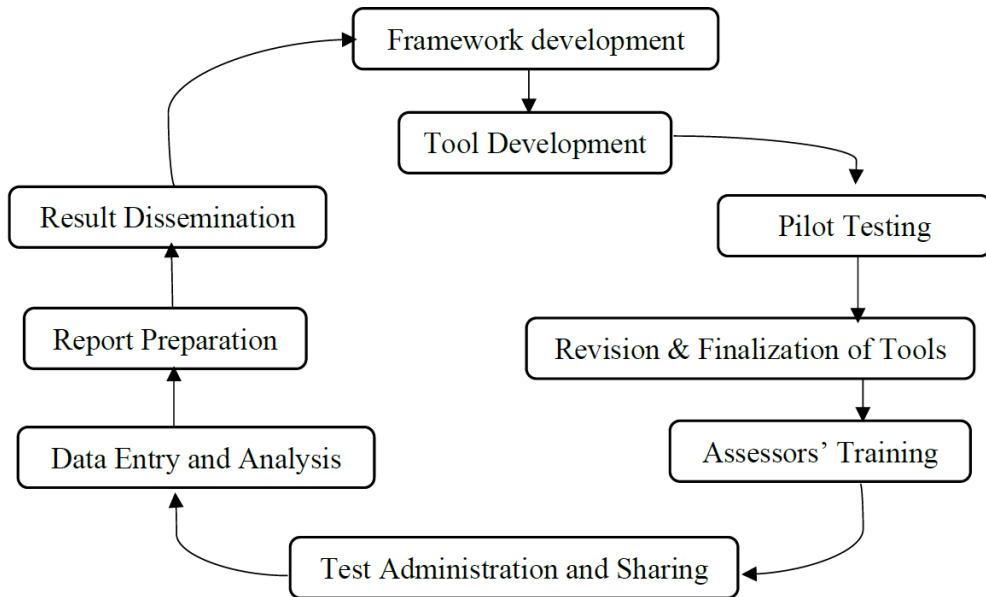
Nepal's National Assessment for Reading and Numeracy (NARN) evolved directly from this global practice in early grade assessment and from Nepal's own experience with EGRA under the National Early Grade Reading Program (NEGRP). In 2014, the Ministry of Education conducted the first EGRA across multiple districts, generating the first systematic evidence on early grade reading in Nepal. These assessments revealed significant challenges in decoding and oral reading fluency. This EGRA provided a basis for designing NEGRP in Nepal and for the government to prioritize foundational learning in the School Sector Development Plan (SSDP). The NEGRP conducted baseline, midline, and endline EGRA, focusing on NEGRP program districts. Realizing the need for a national assessment of foundational learning of students and building on these practices of assessments, Nepal institutionalized NARN as a national, government-led assessment to monitor grade 3 learning outcomes of students in reading and numeracy regularly, using adapted methodologies from EGRA/EGMA and aligning with Nepal's curriculum. This way, NARN represents a significant national effort to assess foundational literacy and numeracy skills among Grade 3 students. Conducted by the ERO, NARN examines reading fluency, accuracy, decoding, comprehension, and core mathematical operations (ERO, 2025). It serves to identify early learning deficiencies, monitor provincial disparities, and evaluate the effectiveness of national educational strategies. Grounded in the belief that early-grade learning outcomes predict future educational and life success, NARN emphasizes the importance of early interventions for long-term educational equity and quality (Hanushek & Rivkin, 2010). Together, these large-scale assessments—global and national—underscore the importance of systematic measurement of student learning to inform responsive policy, to improve classroom practices, and to ensure that all students are acquiring the essential skills needed for lifelong success.

Wagner's (2011) work on "smaller, quicker, cheaper" (SQC) assessments, widely promoted by UNESCO, advocates streamlined, context-appropriate tools that generate timely, actionable information without the heavy financial and logistical demands of traditional large-scale assessments. In this spirit, the NARN aligns more closely with a skill-based assessment genre, as it focuses on capturing students' foundational competencies through concise, targeted tasks rather than attempting to measure the full breadth of curriculum content. This orientation reflects the SQC philosophy by emphasizing practicality, efficiency, and direct relevance to classroom learning. By prioritizing essential competencies and emphasizing practical skill assessment, NARN embodies the shift toward more efficient and meaningful assessment approaches that support instructional improvement and system-level decision-making.

1.4 Assessment Cycle

The NARN cycle commences with the development of the assessment framework, followed by the preparation of assessment tools. These tools undergo piloting, revision, and finalization to ensure their effectiveness. Subsequently, assessors receive training before administering the test. Once the assessments are conducted and the assessment sheets are marked, data entry and analysis take place. The process concludes with the preparation and dissemination of the final report. Figure 1 illustrates each step in NARN's assessment cycle.

Figure 1: NARN Cycle



(Adopted from ERO, 2017, as cited in ERO, 2020, p. 3)

CHAPTER II

METHODOLOGY

NARN is the national assessment that measures students' reading and numeracy skills at the end of grade three. Both group-administered and one-to-one assessment modes were used in the 2024 NARN. The trained assessors conducted both the group-administered (written) and one-to-one (oral) assessments. To capture oral reading fluency (ORF) in correct words per minute (cwpm) and basic number concepts, a one-to-one assessment was conducted with a subsample from each sample school. The assessment was conducted, and data were analyzed using Classical Test Theory (CTT). Therefore, the results are presented as a percentage of the score.

2.1 Population

The National Assessment for Reading and Numeracy (NARN) 2024 focused on assessing reading and numeracy skills among students at the end of early grades (grade 3). The assessment targeted all community schools offering grade three, including Madrasa, Gumba, Gurukul, and community-managed schools. These schools collectively formed the study's total population. The total population for the assessment accounts for 467,860 students.

2.2 Sample

Sampling method and sampling frame

A multi-stage sampling technique was employed to select student samples for the assessment. The total number of schools that are running grade three constitutes the sample frame for this study. A total of 27,298 schools (Flash report 2081 BS), spread over 77 districts and running up to or beyond grade 3, constitute the sample frame.

In the first stage, the population was stratified by the country's seven provinces, which served as explicit strata. In the second stage, to ensure representation of different geographical regions in the sample, 33 districts were selected to cover diverse geographic areas. Districts from each geographical region are randomly selected after the number of districts to be selected for each region is fixed. The following table shows the selected districts from different provinces and geographical regions:

Table 1: Selection of districts by province and geographical regions

	Selected districts with geographical regions				
Province	Mountain	Hill	Kathmandu Valley	Tarai	Inner Tarai
Koshi	Solukhumbu	Ilam		Jhapa, Morang, Sunsari	
Madhesh				Dhanusha, Mahottari, Rautahat, Saptari, Siraha	

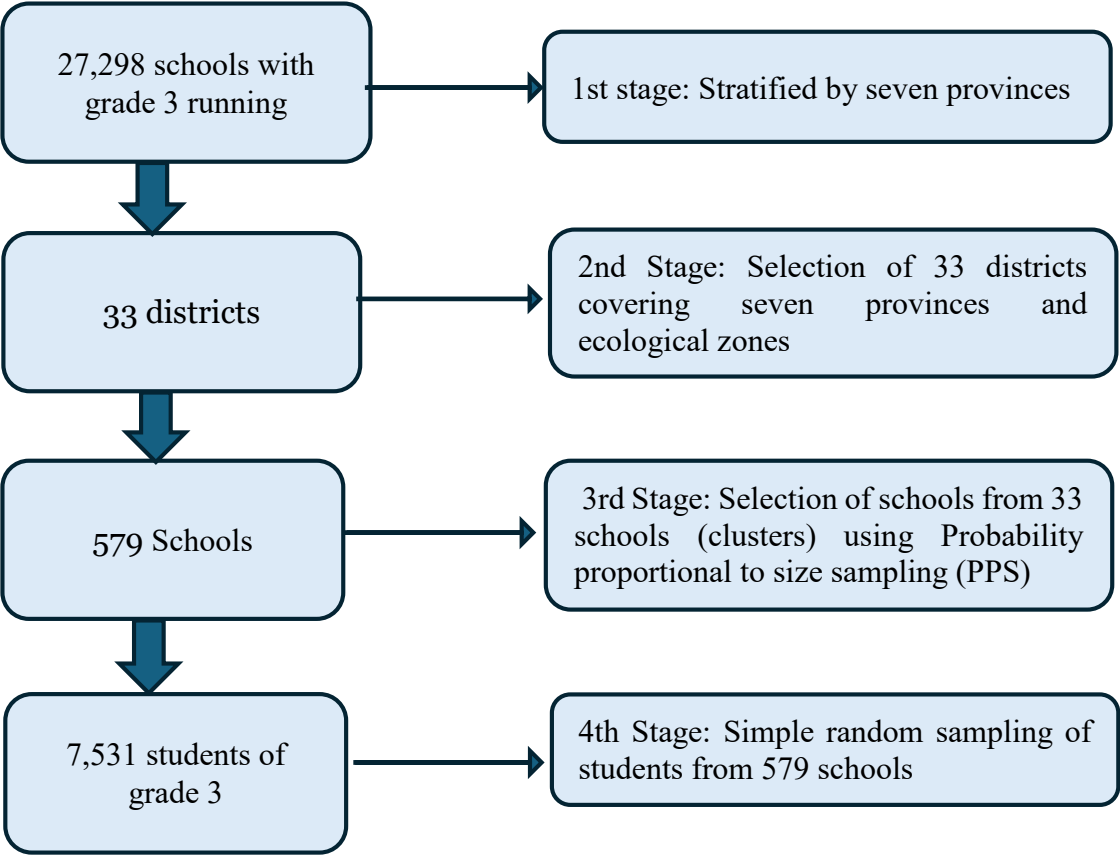
	Selected districts with geographical regions				
Province	Mountain	Hill	Kathmandu Valley	Tarai	Inner Tarai
Bagmati		Nuwakot	Bhaktapur, Kathmandu,		Chitwan, Makawanpur
Gandaki		Baglung, Kaski, Tanahun			Nawalparasi east
Lumbini		Pyuthan		Banke, Kapilbastu, Rupandehi	Dang,
Karnali	Kalikot, Mugu	Dailekh, Jajarkot,			Surkhet
Sudurpashchim		Achham, Baitadi, Doti		Kailali	
Total	3	11	2	12	5

In the third stage, as the primary sampling unit (PSU), schools (clusters) were selected from each selected district. A Probability Proportional to Size (PPS) sampling method was employed to select schools, giving larger schools a higher probability of selection. This approach ensured both statistical precision and socio-demographic diversity across provinces. However, to ensure efficient use of resources, schools with fewer than five students enrolled in grade three were excluded from the sampling frame. A total of 579 schools from 33 districts were selected for the assessment. To cover each province and account for sampling error, the total number of students in the sample was estimated to be between 7000 and 8000.

In the final stage of sampling, students were randomly selected from each selected school. For group assessment, when the sample size was set at 15 students, simple random sampling was used to select 15 students if the class had more than 15 students. If the number of students in the class is less than or equal to 15, then all the students were selected in the sample. For the one-to-one oral assessment, 5 students were randomly selected among 15 students.

To address potential non-response and school inaccessibility (due to factors such as school mergers, holidays, or natural disasters), an additional 4% of schools were designated as replacements in each province. If a district yielded fewer than five sample schools, the shortfall was adjusted by selecting additional schools from neighboring districts. The overall sampling design is presented in the figure below.

Figure 2: Sampling design



Sample size and its distribution

The final sample included 110 schools from Koshi Province, 74 from Madhesh Province, 111 from Bagmati Province, 66 from Gandaki Province, 96 from Lumbini Province, 54 from Karnali Province, and 68 from Sudurpaschim Province.

In total, 579 schools from 33 districts were selected, and 7,531 sample students from these schools were selected for the group assessment—sufficient to achieve the desired statistical precision.

The table presents the distribution of the grade three student population and the corresponding sample sizes for the NARN 2024 assessment across Nepal’s seven provinces.

Table 2: Provincial distribution of student population (grade 3)

Province	Population	Sample	Population (%)	Sample (%)
Koshi	62,159	1386	13.3	18.4
Madhesh	1,42,029	1046	30.4	13.9

Province	Population	Sample	Population (%)	Sample (%)
Bagmati	62,414	1433	13.3	19
Gandaki	29,647	857	6.3	11.4
Lumbini	80,477	1304	17.2	17.3
Karnali	40,557	621	8.7	8.2
Sudurpashchim	50,577	884	10.8	11.7
Total	4,67,860	7,531	100	100

The total population of grade three students in community schools across all provinces is 467,860, with a total sample size of 7,531 students. The sample distribution closely mirrors the population distribution, ensuring proportional representation.

The following table presents a detailed list of the sampled districts.

Table 3: Details of sample districts

Province	Districts	Sample School	Sample Students
Koshi	Ilam	11	109
	Jhapa	23	268
	Morang	38	513
	Solukhumbu	9	117
	Sunsari	29	379
	Subtotal	110	1386
Madhesh	Dhanusha	19	275
	Mahottari	11	156
	Rautahat	22	294
	Saptari	10	138
	Siraha	12	183
	Subtotal	74	1046
Bagmati	Bhaktpur	10	123
	Chitwan	20	277
	Kathmandu	28	386
	Makwanpur	35	418
	Nuwakot	18	229
	Subtotal	111	1433
Gandaki	Baglung	17	225
	Kaski	14	179
	Nawalpur	25	312
	Tanahun	10	141
	Subtotal	66	857
Lumbini	Banke	16	224
	Dang	10	140

Province	Districts	Sample School	Sample Students
	Kapilbastu	37	491
	Pyuthan	16	208
	Rupandehi	17	241
	Subtotal	96	1304
Karnali	Dailekh	12	146
	Jajarkot	11	129
	Kalikot	14	144
	Mugu	8	90
	Surkhet	9	112
	Subtotal	54	621
Sudurpashchim	Achham	19	254
	Baitadi	17	186
	Doti	10	149
	Kailali	22	295
	Subtotal	68	884
Total	33	579	7531

Five districts from each province, except Gandaki and Sudurpaschim, were selected as samples. In each, Gandaki and Sudurpaschim included four districts as the sample. In this way, a total of 33 districts were included in the 2024 NARN sample.

The sample was drawn from rural municipalities (about 40%) and municipalities (about 60%) for the study. Similarly, the sample was seen to represent different ecological regions and genders. The table presents the percentage distribution of sample respondents by geographic region. A large majority of respondents, 62.6%, are from the Tarai region, 35.0% from the Hill region, and some 2.4% from the Mountain region. Likewise, an almost equal gender-wise sample size was randomly selected during test administration.

2.3 Assessment Framework and Tools

NARN assesses grade three students' reading and numeracy skills. Assessment tools were developed using a specified assessment framework aligned with Nepal's national curriculum for grade three students in the Nepali language and mathematics. In addition, background information questionnaires were administered to students, teachers, and head teachers.

Modes of assessment

NARN 2024 utilized two distinct modes of assessment: *group assessment (written)* to assess overall reading and numeracy achievement, and *one-to-one assessment (Oral)* to capture oral reading fluency (ORF) in correct words per minute (cwpm) and comprehension in reading and basic numeracy concepts. Individual assessments (one-to-one) were administered to a sub-sample of students from each school that participated in the assessment. Group assessments were conducted in classroom settings, while one-to-one assessments provided a more detailed understanding of students' oral and foundational mathematics skills.

Reading framework

For the reading framework, competencies in the Nepali language of the level (grades 1-3) together with learning outcomes of grade 3 were analyzed, and 7 key learning outcomes for grade 3 were identified. As per the national curriculum of Nepal, the following are the seven competencies in reading for grade 3 students taken for assessment purpose:

१. पारिवारिक, विद्यालयीय र सामाजिक परिवेशमा प्रयोग हुने शब्द पहिचान गर्न
२. पारिवारिक परिवेशमा आउने शब्दको अर्थ र प्रयोग गर्न
३. दिइएका शब्द श्रुतिलेखन गर्न
४. चित्र वर्णन गर्न
५. दिइएको निर्देशनअनुसार अनुच्छेद पूरा गर्न
६. दिइएको विषयवस्तुका आधारमा अनुच्छेद लेखन
७. प्रवाहपूर्ण रूपमा दिइएका सामग्री पठन र बोध गर्ने

To assess learning competencies, sub-tasks and the corresponding assessment tools have been identified. The following framework with sub-tasks and types of tools was used to design assessment tools for reading:

Table 4: Reading framework for NARN-grade 3, 2024

SN	Sub-Task under Reading	Type of tools	Mode of Assessment
1	Word Identification	Word list	Group/written
2	Dictations	Text for dictation	Group/written
3	Vocabulary	Comprehension of word meaning and the use of words	Group/written
4	Picture Description	Picture with questions	Group/written
5	Reading Comprehension	Reading comprehension followed by comprehension questions	Group/written
	Sub-Total of group (written) test		
6	Oral Reading Fluency	Reading text of 60 words	One-to-one/oral
7	Reading Comprehension	Reading comprehension with comprehension questions	One-to-one/oral
	Sub-total of one-to-one (oral) test		

Tools for reading assessment comprise different types of test items for group-administered written tests and a set of reading texts for one-to-one assessment to capture oral reading fluency (ORF) in correct words per minute (cwpm), along with comprehension questions. The assessment framework for reading indicates that the reading test comprises six key sub-tasks: word identification, dictation, vocabulary, picture description, reading comprehension, and oral reading fluency.

Numeracy Framework

For the numeracy framework, competencies in mathematics at the level (grades 1-3) together with learning outcomes of grade 3 were analyzed, and 9 key competencies for grade 3 were identified. The following were the nine competencies in numeracy for grade 3 students:

1. Identify, measure, and construct two-dimensional shapes.
2. Use up to 5-digit numbers in daily life in Devanagari and Hindu-Arabic numerals.
3. Use a local numeration system.
4. Illustrate the fractions and compare the fractions.
5. Solve daily life problems by using basic arithmetic operations.
6. Use appropriate units and apparatus to measure materials, interpret them, and use them to solve time-related problems in daily life.
7. Recognize and calculate Nepali currencies.
8. Read the information from simple graphs and tables.
9. Develop and use mathematical knowledge, skill, thinking, and attitude in daily life.

To assess learning outcomes, 9 sub-tasks and their corresponding assessment tools have been identified. The following framework was used to design assessment tools for numeracy:

Table 5: Numeracy framework for NARN-grade 3, 2024

SN	Sub-Task under Numeracy	Type of tools	Mode of assessment
1	Geometric shapes identification	Questions	Group/written
2	Identification of angles and sides	Questions	Group/written
3	Number Identification (Sense)	Questions	Group/written
4	Use of Basic Mathematical (Arithmetic) Operations	Questions	Group/written
5	Fraction	Questions	Group/written
6	Clock Reading (Time)	Questions	Group/written
7	Identification of Currency	Questions	Group/written
8.	Reading a Simple Graph	Questions	Group/written
Sub-total of group assessment			
3	Number Knowledge (Identification)	Oral question	One-to-one/oral
4	Summing the values	Oral question	One-to-one/oral
5	Subtracting the values	Oral question	One-to on/oral
6	Use of arithmetic operation	Oral question	One-to on/oral
Sub-total of one-to-one assessment			

Contextual Information Questionnaire Framework

NARN 2024 collected information from students, teachers, and head teachers using separate sets of contextual questionnaires. Major contextual factors that influence students' achievement, such as personal, home-related, demographic, peer-group, teacher-related, economic, physical,

and school- and leadership-related factors, are included. Information on background factors was obtained through three sets of questionnaires administered to students, teachers, and head teachers. The following table presents coverage of information by each type of questionnaire:

Table 6: Types of contextual questionnaires and coverage of information

Questionnaires type	Coverage of information
Student questionnaires	• Gender, age, home language, caste/ethnicity • Educational background of parents • Socio-economic status of parents/family (SES) • Home environment such as facilities, availability of books and other study materials • Level of parental/family support for study • Activities beyond the school hours/home • Distance between school and home • School bullying • Perception of classroom environment, such as sense of safety, friendliness of other students, support from teachers. • Teaching-learning process in the classroom/school • Most liked subjects • Use of leisure time at school • Midday meal
Teacher questionnaires	• Gender, age, first language • Teaching conditions including class size, access to resources, percentage of students having textbooks, access to substitute teachers in case of absence, time spent in the classroom • Educational experience, teacher qualifications, and teaching experience • Teaching-learning practice and conditions at school • Professional engagement with learning, such as access to and interest in professional development, interest in teaching, and time spent on preparation for classes • Availability of instructional support such as classroom visits and feedback by the head teacher, school supervisor • Teaching methods, such as language of instruction, use of assessment, and style of teaching • Satisfaction with working conditions, such as tenure, salary, and level of supervision. • Relationship between the school and community, such as interactions with parents, involvement in school committees • Attitude and cooperation from students

Questionnaires type	Coverage of information
Head teacher questionnaires	• Gender and age • Educational and management experience and qualifications • School environment, including the quality of buildings and facilities, as well as availability of resources • School records, such as fluctuations in student numbers, student and teacher absenteeism • Professional engagement of school leadership, such as access to and interest in professional development and interest in education • Leadership style and use of time • Assessment of teachers' work • Satisfaction with working conditions • Relationship with the community

Tools Preparation

Using the reading and numeracy frameworks, subject experts developed test items for reading and numeracy. The test items included both a written group test and an oral one-to-one test. The sets of items drafted by subject experts were reviewed against the framework, and booklets were prepared for piloting by editing these test items. Multiple booklets were prepared and piloted. Based on the piloting results, items were analyzed. The items were accepted, revised, or rejected based on item statistics parameters. With those updated items, the subject experts prepared two sets of booklets for group assessment in reading and numeracy. In addition to test items for a group-administered written test, the experts' group prepared items for the oral test. The items and booklets prepared by the subject experts' group were piloted, reviewed, and approved by the subject committees to finalize the test items and booklets.

Using the assessment framework, a team of experts prepared contextual information questionnaires for students, teachers, and head teachers. While designing the questionnaires, experts drew on prior contextual information from NARN 2020 and previous NASAs, making necessary revisions and contextualizing it. They also prepared new questionnaires to meet the system's needs. A panel of experts and practitioners reviewed the drafted questionnaires.

2.4 Test and Questionnaire Administration and Data Quality Assurance

Assessor Training

A cascade training model was adopted to ensure the effective and consistent administration of the assessment. The process began with a Master Training of Trainers (MTToT) conducted at the central level. During this phase, several rounds of discussions were held, and a comprehensive guideline was developed to standardize procedures across all trainers. The centrally trained assessors then delivered training to EDCU assessors at the provincial/district level, promoting uniformity in test administration.

Test and Questionnaire Administration

Trained assessors facilitated the administration of the tests in schools. The group assessment was conducted within approximately one hour, while the one-to-one assessment for each student took less than ten minutes. In addition to the core assessment tasks, assessors collected background information by consulting head teachers and class teachers and by reviewing class attendance registers. Since the background data on time to school, provision of midday meal, and its quality, etc., were subjective expressions of the students (self-reported) rather than objective measures.

Monitoring and Supervision

The ERO personnel and their roster experts actively monitored the assessment process. Such a monitoring process ensured that the administration was conducted in accordance with established standards and protocols.

Data Entry and Data Quality Assurance

ERO also recruited and trained data-entry personnel to enter assessment data. To maintain data integrity, ERO conducted thorough cross-checks of the entered information, including a careful review of the background data. In addition to these quality control measures, Kathmandu University (KU) collaborated with ERO to perform comprehensive data cleaning and jointly finalize the dataset for the final analysis.

2.5 Data Analysis Procedure

The analysis of NARN 2024 data was performed through a collaborative effort between the ERO and KU. Throughout the process, teams from both institutions regularly met to discuss and reach consensus on the cleaned datasets, key variables for comparison and analysis, and the data's limitations.

Once the data cleaning was finalized, the dataset was recoded into relevant variables and imported into the Statistical Package for the Social Sciences (SPSS) version 25 for detailed analysis. Weighted analysis was applied to generalize findings from the sample to the broader population, ensuring representativeness. The students' achievement levels in reading and numeracy were examined in relation to various socio-economic variables, such as location, distance, and caste/ethnicity. Results were primarily presented through tables, graphs, and figures. The study's findings are based on a weighted sample.

The test was designed, and data were analyzed using Classical Test Theory (CTT), which is relatively easy to understand. The results are expressed as an average score (percentage), generally at the test level. Although the higher likelihood of sample- and item-dependent results, as well as test-level rather than item-level interpretation, is often considered a major limitation of CTT compared with Item Response Theory (IRT), CTT is still widely used in student assessment.

CHAPTER III

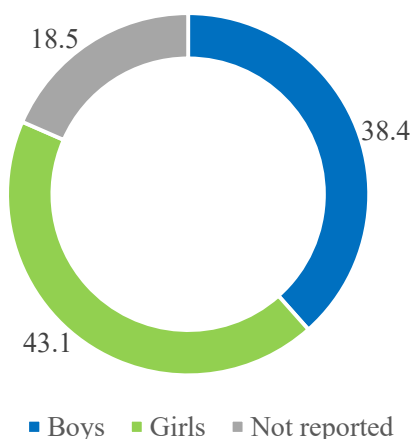
SOCIO-DEMOGRAPHIC CHARACTERISTICS AND BACKGROUND INFORMATION

This chapter describes the key sociodemographic characteristics of the student sample. Similarly, it also describes key background information factors collected through questionnaires. To estimate and explain the influence of different background factors on students' achievement, these characteristics and factors will be linked to students' achievement in the next chapter.

3.1 Gender Composition

The figure presents the gender distribution in the student sample, showing that 43.1% are girls, 38.4% are boys, and 18.5% of students did not report their gender. Although an almost equal gender-wise sample size was taken during test administration.

Figure 3: Gender composition of students

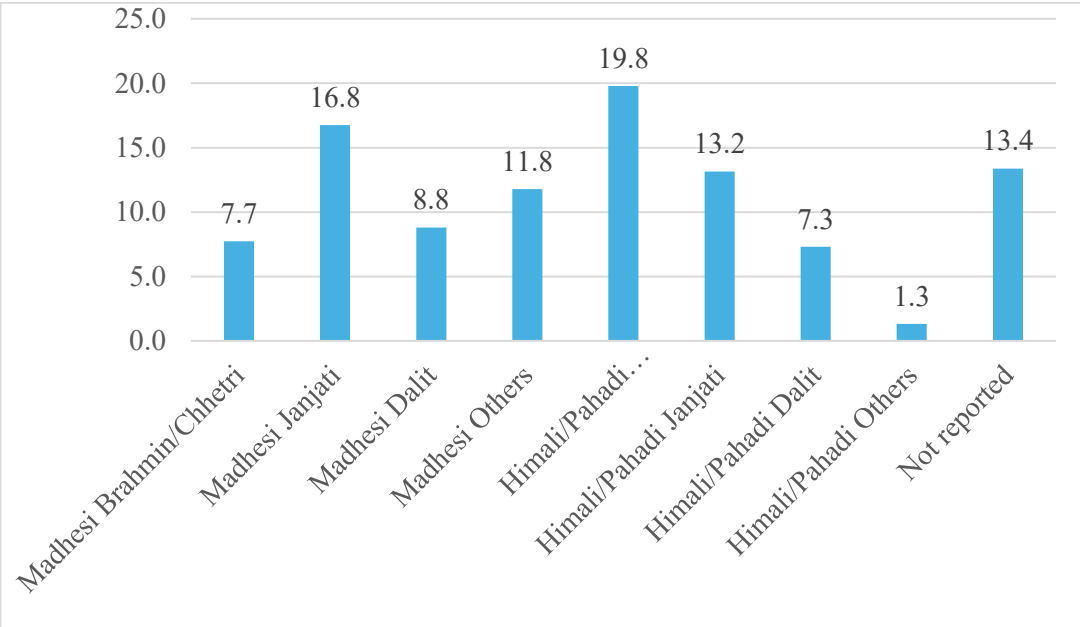


3.2 Caste/Ethnicity

The figure presents the ethnic composition of the students in grade 3. The distribution of students by caste/ethnicity shows that the largest proportion belongs to the Himali/Pahadi Brahmin/Chhetri group (19.8%), accounting for nearly one-fifth of the total sample. This is followed by Madhesi Janajati respondents (16.8%) and Himali/Pahadi Janajati respondents (13.2%).

A considerable proportion of respondents (13.4%) did not report their caste/ethnicity. Among the Madhesi groups, Madhesi Others account for 11.8%, while Madhesi Dalit and Madhesi Brahmin/Chhetri represent 8.8% and 7.7%, respectively. Similarly, among the Himali/Pahadi groups, Himali/Pahadi Dalits make up 7.3% of the sample, whereas Himali/Pahadi Others constitute the smallest proportion at only 1.3%.

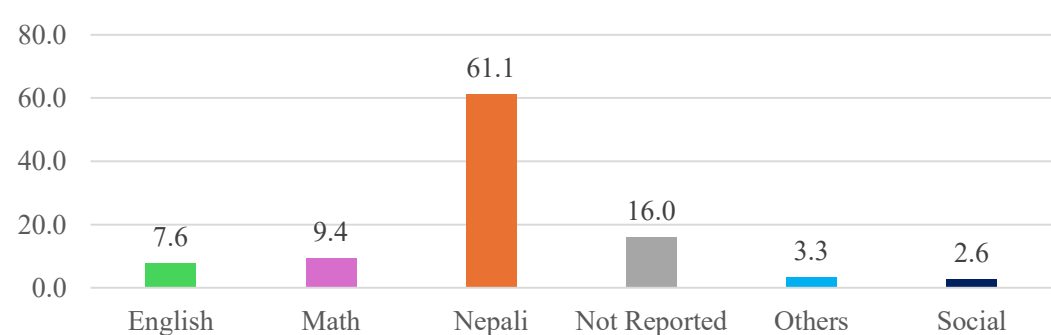
Figure 4: Ethnic Composition of students



3.3 Most Liked Subjects

The study presents students' preferences regarding their favorite subject. A clear majority (61.1%) reported liking Nepali the most, indicating a strong inclination toward the national language. Math was favored by 9.4% of students, followed by English at 7.6%. Social studies (Serophero) were the least preferred among the listed subjects, with only 2.6% choosing it as their favorite. A small percentage, 3.3%, mentioned other subjects, and a significant 16.0% did not report their preference. The findings reveal that Nepali is by far the most liked subject among students.

Figure 5: Most liked subjects by students

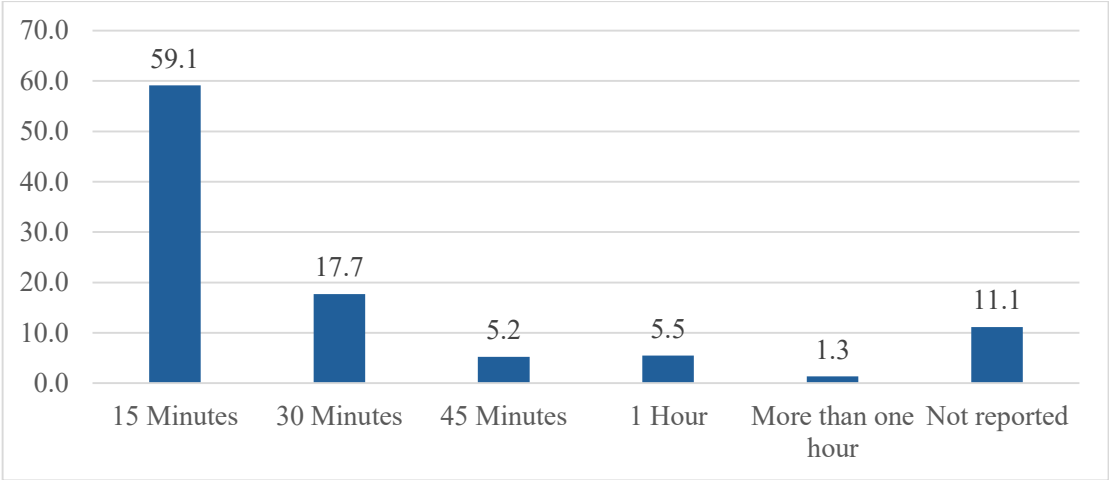


3.4 Distance of School from Home

The figure presents data on how long it takes students to travel from home to school. A majority of students, 59.1%, reported that their commute takes 15 minutes or less, indicating that most

students live close to their schools. 17.7% travel for 30 minutes, while smaller proportions take 45 minutes (5.2%) or 1 hour (5.5%). Only 1.3% of students reported commuting for more than an hour, suggesting that long travel times are rare. However, 11.1% of the responses did not report travel time. These findings suggest that school accessibility is good, with most students able to reach their school within half an hour.

Figure 6: Distance to school from home

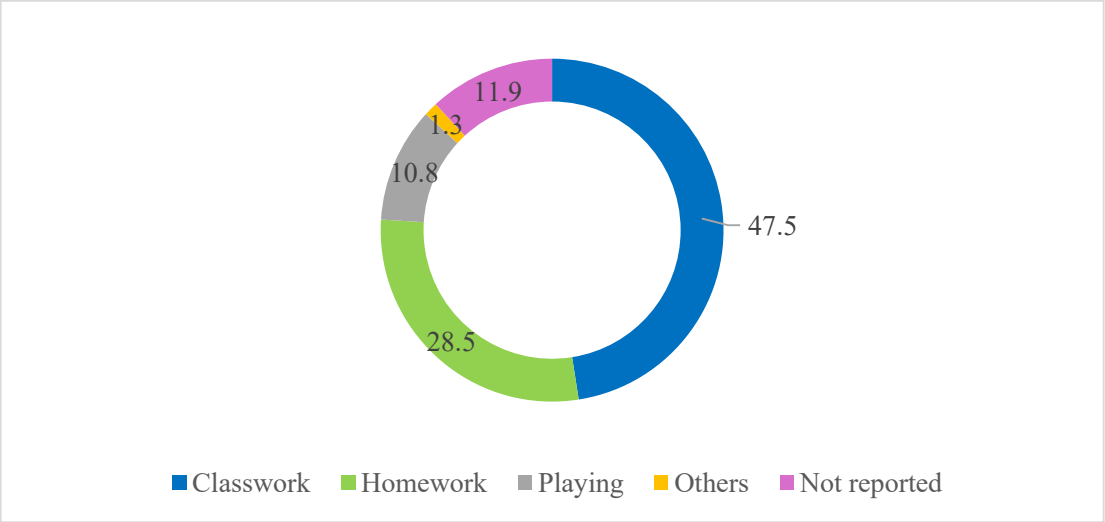


The travel-time data aligns with Nepal’s national policy emphasis on easy access to school. The SSDP (2016–2023) and the SESP (2022–2032) both highlight that basic schools should be located within a reasonable walking distance to ensure equitable access, particularly for younger children. These policies emphasize the importance of school mapping and proximity to prevent children from encountering obstacles such as long distances. The finding that 59.1% of students reach school within 15 minutes, and only 1.3% travel more than an hour, suggests that most communities are aligned with these policy expectations. The Free and Compulsory Education Act (2075 BS) stipulated that access to basic schools should be within a two-kilometer radius of students' residences.

3.5 Use of Leisure Time at School

The study shows how students typically spend their leisure time at school when there are no classes. Half of the students (47.5%) engage in classwork, making it the most common activity during free periods. A significant portion (28.5%) of students' time is spent on homework, indicating that academic tasks dominate students' unstructured time. Only 10.8% of students reported playing, suggesting that opportunities or preferences for recreational activities during school hours may be limited. A small number (1.3%) are involved in other activities, and 11.9% of the responses were not reported. Overall, the results highlight a strong academic focus during students’ leisure time at school.

Figure 7: Use of leisure time at school by students

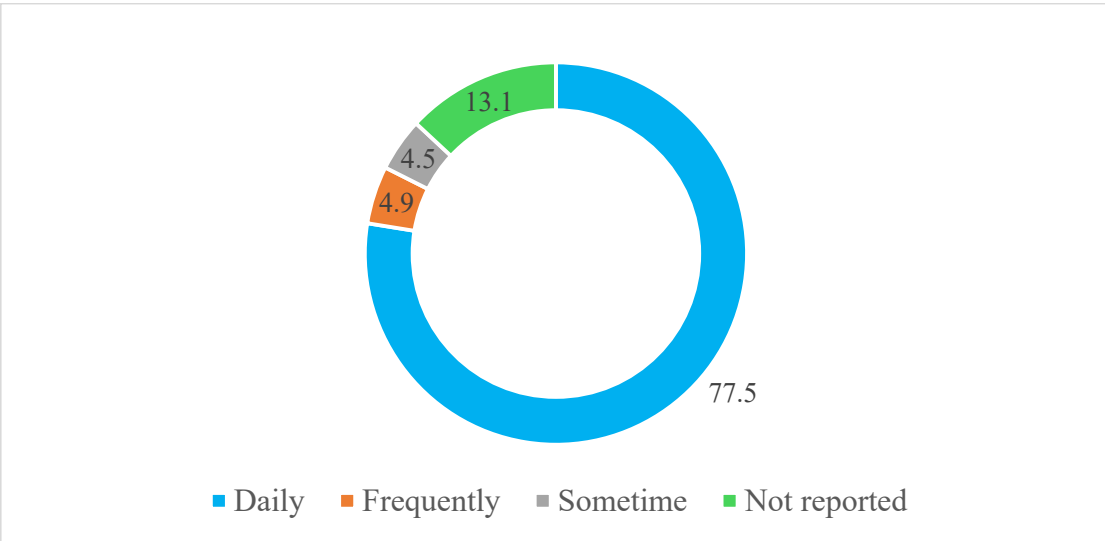


3.6 Status of Midday Meal at School

Regularity of Midday Meal at School

The data show how regularly schools provide midday meals to students. A large majority (77.5%) reported receiving a midday meal daily, indicating that most schools have a consistent midday meal program. A smaller percentage of students received midday meals often (4.9%) or sometimes (4.5%), suggesting that regular meal availability is not universal. Additionally, 13.1% of students did not report on this question. The data suggest that daily midday meal provision is a common practice in schools, reflecting efforts to support students’ nutritional needs.

Figure 8: Students receiving midday meal at school

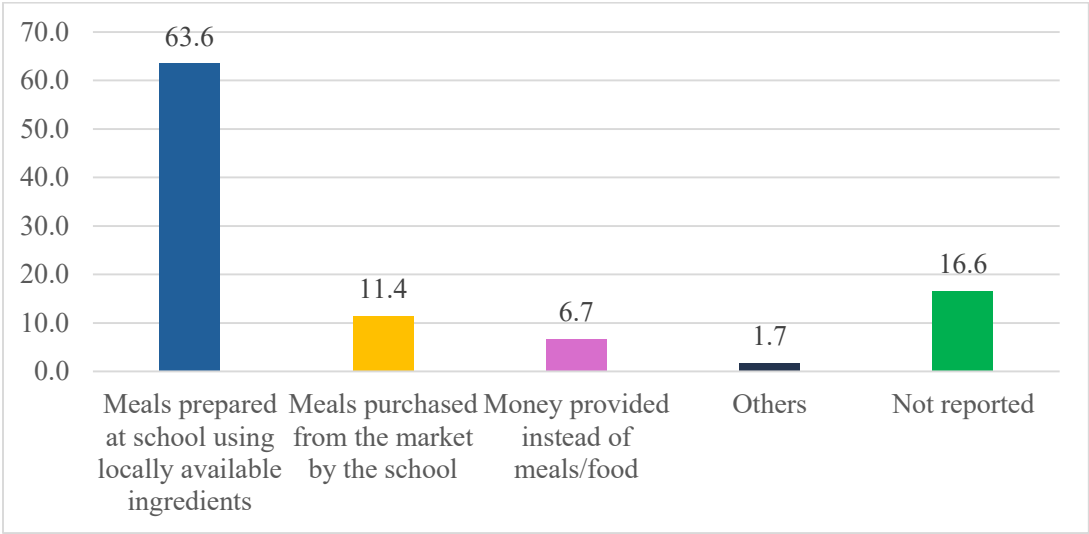


In this study, 77.5% of the students reported receiving a midday meal daily in school, and the substantial reliance on meals prepared in school using locally available ingredients (63.6%) strongly reflects the intentions of Nepal’s midday meal policy. According to the School Education Sector Plan (SESP) (2022–2032), one of the key outputs under health and nutrition is “the provision of healthy and nutritious midday meals to students in basic schools, prioritizing local food systems and community involvement.” Simultaneously, the narrative review by Yonzon et al. (2025) explores how the midday meal program has contributed to educational equity and academic resilience in community schools by improving attendance, reducing dropout rates, and supporting children. Students benefit from consistent midday meal provision, with the majority receiving freshly cooked meals on-site, suggesting a positive alignment between policy design and practice. However, a minority still receives meals only occasionally (4.5%) or via cash (6.7%), indicating gaps in the equitable implementation of the program. Yonzon et al. emphasize that while the program contributes to equity, persistent issues around funding, infrastructure, and monitoring threaten its full potential (Yonzon et al., 2025). However, further studies on the impact of the midday meal program, which is envisioned to minimize dropout and repetition rates and increase promotion rates, need to be conducted longitudinally.

Types of Midday Meals Provided by School

The research shows the types of midday meals provided to students at school. A majority, 63.6%, receive meals prepared at school using locally available ingredients, highlighting a strong reliance on local resources and community involvement in school meal programs. 11.4% of students receive meals bought from the market by the school, while 6.7% are given money instead of meals, indicating a cash-based alternative. A small proportion (1.7%) reported other forms of midday meal provision. However, 16.6% of students did not report. These findings reflect that most schools focus on preparing meals on-site using local ingredients.

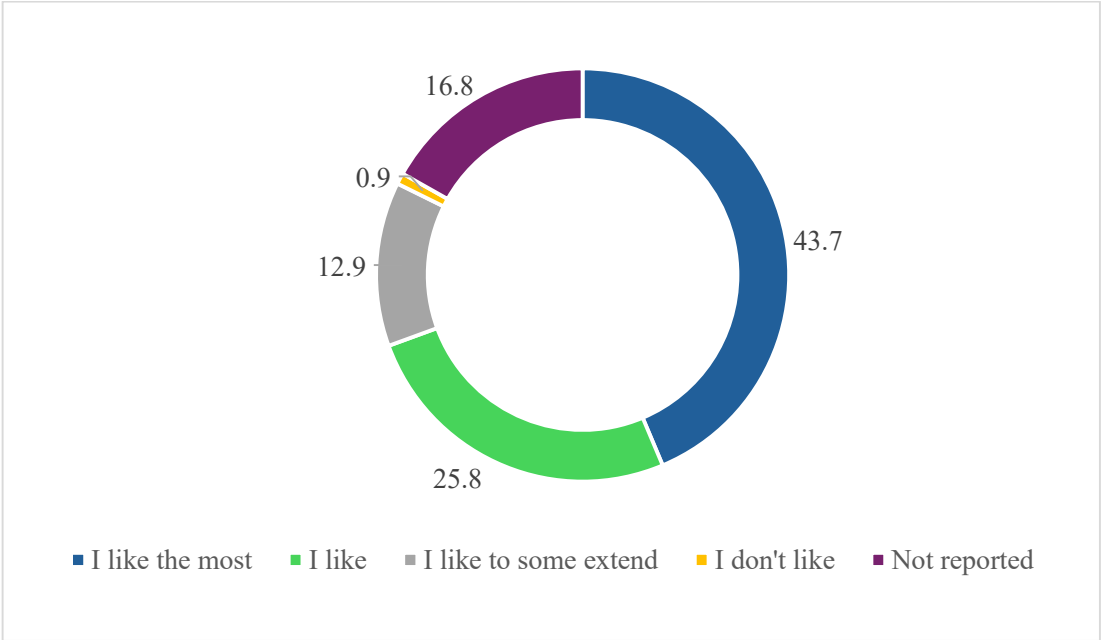
Figure 9: Types of midday meals provided by school



Students’ Rating of Midday Meals Provided by School

All the students were also asked: How would you rate the meals/food provided by the school? The figure presents students’ ratings of the meals or food provided by their schools. A significant majority (43.7%) reported liking meals the most, while another 25.8% simply stated they like them, indicating overall positive feedback. Additionally, 12.9% of students like the meals, suggesting moderate satisfaction. Only 0.9% reported not liking the meals, indicating minimal dissatisfaction. However, 16.8% did not report. Overall, the data suggest that the school meals are well-received by most students.

Figure 10: Students’ rating of meals provided by school

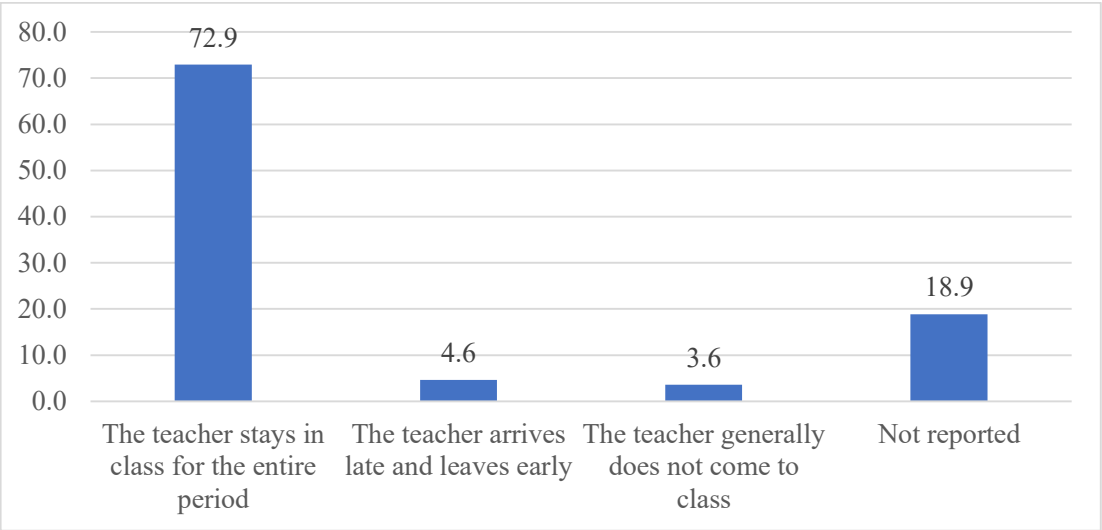


3.7 Teachers' Presence in the Classroom

Presence of Teachers in Math Class

The figure presents students’ perceptions of their teacher's presence in math class. A large majority, 72.9%, reported that the teacher stays in class for the entire period, indicating strong teacher attendance and classroom engagement. A smaller percentage, 4.6%, reported that the teacher arrives late and leaves early, while 3.6% noted that the teacher does not come to class, indicating some issues with punctuality or, in a few cases, absenteeism. However, a considerable 18.9% of the students did not report. The findings indicate that most students experience consistent teacher presence in math classes.

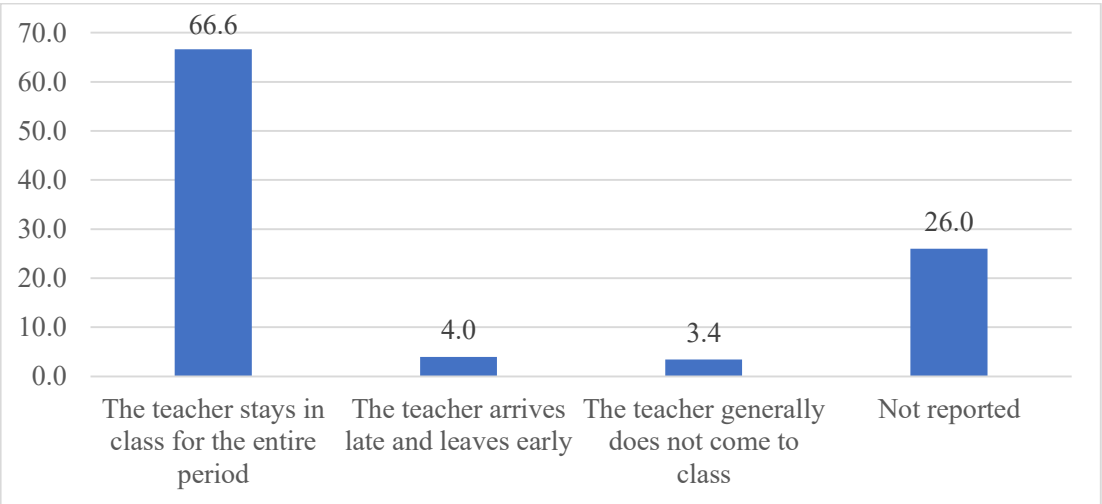
Figure 11: Presence of teachers in math class reported by students



Presence of Teachers in Nepali Class

The findings present students’ views on their teacher's presence in Nepali class. A majority of students (66.6%) reported that the teacher stays in class for the entire period, suggesting generally good teacher engagement. However, this is slightly lower compared to math classes. A small percentage of students noted that the teacher arrives late and leaves early (4.0%) or does not come to class (3.4%), indicating occasional issues with teacher attendance. Notably, 26.0% of the students did not report. The study suggests that most students observe consistent teacher presence in Nepali classes.

Figure 12: Presence of teacher in Nepali class reported by students



The comparison of teacher presence across subjects shows slightly stronger consistency in Math (72.9%) than in Nepali (66.6%) as reported by students, reflecting subject-wise variation also

noted in national and international studies. Similarly, UNESCO (2014) and the World Bank’s *WDR 2018* highlight that teacher absenteeism and reduced time on task disproportionately affect language subjects, which are often considered less rigidly scheduled. The small number of students who reported being late or absent in both subjects aligns with the School Sector Development Plan (SSDP 2016–2023) and the School Education Sector Plan (SESP 2022–2030). Both plans acknowledge that teacher absenteeism is a significant barrier to learning and emphasize the need for improved monitoring and accountability, as well as increased instructional time on task. The students’ achievement compared to the 2020 NARN data, which shows an increase in mathematics achievement, might be attributed to the positive impact of teachers’ presence in class. However, the specific study to examine the effects of teachers’ presence could be further explored.

3.8 Learning Experience and Perception towards the Teacher

The responses to the statements about teacher behavior and support reveal positive perceptions among students. A very high percentage (83.8%) strongly agree that their teacher teaches with care and affection, showing that most students feel emotionally supported in the classroom. Similarly, 70.8% strongly agree that most teachers pay attention to them, indicating that students feel noticed and valued.

Table 7: Students’ learning experience and perception toward the teacher

Statement	Strongly agree	Agree	Disagree	Strongly disagree
The teacher teaches with care and affection.	83.8	3.5	0.8	1.3
Most teachers pay attention to me	70.8	11.9	2.1	2.3
Teachers do not give punishments.	50.0	17.0	7.4	10.1
Teachers take us to the library and encourage us to read a variety of books.	46.2	15.6	7.8	15.7
Teachers take us to the library and suggest reading additional books beyond the textbook.	51.8	16.0	5.8	11.5

Half of the students (50.0%) strongly agree that teachers do not give punishments, while smaller proportions disagree (7.4%) or strongly disagree (10.1%), suggesting that while most students feel discipline is handled gently, some still experience or perceive punitive practices.

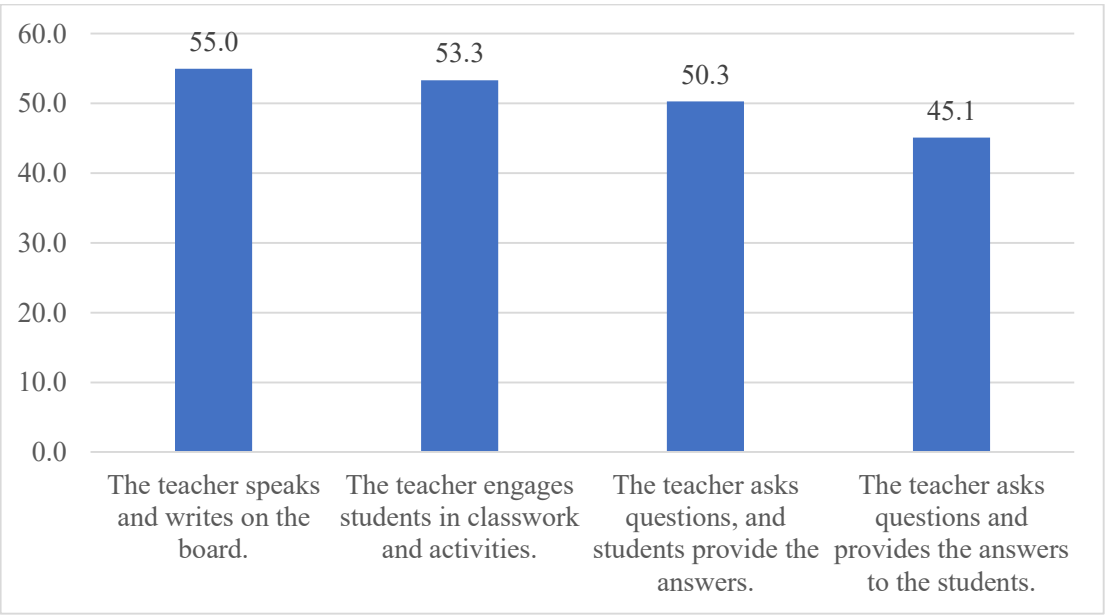
Regarding library use, 46.2% strongly agree that teachers take them to the library and encourage them to read a variety of books, though 15.7% strongly disagree, suggesting inconsistencies in library access across schools or classes. A slightly higher proportion (51.8%) strongly agrees that teachers suggest reading additional books beyond the textbook, reflecting encouragement for independent learning. However, the presence of disagreement in both library-related statements indicates that such practices may not be uniformly implemented.

The responses suggest a caring teaching environment with a general emphasis on personal attention and non-punitive discipline, though access to library resources and promotion of additional reading appear to vary.

3.9 Teaching Method of Nepali Subject Teacher

The teaching methods used by Nepali teachers, as reported by students, show a variety of approaches. The most common method, with 55% of students, is that the teacher speaks and writes on the board, indicating a traditional and direct style of instruction. Close behind, 53.3% of students said their teachers actively engage them in classwork and activities, which reflects an interactive and participatory approach to learning. Additionally, half of the students (50.3%) reported that their teachers ask questions and encourage students to provide answers, promoting student involvement and critical thinking. Lastly, 45.1% noted that teachers ask questions and provide the answers themselves, suggesting a guided-learning approach in which the teacher leads the discussion. Overall, the data highlights a balanced mix of teaching strategies that combine direct instruction with interactive and student-centered techniques.

Figure 13: Students’ perception of the method of teaching in Nepali class



3.10 Teaching Method of Math Teacher

The data reflects students’ perceptions of whether their math teacher makes learning fun by using games. A majority of students (56.5%) strongly agree with this statement, and an additional 13.5% agree, indicating that many students find their math lessons engaging and interactive. On the other hand, 5.2% disagree, and 9.0% strongly disagree, indicating that a small but notable proportion of students do not feel that games are used effectively in their learning. A considerable 15.8% of students did not report the response. Overall, the data suggest

that most students take a playful, engaging approach to learning math, although there is room for improvement in consistency.

Figure 14: Students agree that a math teacher makes learning fun

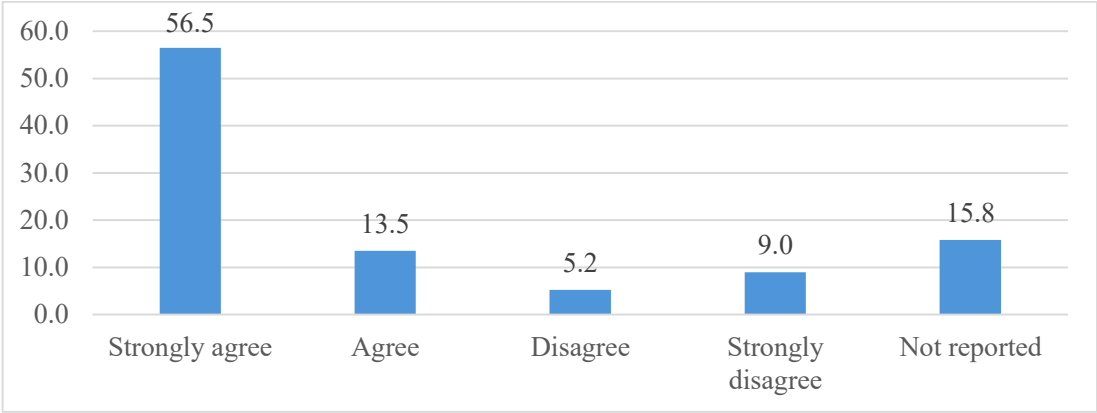
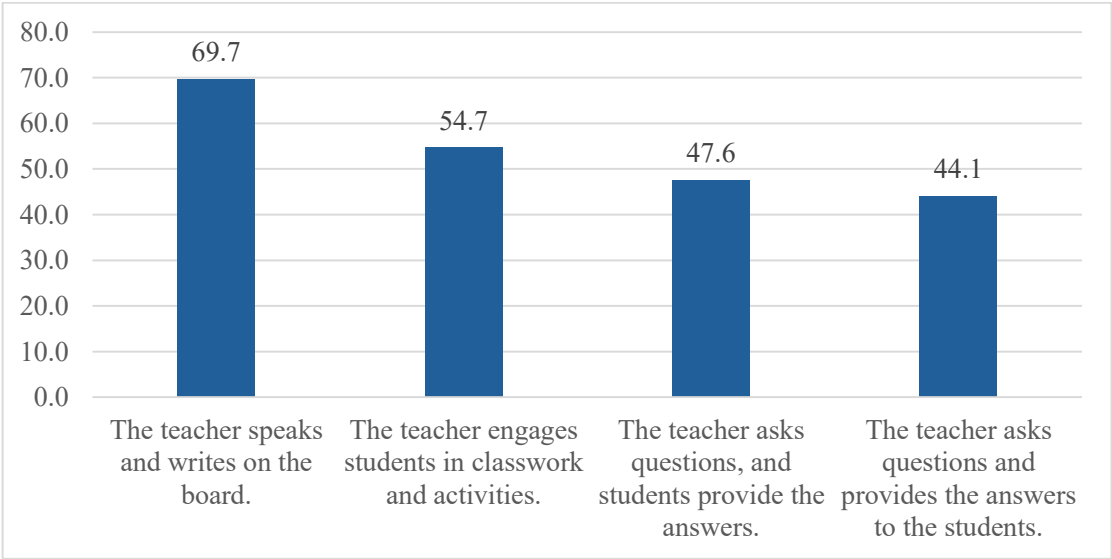


Figure 19 outlines the different teaching methods used by math teachers as reported by students. The most common method, cited by 69.7% of students, is that the teacher speaks and writes on the board, indicating a traditional lecture-based approach. 54.7% mentioned that the teacher engages students in classwork and activities, suggesting a good level of interactive learning. Additionally, 47.6% reported that teachers ask questions and students provide answers, while 44.1% said teachers ask questions and provide the answers, reflecting varying degrees of student participation. These responses indicate that while the dominant method is still teacher-centered, many math teachers also incorporate interactive and student-involved strategies to support learning.

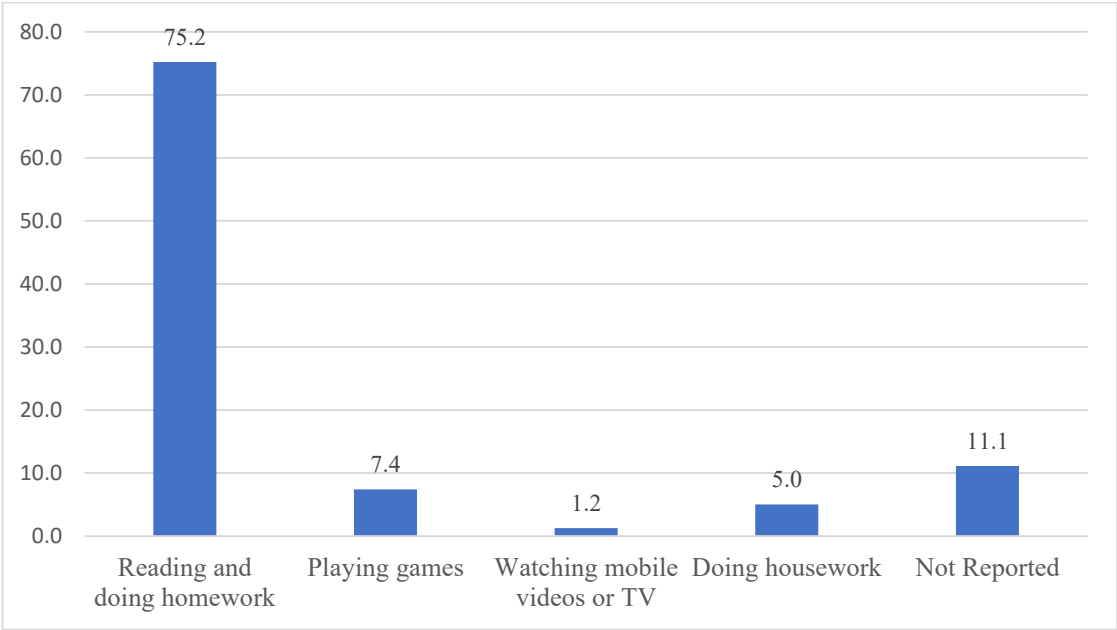
Figure 15: Students’ perception of the method of teaching in math class



3.11 Students’ Time Spent at Home

Most of the students (75.2%) spend their time at home reading and doing homework. This suggests a strong focus on academic activities outside of school hours. A much smaller proportion of students spend their time playing games (7.4%) or doing housework (5.0%), while only 1.2% reported watching mobile videos or TV. Additionally, 11.1% of students did not report how they spent their time at home. Overall, the data indicate that academically related activities dominate students' home time compared to leisure or household tasks.

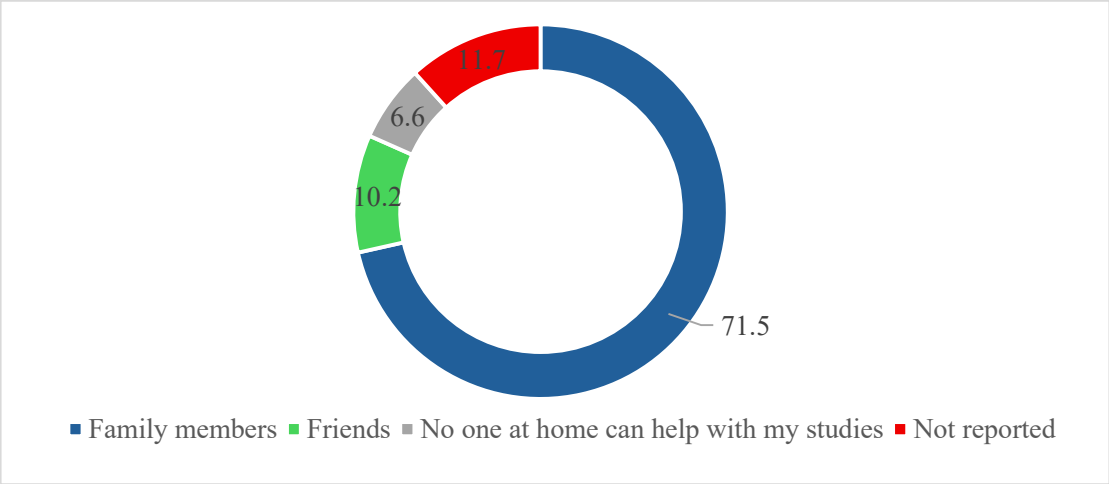
Figure 16: Students’ time spent at home



3.12 Support for Study at Home

The majority of students (71.5%) receive help in their studies at home from family members, highlighting the important role families play in supporting students' learning outside of school. A smaller portion of students (10.2%) get assistance from friends, which may indicate peer support networks. However, 6.6% of students reported that no one at home could help them with their studies, suggesting a gap in academic support for some learners. Additionally, 11.7% percent did not report who helped them with their studies. Overall, family support remains the primary source of study support for most of the students at home.

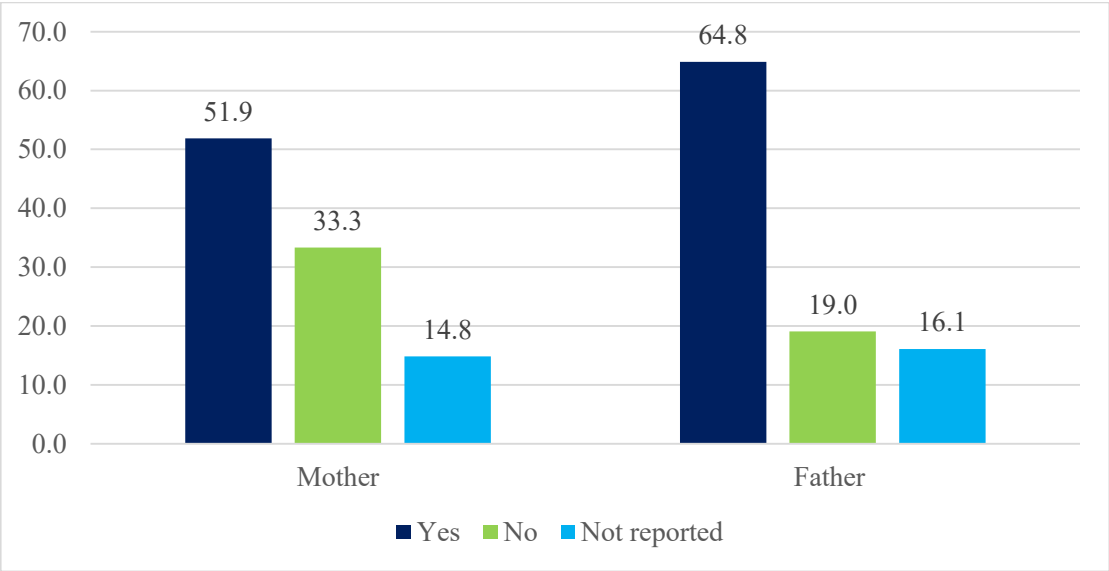
Figure 17: Students receiving support for study at home



3.13 Literacy of Parents

The data on parental literacy, as reported by the children, show that a higher percentage of fathers (64.8%) can read and write compared to mothers (51.9%). Conversely, 33.3% of mothers and 19.0% of fathers reported being unable to read and write. There is also a notable portion of respondents who did not report parental literacy status—14.8% for mothers and 16.1% for fathers. Overall, this suggests that fathers tend to have higher literacy rates than mothers, though a significant number of both parents are illiterate or have unknown literacy status.

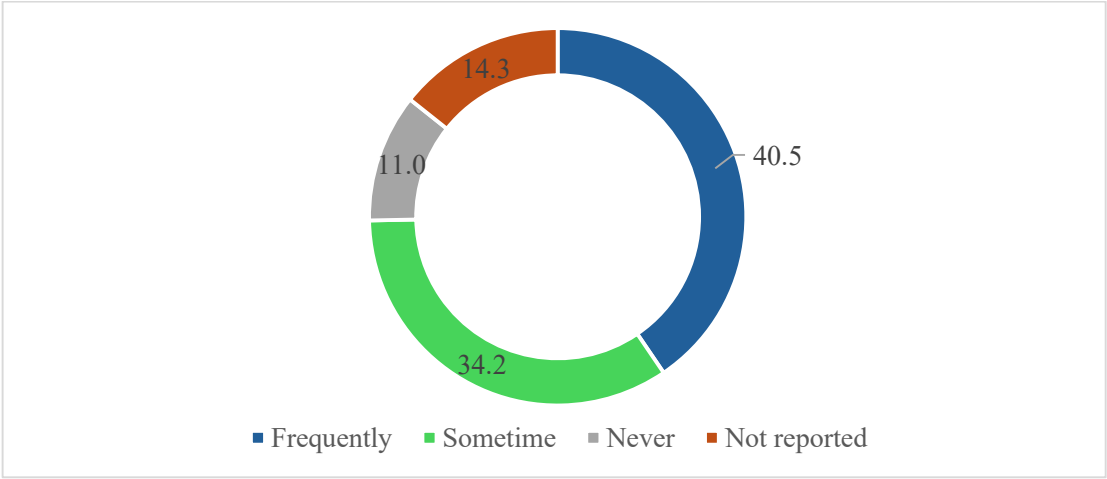
Figure 18: Literacy of parents



3.14 Reading Reference Books at Home

The data indicate that 40.5% of students often read books beyond their textbooks, suggesting a strong interest in additional reading among a significant portion of learners. Another 34.2% read occasionally, showing moderate engagement with extra reading materials. However, 11.0% of students reported never reading books outside of their textbooks, which may reflect limited access, interest, or support for reading. Additionally, 14.3% did not report reading books at home. Overall, most students engage in reading beyond the curriculum, a positive sign for literacy development.

Figure 19: Students frequently used reading reference books at home



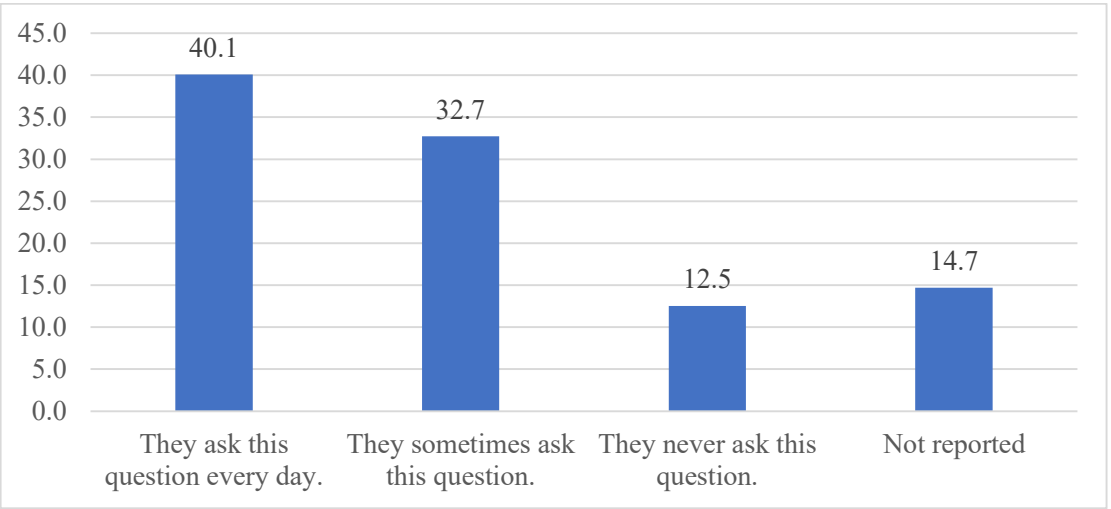
The finding that a large proportion of students read beyond their textbooks (i.e., 40.5% frequently and 34.2% occasionally) aligns closely with national and international policy expectations aimed at strengthening a reading culture. Nepal’s *School Education Sector Plan (SESP 2022–2032)* and the *National Curriculum Framework (NCF 2076)* emphasize cultivating foundational literacy and promoting reading activities outside the formal curriculum as essential for developing lifelong learning habits. Pfof et al. (2013) demonstrate that extracurricular reading significantly enhances vocabulary and comprehension, while UNESCO (1975) emphasizes that children thrive in rich, literate environments with access to diverse reading materials. The data in this study suggest that students’ additional reading habits reflect positive literacy development and indicate the need for continued investment in school libraries, reading corners, and community reading programs to ensure equitable access for all learners.

3.15 Parental concerns on Child Education

The data reveal that 40.1% of students are asked by their parents every day about what they learned, indicating consistent parental engagement in their children’s education. An additional 32.7% reported that their parents sometimes ask this question, showing occasional interest. However, 12.5% of students said their parents never inquire about their learning, which may point to a lack of involvement or awareness. Furthermore, 14.7% did not report on this aspect.

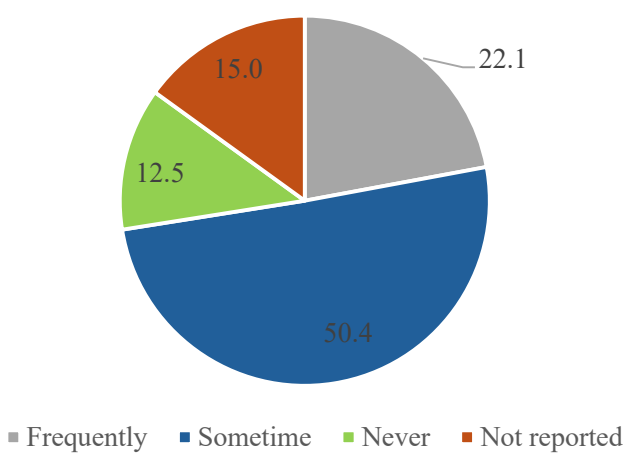
Overall, while a majority of parents show some level of interest in their children’s daily learning, there remains a part of students who receive little to no such engagement at home.

Figure 20: Do your parents ask you, "What did you learn today?"



Similar types of questions about their parents' visit to the school to inquire about their children's education. The data shows that 22.1% of students' parents often visit the school to discuss their children’s studies with teachers, reflecting strong parental involvement. A larger part, 50.4%, reported that their parents sometimes make such visits, indicating moderate engagement. However, 12.5% said their parents never visit the school to inquire about their academic progress, suggesting a lack of direct communication between home and school for some students. Additionally, 15.0% of responses were not reported. Overall, while most parents demonstrate some level of engagement with their child's education through school visits, there is still room to strengthen home-school collaboration.

Figure 21: Do your parents visit the school to inquire about your studies with your teacher?



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This section provided a descriptive account of the demographic and contextual variables considered in the NARN study. The above-mentioned parameters were profiled to capture the broader learning environment and student background. These included: gender composition, caste/ethnicity, most liked subjects, distance of school from home, use of leisure time at school, status of midday meals, teacher presence in the classroom, students' learning experiences and perceptions of teachers, teaching methods in mathematics and Nepali, use of time at home, parental support for study, parental literacy, access to additional reading materials at home, and proactive parental engagement in their child's education.

It is important to note that this section has been limited to demographic profiling. Further statistical analysis has been undertaken to examine the relationship between these variables and student performance in reading and numeracy in the following chapters. Furthermore, the dataset lacked disaggregated information on certain key groups, particularly students with disabilities and Dalit communities. As a result, the potential implications of these demographic factors for equity in learning outcomes would remain unexplored in the present report.

CHAPTER IV

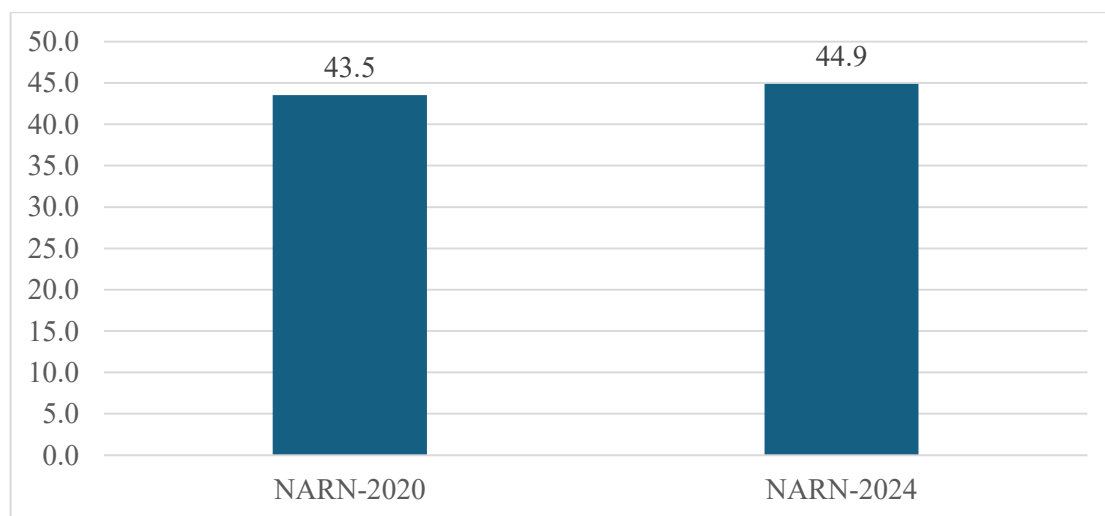
FINDINGS ON STUDENT ACHIEVEMENT IN READING

4.1 Achievement in Reading

The findings on students' overall achievement scores in reading from the National Assessment for Reading and Numeracy (NARN) show only a modest improvement over the four years. In NARN, reading is measured in the Nepali language. In NARN-2020, the average reading achievement score was 43.5%, which increased slightly to 44.9% in NARN-2024. It shows a gain of just 1.4% points.

This minimal progress suggests that efforts to enhance reading skills have had a limited impact. It indicates a need for renewed focus on literacy instruction, including strategies such as early-grade reading interventions, teacher training, use of engaging reading materials, and increased library access, to drive more significant improvements in students' reading outcomes.

Figure 22: Achievement in reading



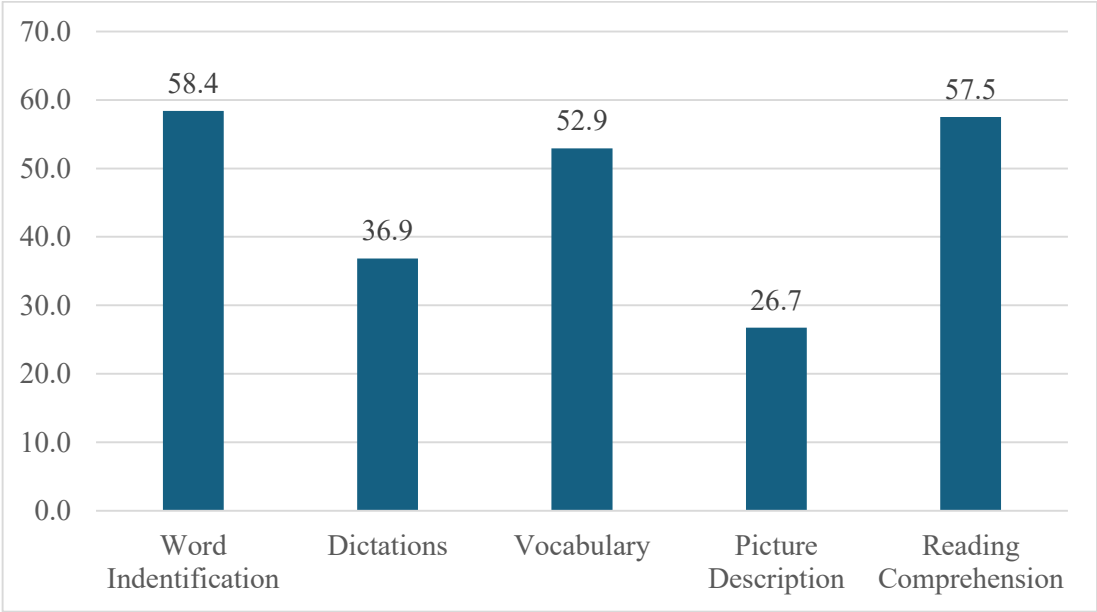
4.2 Achievements in Sub-tasks of Reading

The breakdown of reading achievement by sub-task reveals significant variation in student performance across different reading skills. Students performed best in Word Identification (58.4%) and Reading Comprehension (57.5%), indicating strong decoding and comprehension abilities when engaging with written text. Vocabulary also showed a decent performance level at 52.9 %, suggesting a fair grasp of word meanings. However, achievement in Dictation (36.9%) and, especially, in writing skills in Picture Description (26.7%) was much lower. These tasks require spelling accuracy and the ability to express ideas based on visual cues—skills that are underdeveloped among many students.

Overall, while students demonstrate strength in recognizing and understanding written words, they struggle more with expressive and written language skills, highlighting the need for

targeted instructional support in writing, listening-to-writing translation (dictation), and oral language development.

Figure 23: Achievement in sub-tasks of reading

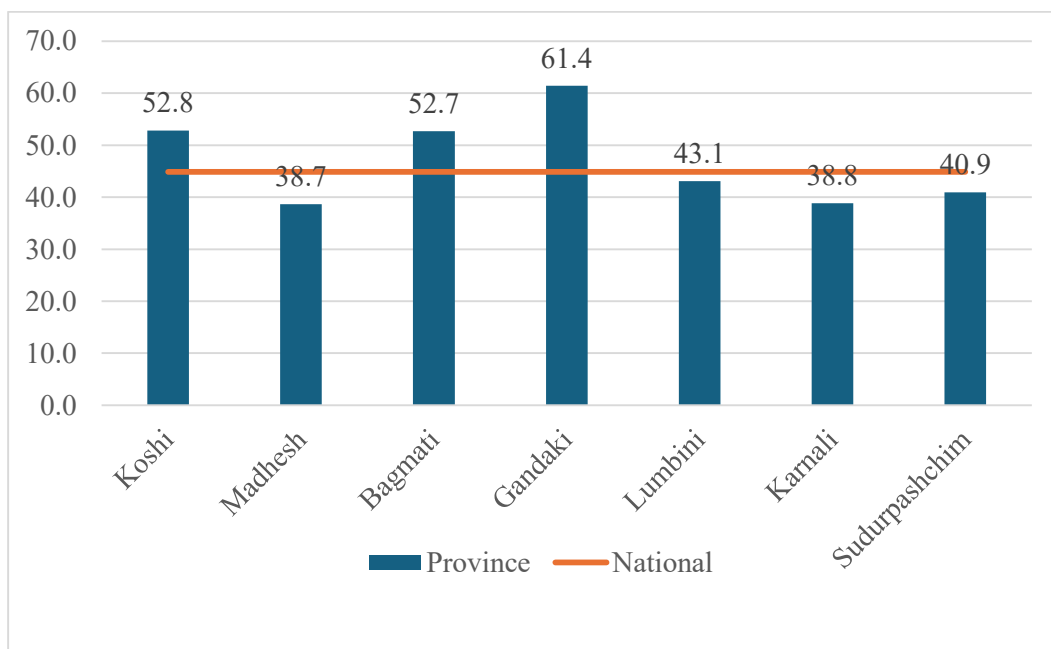


4.3 Achievements in Reading by Province

The provincial breakdown of reading achievement scores reveals significant provincial disparities in student performance across Nepal. Gandaki Province stands out with the highest average score of 61.4 %, indicating strong reading skills among its students. Koshi (52.8%) and Bagmati (52.7%) also performed well, both above the national average of 44.9%. In contrast, provinces such as Madhesh (38.7%), Karnali (38.8%), Sudurpaschim (40.9%), and Lumbini (43.1%) recorded below-average performance, with Madhesh and Karnali showing the lowest scores.

These results highlight a clear need for region-specific interventions to improve reading outcomes, particularly in the underperforming provinces. Investments in teacher training, local-language materials, early-grade reading programs, and library access could help bridge these regional gaps in reading achievement.

Figure 24: Achievement in reading by province



Achievements in Sub-tasks of Reading by Province

At the national level, among the sub-tasks of reading components, the results indicate that students perform relatively well in word identification (58.4%) and reading comprehension (57.5%), while their weakest area is writing skills in picture description (26.7%), indicating challenges in expressive tasks.

The provincial breakdown of sub-tasks in reading achievement scores reveals significant regional disparities in student performance across Nepal. Gandaki stands out with the highest performance across all sub-tasks, particularly in reading comprehension (75.6%) and vocabulary (68.5%). Lumbini performs well in word identification (68.3%) but scores very low in picture description (19.2%). Madhesh consistently lags, with the weakest performance in dictations (27.2%), while Karnali also falls below average in most areas, especially in word identification (48.7%) and reading comprehension (51.5%). Koshi and Bagmati perform above the national average on most sub-tasks, while Sudurpaschim remains close to the national average. Overall, the findings suggest that students across Nepal are stronger in recognizing and understanding words but face difficulties in the creative and descriptive aspects of reading, with notable disparities across provinces, where Gandaki leads and Madhesh and Karnali require more focused support.

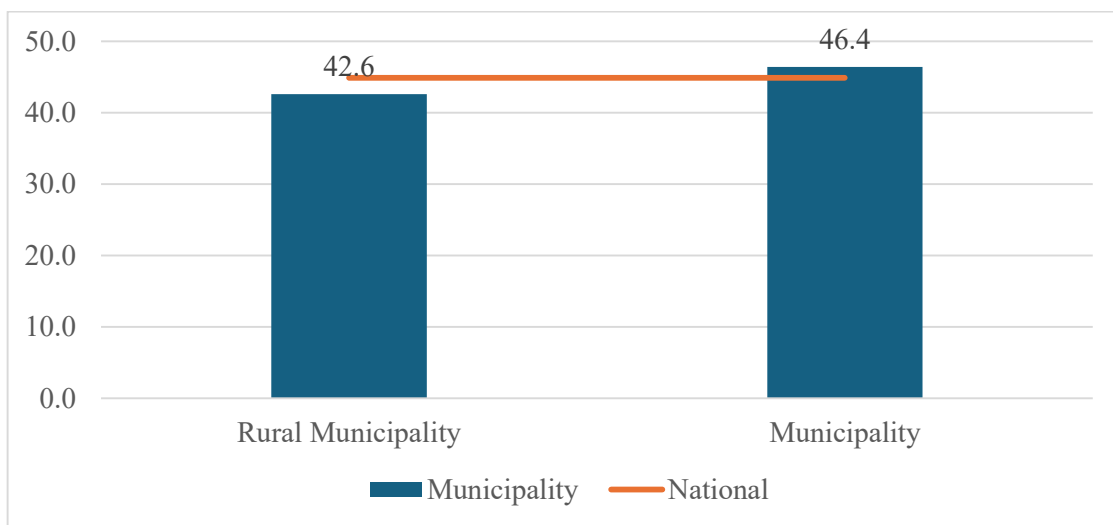
Table 8: Achievement percentages in sub-tasks of reading by province

Sub-task of Reading	Provinces							
	Nepal	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur paschim
Word Identification	58.4	66.1	50.0	64.3	67.8	68.3	48.7	51.6
Dictations	36.9	47.5	27.2	48.9	55.1	35.4	30.9	32.6
Vocabulary	52.9	59.9	48.1	58.7	68.5	48.4	49.3	51.6
Picture Description	26.7	31.2	22.6	37.1	46.7	19.2	21.5	24.5
Reading Comprehension	57.5	64.6	56.9	58.3	75.6	51.9	51.5	52.6

4.4 Achievements in Reading by Municipality and Rural Municipality

The data comparing reading achievement scores by municipality type shows a noticeable performance gap between rural and more urban areas. Students from Municipalities have a higher average reading score of 46.4, while those from Rural Municipalities have a lower average of 42.6. This 3.8% point difference suggests that students in municipalities may benefit from improved access to educational resources, infrastructure, and teaching quality. The lower performance in rural areas highlights the need for targeted support, such as improving school facilities to ensure more equitable reading outcomes across different geographic settings.

Figure 25: Achievement in reading by municipality



4.5 Achievements in Reading by Ecological Regions

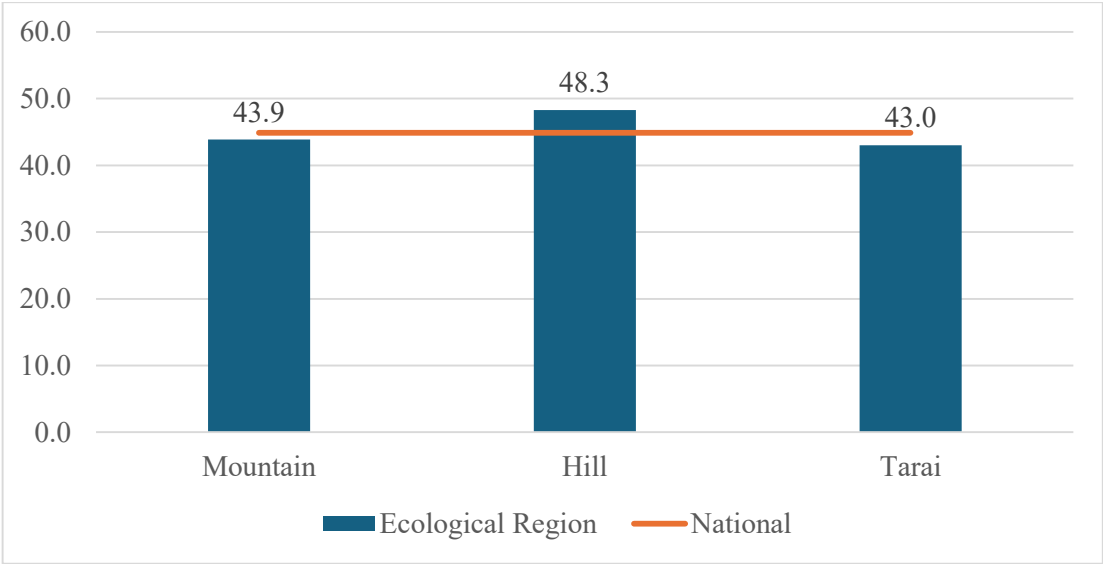
The reading achievement scores across ecological regions show noticeable variation. Students from the Hill region have the highest average score at 48.3%, outperforming both the Mountain (43.9%) and Tarai (43.0%) regions.

This suggests that students in the Hill region may have better access to educational resources, qualified teachers, or learning environments that support reading development. The relatively

lower scores in the Mountain and Tarai regions may reflect challenges such as remoteness, language barriers, or limited exposure to reading materials.

These findings highlight the need for region-specific literacy strategies, especially in the Tarai and Mountain areas, to address contextual barriers and promote equitable reading outcomes across Nepal.

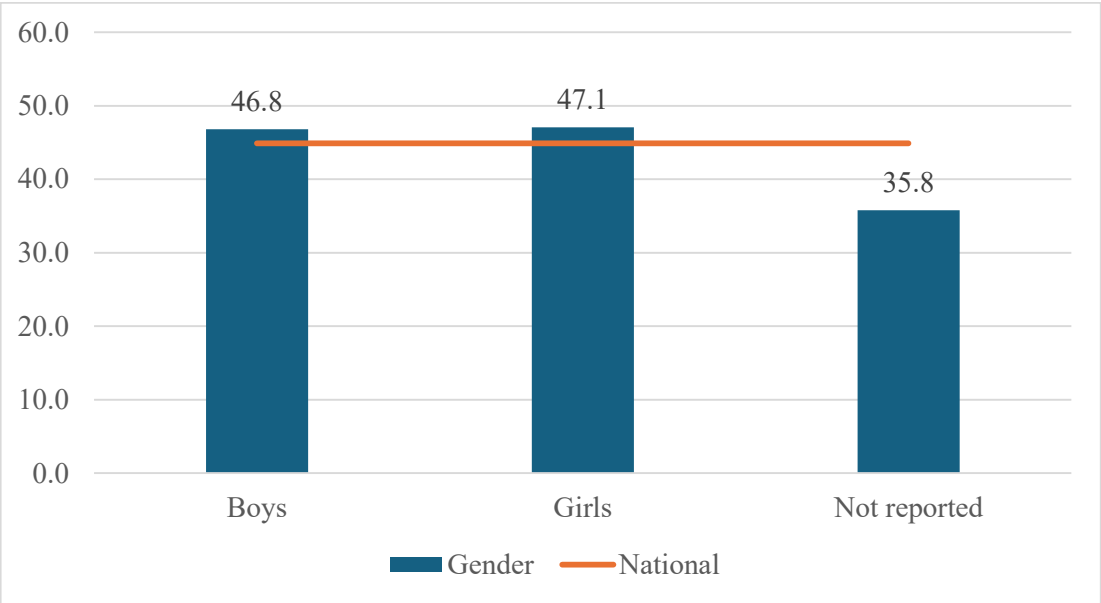
Figure 26: Achievement percentages in reading by ecological regions



4.6 Achievements in Reading by Gender

The findings on reading achievement by gender show that girls slightly outperform boys, with an average score of 47.1% compared to 46.8% for boys. Although the difference is small, it indicates a slight advantage for girls in reading performance. The results suggest relatively balanced reading achievement between boys and girls, while also pointing to the need for further attention to marginalized or unreported groups to ensure no students are left behind.

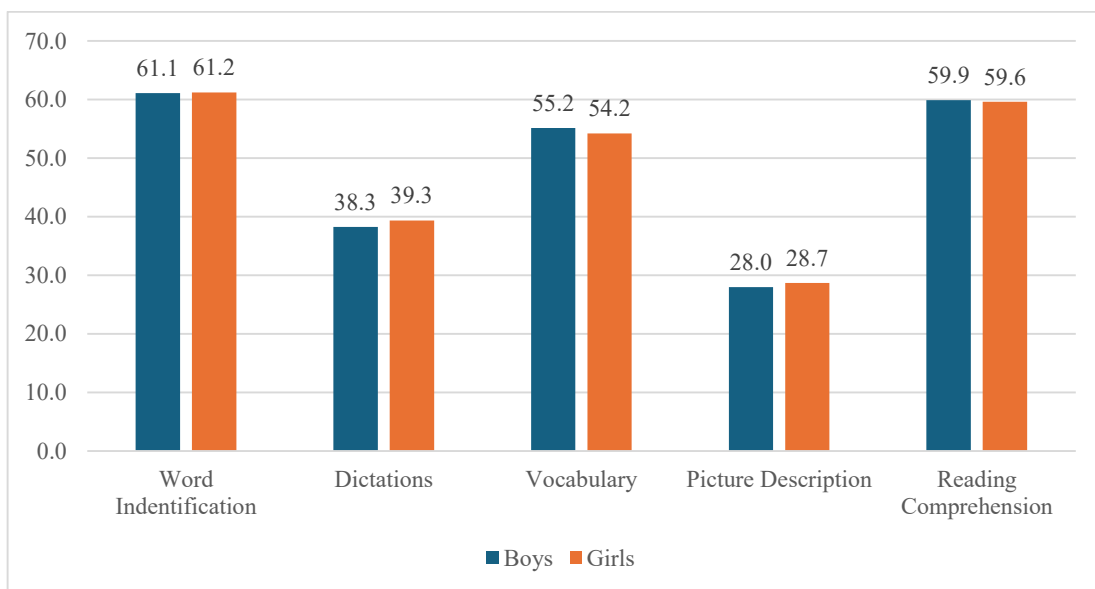
Figure 27: Achievement percentages in reading by gender



Achievements in Sub-tasks of Reading by Gender

The comparison of boys’ and girls’ performance across different reading sub-tasks shows that their achievement levels are nearly identical, with only minor differences. Girls slightly outperform boys in word identification (61.2% vs. 61.1%), dictations (39.3% vs. 38.3%), and picture description (28.7% vs. 28.0%), while boys perform a little better in vocabulary (55.2% vs. 54.2%) and reading comprehension (59.9% vs. 59.6%). Overall, both boys and girls demonstrate similar strengths in word identification and reading comprehension, while dictation and picture description remain their weakest areas. The negligible differences suggest that gender is not a significant factor in reading achievement, as boys and girls perform at nearly the same level across all sub-tasks.

Figure 28: Achievement percentages in sub-tasks of reading by gender



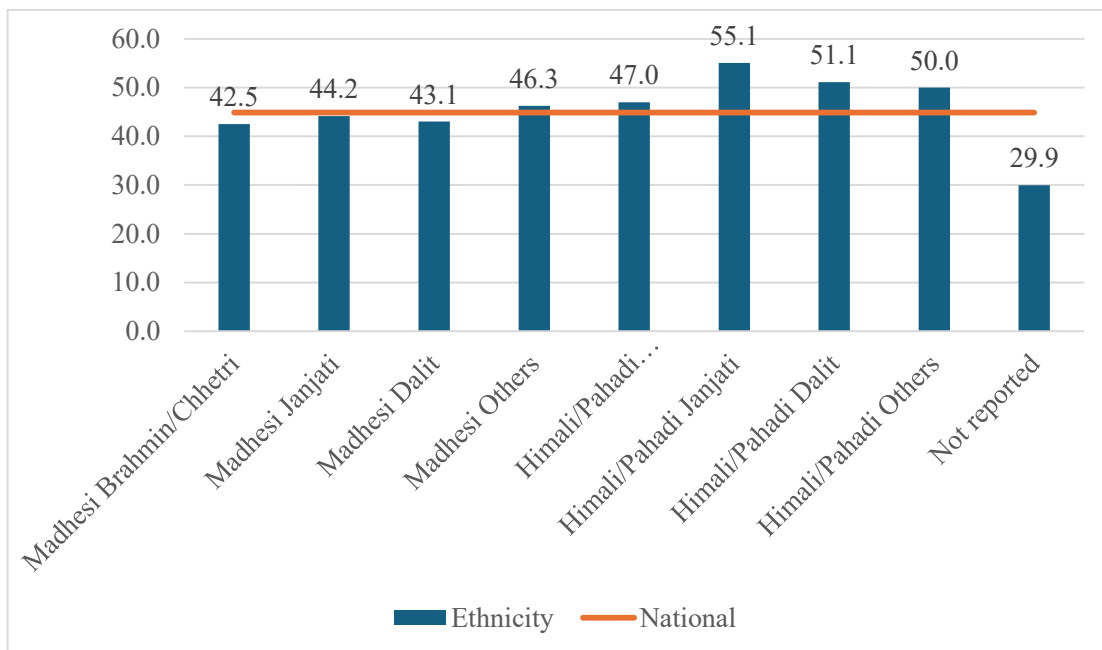
4.7 Achievements in Reading by Ethnicity

The reading scores across caste and ethnic groups reveal notable differences in performance. The highest reading score is recorded among Himali/Pahadi Janajati students (55.1%), indicating comparatively stronger reading ability within this group. Himali/Pahadi Dalit (51.1%) and Himali/Pahadi Others (50.0%) follow this.

Among the Madhesi groups, Madhesi Other students achieve the highest reading score (46.3%), followed by Madhesi Janajati (44.2%), Madhesi Dalit (43.1%), and Madhesi Brahmin/Chhetri (42.5%). The reading score for Himali/Pahadi Brahmin/Chhetri students is 47.0%, higher than all Madhesi categories except Madhesi Others.

The findings indicate that Himali/Pahadi groups, particularly Janajati and Dalit students, tend to perform better in reading compared to the Madhesi groups. The results also suggest disparities in reading achievements across caste and ethnic categories.

Figure 29: Students' achievement percentages in reading by caste/ethnicity



Achievements in Sub-tasks of Reading by Caste/Ethnicity

The achievement in sub-tasks of reading across ethnicity shows notable disparities. The performance of students across different reading-related competencies shows variation among caste/ethnic groups. Overall, Himali/Pahadi Janajati students demonstrate the highest achievement in most areas, while comparatively lower performance is observed among some Madhesi groups, particularly in dictation and picture description.

In Word Identification, the highest percentage is recorded by Himali/Pahadi Janajati students (69.6%), followed by Himali/Pahadi Others (64.9%) and Himali/Pahadi Dalit (62.9%). The lowest performance is observed among Madhesi Dalit students (55.7%).

For Dictation, Himali/Pahadi Janajati again achieved the highest percentage (50.5%), while Madhesi Dalit students recorded the lowest score (31.3%). In general, Himali/Pahadi groups perform better in dictation than Madhesi groups.

In terms of Vocabulary, the highest percentage is found among Himali/Pahadi Janajati students (62.1%), followed by Himali/Pahadi Dalit (59.8%). Madhesi groups show moderate performance, although Madhesi Dalit and Madhesi Others each achieve 55.7%.

Regarding Picture Description, performance levels are comparatively lower across all groups. However, Himali/Pahadi Janajati students obtain the highest percentage (34.2%), while Madhesi Brahmin/Chhetri students record the lowest percentage (23.8%).

For Reading Comprehension, the highest achievement is observed among other Madhesi students (65.4%), followed by Himali/Pahadi Janajati (63.8%) and Himali/Pahadi Dalit (62.9%). The lowest percentage is reported among Madhesi Brahmin/Chhetri students (53.9%).

The findings suggest that Himali/Pahadi Janajati students consistently perform better across most literacy competencies, especially in word identification, dictation, vocabulary, and picture description. However, in reading comprehension, other Madhesi students demonstrate the strongest performance.

Table 9: Students' achievement in sub-tasks of reading by caste/ethnicity

Sub-task of Reading	WI	Dictations	Vocabulary	PD	RC
Madhesi Brahmin/Chhetri	58.6	34.7	49.3	23.8	53.9
Madhesi Janajati	61.7	35.0	51.2	24.6	57.8
Madhesi Dalit	55.7	31.3	55.7	24.3	60.1
Madhesi Others	62.6	33.5	55.7	26.8	65.4
Himali/Pahadi Brahmin/Chhetri	57.3	40.9	54.5	30.8	57.6
Himali/Pahadi Janajati	69.6	50.5	62.1	34.2	63.8
Himali/Pahadi Dalit	62.9	44.7	59.8	31.7	62.9
Himali/Pahadi Others	64.9	44.6	57.7	29.8	58.7

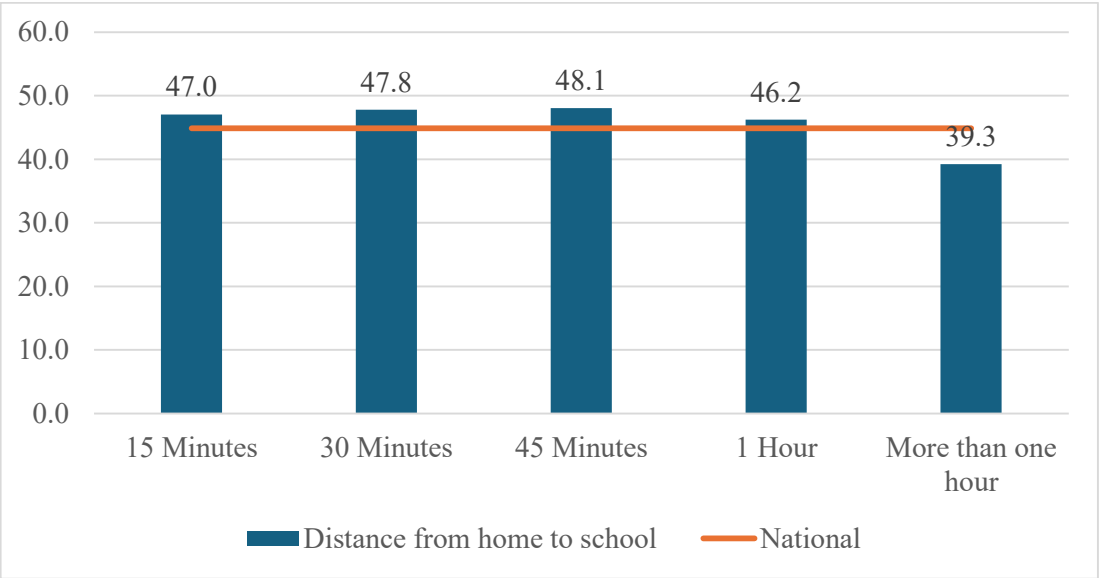
[Note: WI = word identification; PD = picture description; RC = reading comprehension]

4.8 Achievements in Reading by Distance of School from Home

The data on reading achievement by distance from home to school show a general trend where students with shorter or moderate travel times perform better than those with long commutes. The highest achievement score is observed among students who travel 45 minutes (48.1%) and 30 minutes (47.8%), slightly above those who travel 15 minutes (47.0%) or 1 hour (46.2%).

However, there is a sharp drop for students who travel more than one hour, with an average score of 39.3%, significantly below the national average of 44.9%. This suggests that long travel distances may negatively affect students' learning due to fatigue, irregular attendance, or reduced study time at home.

Figure 30: Achievement in reading by distance of school from home



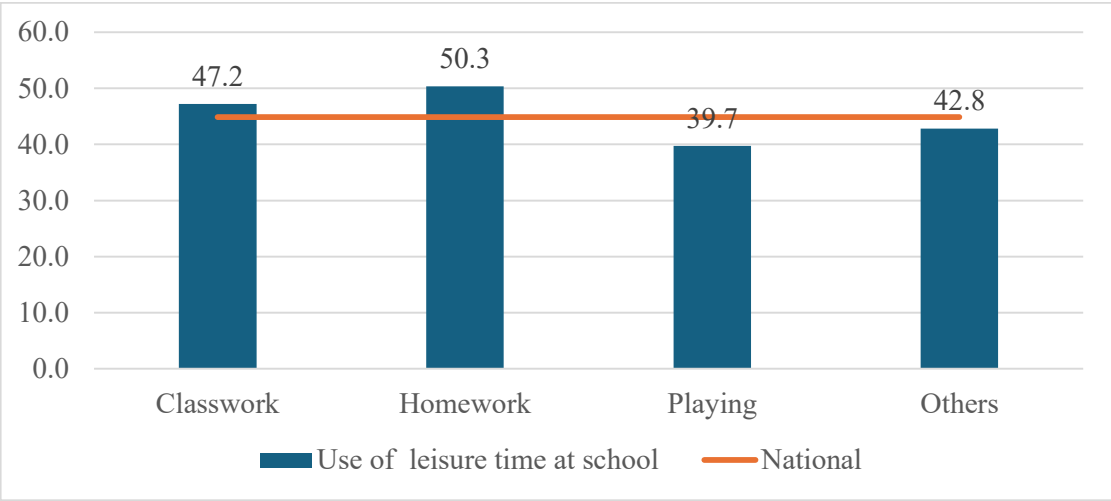
4.9 Achievements in Reading by Use of Leisure Time at School

The data on how students use their leisure time during periods when there are no classes show a strong relationship between academic engagement and reading achievement. Students who spend their free time doing homework have the highest average reading score at 50.3%, followed by those engaged in classwork at 47.2%, both above the national average of 44.9.

In contrast, students who spend their leisure time playing have a significantly lower score of 39.7%, and those involved in other activities score 42.8%, both falling below the national average.

This pattern suggests that students who use their free time for academic purposes tend to perform better in reading. It highlights the value of encouraging effective time management and structured learning support during school hours to improve outcomes.

Figure 31: Achievement in reading by use of leisure time at school

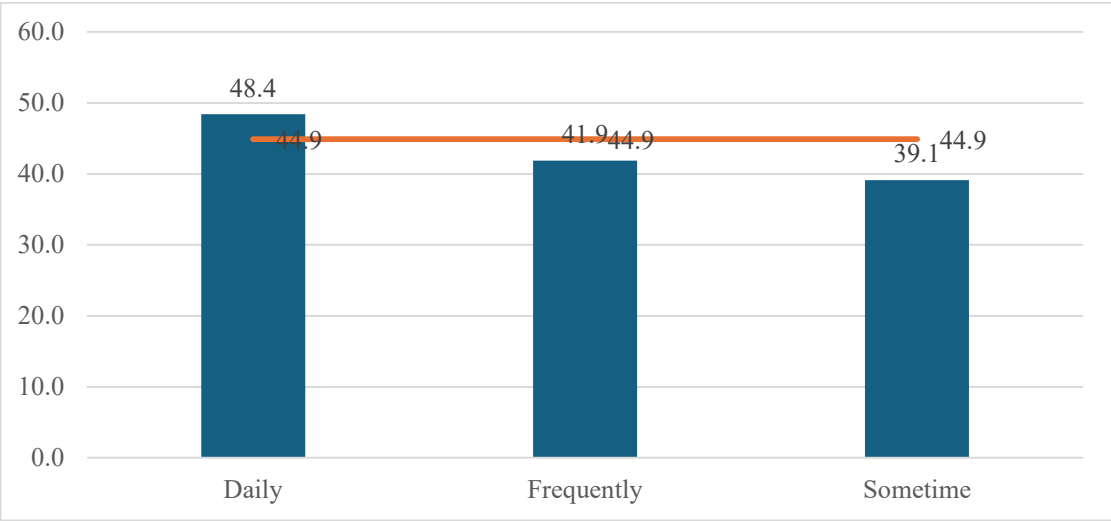


4.10 Achievements in Reading by Availability of Midday Meal at School

The study on reading achievement and availability of midday meals at school shows a positive relationship between consistent meal provision and student performance. Students who receive midday meals daily have the highest average reading score of 48.4%, which is above the national average of 44.9%. In comparison, students who receive midday meals frequently but not daily scored lower at 41.9%, and those who receive midday meals only sometimes scored the lowest at 39.1%.

This suggests that regular access to nutritious meals at school may support better concentration and learning, leading to improved reading outcomes. It highlights the importance of reliable school feeding programs as part of a comprehensive approach to enhancing student achievement.

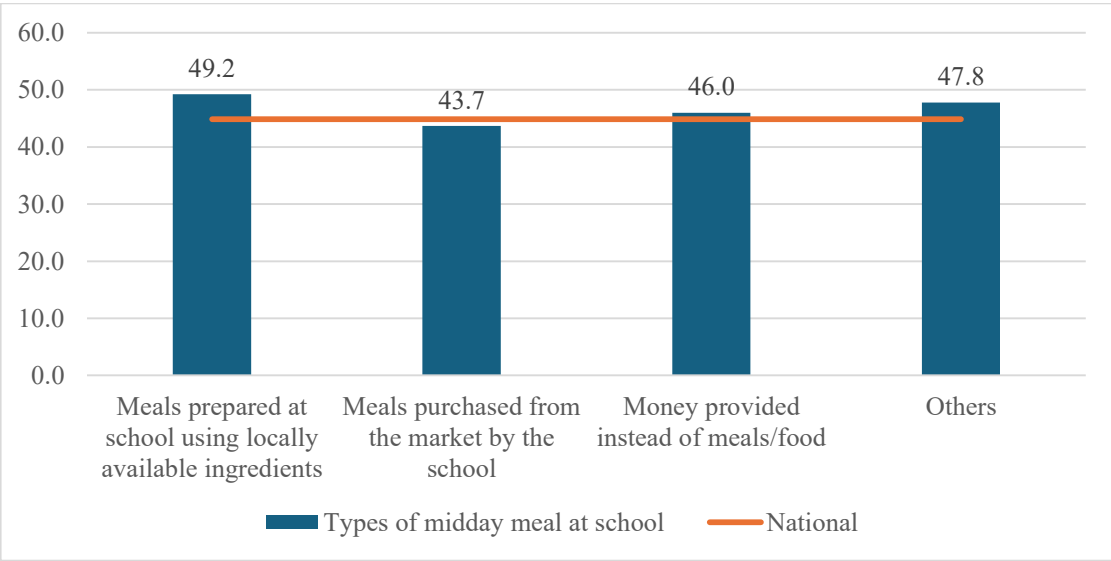
Figure 32: Achievement in reading by availability of midday meal at school



Achievements in Reading by Types of Midday Meal Provided at School

The achievement scores in reading vary according to the types of midday meals provided by schools. Students who received meals prepared at school using locally available ingredients scored the highest, with an achievement score of 49.2%. Those whose schools bought meals from the market had a slightly lower score of 43.7%. In cases where schools provided money instead of meals or food, the achievement score was 46.0%. Other types of midday meal arrangements resulted in an achievement score of 47.8%. This suggests that the type of midday meal provision may influence students’ reading performance, with locally prepared meals associated with higher achievement scores.

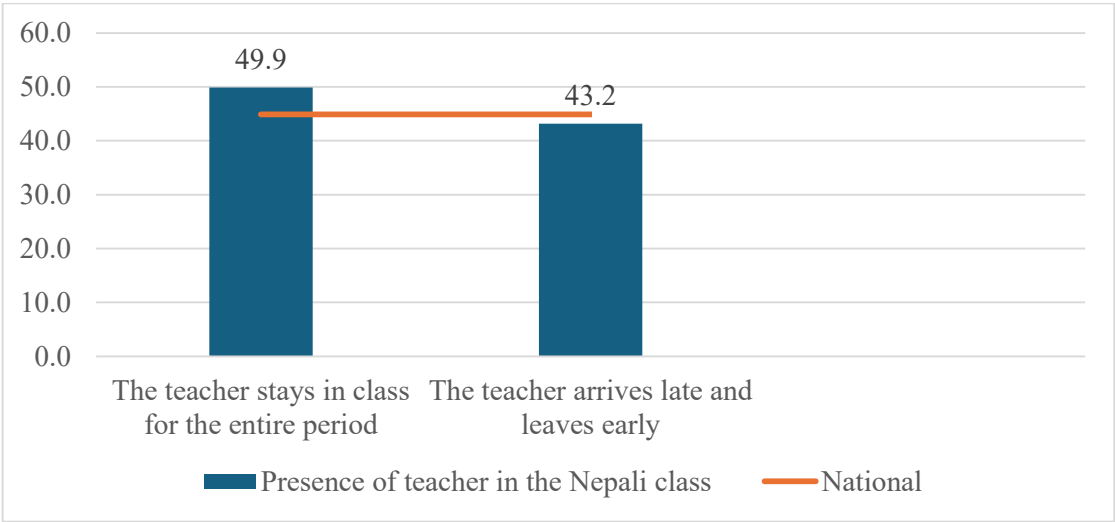
Figure 33: Achievement in reading by types of midday meal provided at school



4.11 Achievements in Reading Time Spent by the Teacher in the Classroom

The achievement scores in reading also differ depending on whether the teacher is present in the Nepali class. Students whose teacher stayed in class for the entire period achieved the highest reading score, at 49.9%. When the teacher arrived late and left early, the reading score dropped to 43.2%. These results suggest that consistent teacher presence during class time is positively associated with better reading achievement scores among students.

Figure 34: Achievement in reading time spent by the teacher in the classroom



4.12 Achievements in Reading and Students' Perception of the Teacher

The achievement scores in reading vary according to students' perceptions of their teachers' behaviors and attitudes. Students who strongly agree that their teacher teaches with care and affection have a reading score of 47.0%, which decreases progressively for those who agree (41.5%), disagree (35.1%), and strongly disagree (37.5%).

Similarly, students who strongly agree that teachers pay attention to students have a reading score of 47.5%, while those who strongly disagree score the lowest at 50.0%.

Regarding punishments, students who agree that teachers do not give punishments score the highest at 50.6%, with lower scores across other responses. When teachers take students to the library and encourage them to read a variety of books, the highest score is among those who agree (49.8%), followed by those who strongly agree (47.5%). A similar pattern emerges when teachers suggest reading additional books beyond the textbook, with the highest achievement score of 47.8% for strongly agree.

This suggests that positive teacher behaviors, such as care, attention, and encouragement to read beyond textbooks, are associated with higher reading achievement scores.

Table 10: Achievement in reading and students' perception towards the teacher

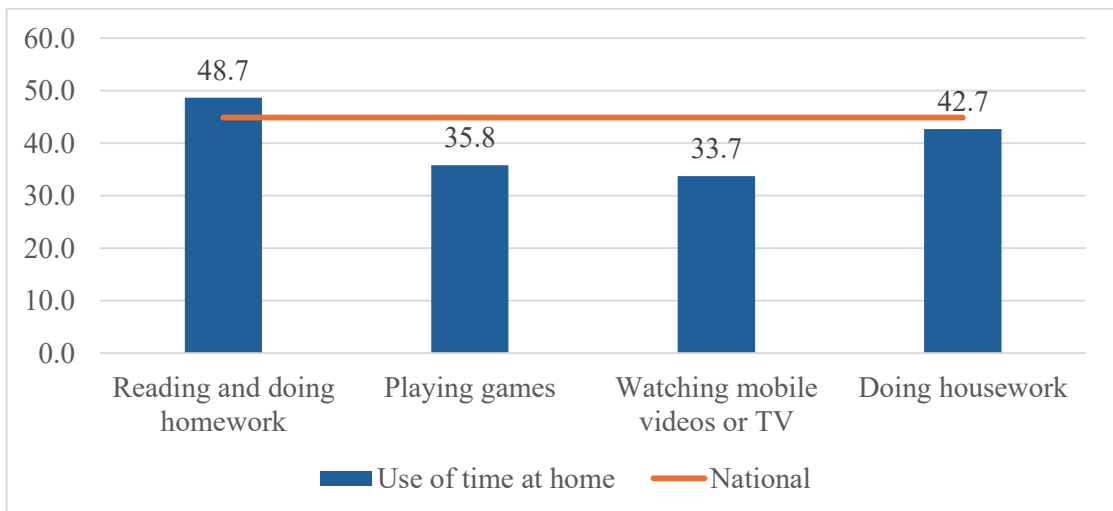
statement	Achievement score in reading			
	Strongly agree	Agree	Disagree	Strongly disagree
The teacher teaches with care and affection	47.0	41.5	35.1	37.5
Teachers pay attention to students	47.5	43.9	39.9	50.0
Teachers do not give punishments	46.4	50.6	47.7	45.4
Teachers take the students to the library and encourage them to read a variety of books	47.5	49.8	42.1	46.6
Teachers take the students to the library and suggest reading additional books beyond the textbook	47.8	46.1	46.3	46.7

4.13 Achievements in Reading by Students' Time Spent at Home

The achievement scores in reading vary depending on how students use their time at home. Those who spend their time reading and doing homework have the highest reading achievement score of 48.7%.

In contrast, students who spend their time playing games or watching mobile videos and TV have lower scores, with 35.8% and 33.7%, respectively. Students who engage in housework have a reading achievement score of 42.7%. This data suggests that dedicating time to reading and homework at home is linked to better reading performance, whereas more passive or recreational activities, such as gaming and watching videos, are associated with lower achievement scores.

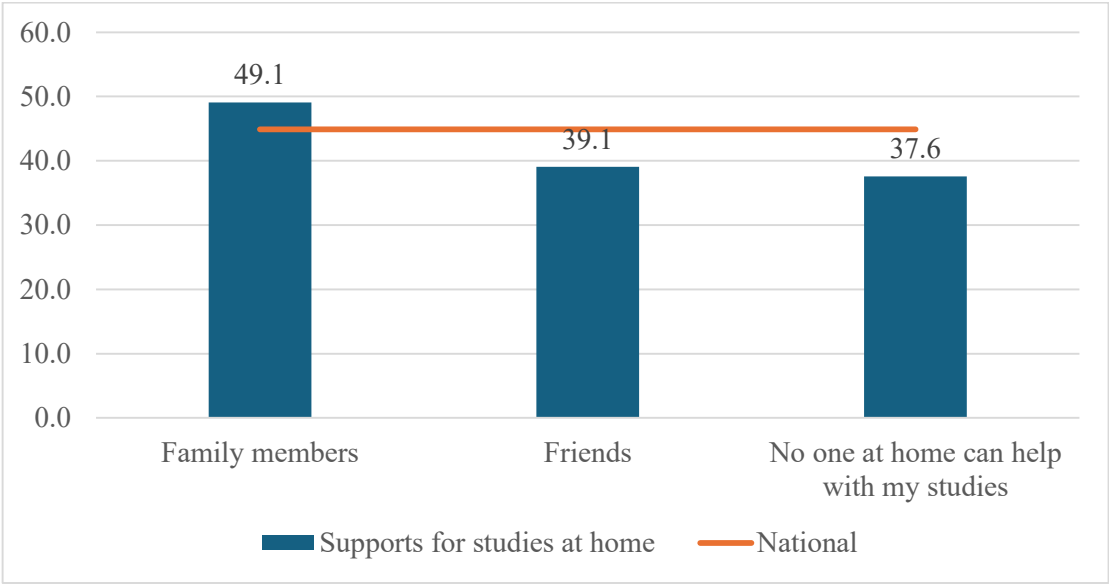
Figure 35: Achievement in reading by students' time spent at home



4.14 Achievements in Reading by Support Received for Study at Home

The achievement scores in reading differ by the type of support students receive for their studies at home. Students who receive help from family members have the highest reading achievement score of 49.1%. Those who get support from friends have a lower score of 39.1%, while students who report that no one at home can help them with their studies have the lowest score of 37.6%. This indicates that family support plays a significant role in enhancing students’ reading performance, whereas a lack of support or reliance solely on friends is linked to lower achievement.

Figure 36: Achievement in reading by support received for study at home



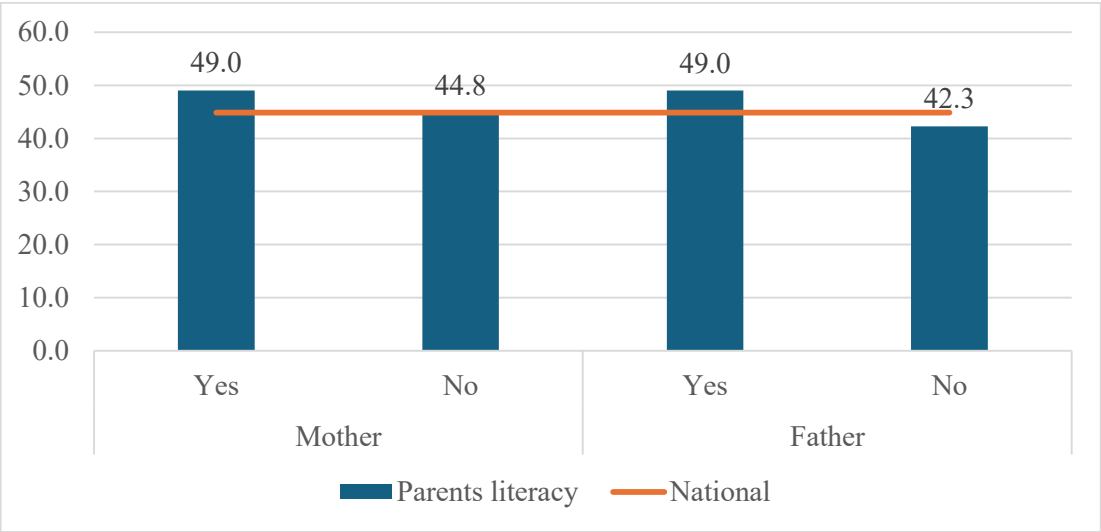
4.15 Achievements in Reading by Parents’ Literacy and Engagement

Achievements in reading by parental literacy

The achievement scores in reading are influenced by students' parents' literacy status. Students whose mothers can read and write have a higher reading achievement score of 49.0%, compared to 44.8 % for those whose mothers cannot read and write.

Similarly, students whose fathers are literate also score 49.0% in reading, while those with fathers who cannot read and write score 42.3%. These findings suggest that parental literacy, both mothers’ and fathers’, is positively associated with better reading achievement among students.

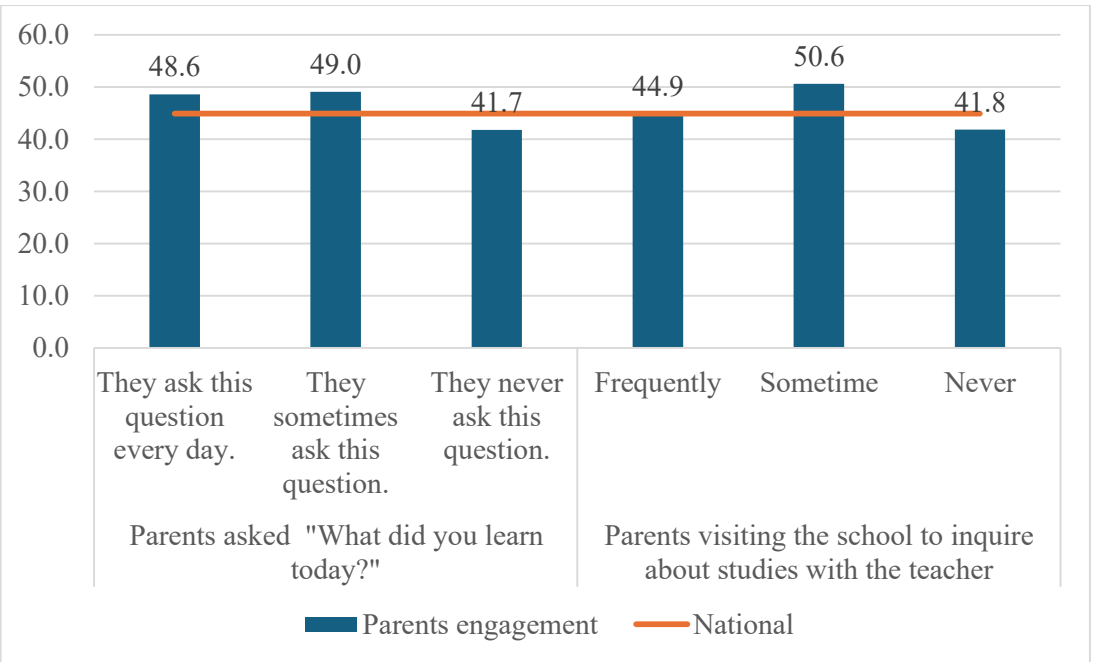
Figure 37: Achievement in reading by parental literacy



Achievements in reading by parental engagement

The achievement scores in reading show some variation based on parental involvement in students' learning. Every day, when parents ask their children, “What did you learn today?”, the reading achievement score is 48.6%, and it is slightly higher, at 49.0%, when parents ask this question sometimes. However, students whose parents never ask this question have a notably lower score of 41.7%.

Figure 38: Achievement in reading by parental engagement



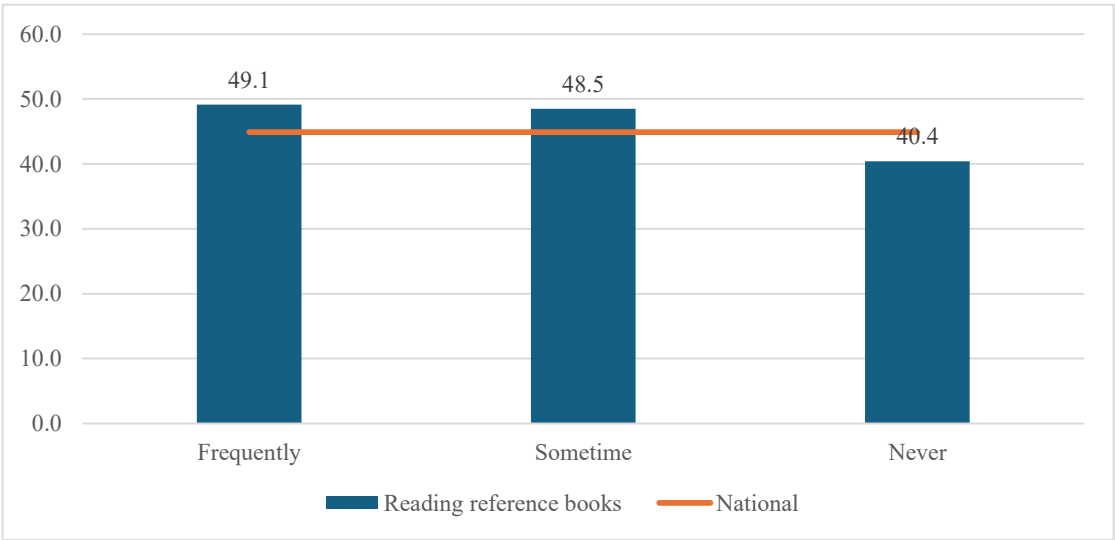
Regarding parents visiting the school to inquire about their children’s studies, students whose parents visit sometimes have the highest reading score (50.6%), followed by those whose parents visit frequently (44.9%). Students whose parents never visit the school score the lowest at 41.8%.

These results highlight the importance of parental engagement, showing that even occasional involvement can positively impact students' reading achievement.

4.16 Achievements in Reading by Students’ Reading Habit of Reference Books

The achievement scores in reading are influenced by students’ habits of reading books beyond their textbooks.

Figure 39: Achievement in reading by students’ reading habit of reference books



Those who frequently read additional books have the highest reading achievement score, at 49.1%, followed closely by students who read sometimes, at 48.5%. Students who never read books beyond their textbooks have a significantly lower score of 40.4%. This indicates that engaging in additional reading beyond the prescribed textbooks is associated with better reading performance.

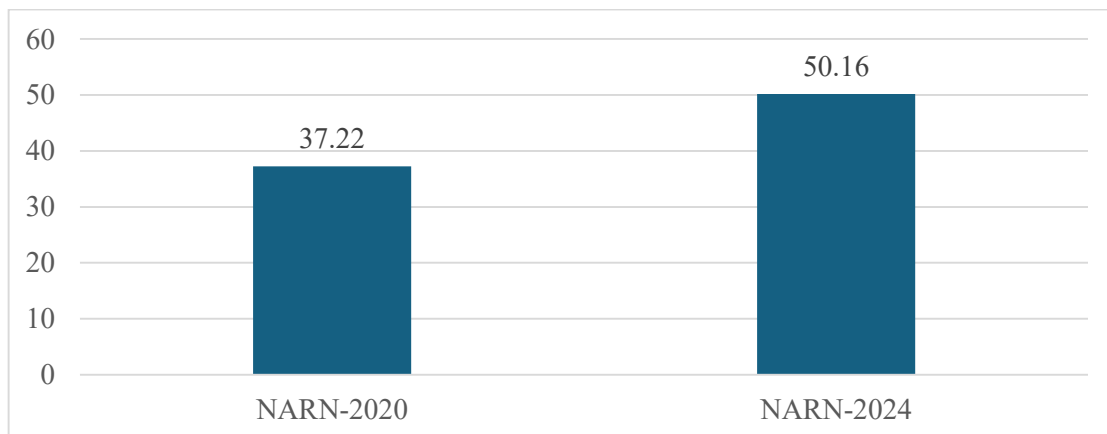
CHAPTER V

FINDINGS ON STUDENT ACHIEVEMENT IN NUMERACY

5.1 Achievement in Numeracy

The findings on students' overall achievement in numeracy show a significant improvement between the National Assessment of Reading and Numeracy (NARN) cycles of 2020 and 2024. In 2020, the average numeracy score was 37.22%, while in 2024, it increased to 50.16%. This reflects a notable gain of 12.94% points, suggesting positive progress in students' mathematical understanding and skills over the four years. The improvement could be attributed to enhanced teaching practices, better learning resources, increased parental engagement, or targeted interventions in numeracy education.

Figure 40: Achievement in Numeracy



5.2 Achievements in Sub-tasks of Numeracy

The numeracy score consists of eight different sub-tasks: Geometric Shapes Identification, Angle Identification, Number Identification (Sense), Use of (Basic mathematical) Arithmetic Operation, Fraction, Clock Reading (Time), Currency Identification, and Reading Simple Graph.

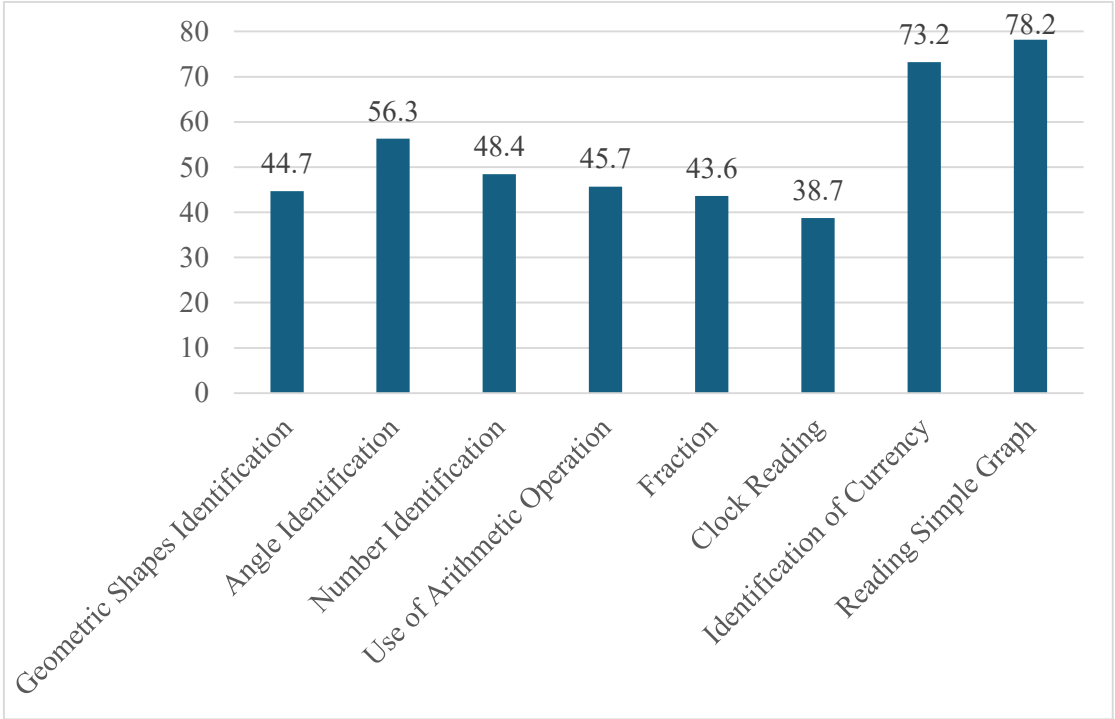
The breakdown of students' achievements across various numeracy sub-tasks reveals varying levels of competency in different mathematical skills. Students performed best in tasks related to reading Simple Graphs (78.2%) and Identification of Currency (73.2%), indicating strong practical and real-life skills.

Moderate achievement was observed in Angle Identification (56.3%), Number Identification (Number sense) (48.4%), and Use of (Basic mathematical) Arithmetic Operations (45.7%), suggesting foundational understanding but with room for improvement.

On the lower end, students showed weaker performance in Geometric Shapes Identification (44.7%), Fractions (43.6%), and particularly Clock Reading (Time) (38.7%), which points to challenges in abstract or applied mathematical concepts.

These findings suggest that students are good at interpreting visuals and real-world applications; however, there is a clear need to strengthen conceptual understanding in geometry, arithmetic operations, and time-related tasks.

Figure 41: Achievement in sub-tasks of numeracy



When compared with international frameworks such as EGMA and *International Common Assessment of Numeracy* (ICAN), the NARN sub-task performance reveals both alignment and domain-specific wait. The EGMA toolkit (RTI International, 2014) emphasizes foundational domains like Number Identification and Arithmetic Operations as stepping stones for later mathematical reasoning. In NARN, students perform moderately in those domains (48.4% for Number Sense/Identification; 45.7% for Mathematical/Arithmetic Operations), confirming that the arithmetic core is accessible to some learners. However, NARN also includes extension domains: Geometric Shapes, Clock Reading, and Fractions, that fall into more abstract or applied reasoning spaces. These domains show notably weaker performance (44.7%, 38.7%, and 43.6%, respectively), consistent with international observations that, after students master arithmetic, they often struggle to transfer their skills to geometric, measurement, time, or data tasks. International assessment efforts such as ICAN (PAL Network, e.g., ICAN 2020) incorporate geometry, measurement, and data domains into foundational numeracy assessments, underscoring that these domains are part of the global “next frontier” for numeracy development (PAL Network, 2022). The contrast suggests that while Nepal’s students have

some of the best performance in arithmetic, their performance drops off sharply when the tasks require reasoning in space, time, or representation, highlighting a need for curriculum and instruction to better scaffold the transition from arithmetic fluency to applied mathematical thinking.

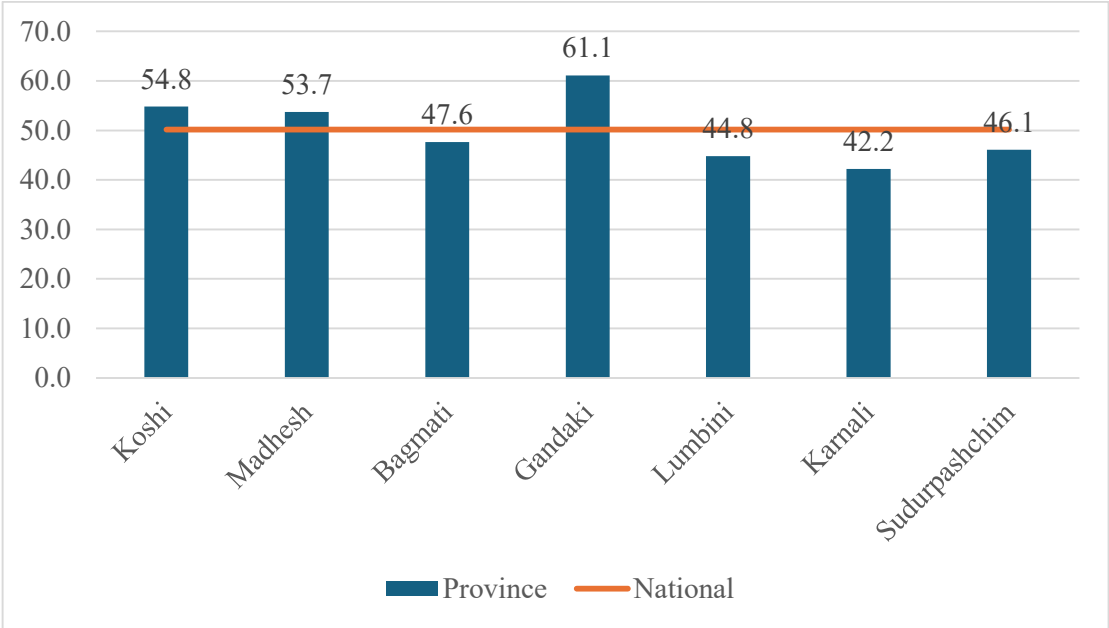
5.3 Achievements in Numeracy by Province

The provincial breakdown of numeracy achievement scores reveals noticeable regional disparities in student performance across Nepal. Gandaki Province recorded the highest average score at 61.1%, indicating strong numeracy skills among its students. Koshi (54.8%) and Madhesh (53.7%) also outperformed the national average of 50.2%, indicating positive outcomes in these provinces.

In contrast, Karnali (42.2%), Lumbini (44.8%), and Sudurpaschim (46.1%) showed lower achievement levels, highlighting areas that may require targeted support and intervention to improve learning outcomes. Bagmati Province, despite being home to the federal capital, scored 47.6%, slightly below the national average.

These variations suggest that educational policies, resource distribution, teacher quality, and socio-economic factors may be influencing student performance differently across provinces. Addressing these gaps will be crucial for promoting equity in education nationwide.

Figure 42: Achievement in numeracy by province



Achievements in sub-tasks of numeracy by province

The province-wise achievement in numeracy sub-tasks shows both strengths and weaknesses across different areas. Gandaki consistently performs the strongest, scoring highest in Number Identification (Number sense) (65.1%), Use of Basic mathematical/arithmetic Operations

(55.8%), Fractions (53.3%), Identification of currency (79.5%), and Reading Simple Graphs (87.9%). Koshi also performs well, especially in reading simple graphs (84.1%) and currency identification (74.0%). Madhesh shows strengths in angle identification (68.1%) and currency identification (75.3%), though it lags behind Gandaki in other sub-tasks.

On the other hand, Karnali and Sudurpaschim have overall low performance, with Karnali scoring the lowest in geometric shapes identification (29.3%), number identification (40.9%), fractions (35.9%), and clock reading (25.9%). Lumbini also remains below average in most areas, except for a moderate result in currency identification (69.6%). Bagmati demonstrates mixed performance, performing better in currency identification and graph reading, but weakest in clock reading (28.8%).

Across all provinces, students perform best in identifying currency and reading simple graphs, with these tasks scoring the highest overall. In contrast, clock reading and geometric shapes are the weakest areas, reflecting challenges in applied and visual numeracy skills. Overall, the data highlight Gandaki as the leader in numeracy achievement, Koshi and Madhesh showing moderate performance, and Karnali and Sudurpaschim as the most disadvantaged provinces that need targeted numeracy support.

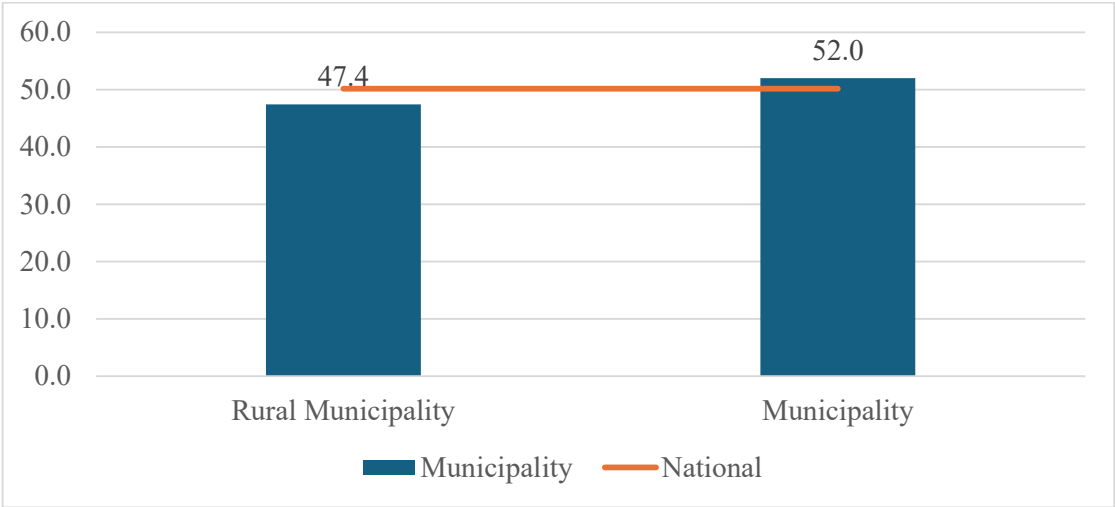
Table 11: Achievement in sub-tasks of numeracy by province

Sub-Task of Numeracy	Province						
	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur paschim
Geometric Shapes Identification	51.4	44.7	48.2	56.6	42.1	29.3	41.2
Angle Identification	63.3	68.1	44.0	56.4	48.9	46.2	49.3
Number Sense/Identification	54.2	48.4	50.9	65.1	41.3	40.9	46.0
Use of Mathematical/ Arithmetic Operation	48.1	52.8	40.7	55.8	38.7	37.2	40.8
Fraction	49.5	46.2	41.3	53.3	39.6	35.9	39.1
Clock Reading	43.1	47.7	28.8	45.4	36.3	25.9	29.9
Identification of Currency	74.0	75.3	71.2	79.5	69.6	69.1	74.0
Reading Simple Graph	84.1	76.3	76.5	87.9	76.5	77.9	75.7

5.4 Achievements in Numeracy by Municipality

The data comparing average numeracy achievement scores by municipality type reveal a performance gap between urban and rural areas. Students in Municipalities scored an average of 52.0%, which is 4.6% points higher than those in Rural Municipalities, who averaged 47.4%. This suggests that students in urban or semi-urban settings have better access to educational resources, qualified teachers, and supportive learning environments compared to their rural counterparts. The disparity highlights the need for targeted interventions in rural areas to ensure more equitable learning outcomes across different geographical settings.

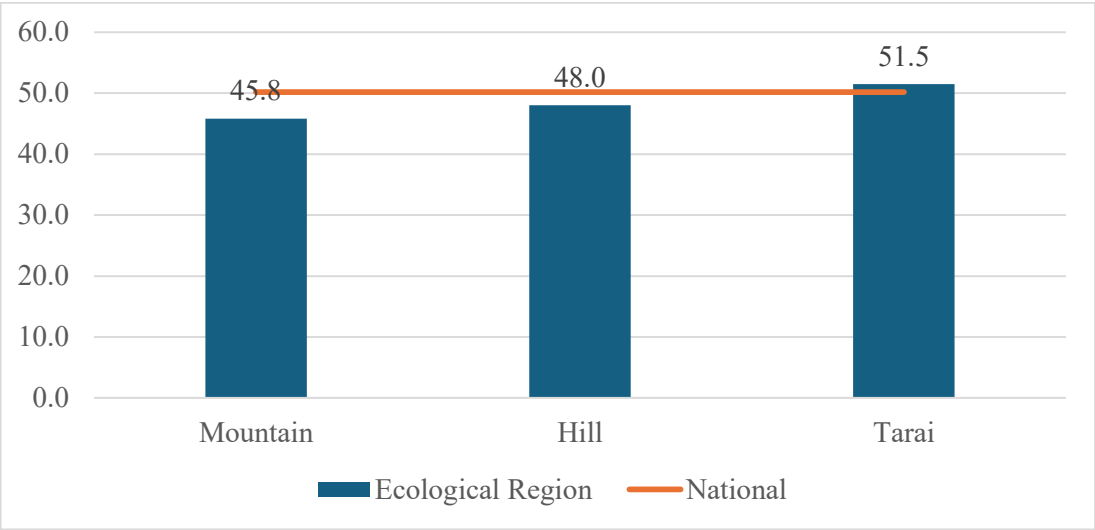
Figure 43: Achievement in numeracy by municipality



5.5 Achievements in Numeracy by Ecological Regions

The numeracy achievement scores across ecological regions show a gradual increase from the Mountain region to the Tarai. Students in the Tarai region performed best, with an average score of 51.5%, followed by the Hill region at 48.0% and the Mountain region at 45.8%, the lowest. This trend may reflect differences in accessibility, infrastructure, and availability of educational resources. Tarai’s higher performance could be linked to better school facilities and easier access to educational services, whereas students in the Mountain region may face greater challenges due to remoteness, limited infrastructure, and teacher shortages. These results underscore the importance of region-specific strategies to address educational inequities and support students in less-advantaged areas.

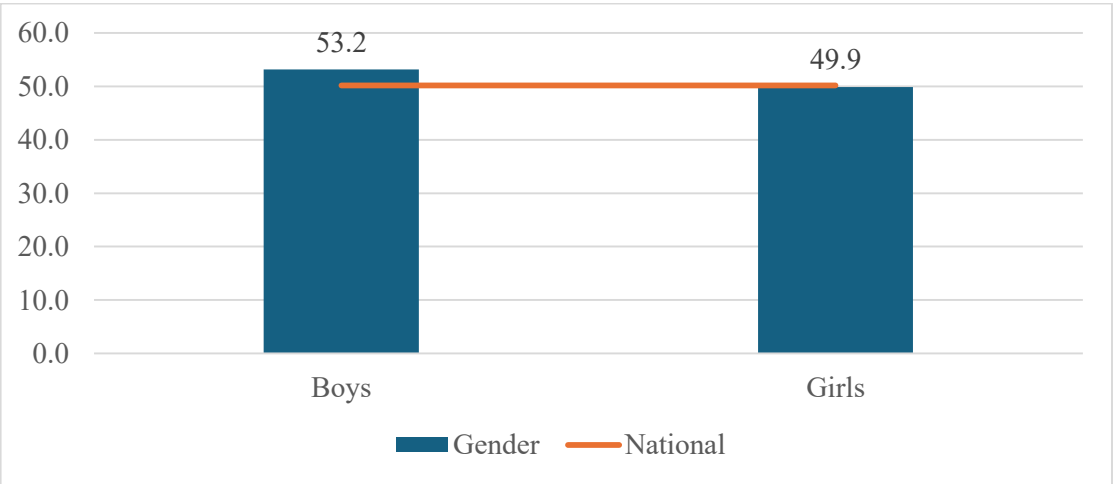
Figure 44: Achievement in numeracy by ecological regions



5.6 Achievements in Numeracy by Gender

The gender-wise comparison of numeracy achievement scores shows that boys outperformed girls, with an average score of 53.2% compared to 49.9%. This represents a gender gap of 3.3% points in favor of boys. While both groups are close to the national average (50.2%), the gap suggests that boys may have slightly better access to learning opportunities or greater confidence in numeracy-related tasks. This difference, although not very large, indicates a need to promote gender-responsive teaching practices and create supportive environments that encourage girls to develop stronger numeracy skills.

Figure 45: Achievement in numeracy by gender

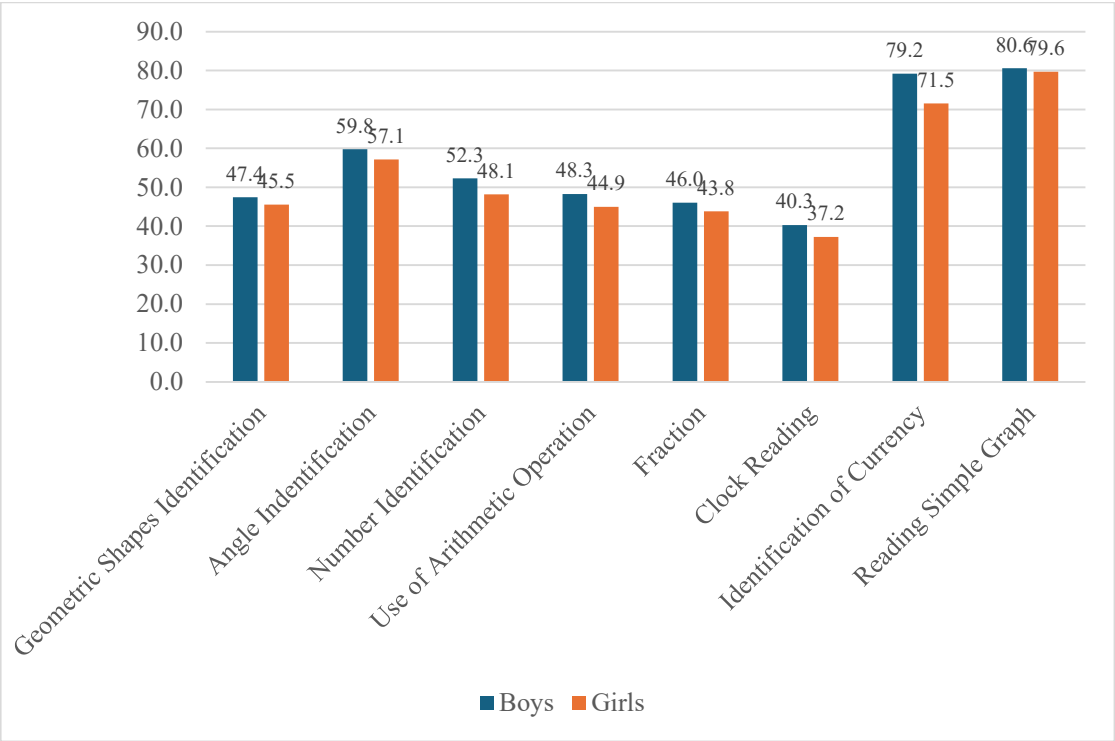


Achievements in sub-tasks of numeracy by gender

The gender-wise performance in numeracy sub-tasks shows that boys perform slightly better than girls across most areas. Boys outperform girls in geometric shapes identification (47.4% vs. 45.5%), angle identification (59.8% vs. 57.1%), number sense/identification (52.3% vs. 48.1%), use of arithmetic operations (48.3% vs. 44.9%), fractions (46.0 % vs. 43.8 %), and clock reading (40.3% vs. 37.2%). A noticeable gap is observed in currency identification, with boys scoring 79.2% and girls 71.5%. However, the difference in reading simple graphs is minimal (80.6% for boys vs. 79.6% for girls), indicating near parity.

The findings show that both boys and girls perform best at reading simple graphs and identifying currency, while their weakest areas are clock reading and fractions. The results indicate a consistent but small gender gap in favor of boys, suggesting that while boys show slightly stronger numeracy skills overall, the differences are not very large except in currency identification.

Figure 46: Achievement in sub-tasks of numeracy by gender



5.7 Achievements in Numeracy by Caste/Ethnicity

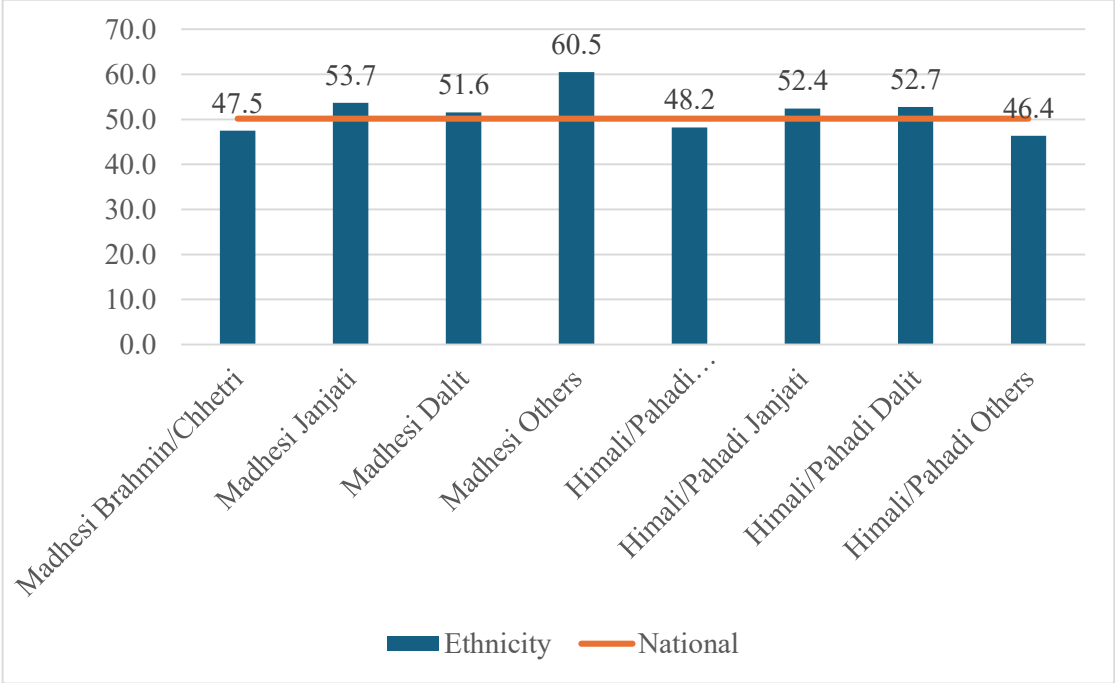
The numeracy achievement scores across ethnic groups show considerable variation, reflecting disparities influenced by socio-cultural, economic, and geographic factors. The distribution of numeracy performance across caste/ethnic groups shows noticeable differences among the categories. The highest percentage is observed among other Madheshi students (60.5%),

indicating comparatively stronger numeracy performance within this group. This is followed by Madhesi Janajati (53.7%), Himali/Pahadi Dalit (52.7%), and Himali/Pahadi Janajati (52.4%).

Students from Madhesi Dalit backgrounds also demonstrate a moderate level of numeracy performance, at 51.6%. In contrast, lower percentages are found among Himali/Pahadi Brahmin/Chhetri (48.2%) and Madhesi Brahmin/Chhetri (47.5%). The lowest numeracy percentage is recorded among Himali/Pahadi other students (46.4%).

The findings reveal that numeracy achievement varies across caste and ethnic groups, with Madhesi others students showing the strongest performance, while other Himali/Pahadi students demonstrate the lowest performance in numeracy.

Figure 47: Achievement in numeracy by caste/ethnicity



Achievements in sub-tasks of numeracy by caste/ethnicity

The data on numeracy sub-tasks across ethnic groups in Nepal reveal some level of disparities in student performance. The table shows variations in numeracy sub-task performance across different caste/ethnicity groups. Overall, the highest achievement levels are observed in practical numeracy skills such as daily-life mathematics, currency identification, and reading simple graphs, while comparatively lower performance is observed in fractions, clock reading, geometric shape identification, and arithmetic operations.

Among the groups, Madhesi Others consistently demonstrate the strongest performance across most numeracy sub-tasks. They achieved the highest scores in angle identification (67.8%), number sense/identification (58.3%), use of arithmetic operations (58.9%), fractions (53.0%), clock reading (52.0%), daily-life mathematics (82.9%), and currency identification (82.2%).

Similarly, Himali/Pahadi Janajati also perform strongly, particularly in geometric shape identification (52.1%), daily-life mathematics (82.4%), and reading simple graphs (85.5%), the highest score among all groups for graph reading.

In contrast, comparatively lower achievement is observed among Madhesi Brahmin/Chhetri and Himali/Pahadi Others in several foundational numeracy skills. Madhesi Brahmin/Chhetri record the lowest scores in geometric shape identification (40.5%), fraction (41.4%), and clock reading (35.0%), while Himali/Pahadi Others show the lowest performance in use of arithmetic operations (39.5%), identification of currency (63.4%), and daily life mathematics (71.7%).

The results also indicate that practical and contextual numeracy tasks are generally easier for students across all groups than abstract mathematical concepts. For example, most groups scored above 70% in daily-life mathematics, currency identification, and graph reading, whereas scores for fractions and clock reading remained below 55% across all groups. This suggests that students are relatively more comfortable applying mathematics in familiar real-life contexts than performing conceptual or procedural mathematical tasks.

Furthermore, disparities among caste/ethnicity groups are evident, particularly in higher-order numeracy skills such as fractions, arithmetic operations, and graph interpretation. The gap between the highest and lowest-performing groups is notable, indicating unequal learning outcomes and differences in educational opportunities, learning environments, or socio-economic conditions across groups.

Table 12: Achievement in sub-tasks of numeracy by ethnicity

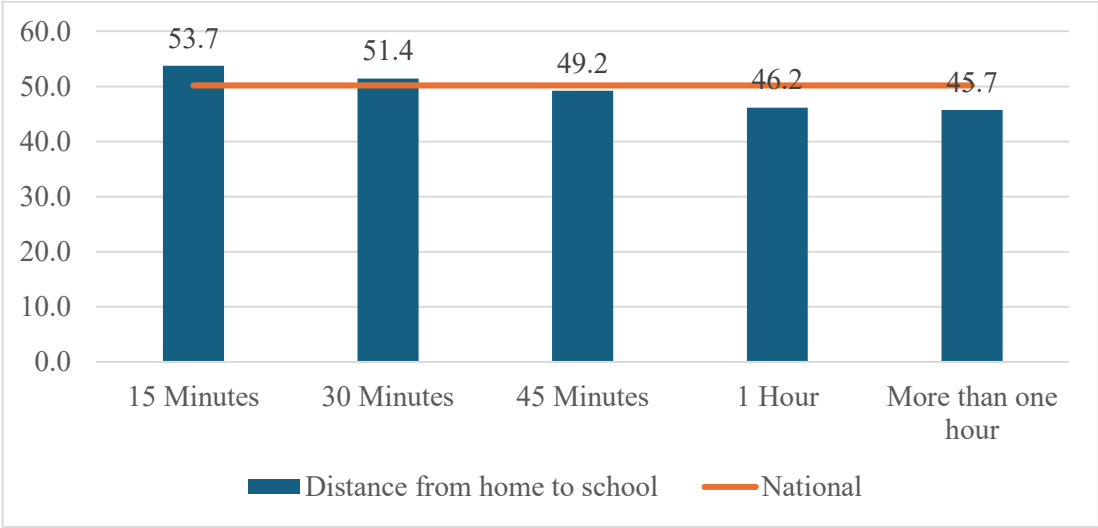
Sub-Task of Numeracy by Caste/Ethnicity	Geometric Shapes Identification	Angel Identification	Number Sense/ Identification	Use of Arithmetic Operation	Fraction	Clock Reading	Daily Life Mathematics	Identification of Currency	Reading a Simple Graph
Madhesi Brahmin/Chhetri	40.5	53.0	44.8	43.6	41.4	35.0	75.6	74.1	76.3
Madhesi Janajati	44.5	62.1	50.7	50.7	45.8	45.2	79.5	76.8	80.9
Madhesi Dalit	49.5	63.5	47.4	47.5	45.3	39.1	79.3	78.1	79.9
Madhesi Others	48.7	67.8	58.3	58.9	53.0	52.0	82.9	82.2	83.2
Himali/ Pahadi Brahmin/Chhetri	43.4	49.3	47.7	43.5	41.1	34.4	76.1	72.1	78.2
Himali/ Pahadi Janajati	52.1	55.3	52.6	44.2	46.5	39.1	82.4	76.3	85.5
Himali Pahadi Dalit	45.7	62.4	51.8	46.1	47.7	38.7	81.4	76.5	83.9
Himali/Pahadi Others	46.4	46.7	46.9	39.5	41.7	33.9	71.7	63.4	75.9

5.8 Achievements in Numeracy by Distance of School from Home

The figure below, which shows numeracy achievement scores by distance from home to school, shows a clear decline in performance as travel time increases. Students who live within 15 minutes of their school achieved the highest average score of 53.7%, while those who travel more than 1 hour scored the lowest at 45.7%.

This pattern suggests that shorter travel distances may contribute to better learning outcomes, due to reduced fatigue, more time for study and rest, and increased regularity in attendance. In contrast, students with longer commutes may face physical strain, tiredness, and less time for homework or revision, all of which can negatively impact performance.

Figure 48: Achievement in numeracy by distance of school from home

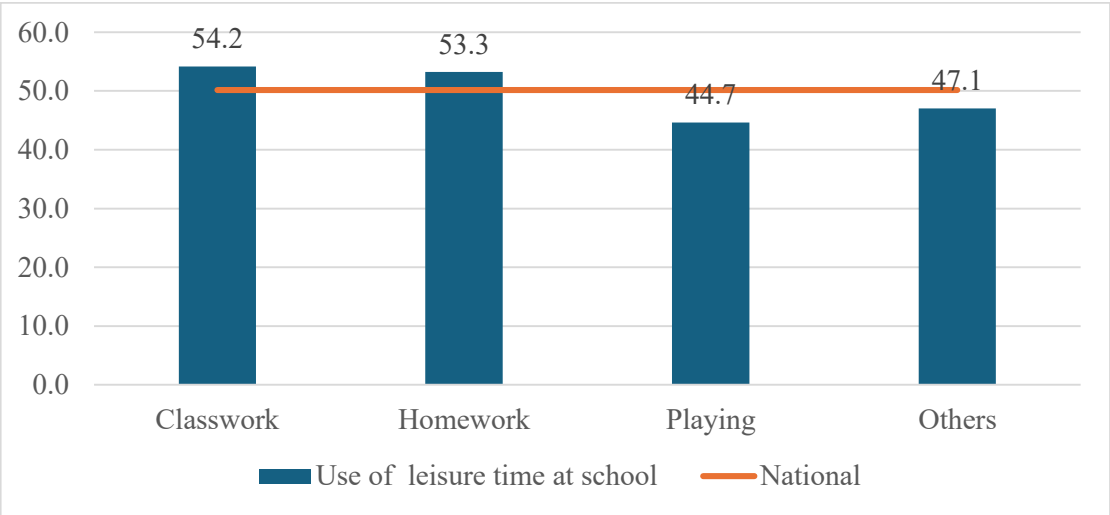


5.9 Achievements in Numeracy by Use of Leisure Time at School

The findings on how students use their leisure time reveal a strong correlation between academically focused activities and higher numeracy achievement. Students who spent their free time doing classwork scored the highest, with an average of 54.2%, followed closely by those doing homework at 53.3%, both well above the national average of 50.2%.

In contrast, students who spent their time playing had a significantly lower average score of 44.7%, while those engaged in other activities scored 47.1%. This suggests that students who utilize free periods for academic tasks tend to perform better in numeracy, highlighting the value of reinforcing learning during school hours. It also emphasizes the need for schools to encourage productive use of in-between-class time to support improved academic outcomes.

Figure 49: Achievement in numeracy by use of leisure time at school

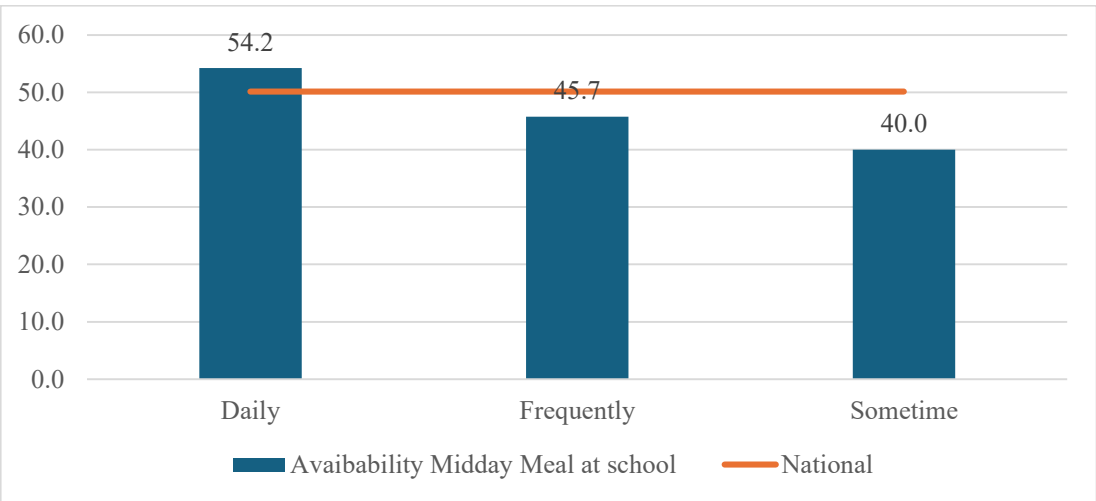


5.10 Achievements in Numeracy by Availability of Midday Meal at School

The findings on the availability of midday meals at school indicate a strong association between regular school meals and numeracy achievement scores. Students who receive the midday meal daily scored the highest, with an average of 54.2%, well above the national average of 50.2%.

In comparison, those who receive midday meals frequently (but not daily) scored 45.7%, and students who get midday meals only sometimes had the lowest score of 40.0%. This trend suggests that consistent access to school meals may positively impact students’ concentration, energy levels, and overall academic performance. The findings highlight the importance of ensuring regular, reliable school meal programs, particularly in low-resource settings, to support both health and learning outcomes.

Figure 50: Achievement in numeracy by availability of midday meal at school

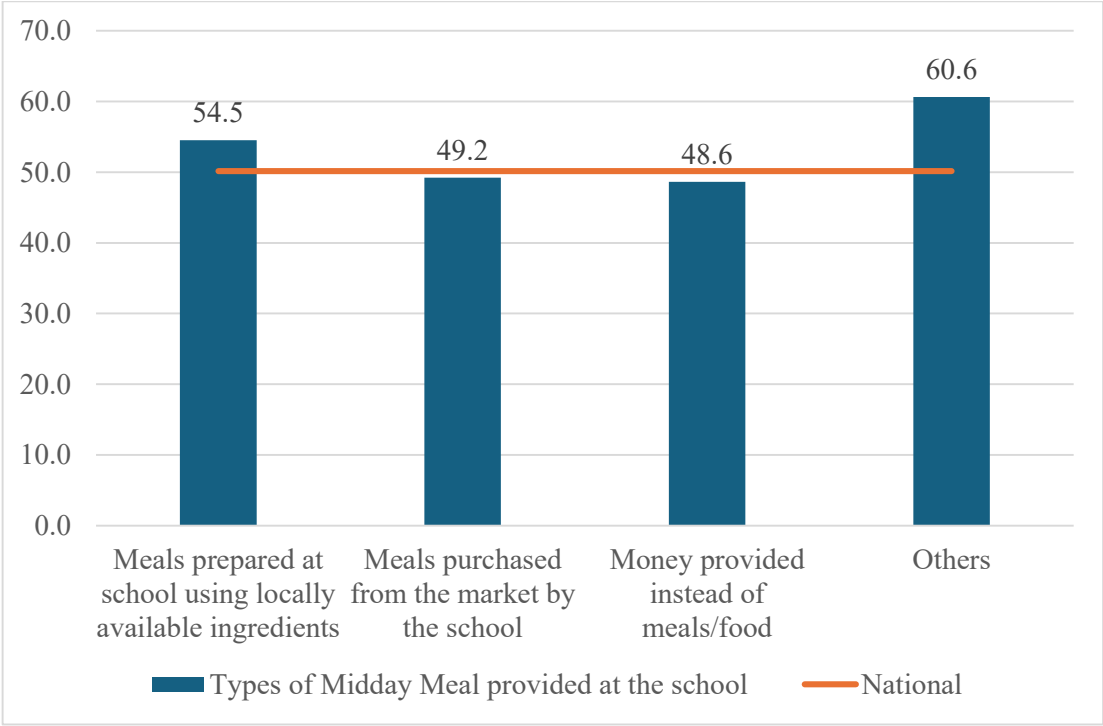


The students' numeracy achievement is further examined in relation to the types of midday meals provided by the school. The findings on the types of midday meals provided by schools and their relation to numeracy achievement show that meals prepared at school using locally available ingredients are associated with the highest student performance among standard meal types, with an average score of 54.5%. This suggests that freshly prepared, locally sourced meals may contribute to better student health and concentration, positively influencing learning outcomes.

In contrast, students receiving meals purchased from the market and those given money instead of food scored lower, with average scores of 49.2% and 48.6%, respectively—both below the national average.

The findings support the effectiveness of school-prepared meals using local ingredients over alternative methods, reinforcing the value of investing in sustainable and nutritious school feeding programs.

Figure 51: Achievement in numeracy by types of midday meal provided at school



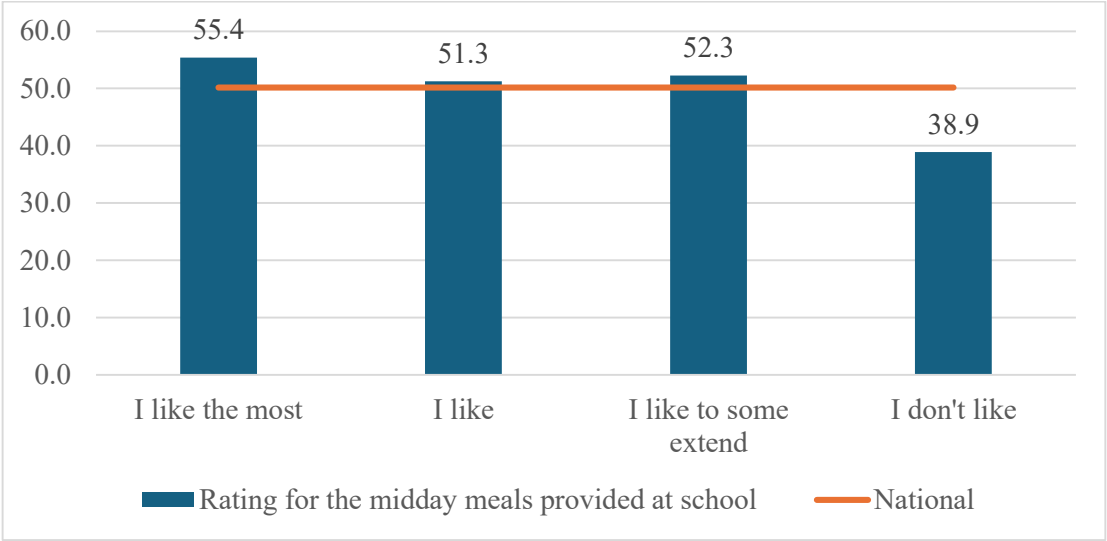
5.11 Achievements in Numeracy by Students Rating of the Midday Meal Provided at School

The students' numeracy achievement is also examined alongside their ratings of the school's midday meal. The data on students' ratings of school-provided meals and corresponding numeracy achievement scores show a clear link between meal satisfaction and academic

performance. Students who reported liking the meals the most had the highest average score, 55.4%, followed by those who liked them (51.3%) and those who liked them (52.3%).

In contrast, students who did not like the meals scored significantly lower, at 38.9%, well below the national average of 50.2%. This data suggests that students' enjoyment and satisfaction with school meals may contribute positively to their focus, well-being, and academic outcomes. It highlights the importance of providing not only nutritious but also appealing meals, as student preferences can influence the effectiveness of school feeding programs and learning performance.

Figure 52: Achievement in numeracy by their rating of the midday meal provided at school

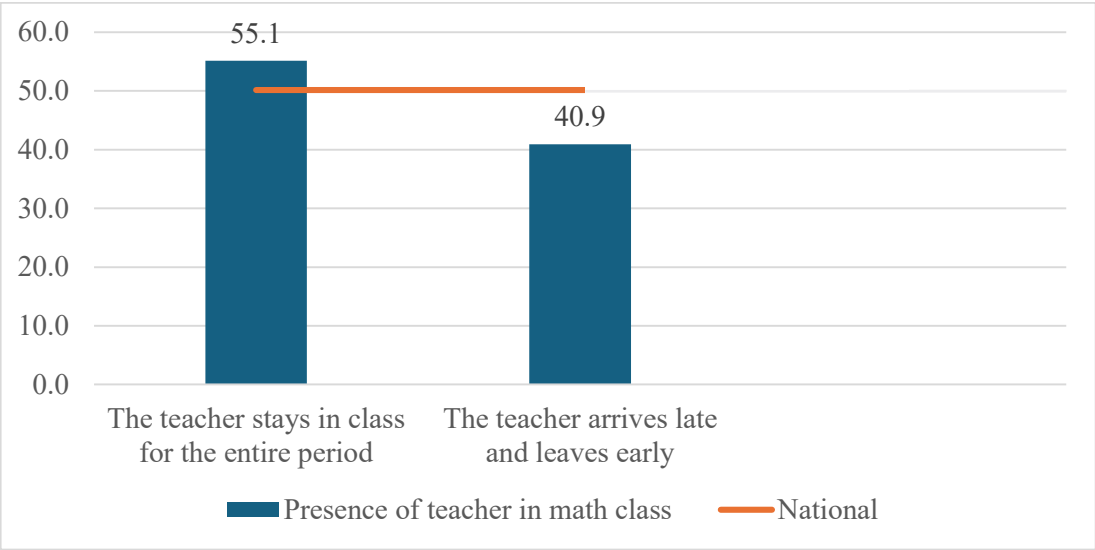


5.12 Achievements in Numeracy by Presence of Teacher in Math Class

The figure below clearly shows the impact of teacher presence in math class on students' numeracy achievement. Students whose teachers stayed in class for the entire period scored the highest, with an average of 55.1%, significantly above the national average (50.16%). This indicates that consistent and full teacher engagement during class time positively affects learning outcomes.

In contrast, when the teacher arrives late and leaves early, students' performance drops to 40.9%, and when the teacher does not come to class. These findings underscore the critical role of teacher regularity and time on task in improving students' numeracy achievement scores.

Figure 53: Achievement in numeracy by the presence of a teacher in math class



5.13 Achievements in Numeracy and Their Perception Towards the Teacher

The findings reveal a clear relationship between students’ perceptions of their teachers’ behaviors and their achievement scores. Students who strongly agree that their teachers teach with care and affection tend to have higher scores (52.9%) than those who disagree or strongly disagree, indicating that a supportive teacher-student relationship positively influences learning. Similarly, students who feel that teachers pay attention to them also perform better, with the highest achievement among those who strongly agree (53.5 %).

Interestingly, perceptions about teachers not giving punishments show little variation in scores, suggesting that disciplinary practices may have less direct impact on numeracy achievement. On the other hand, students who agree or strongly agree that teachers take them to the library and encourage them to read a variety of books tend to score higher, highlighting the importance of exposure to diverse reading materials. Furthermore, students who report that teachers suggest reading additional books beyond the textbook also show better performance, emphasizing how encouragement for supplementary reading supports academic success. Overall, the findings underline that positive, attentive, and resource-rich teaching practices are closely linked to improved student achievement.

Table 13: Achievement in numeracy and their perception towards the teacher

Statement	Achievement score			
	Strongly agree	Agree	Disagree	Strongly disagree
The teacher teaches with care and affection	52.9	43.5	35.0	45.7
Teachers pay attention to students	53.5	49.1	45.7	47.2
Teachers do not give punishments	52.2	55.0	52.9	52.2

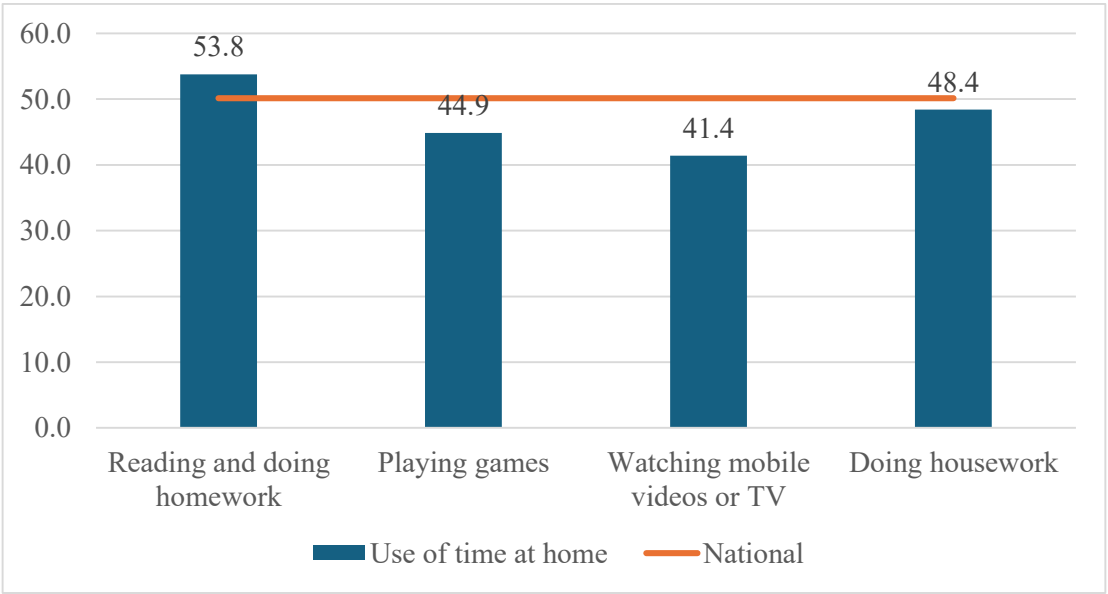
Statement	Achievement score			
	Strongly agree	Agree	Disagree	Strongly disagree
Teachers take the students to the library and encourage them to read a variety of books	52.9	55.9	49.6	50.6
Teachers take the students to the library and suggest reading additional books beyond the textbook	54.2	54.5	46.2	47.8
The math teacher makes learning fun by engaging us in games	55.5	50.9	47.2	46.5

5.14 Achievements in Numeracy by Students' Time Spent at Home

The study also examined the relationship between time spent at home and their numeracy achievement score. The figure below shows how students spend most of their time at home, revealing a strong connection between academic activities and higher achievement scores. Students who spend their time reading and doing homework have the highest average achievement score, at 53.8%, indicating that dedicating time to study-related tasks outside school significantly supports their learning.

In contrast, students who spend most of their time playing games or watching mobile videos or TV have lower scores of 44.9% and 41.4%, respectively, suggesting that leisure activities unrelated to academics may negatively impact their numeracy performance. Those who spend time on housework score higher at 48.4%, but are still below students focused on reading and homework. This highlights the importance of encouraging students to engage in productive, study-oriented activities at home to improve academic outcomes.

Figure 54: Achievement in numeracy by students' time spent at home

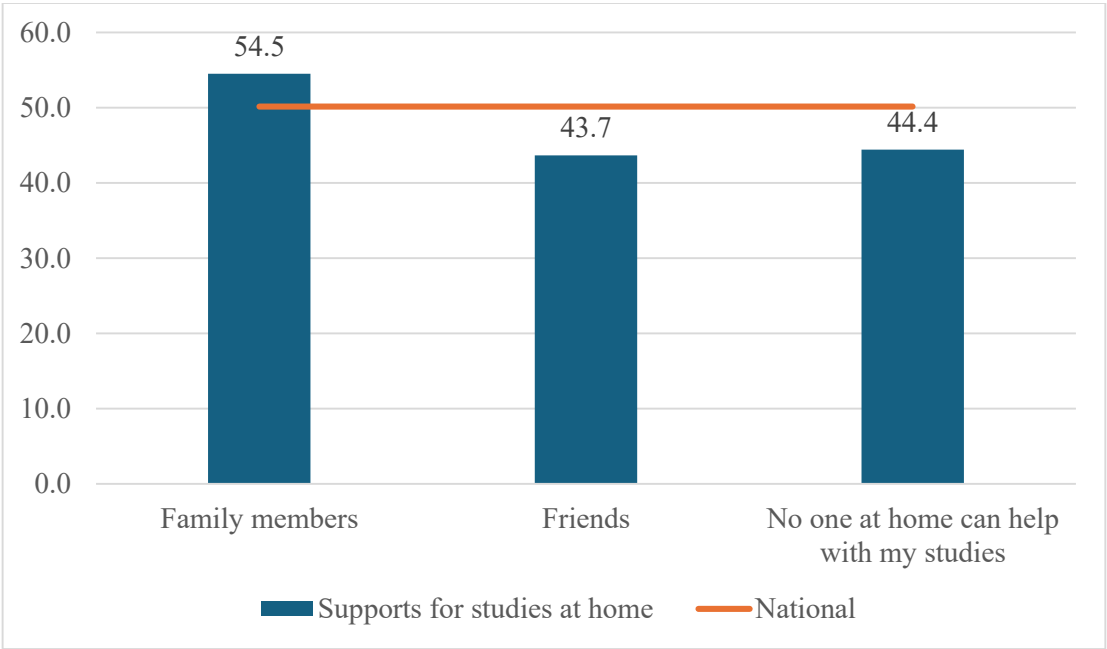


5.15 Achievements in Numeracy by Support Received for Study at Home

The findings also examined the relationship between students' numeracy achievement scores and the support they received for studying at home. Data on support for studies at home shows a clear link between the source of help and student achievement. Students who receive help from family members have the highest average achievement score, at 54.5%, suggesting that family support plays a crucial role in enhancing learning outcomes.

In contrast, students who rely on friends for study support score significantly lower, at 43.7%, and those who report that no one at home can help have a similar score of 44.4%. This suggests that the absence of family support or reliance on peers may be associated with lower academic performance. This emphasizes the importance of strong family involvement in a student's education to promote better achievement.

Figure 55: Achievement in numeracy by support received for study at home



5.16 Achievements in Numeracy by Parental Literacy and Engagement

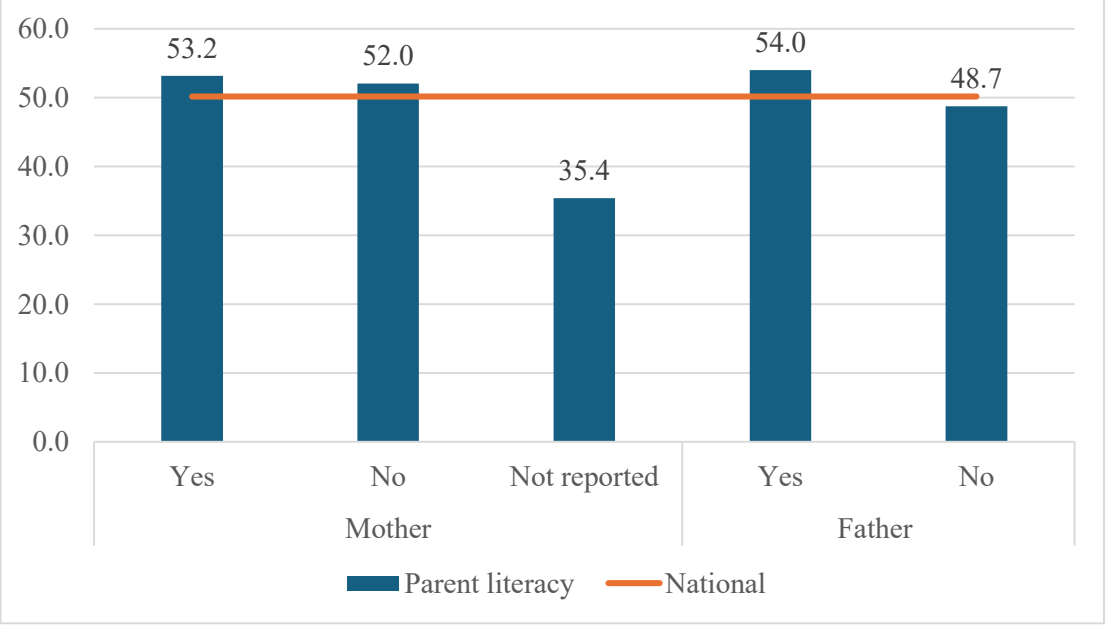
Achievements in numeracy by parental literacy

Students' numeracy achievement score is also examined with respect to their parents' literacy. The data on parental literacy and student achievement show that students whose mothers can read and write have a slightly higher average score (53.2%) compared to those whose mothers cannot (52.0%).

Similarly, students whose fathers are literate score 54.0%, which is noticeably higher than the 48.7% average for students whose fathers cannot read and write.

These differences suggest that parental literacy, particularly the father’s literacy in this data, is associated with better student performance, likely because literate parents can provide more effective academic support and create a learning-friendly environment at home. Encouraging adult literacy programs could therefore have positive indirect effects on children’s education.

Figure 56: Achievement in numeracy by parental literacy

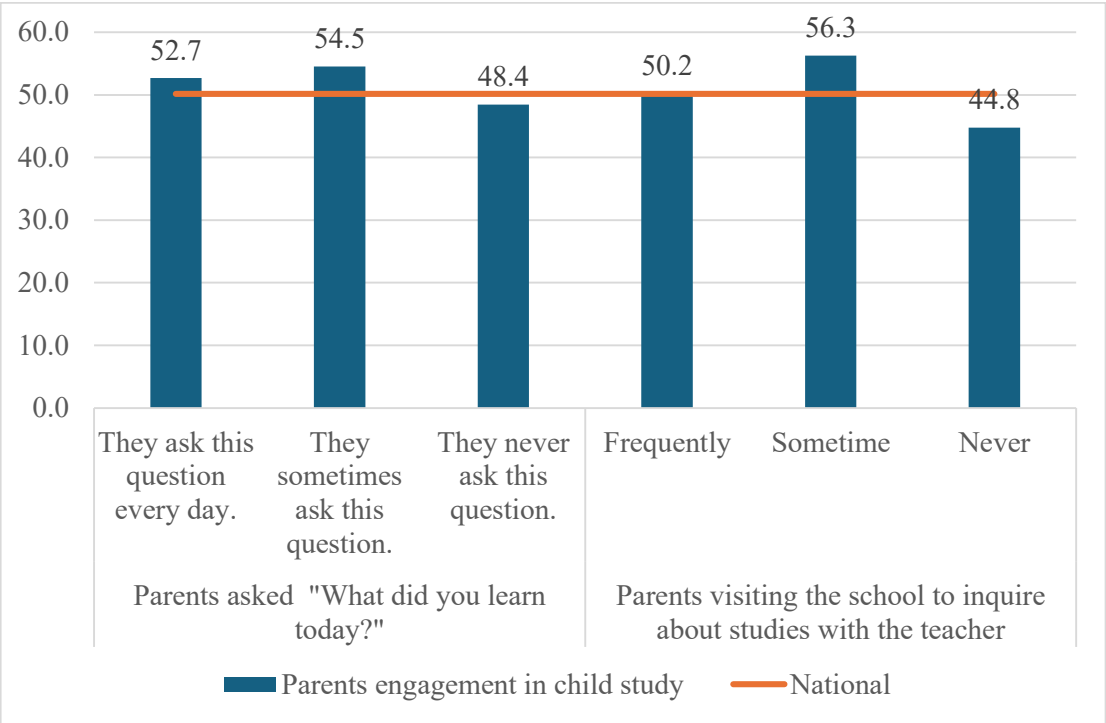


Achievements in numeracy by parental engagement

Furthermore, students' numeracy achievement is also examined in relation to parental engagement or monitoring in children's studies. The data on parental engagement show interesting patterns related to student achievement. Students whose parents ask, "What did you learn today?" every day have an average achievement score of 52.7%, while those whose parents ask this question only sometimes score slightly higher at 54.5%. Students whose parents never ask have an average score of 48.4%, indicating that even occasional parental interest in daily learning is linked to better performance.

Among students whose parents visit the school to inquire about studies, those whose parents visit sometimes achieve the highest average score, at 56.3%, followed by those whose parents visit frequently, at 50.2%. Students whose parents never visit score the lowest at 44.8%. This suggests that regular, though not necessarily frequent, parental involvement in school matters positively impacts student achievement. Findings highlight the importance of parental engagement both at home and with the school in supporting better academic outcomes for students.

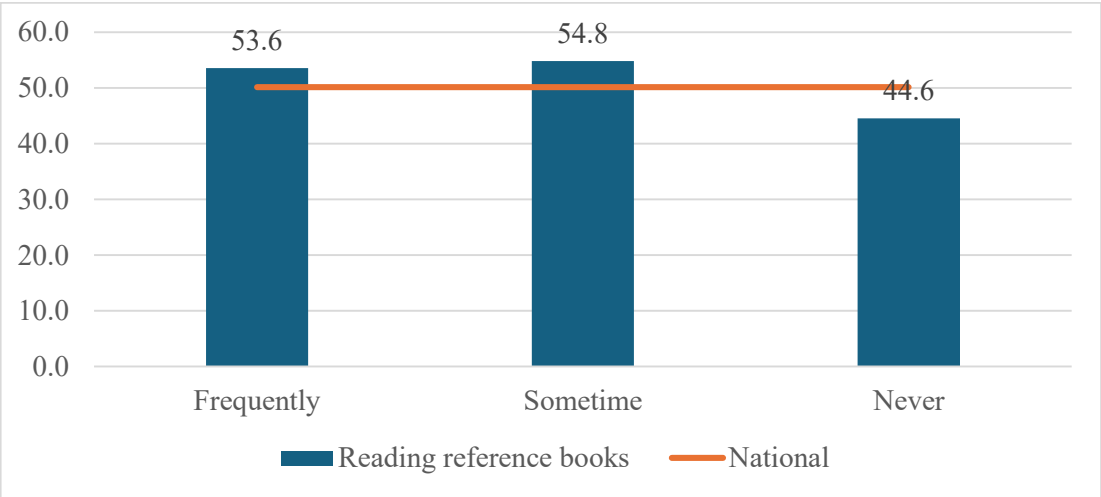
Figure 57: Achievement in numeracy by parental engagement



5.17 Achievements in Numeracy by Students’ Reading Habit of Reference Books

The findings on reading books in addition to textbooks show that students who read books outside their textbooks often or sometimes achieve higher numeracy scores, with averages of 53.6% and 54.8%, respectively. In contrast, students who never read additional books score significantly lower, at 44.6%. This indicates a strong positive relationship between engaging with extra reading materials and academic performance. Encouraging students to read beyond the required textbooks can therefore be an effective strategy to improve their understanding and achievement in numeracy.

Figure 58: Achievement in numeracy by students' reading habit of reference books



5.18 Students' achievement in Numeracy at different Proficiency Levels

The Education Review Office (ERO) defined four levels of proficiency in numeracy. The four levels of proficiency are: *below basic, basic, proficient, and advanced*. These proficiency levels also align with the Global Proficiency Framework (GPF).

The Education Review Office evaluated various methods for benchmarking the NARN (Numeracy) proficiency levels. To ensure a valid and evidence-based benchmarking process, ERO uses the bookmark method to set standards and benchmarks and a modified version of it to set benchmarks. The modified method utilized Classical Test Theory (CTT), specifically the difficulty of the test items, expressed as the percentage of correct answers. The four levels of proficiency in numeracy are defined as,

Below basic: learners lack the most basic knowledge and skills. As a result, they generally cannot complete the most basic grade-level tasks.

Basic: Learners have limited knowledge and skills. As a result, they can partially complete basic grade-level tasks.

Proficient: learners have developed sufficient knowledge and skills. As a result, they can successfully complete the most basic grade-level tasks.

Advanced: Learners have developed superior knowledge and skills. As a result, they can complete complex grade-level tasks.

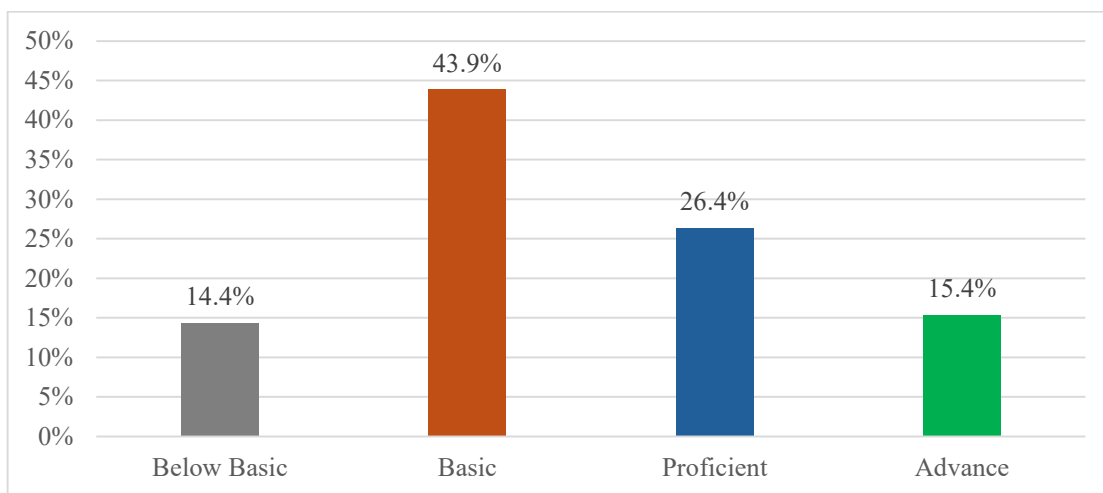
The table below shows the classification of proficiency level in numeracy

Table 14: Classification of proficiency levels in numeracy

Proficiently level	Cut-off score in numeracy in Percent
Pre-basic	Less than 30
Basic	30 to less than 60
Proficient	60 to less than 80
Advance	80 and above

The finding indicates that numeracy proficiency in Nepal is concentrated at the lower and middle levels. A considerable proportion of learners (14.4%) are at the below basic level, meaning they lack the most basic numeracy knowledge and skills and are unable to complete even the simplest grade-level tasks. The largest share of learners (43.9%) falls under the basic level, suggesting that although they have limited numeracy knowledge and skills, they can only partially complete basic grade-level tasks. In contrast, about one-quarter of learners (26.4%) are proficient, indicating they have developed sufficient numeracy knowledge and skills to successfully complete the most basic grade-level tasks. A smaller but notable proportion (15.4%) is at the advanced level, reflecting superior numeracy knowledge and skills that enable them to handle complex grade-level tasks. These findings reveal that a majority of learners remain at or below the basic level, underscoring the need for focused interventions to strengthen foundational numeracy and support learners' progression toward proficient and advanced levels.

Figure 59: Students achieving various proficiency levels



Proficiency level in numeracy by province

The provincial distribution of numeracy proficiency in Nepal shows marked variation across regions. Gandaki Province demonstrates the strongest overall performance, with the lowest proportion of learners at the below basic level (3.9%) and the highest share at the proficient level (42.7%), along with a substantial proportion at the advanced level (20.0%), indicating that many learners possess sufficient to superior numeracy skills and can complete both basic and

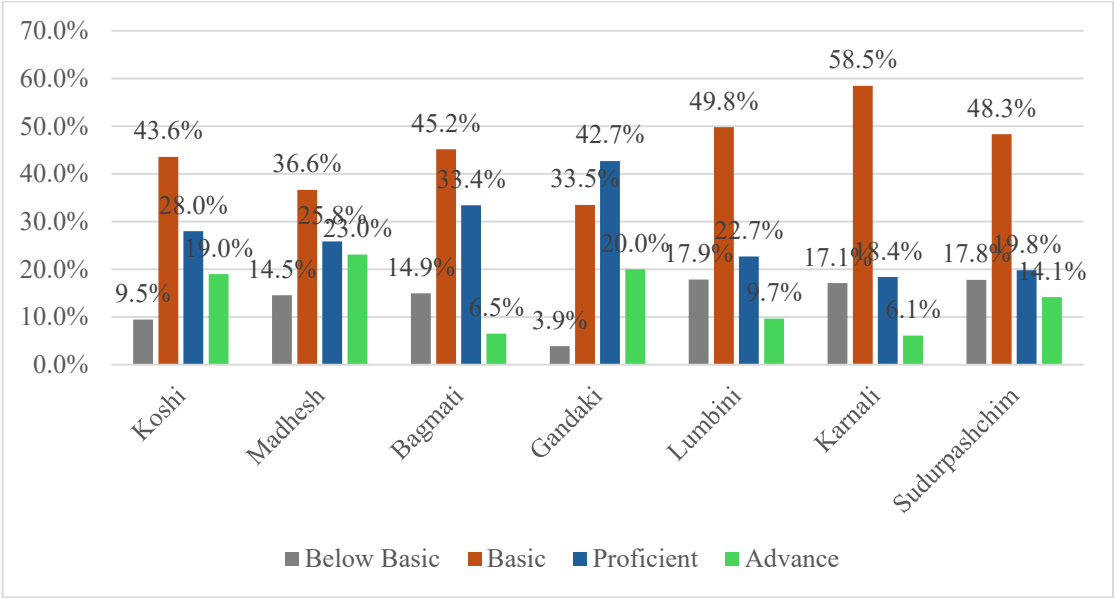
complex grade-level tasks. Koshi Province also performs well, with a low percentage of learners below basic (9.5%) and a balanced distribution across basic (43.6%), proficient (28.0%), and advanced (19.0%) levels.

In contrast, Karnali and Lumbini Provinces show a larger concentration of learners at the lower proficiency levels. Karnali has the highest proportion of learners at the basic level (58.5%) and a sizable share at the below-basic level (17.1%). In comparison, only small proportions reach proficient (18.4%) or advanced (6.1%) levels, suggesting limited numeracy skills for many learners. Similarly, Lumbini records 17.9% of learners at the below basic level and half (49.8%) at the basic level, with comparatively fewer learners demonstrating proficient (22.7%) or advanced (9.7%) skills.

Madhesh and Sudurpashchim Provinces display mixed patterns. Madhesh has a moderate share of learners below basic (14.5%) and a relatively higher proportion at advanced (23.0%), indicating division between low and high performers. Sudurpashchim shows a sizable concentration at basic (48.3%) and below-basic (17.8%) levels, with fewer learners reaching proficient (14.1%) or advanced (14.1%) levels. Bagmati Province, despite its urban advantage, shows a large share of learners at basic (45.2%) and below basic (14.9%) levels. In comparison, only 6.5% reach the advanced level, suggesting challenges in progressing learners to higher-order numeracy skills.

The results indicate substantial provincial disparities in numeracy proficiency. While provinces like Gandaki and Koshi have a higher proportion of learners who can complete basic- to complex-level tasks, others-particularly Karnali, Lumbini, and Sudurpashchim-require targeted interventions to strengthen foundational numeracy and support learners’ progression from basic and below-basic levels to proficient and advanced levels.

Figure 60: Proficiency level in numeracy by province

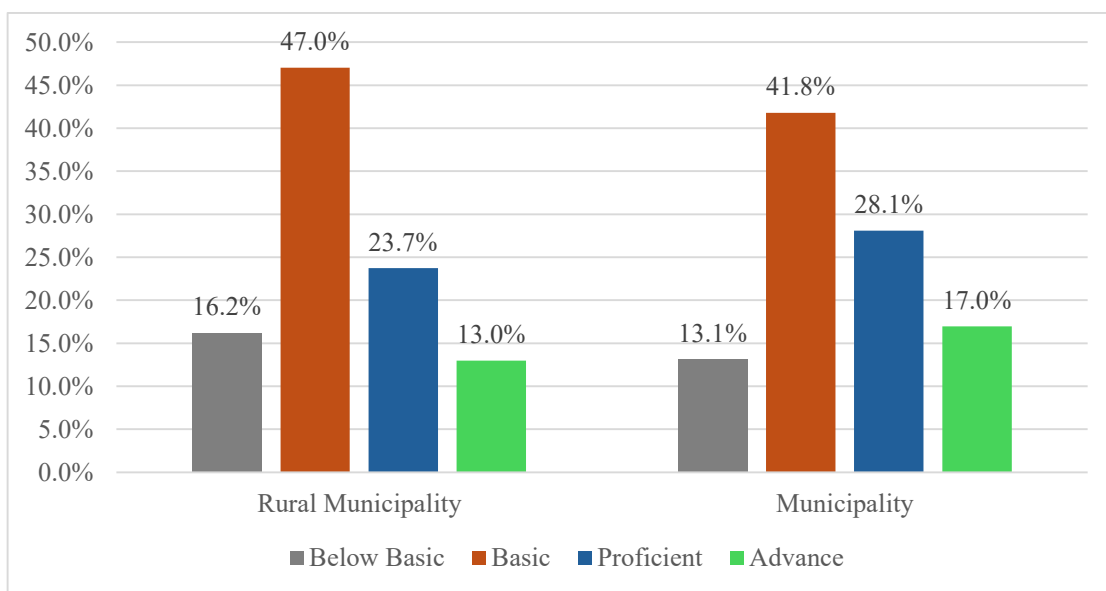


Proficiency level in numeracy by municipality and rural municipality

The comparison of numeracy proficiency by local government shows clear differences between rural municipalities and municipalities. Rural municipalities have a higher proportion of learners at the below basic level (16.2%), indicating that a notable share of learners lack the most basic numeracy knowledge and are unable to complete even simple grade-level tasks. This challenge is further reflected in the basic category, where nearly half of the learners (47.0%) have limited numeracy skills and can only partially complete basic grade-level tasks. In contrast, municipalities record lower proportions at below basic (13.1%) and basic (41.8%) levels.

On the other hand, municipalities demonstrate stronger performance at higher proficiency levels. A larger share of learners in municipalities is proficient (28.1%), meaning they have developed sufficient numeracy knowledge and skills to complete basic grade-level tasks, compared to 23.7% in rural municipalities. Similarly, the proportion of learners at the advanced level is higher in municipalities (17.0%) than in rural municipalities (13.0%), indicating a greater capacity to handle complex grade-level numeracy tasks. The findings suggest an urban–rural gap in numeracy achievement, with learners in municipalities performing better than those in rural municipalities, highlighting the need for targeted support to strengthen foundational numeracy skills in rural areas while continuing to promote higher-order skills across all local governments.

Figure 61: Proficiency level in numeracy by municipality



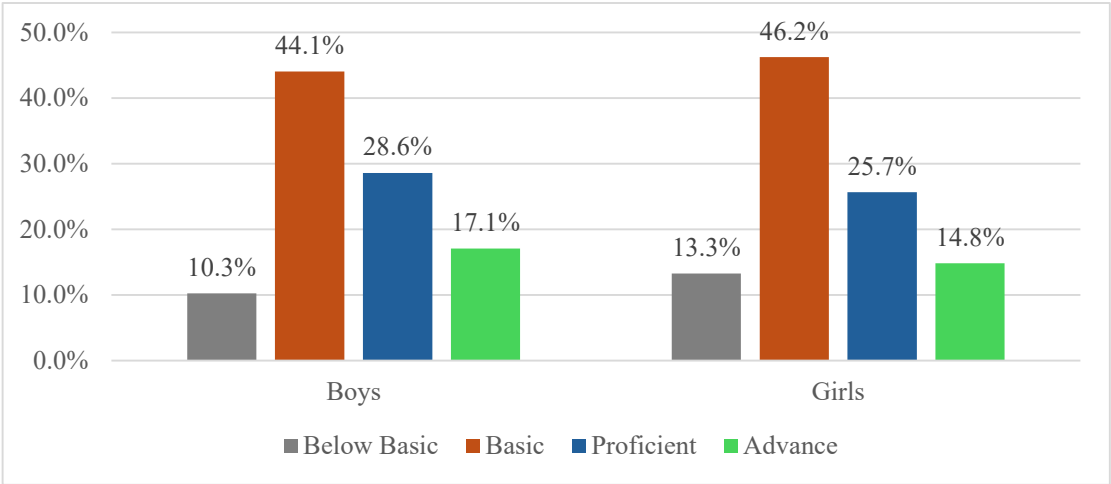
Proficiency level in numeracy by gender

The gender-wise distribution of numeracy proficiency shows noticeable differences between boys and girls. A higher proportion of girls falls under the basic level (13.3%) than boys (10.3%), indicating that more girls lack the most basic numeracy knowledge and are generally unable to complete simple grade-level tasks. Similarly, a slightly larger share of girls (46.2%)

is at the basic level than boys (44.1%), suggesting limited numeracy skills that allow only partial completion of basic grade-level tasks.

In contrast, boys demonstrate stronger performance at higher proficiency levels. A greater proportion of boys are proficient (28.6%) than girls (25.7%), indicating that more boys have developed sufficient numeracy knowledge and skills to complete basic grade-level tasks successfully. Likewise, boys also outperform girls at the advanced level (17.1% versus 14.8%), indicating a higher share of boys with superior numeracy skills capable of completing complex grade-level tasks. The results point to a modest gender gap in numeracy proficiency, with boys slightly more represented at higher achievement levels, highlighting the importance of targeted strategies to support girls' progression from basic and below-basic levels to proficient and advanced numeracy.

Figure 62: Proficiency level in numeracy by gender



The NARN assessments from 2020 to 2024 show only slight progress in reading, with over 90% of Grade 3 students still not meeting the minimum proficiency level. Numeracy results reveal similar challenges, as most learners remain at or below the basic level. About 14% lack even the most basic skills, while 44% can only partially complete simple tasks. Just over a quarter reach proficiency, and only 15% demonstrate advanced skills. Overall, the findings indicate that the majority of students struggle with foundational literacy and numeracy, underscoring an urgent need for targeted interventions to help them progress toward higher achievement levels.

CHAPTER VI

ACHIEVEMENTS IN ONE-TO-ONE ASSESSMENT

This study also conducted one-to-one oral reading and numeracy assessments with students. A one-to-one reading assessment included a 60-word Nepali text for oral reading fluency and reading comprehension questions. In Numeracy, oral one-to-one assessment included items for identifying two- to three-digit numbers, adding one-digit numbers, subtracting numbers less than 20, and using addition and subtraction to solve verbal problems

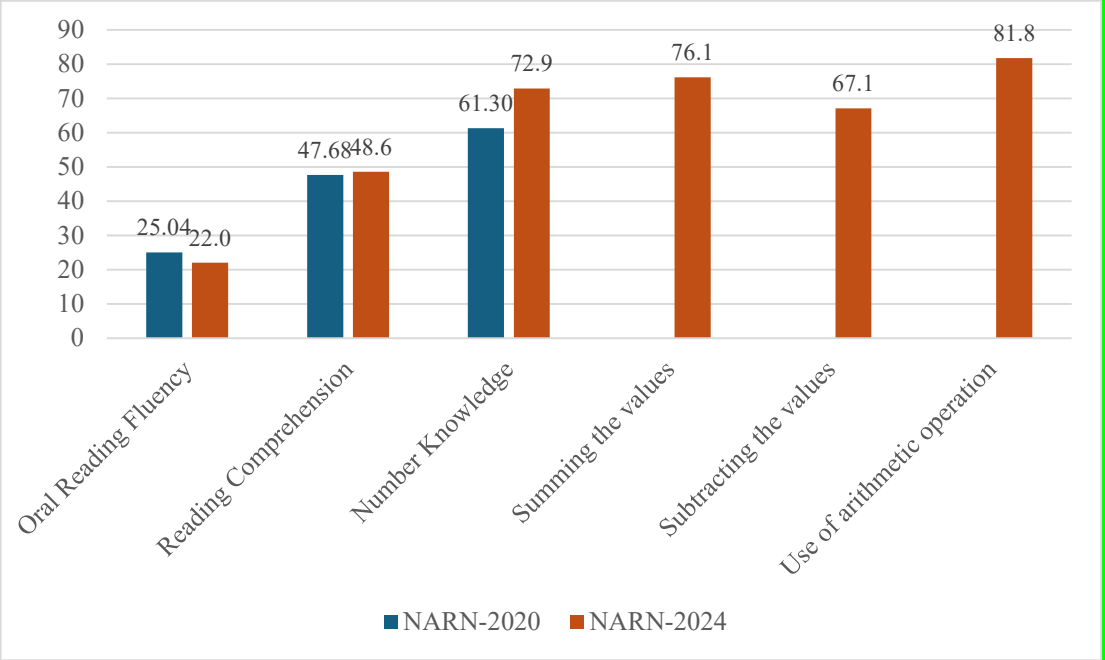
6.1 Achievements in Reading and Numeracy

Between NARN 2020 and NARN 2024, there is no significant change in students' performance on reading-related tasks. Average oral reading fluency shows a slight decline from 25 cwpm (correct words per minute) in 2020 to 22 cwpm in 2024. A similar pattern is observed in reading comprehension, where scores remain stable, increasing the average score from 47.7% in 2020 to 48.6% in 2024, indicating overall stability with a slight improvement in text understanding.

In numeracy skills, there is significant progress. Average achievement in number identification improved from 61.3% in 2020 to 72.9% in 2024, reflecting stronger basic mathematical understanding. New measures in 2024 show high average achievement in summing values (76.1%), subtracting values (67.1%), and particularly in the use of arithmetic operations (81.8%), suggesting that students are more confident and skilled in applying arithmetic procedures.

These findings suggest that reading fluency remains a concern with a slight decline, and comprehension has stabilized. Numeracy, on the other hand, has shown notable improvement, particularly in arithmetic operations, reflecting a shift in students' strengths toward mathematical skills over time.

Figure 63: Achievement in reading and numeracy



6.2 Achievements in Reading and Numeracy by Province

The table presents students’ performance in literacy and numeracy in one-to-one assessment across Nepal’s seven provinces. The results reveal considerable provincial disparities in learning outcomes.

In Oral Reading Fluency (ORF), students from Gandaki Province achieved the highest score (average of 26.7 cwpm), followed by Koshi Province (average of 25.5 cwpm) and Bagmati Province (average of 23.8 cwpm). In contrast, Madhesh Province recorded the lowest ORF score (average 14.7 cwpm), followed by Karnali Province (average 17.1 cwpm). This indicates that reading fluency is stronger in Gandaki and Koshi, while students in Madhesh and Karnali face greater challenges in basic reading skills.

A similar trend is observed in Reading Comprehension. Gandaki Province again performed the best with an average score of 61.8%, significantly higher than the national average. Koshi (51.6%) and Bagmati (49.6%) also showed relatively strong performance. On the other hand, Madhesh Province recorded the lowest score (37.4%), followed by Karnali (39.0%). These findings suggest substantial inequalities in literacy achievement across provinces.

In numeracy-related indicators, Gandaki Province consistently demonstrated the strongest performance. It achieved the highest average scores in Number Knowledge (Identification) (82.0%), Summing the values (83.5%), and Subtracting the values (77.1%). Madhesh Province performed relatively well in Number Knowledge (Identification) (77.1%) and in subtracting the values (72.0%), despite its weaker literacy outcomes.

Conversely, Karnali Province showed the lowest performance across most numeracy indicators, including average achievement in Number Knowledge (66.8%), summing values (68.2%), and subtracting values (56.8%). Sudurpaschim and Lumbini provinces also scored comparatively lower in several mathematics-related competencies.

In the Use of arithmetic operations, Koshi Province achieved the highest average score (87.0%), followed by Lumbini Province (85.0%) and Gandaki Province (83.8%). Madhesh (77.0%) and Sudurpaschim (76.0%) recorded comparatively lower scores in this area.

The findings demonstrate clear provincial disparities in both literacy and numeracy achievement. Gandaki Province appears to have the strongest overall learning outcomes, particularly in reading comprehension and mathematics, while Madhesh and Karnali provinces lag on several indicators, especially literacy. These variations may reflect differences in educational resources, teacher quality, socioeconomic conditions, language diversity, infrastructure, and access to quality schooling. The results highlight the importance of province-specific educational policies and targeted interventions to reduce learning inequalities across Nepal.

Table 15: Achievement in reading and numeracy by province

Tasks	Koshi	Bagmati	Madhesh	Gandaki	Lumbini	Karnali	Sudurpaschim
Oral Reading Fluency (cwpm)	25.5	23.8	14.7	26.7	19.5	17.1	22.3
Reading Comprehension (%)	51.6	49.6	37.4	61.8	47.2	39.0	47.6
Number Knowledge /Id(%)	71.7	73.5	77.1	82.0	69.9	66.8	69.3
Summing the values (%)	79.3	74.5	76.3	83.5	75.4	68.2	72.8
Subtracting the values (%)	71.7	63.5	72.0	77.1	64.9	56.8	61.4
Use of arithmetic operation (%)	87.0	79.3	77.0	83.8	85.0	80.5	76.0

6.3 Achievements in Reading and Numeracy by Local Level

The table below presents students’ performance on one-to-one assessments of reading and numeracy indicators by local level, comparing municipalities and rural municipalities. The results indicate that students from municipalities performed better than those from rural municipalities across all learning indicators.

Table16: Achievements in reading and numeracy by local level

Tasks	Municipality	Rural Municipality
Oral Reading Fluency (cwpm)	23.7	20.0
Reading Comprehension (%)	49.3	47.8
Number Knowledge (Identification) (%)	74.0	71.5
Summing the values (%)	78.7	72.9
Subtracting the values (%)	70.0	63.6
Use of arithmetic operation (%)	82.0	81.5

Achievements in reading and numeracy by gender

The following table shows the performance of boys and girls across different reading and numeracy indicators in one-to-one assessments. The results show gender differences in achievement across skill areas. The findings suggest a gender-based difference in learning outcomes. Girls have stronger literacy skills, particularly in reading fluency and comprehension, whereas boys show better performance in numeracy and arithmetic-related competencies.

Table 17: Achievements in reading and numeracy by gender

Tasks	Boys	Girls
Oral Reading Fluency (cwpm)	20.6	23.4
Reading Comprehension (%)	47.1	50.1
Number Knowledge (Identification) (%)	76.2	69.8
Summing the values (%)	79.1	73.5
Subtracting the values (%)	71.4	63.1
Use of arithmetic operation (%)	83.2	80.6

6.4 Achievements in Reading and Numeracy by Caste/Ethnicity

The table below shows students' performance across literacy and numeracy indicators in one-to-one assessments by caste/ethnicity groups. The results reveal noticeable disparities among the different groups in both reading and mathematics-related competencies.

Among the groups, Brahman/Chettri students achieved the highest scores in almost all indicators. In Oral Reading Fluency, they read 26.6 cwpm, which is higher than Dalit (20.4 cwpm), Janajati (24.7 cwpm), and Others (17.9 cwpm). Similarly, in Reading Comprehension, Brahman/Chettri students obtained the highest score (55.4%), while the "Others" group recorded the lowest (43.6%). This indicates comparatively stronger literacy performance among Brahman/Chettri students.

In numeracy-related indicators, Brahmin/Chettri students also performed better overall. In **Number Knowledge(Identification)**, they scored 76.2%, followed by Dalit (72.8%), Janajati (72.5%), and Others (71.2%). A similar trend is observed when summing the values, with Brahmin/Chettri students scoring 80.2%, slightly higher than the other groups.

For **subtracting the values**, the differences among groups were smaller. Brahman/Chettri students scored 69.2%, Janajati students 66.6%, others 67.0%, and Dalit students 65.5%. Although the variation is less pronounced, Brahman/Chettri students still maintained a slight advantage.

In the Use of **Arithmetic Operations**, Brahman/Chettri students again achieved the highest score (84.5%), followed closely by Janajati (83.3%) and Dalit (82.2%), while the other group scored the lowest (79.0%).

Table 18: Achievements in reading and numeracy by caste/ethnicity

Tasks	Brahmin/Chettri	Dalit	Janajati	Others
Oral Reading Fluency (cwpm)	26.6	20.4	24.7	17.9
Reading Comprehension (%)	55.4	49.1	49.4	43.6
Number Knowledge/id. (%)	76.2	72.8	72.5	71.2
Summing the values (%)	80.2	75.4	75.1	74.9
Subtracting the values (%)	69.2	65.5	66.6	67.0
Use of arithmetic operation (%)	84.5	82.2	83.3	79.0

6.5 Proficiency Levels in Oral Reading Fluency

The student's proficiency level is classified into four categories: pre-basic, basic, proficient, and advanced. The data are further analyzed by proficiency level across four categories for oral reading fluency (ORF) and reading comprehension, using the one-to-one assessment database. Proficiency levels in oral reading fluency are defined based on the number of correct words read per minute (cwpm). As per the reading benchmarks set in 2022 (Education Review Office, 2022), ERO established the following proficiency levels and their benchmarks in reading:

Table 19: National benchmarks for oral reading fluency (ORF) for grade 3

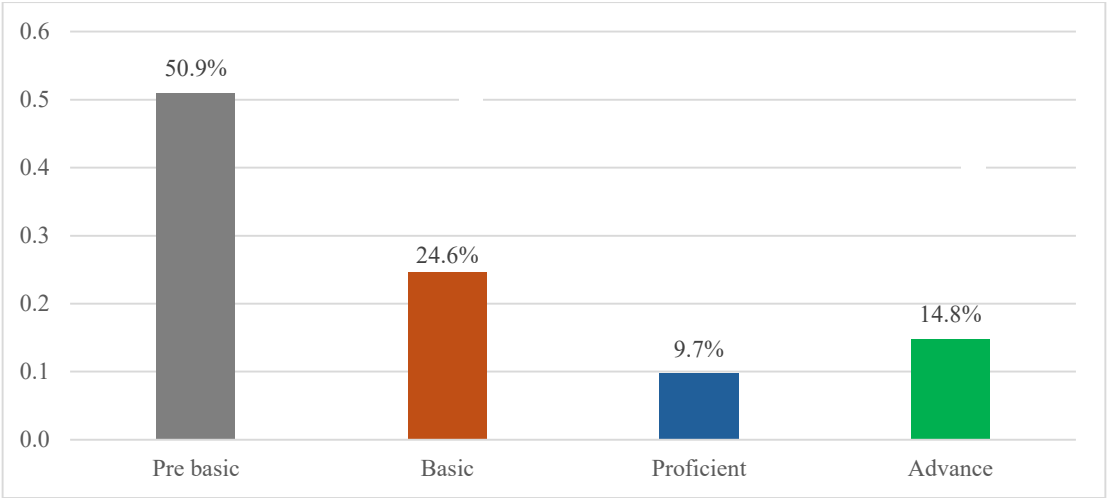
Level	Reading sub-skills and unit	Benchmark
Pre-basic	Reading fluency (correct words per minute)	Less than 20
	Reading comprehension (%)	Less than 30%
Basic	Reading fluency (correct words per minute)	20 to Less than 35
	Reading comprehension (%)	30% to less than 60%
Proficient	Reading fluency (correct words per minute)	35 to less than 45
	Reading comprehension (%)	60% to less than 80%
Advanced	Reading fluency (correct words per minute)	45 and above
	Reading comprehension (%)	80% and above

(ERO, 2023, p. 50, MOEST, 2022, p. 78))

The oral fluency assessment results indicate that a large proportion of students are performing below the expected standard. Students reading fewer than 20 correct words per minute are classified as pre-basic; this group accounts for 50.9% of students, indicating serious challenges

in basic decoding, accuracy, and reading speed. Those students who read between 20 and 34 correct words per minute fall under the basic category and account for 24.6% of the students, suggesting emerging reading skills but insufficient fluency. Students who read 35 to 45 correct words per minute are considered proficient, yet only 9.7% of students reach this level, indicating that few learners meet the expected fluency benchmark. In contrast, 14.8% of students who read more than 45 correct words per minute are categorized as advanced, demonstrating strong fluency, accuracy, and expressive reading. Overall, the results reveal that approximately three-quarters of students (75.5%) read fewer than 35 correct words per minute and remain below the proficient level, highlighting a critical need for targeted interventions to improve oral reading fluency.

Figure 64: Proficiency level in oral reading fluency



6.6 Proficiency Levels in Oral Reading Fluency by Province

The table presents the distribution of students by proficiency level in Oral Reading Fluency (ORF) across Nepal's seven provinces. The proficiency levels are categorized into Pre-basic, Basic, Proficient, and Advanced. The findings indicate substantial provincial variation in reading proficiency.

Table 20: Proficiency levels in oral reading fluency by province

Proficiency Levels	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpaschim
Pre basic	41.9%	70.4%	47.6%	38.5%	58.6%	60.0%	48.3%
Basic	28.1%	19.7%	22.3%	27.1%	20.6%	28.2%	28.0%
Proficient	12.8%	5.3%	11.3%	13.2%	8.4%	5.0%	7.9%
Advance	17.2%	4.6%	18.8%	21.2%	12.4%	6.8%	15.8%

The proportion of students at the pre-basic level is highest in Madhesh Province (70.4%), followed by Karnali Province (60.0%) and Lumbini Province (58.6%). This suggests that a large

majority of students in these provinces have not yet achieved foundational reading fluency. In contrast, Gandaki Province (38.5%) and Koshi Province (41.9%) recorded lower percentages of pre-basic readers, indicating comparatively better reading performance.

At the basic level, the percentages are similar across provinces, ranging from around 19% to 28%. Karnali Province (28.2%), Koshi Province (28.1%), and Sudurpaschim Province (28.0%) have slightly higher proportions of students at this level, suggesting that many students in these provinces have only basic reading skills.

The proportion of students achieving the Proficient level remains low across all provinces. Gandaki Province recorded the highest percentage (13.2%), followed by Koshi Province (12.8%) and Bagmati Province (11.3%). In comparison, Karnali Province (5.0%) and Madhesh Province (5.3%) had the lowest percentages of proficient readers.

At the Advanced level, Gandaki Province again performed the best, with 21.2% of students reaching advanced reading fluency. Bagmati Province (18.8%) and Koshi Province (17.2%) also demonstrated relatively strong performance. Conversely, Madhesh Province had the lowest proportion of advanced readers (4.6%), followed by Karnali Province (6.8%).

The findings reveal significant disparities in oral reading fluency proficiency among provinces. Gandaki, Bagmati, and Koshi provinces show comparatively stronger reading performance, with higher proportions of proficient and advanced readers. In contrast, Madhesh and Karnali provinces have a large concentration of students in the pre-basic category and very few students reaching higher proficiency levels. These differences may be linked to variations in educational quality, teacher effectiveness, socioeconomic conditions, language environment, and access to learning resources.

6.7 Proficiency Levels in Oral Reading Fluency by Local Level

The findings present the distribution of students across different proficiency levels in Oral Reading Fluency (ORF) by local level, comparing municipalities and rural municipalities. The findings show that students from municipal areas demonstrate higher reading proficiency than those from rural areas.

The proportion of students at the pre-basic level is higher in rural municipalities (56.4%) than in municipalities (46.5%). This indicates that more than half of the students in rural municipalities have not yet developed foundational reading fluency, highlighting greater literacy challenges in rural areas.

At the Basic level, municipalities recorded a slightly higher percentage (26.1%) compared to rural municipalities (22.7%). This suggests that a larger share of students in municipalities possess basic reading skills.

The proportion of students reaching the Proficient level is low in both local levels, but municipalities still perform better, with 10.7% of students categorized as proficient compared to 8.5% in rural municipalities.

Similarly, at the Advanced level, municipalities recorded a higher percentage (16.7%) than rural municipalities (12.3%). This indicates that students in municipalities are more likely to achieve higher levels of reading fluency.

The findings reveal a clear disparity in oral reading fluency between municipalities and rural municipalities. Rural municipalities have a larger concentration of students in the pre-basic category and fewer students achieving proficient or advanced levels. These differences may reflect inequalities in educational resources, school infrastructure, teacher availability, access to reading materials, and socioeconomic conditions.

Table 21: Proficiency levels in oral reading fluency by local level

Proficiency Levels	Municipality	Rural Municipality
Pre basic	46.5%	56.4%
Basic	26.1%	22.7%
Proficient	10.7%	8.5%
Advance	16.7%	12.3%

6.8 Proficiency Levels in Oral Reading Fluency by Caste/Ethnicity

The findings present the distribution of students across different proficiency levels in Oral Reading Fluency (ORF) by caste/ethnicity groups. The findings indicate noticeable disparities in reading proficiency among the different social groups.

The proportion of students at the pre-basic level is highest among the other groups (60.8%), followed by Dalit students (51.9%) and Janajati students (46.2%). In comparison, Brahmin/Chettri students recorded the lowest percentage at this level (39.7%). This suggests that students from the other and Dalit groups are more likely to struggle with foundational reading fluency.

At the Basic level, the distribution is similar across groups. Dalit students recorded the highest percentage (27.5%), followed by Brahmin/Chettri students (25.9%) and Janajati students (24.8%), while the other group had the lowest proportion (22.5%). This indicates that many students across all groups stay at the basic stage of reading development.

The percentage of students reaching the Proficient level is low across all caste/ethnicity categories. Brahmin/Chettri students achieved the highest proportion (13.4%), whereas the other group recorded the lowest (7.9%). Dalit and Janajati students had similar proficiency levels, at 9.7% and 9.2%, respectively.

At the Advanced level, substantial differences are observed. Brahmin/Chettri students had the highest proportion of advanced readers (21.0%), closely followed by Janajati students (19.8%). In contrast, Dalit students (10.9%) and the other group (8.8%) had much lower percentages of advanced readers.

The findings show that Brahmin/Chettri students demonstrate comparatively stronger reading proficiency, with higher proportions of proficient and advanced readers and fewer students at

the pre-basic level. Dalit students and the other groups appear to face greater literacy challenges, as reflected by the high concentration of students in the pre-basic category and the lower share of advanced readers. Janajati students perform moderately, showing strong representation at the advanced level despite a sizable proportion at the pre-basic level.

Table 22: Proficiency levels in oral reading fluency by caste/ethnicity

Proficiency Levels	Brahmin/Chettri	Dalit	Janajati	Others
Pre basic	39.7%	51.9%	46.2%	60.8%
Basic	25.9%	27.5%	24.8%	22.5%
Proficient	13.4%	9.7%	9.2%	7.9%
Advance	21.0%	10.9%	19.8%	8.8%

6.9 Proficiency Levels in Oral Reading Fluency by Gender

The results show the distribution of students across different proficiency levels in Oral Reading Fluency (ORF) by gender. The findings indicate that girls demonstrate better reading proficiency than boys.

The proportion of students at the pre-basic level is higher among boys (54.1%) than among girls (47.7%). This suggests that a larger share of boys have not yet developed foundational reading fluency skills. In contrast, fewer girls fall into this lowest proficiency category, indicating comparatively stronger reading performance among girls.

At the Basic level, the difference between boys and girls is small. Girls recorded 25.1%, slightly higher than boys (24.3%). This suggests that a similar proportion of students from both genders have basic reading abilities.

The percentage of students achieving the Proficient level is low for both groups, but girls again perform slightly better. Girls accounted for 10.1% of proficient readers, compared with 9.3% of boys.

A more noticeable difference appears at the Advanced level. Girls recorded a higher percentage (17.1%) than boys (12.3%). This indicates that girls are more likely to achieve higher levels of reading fluency and advanced literacy skills.

The findings show that girls outperform boys in oral reading fluency proficiency. Boys are more concentrated in the pre-basic category, while girls are more represented in the proficient and advanced levels.

Table 23: Proficiency levels in oral reading fluency by gender

Proficiency Level	Boys	Girls
Pre basic	54.1%	47.7%
Basic	24.3%	25.1%
Proficient	9.3%	10.1%
Advance	12.3%	17.1%

6.10 Readers categorization

Table 24 provides details on the percentages of different reader categories; only 16% of the students are fluent readers, while 16.6% could not read a single word in the oral assessment.

Table 24: Oral reading fluency and readers categorization

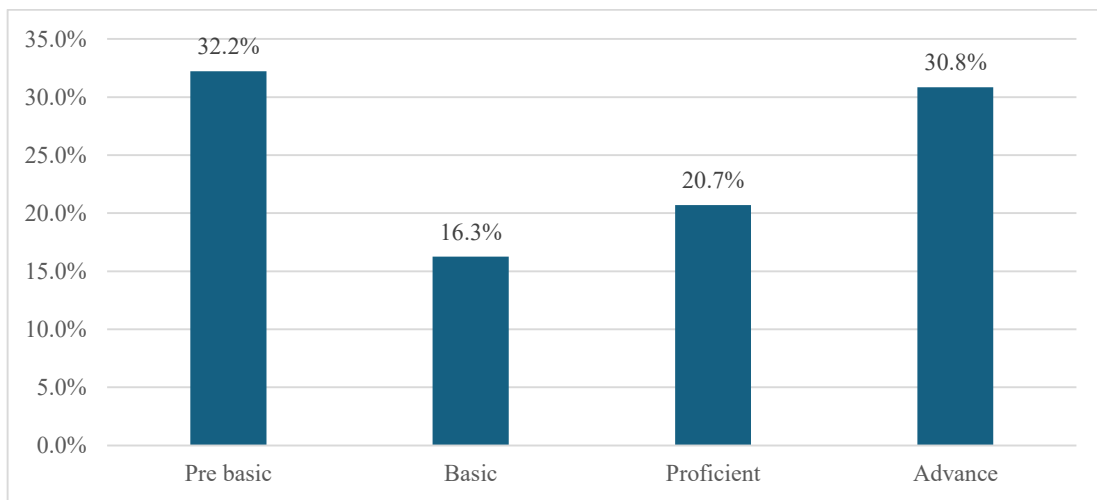
Oral Reading Fluency	Sample size	Percent of Learners	Standard Error	95% Confidence Interval	
				Lower	Upper
No readers (ORF = 0)	455	16.6%	0.7%	15.2%	18.0%
Initial readers (ORF: 1 - 15)	728	26.5%	0.8%	24.9%	28.2%
Emergent readers (ORF: 16 -44)	1121	40.9%	0.9%	39.0%	42.7%
Fluent Readers (ORF: 45 or above)	439	16.0%	0.7%	14.7%	17.4%

6.11 Proficiency Level in Reading Comprehension

Students' reading comprehension proficiency is also analyzed across four categories: pre-basic, basic, proficient, and advanced, using the one-to-one assessment database. The proficiency levels for reading comprehension are defined by the specific scoring criteria in Table 19.

The findings show a mixed performance pattern among students. Students scoring below 30 are categorized as pre-basic; 32.2% of students fall into this group, indicating substantial difficulty understanding and interpreting written texts. Those scoring between 30 and 59 are classified as basic, accounting for 16.3% of students, which suggests limited comprehension skills that require further instructional support. Students who score between 60 and 79 are considered proficient, representing 20.7% of the total and demonstrating an acceptable level of reading comprehension aligned with expected learning standards. Notably, students scoring 80 and above are categorized as advanced, comprising 30.8% of the sample and reflecting strong comprehension abilities, including analysis, inference, and critical understanding of texts. Overall, although nearly half of the students (48.5%) score below 60 and remain below the proficient level, a considerable proportion have achieved proficient or advanced levels, indicating comparatively stronger performance in reading comprehension.

Figure 65: Proficiency levels in reading comprehension



6.12 Proficiency Levels in Reading Comprehension by Province

The findings present the distribution of students across proficiency levels in Reading Comprehension across Nepal's seven provinces. The results reveal substantial provincial disparities in students' comprehension abilities.

The proportion of students at the pre-basic level is highest in Madhesh Province (47.7%), followed by Karnali Province (40.0%) and Lumbini Province (34.2%). This indicates that a large share of students in these provinces struggle with basic reading comprehension skills. In contrast, Gandaki Province recorded the lowest percentage of pre-basic students (18.3%), suggesting comparatively stronger reading comprehension performance.

At the Basic level, the differences among provinces are moderate. Karnali Province recorded the highest proportion (21.8%), while Gandaki Province had the lowest (12.5%). This suggests that many students in Karnali remain at the foundational stage of reading comprehension development.

The proportion of students achieving the Proficient level is similar across provinces, ranging from around 14% to 24%. Gandaki Province recorded the highest percentage (23.5%), closely followed by Sudurpaschim Province (23.4%), while Madhesh Province had the lowest proportion (14.5%).

At the Advanced level, substantial variation is evident. Gandaki Province performed exceptionally well, with 45.7% of students reaching the advanced level. Koshi Province (33.7%) and Bagmati Province (31.4%) also showed relatively strong performance. In contrast, Karnali Province had the lowest percentage of advanced readers (18.2%), followed by Madhesh Province (24.0%).

In sum, the findings indicate that Gandaki Province has the strongest reading comprehension performance, with the lowest proportion of pre-basic students and the highest proportion of

advanced readers. On the other hand, Madhesh and Karnali provinces show comparatively weaker outcomes, with larger shares of students at the pre-basic level and fewer students achieving advanced proficiency.

Table 25: Proficiency levels in reading comprehension by province

Proficiency Level	Koshi	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudurpaschim
Pre basic	29.3%	47.7%	30.5%	18.3%	34.2%	40.0%	31.4%
Basic	15.6%	13.8%	16.7%	12.5%	17.5%	21.8%	17.1%
Proficient	21.5%	14.5%	21.5%	23.5%	19.4%	20.0%	23.4%
Advance	33.7%	24.0%	31.4%	45.7%	28.8%	18.2%	28.1%

6.13 Proficiency levels in reading comprehension by local level

The distribution of reading comprehension proficiency across local levels shows broadly similar patterns between municipalities and rural municipalities, with only minor differences. At the pre-basic level, rural municipalities (32.8%) have a slightly higher proportion of students compared to municipalities (31.7%), indicating a marginally larger share of students at the lowest proficiency stage in rural areas. A similar pattern is observed at the basic level, where rural municipalities again record a higher percentage (17.5%) than municipalities (15.2%). In contrast, at a proficient level, both local levels are almost identical, with municipalities at 20.8% and rural municipalities at 20.5%, suggesting comparable mid-level reading performance. However, the differences are clearer at the advanced level, where municipalities outperform rural municipalities, recording 32.2% compared to 29.1%.

Table 26: Proficiency levels in reading comprehension by local level

Proficiency Level	Municipality	Rural Municipality
Pre basic	31.7%	32.8%
Basic	15.2%	17.5%
Proficient	20.8%	20.5%
Advance	32.2%	29.1%

6.14 Proficiency Levels in Reading Comprehension by Caste/Ethnicity

The distribution of reading comprehension proficiency across caste/ethnicity groups shows noticeable variation in learning outcomes. At the pre-basic level, the highest proportion is observed among “Others” (38.6%), followed by Janajati (31.1%) and Dalit (30.5%), while Brahmin/Chettri have the lowest share (24.4%), indicating better foundational skills in this group. A similar pattern is seen at the basic level, where Dalits (18.3%) report the highest proportion, followed by Others (16.3%), Janajati (16.0%), and Brahmin/Chettri (15.3%), and suggesting slightly weaker early-stage performance among the latter. At the proficient level, Janajati students (23.8%) perform better compared to Brahmin/Chettri (21.3%), Dalit (20.3%), and Others (18.2%). A clearer gap emerges at the advanced level, where Brahmin/Chettri

students (39.0%) significantly outperform other groups, followed by Dalit (31.0%), Janajati (29.0%), and Others (26.9%). The results indicate that Brahmin/Chettri students are more concentrated at the advanced proficiency level, while Dalit, Janajati, and especially the “Others” category show greater representation in lower proficiency categories, reflecting disparities in reading comprehension outcomes across caste/ethnic groups.

Table 27: Proficiency levels in reading comprehension by caste/ethnicity

Proficiency Level	Brahmin/Chettri	Dalit	Janajati	Others
Pre basic	24.4%	30.5%	31.1%	38.6%
Basic	15.3%	18.3%	16.0%	16.3%
Proficient	21.3%	20.3%	23.8%	18.2%
Advance	39.0%	31.0%	29.0%	26.9%

6.15 Proficiency Levels in Reading Comprehension by Gender

The distribution of reading comprehension proficiency by gender shows both similarities and notable differences in performance levels.

Table 28: Proficiency levels in reading comprehension by gender

Proficiency Level	Boys	Girls
Pre basic	33.7%	30.7%
Basic	16.8%	15.9%
Proficient	21.3%	20.2%
Advance	28.3%	33.2%

Table 23 shows that at the pre-basic level, boys (33.7%) have a slightly higher proportion than girls (30.7%), indicating a marginally larger share of boys at the lowest proficiency stage. A similar pattern is observed at the basic level, where boys (16.8%) again slightly exceed girls (15.9%). At the proficient level, the difference remains small, with boys at 21.3% and girls at 20.2%, suggesting broadly comparable intermediate reading skills between the two groups. However, a clear reversal is observed at the advanced level, where girls (33.2%) outperform boys (28.3%), indicating stronger higher-order reading comprehension among female students. In summary, while boys are slightly more represented in the lower proficiency categories, girls demonstrate better performance at the advanced level, suggesting a relative gender advantage in higher reading proficiency outcomes.

CHAPTER VII

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1 Summary of Findings

Socio-Demographic Information

- The participating students (n=7,531) included 43.1% girls, 38.4% boys, while 18.5% of students did not report their gender.
- Madhesi Janajati students represent the largest share at 16.8%, followed by Pahadi Brahmin/Chhetri at 13.5%, and Pahadi Janajati at 12.3%. Other notable groups include Madhesi Others (11.8%), Madhesi Dalit (8.8%), and Madhesi Brahmin/Chhetri (7.7%). A considerable portion, 13.4% of the students, did not report on their ethnicity.
- A clear majority, 61.1%, reported that they like Nepali (subject) the most. Math was favored by 9.4% of students, followed by English at 7.6%. Social studies were the least preferred among the listed subjects, with only 2.6% choosing it as their favorite.
- A majority of students, 59.1%, reported that their commute takes 15 minutes or less, indicating that most students live close to their schools. 17.7% travel for 30 minutes, while smaller proportions take 45 minutes (5.2%) or 1 hour (5.5%). Only 1.3% of students reported commuting for more than an hour. However, 11.1% of the responses did not report travel time.
- A large majority, 77.5%, reported receiving midday meals daily. Additionally, 13.1% of students did not report on this question. A majority (63.6%) receive meals prepared at school using locally available ingredients. 11.4% of students reported receiving meals bought from the market by the school, while 6.7% reported being given money instead of meals.
- A large majority, 72.9%, reported that the math teacher stays in class for the entire period, indicating strong teacher attendance and classroom engagement. A smaller percentage, 4.6%, mentioned that the teacher arrives late and leaves early, while 3.6% noted that the teacher does not come to class. A considerable 18.9% of the students did not report.
- A majority of students, 66.6%, reported that the Nepali teacher stays in class for the entire period. A small percentage of students noted that the teacher arrives late and leaves early (4.0%) or does not come to class (3.4%). Notably, 26.0% of the students did not report.
- Most students spend the majority of their time at home reading and doing homework, as indicated by 75.2% of respondents. A much smaller proportion of students spend their time playing games (7.4%) or doing housework (5.0%), while only 1.2% reported watching mobile videos or TV. Additionally, 11.1% of students did not report how they spent their time at home.

- The majority of students (71.5%) receive help with their studies at home from family members. A smaller portion of students (10.2%) get assistance from friends, which may indicate peer support networks. However, 6.6% of students reported that no one at home can help them with their studies. Additionally, 11.7% did not report who helped them with their studies.
- The data on parental literacy, as reported by the children, show that a higher percentage of fathers (64.8%) can read and write compared to mothers (51.9%).

Achievements in Reading

- Progress in reading was modest –1.4% points only (44.9%, from 43.5% in 2020), indicating that efforts to enhance reading skills have had a limited impact.
- Among the subtasks of reading, students performed well in word identification (58.4%) and reading comprehension (57.5%) but struggled with expressive and written language tasks such as dictation (36.9%) and picture description (26.7%).
- Reading performance varied significantly by province as well as other background variables:
 - Gandaki Province stands out with the highest average score of 61.4%, followed by Koshi (52.8%) and Bagmati (52.7%). In contrast, provinces such as Madhesh (38.7%), Karnali (38.8%), Sudurpaschim (40.9%), and Lumbini (43.1%) recorded below-average performance, with Madhesh and Karnali showing the lowest scores.
 - The provincial breakdown of sub-tasks of reading achievement scores in reading reveals significant regional disparities. Gandaki stands out with the highest performance across all sub-tasks, particularly in reading comprehension (75.6%) and vocabulary (68.5%). Lumbini performs well in word identification (68.3%) but scores very low in picture description (19.2%). Madhesh consistently lags behind, with the weakest performance in dictations (27.2%), while Karnali also falls below average in most areas, especially in word identification (48.7%) and reading comprehension (51.5%). Koshi and Bagmati perform above the national average across most sub-tasks, while Sudurpaschim remains close to the national average.
 - Urban students (46.4%) and those in the Hill region (48.3%) outperformed peers in other areas.
 - Girls (47.1%) slightly surpassed boys (46.8%) in reading. Girls (61.2%) slightly outperform boys (61.1%) in word identification and dictation. Girls and boys achieve 39.3% and 38.3%, respectively, in picture description, while girls and boys achieve 28.7% and 28.0%, respectively, in vocabulary, with boys (55.2%) performing slightly better than girls (54.2%). and reading comprehension, with boys' performance at 59.9% and girls at 59.6%.
 - Ethnic disparities persisted, with some Madhesi and Himali groups performing below national averages.

- The highest achievement score in reading is observed among students who travel 45 minutes (48.1%) and 30 minutes (47.8%), slightly above those who travel 15 minutes (47.0%) or 1 hour (46.2%). However, there is a sharp drop for students who travel more than one hour, with an average score of 39.3%, significantly below the national average of 44.9%.
- Students with literate and engaged parents, access to books beyond textbooks, and supportive home environments scored higher.
- Regular school meal provision and consistent teacher presence positively affected performance.

Achievements in Numeracy

- Students demonstrated measurable improvement (13 % points) in numeracy (50.16%) compared to the previous cycle - 2020 (37.22%), reflecting positive progress in basic mathematical skills. They performed well in practical and visual tasks such as identifying currency (73.2%), interpreting graphs (78.2%), and basic calculations. However, performance was weaker on abstract concepts such as fractions (43.6%), Geometric Shapes Identification (44.7%), and clock reading (38.7%).
- Performance in numeracy also varied significantly by province and other background variables:
 - Gandaki Province recorded the highest average score at 61.1%, followed by Koshi (54.8%) and Madhesh (53.7%). In contrast, Karnali (42.2%), Lumbini (44.8%), and Sudurpaschim (46.1%) showed lower achievement levels. Bagmati Province scored 47.6%, slightly below the national average.
 - The provincial breakdown of sub-tasks of numeracy achievement scores in reading reveals significant provincial disparities. Gandaki consistently performs best, scoring highest in number identification (65.1%), use of arithmetic operations (55.8%), fractions (53.3%), currency identification (79.5%), and reading simple graphs (87.9%). Koshi also performs well, especially in reading simple graphs (84.1%) and currency identification (74.0%). Madhesh shows strengths in angle identification (68.1%) and currency recognition (75.3%), though it lags behind Gandaki in other sub-tasks. On the other hand, Karnali and Sudurpaschim are the weakest performers overall, with Karnali scoring the lowest in geometric shapes (29.3%), number identification (40.9%), fractions (35.9%), and clock reading (25.9%). Lumbini also remains below average in most areas, except for moderate results in currency identification (69.6%). Bagmati demonstrates mixed performance, performing better in currency identification and graph reading, but weakest in clock reading (28.8%).
 - Urban students (52.0%) outperformed rural peers (47.4%), with the Tarai region (51.5%) leading overall in numeracy achievement.
 - Boys (53.2%) performed marginally better than girls (49.9%). The gender-wise performance in numeracy sub-tasks shows that boys perform slightly better than girls

across most areas. Boys outperform girls in geometric shapes identification (47.4% vs. 45.5%), angle identification (59.8% vs. 57.1%), number identification (52.3% vs. 48.1%), use of arithmetic operations (48.3% vs. 44.9%), fractions (46.0% vs. 43.8%), and clock reading (40.3% vs. 37.2%). A noticeable gap is observed in currency identification, with boys scoring 79.2% compared to 71.5% for girls. However, the difference in reading simple graphs is minimal (80.6% for boys vs. 79.6% for girls), showing near parity.

- Students from certain ethnic and remote groups, especially in the Himali region, lagged. Madhesi Others recorded the highest average score (60.5%), significantly above the national average (50.2%), followed by Madhesi Janajati (53.7%), Pahadi Janajati (53.2%), Pahadi Dalit (53.1%), and Pahadi Brahmin/Chhetri (52.6%)—all performing slightly above or around the national level. Madhesi Dalit also performed well at 51.6%.
- Students with shorter commute times, regular school meals, and supportive family environments showed higher achievement.
- Teacher’s regular attendance in the classroom and positive teacher–student relationships correlated strongly with better scores.

Key Results from One-to-One Assessment

- Between NARN 2020 and NARN 2024, there is no significant change in students’ performance on reading-related tasks. Oral reading fluency shows a slight decline from 25 cwpm in 2020 to 23 cwpm in 2024. A similar pattern is observed in reading comprehension, where scores remain stable, increasing marginally from 47.7% in 2020 to 48.4% in 2024, indicating overall stability with a slight improvement in text understanding.
- In numeracy skills, there is significant progress. Number knowledge (Identification) improved from 61.3% in 2020 to 72.68% in 2024, reflecting stronger basic math understanding. New measures in 2024 show high achievement in summing values (75.62%), subtracting values (66.85%), and particularly in the use of arithmetic operations (80.30%), suggesting that students are more confident and skilled in applying arithmetic procedures.

Proficiency Levels in Reading

- In oral reading fluency, students reading fewer than 20 correct words per minute are classified as pre-basic, and this group constitutes 50.9% of the students, reflecting serious challenges in basic decoding, accuracy, and reading speed. Those who read between 20 and 34 correct words per minute fall under the basic category and account for 24.4% of the students, suggesting emerging reading skills but insufficient fluency. Students reading 35 to 45 correct words per minute are considered proficient, yet only 8.5% of students reach this level, indicating that relatively few learners meet the expected fluency benchmark. In contrast, 16.2% of

students read more than 45 correct words per minute and are categorized as advanced.

- In reading comprehension, students scoring less than 30 are categorized as pre-basic, and 32.6% of the students fall into this group, indicating substantial difficulty in understanding and interpreting written texts. Those scoring between 30 and 59 are classified as basic, accounting for 16.2% of students, which suggests limited comprehension skills that require further instructional support. Students who score between 60% and 79% are considered proficient, representing 20.7% of the total and demonstrating an acceptable level of reading comprehension aligned with expected learning standards. Notably, students scoring 80% and above are categorized as advanced, comprising 30.5% of students.
- The students could read at 45 cwpm or more and comprehend 80% or more of the questions related to a 60-word text, increasing from 8.4% in 2020 to 9.1% in 2024.
- The proportion of non-readers (ORF = 0) declined from 10.2% in 2020 to 6.2% in 2024, indicating progress in reducing the number of students completely unable to read. Similarly, the share of initial readers (ORF: 1–15) increased from 27.6% to 34.2%, suggesting that more children are at least beginning to develop basic reading skills. However, the percentage of emergent readers (ORF: 16–44) remained almost stagnant, at 43.3% in 2020 and 43.4% in 2024. More concerning is the decline in fluent readers (ORF: 45 or above), which fell from 18.9% to 16.2%.

Proficiency Levels in Numeracy

- A considerable proportion of learners (14.4%) are at the below basic level, meaning they lack the most basic numeracy knowledge and skills and are unable to complete even the simplest grade-level tasks. The largest share of learners (43.9%) falls under the basic level, suggesting that although they have limited numeracy knowledge and skills, they can only partially complete basic grade-level tasks. In contrast, about one-quarter of learners (26.4%) are proficient, indicating that they have developed sufficient numeracy knowledge and skills to successfully complete the most basic grade-level tasks. A smaller but notable proportion (15.4%) is at an advanced level.
- A higher proportion of girls fall below the basic level (13.3%) compared to boys (10.3%), indicating that more girls lack the most basic numeracy knowledge and are unable to complete simple grade-level tasks. Similarly, a slightly larger share of girls (46.2%) is at the basic level than boys (44.1%), suggesting limited numeracy skills that allow only partial completion of basic grade-level tasks. In contrast, boys demonstrate stronger performance at higher proficiency levels. A greater proportion of boys are proficient (28.6%) than girls (25.7%), indicating that more boys have developed sufficient numeracy knowledge and skills to successfully complete basic grade-level tasks. Likewise, boys also outperform girls at the advanced level (17.1% versus 14.8%).

7.2 Conclusion

Students' achievements in numeracy and reading offer critical, practical, and adoptable insights into current learning trends in Nepal. There has been remarkable progress in both areas, which deserves to be highlighted as a sign of positive educational change. Students have shown measurable improvement in numeracy, reflecting the success of interventions aimed at enhancing mathematical understanding. These achievements are especially evident in real-life and visual tasks such as reading graphs, identifying currency, and performing basic calculations. However, students continue to struggle with abstract mathematical concepts, including fractions, geometry, and time-telling. This points to the need for significant reforms in the teaching of these aspects of numeracy. There is a clear need to strengthen conceptual learning through improved pedagogy, curriculum design, and teacher support, especially in abstract content areas.

Reading is another area where considerable progress is visible. There has been a slight increase in average achievement scores over the assessment period compared to the previous one. Students show relative strength in decoding and comprehension, particularly in word identification and understanding text. However, weaknesses remain in expressive and written language skills, such as dictation and picture description. These gaps highlight the need to shift focus toward writing, oral expression, and early-grade literacy development. Strengthening teacher capacity in reading instruction, increasing access to engaging, age-appropriate reading materials, and promoting library use are essential steps toward improving reading performance.

There are considerable disparities across geographic, demographic, and socioeconomic dimensions. Students in urban areas tend to perform better than those in rural areas, likely due to better infrastructure, the availability of qualified teachers who prefer to stay in urban settings, and richer learning environments. Across regions, the Tarai excels in numeracy, while the Hill region leads in reading. Although gender gaps are minimal, boys slightly outperform girls in numeracy, while girls have a slight advantage in reading. Ethnic disparities are particularly challenging, with some Madhesi and Himali groups scoring well below national averages. These inequities in learning outcomes call for context-sensitive, inclusive, and culturally responsive pedagogies to bridge achievement gaps across different strata of society.

Beyond demographic factors, school- and family-related elements significantly shape student learning outcomes. Students benefit when teachers consistently support and engage them with care and encouragement. Such support plays a vital role in academic performance, as motivated students tend to achieve better results. Similarly, how students use their time is crucial for academic success. Those who dedicate time to homework or reading perform better. Parental guidance in the area is crucial.

In this context, parental involvement is another crucial factor. Literate parents, especially those who actively support their children's education by asking about schoolwork or visiting schools, contribute positively to learning outcomes. Students who receive help from family members tend to outperform those who rely on friends or lack support at home. Additionally, students who regularly read books beyond the standard curriculum achieve better results in both reading

and numeracy. This suggests that encouraging independent reading is an important tool for overall academic development and underscores the need to increase parental awareness.

In conclusion, while progress in numeracy is encouraging, the stagnant growth in reading and persistent inequalities across regions and groups demand a need for a more integrated, inclusive, and targeted approach. Improving education in Nepal requires strategic investment in teacher development, equitable resource distribution, community engagement, and a sustained focus on literacy from the earliest grades.

7.3 Recommendations

The 2024 NARN findings suggest the following recommendations to improve early reading and numeracy achievement.

- a) **Strengthen foundational reading:** Targeted interventions are required due to low proficiency levels and reading achievement. This involves expanding access to a range of reading materials, strengthening early-grade reading programs, and improving teacher preparation and development in foundational literacy.
- b) **Close achievement gaps in numeracy:** Although there has been progress in numeracy, many students are still at basic or below-basic levels, especially when it comes to abstract concepts like fractions and clock reading. The shift from number sense to applied mathematical thinking needs better support in curriculum and instruction.
- c) **Reduce regional and ethnic disparities:** There are notable differences between provinces and ethnic groups. Policy interventions must be sensitive to ethnicity and geography, concentrating on underperforming regions and providing support to marginalized communities.
- d) **Improve teacher effectiveness:** Better results are associated with consistent teacher presence in the classroom and positive teacher-student relationships. Fostering supportive classroom environments, professional development, and teacher attendance, as well as improving teacher time on task, should be the focus of policy interventions.
- e) **Increase parental and community support:** The benefits of community-based programs, parental involvement, and family support underscore the significance of collaborative mechanisms between the home, school, and community.
- f) **Improve the provision of midday meals:** Students' academic performance is positively affected by the regular provision of midday meals at school that are made with local ingredients, suggesting that midday meal provision needs to be further improved.
- g) **Design and implement differentiated provisions:** Various socio-cultural, economic, geographical, and home-related factors affect students' performances on reading and numeracy, which suggest differentiated and diverse provisions and teaching-learning practices for improving the reading and numeracy skills of students.

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ANNEXES

Annex 1: Data Analysis Framework for Groups Assessment

Achievement in reading and numeracy

Skills	Assessment types	Questions	Total obtained Score	Total score	Achievement score
Reading	Groups assessment	Q1 to Q5	##	24	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
Numeracy	Groups assessment	Q6 to Q12	##	22	$\frac{\text{Obtained score}}{\text{Total score}} * 100$

Achievement score in Reading by sub-tasks

SN	Sub-Task under Reading	Questions	Total obtained Score	Total score	Achievement score
1	Word Identification	Q1	##	4	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
2	Dictations	Q2	##	8	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
3	Vocabulary	Q3	##	4	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
4	Picture Description	Q4	##	4	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
5	Reading Comprehension	Q5	##	4	$\frac{\text{Obtained score}}{\text{Total score}} * 100$

Achievement score in Numeracy by sub-tasks

SN	Sub-Task under Numeracy	Questions	Total obtained Score	Total score	Achievement score
1	Geometric shapes identification	Q6a	##	1	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
2	Identification of angels and sides	Q6b	##	1	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
3	Number Identification	Q7	##	6	$\frac{\text{Obtained score}}{\text{Total score}} * 100$

SN	Sub-Task under Numeracy	Questions	Total obtained Score	Total score	Achievement score
4	Use of Basic Mathematical/Arithmetic Operation	Q8	##	6	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
5	Fraction	Q9	##	3	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
6	Clock Reading (Time)	Q10	##	2	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
7	Identification of Currency	Q11	##	1	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
8.	Reading Simple Graph	Q12	##	2	$\frac{\text{Obtained score}}{\text{Total score}} * 100$

Annex 2: One-to-One Assessment Framework

Achievement score in Reading and Numeracy in one-to-one assessment

SN	Sub-Task under Numeracy	Questions	Total obtained Score	Total score	Achievement score
1	Oral Reading Fluency	Correct words per minutes	##	60	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
2	Reading Comprehension	A, B, C, D, and E	##	5	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
3	Number Knowledge (Identification)	A and B	##	2	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
4	Summing the values	C	##	1	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
5	Subtracting the values	D	##	1	$\frac{\text{Obtained score}}{\text{Total score}} * 100$
6	Use of arithmetic operation	E	##	1	$\frac{\text{Obtained score}}{\text{Total score}} * 100$

Annex 3: Results on Background Information Questionnaires

Province		
	Frequency	Percent
Koshi	62159	13.3
Madhesh	142029	30.4
Bagmati	62414	13.3
Gandaki	29647	6.3
Lumbini	80477	17.2
Karnali	40557	8.7
Sudurpaschim	50577	10.8
Total	467860	100.0
Municipality		
	Frequency	Percent
Rural Municipality	187894	40.2
Municipality	239383	51.2
Sub Metropolitan City	23219	5.0
Metropolitan City	17364	3.7
Total	467860	100.0
Municipality		
	Frequency	Percent
Rural Municipality	187894	40.2
Municipality	279966	59.8
Total	467860	100.0
Ecological Region		
	Frequency	Percent
Mountain	11125	2.4
Hill	163947	35.0
Tarai	292788	62.6
Total	467860	100.0
Gender		
	Frequency	Percent
Boys	179792	38.4

Province		
Girls	201745	43.1
Not reported	86323	18.5
Total	467860	100.0
Q1. What is the medium of instruction used in your school for subjects other than Nepali?		
	Frequency	Percent
Nepali	191176	40.9
English	16067	3.4
Both-Nepali & English	162579	34.7
Others	53924	11.5
Not reported	44114	9.4
Total	467860	100.0
Q2. What is your caste/ethnicity?		
	Frequency	Percent
Madhesi Brahmin/Chhetri	36117	7.7
Madhesi Janajati	78369	16.8
Madhesi Dalit	41194	8.8
Madhesi Others	55078	11.8
Himali/Pahadi Brahmin/Chhetri	92611	19.8
Himali/Pahadi Janajati	61567	13.2
Himali/Pahadi Dalit	34169	7.3
Himali/Pahadi Others	6169	1.3
Not reported	62585	13.4
Total	467860	100.0
Q4. Which subject do you like the most?		
	Frequency	Percent
English	35732	7.6
Math	43783	9.4
Nepali	285991	61.1
Not Reported	74673	16.0
Others	15593	3.3
Social	12087	2.6

Province		
Total	467860	100.0
Q5. How long does it take you to travel from your home to school?		
	Frequency	Percent
15 Minutes	276580	59.1
30 Minutes	82721	17.7
45 Minutes	24425	5.2
1 Hour	25771	5.5
More than one hour	6209	1.3
Not reported	52154	11.1
Total	467860	100.0
Q6. At your school, how do you usually spend your leisure time during periods when there are no classes?		
	Frequency	Percent
Classwork	222298	47.5
Homework	133201	28.5
Playing	50727	10.8
Others	6074	1.3
Not reported	55559	11.9
Total	467860	100.0
Q7. How regularly does your school provide midday meal to you?		
	Frequency	Percent
Daily	362761	77.5
Frequently	22891	4.9
Sometime	21035	4.5
Not reported	61172	13.1
Total	467860	100.0

Province		
Q8. What types of midday meal your school provide to you?		
	Frequency	Percent
Meals prepared at school using locally available ingredients	297382	63.6
Meals purchased from the market by the school	53375	11.4
Money provided instead of meals/food	31293	6.7
Others	8135	1.7
Not reported	77675	16.6
Total	467860	100.0
Q9. How would you rate the meals/food provide by the school?		
	Frequency	Percent
I like the most	204264	43.7
I like	120561	25.8
I like to some extent	60191	12.9
I don't like	4055	0.9
Not reported	78789	16.8
Total	467860	100.0
Q10. How do you rate the presence of the Math teacher in the class?		
	Frequency	Percent
The teacher stays in class for the entire period	341164	72.9
The teacher arrives late and leaves early	21735	4.6
The teacher generally does not come to class	16738	3.6
Not reported	88223	18.9
Total	467860	100.0
Q10. How do you rate the presence of a Nepali teacher in the class?		
	Frequency	Percent
The teacher stays in class for the entire period	311627	66.6
The teacher arrives late and leaves early	18516	4.0
The teacher generally does not come to class	15969	3.4

Province		
Not reported	121747	26.0
Total	467860	100.0
Q11A. The teacher teaches with care and affection.		
	Frequency	Percent
Strongly agree	391983	83.8
Agree	16219	3.5
Disagree	3713	0.8
Strongly disagree	6063	1.3
Not reported	49882	10.7
Total	467860	100.0
Q11B. Most teachers pay attention to me		
	Frequency	Percent
Strongly agree	331397	70.8
Agree	55595	11.9
Disagree	10048	2.1
Strongly disagree	10547	2.3
Not reported	60272	12.9
Total	467860	100.0
Q11C. Teachers do not give punishments.		
	Frequency	Percent
Strongly agree	234123	50.0
Agree	79770	17.0
Disagree	34538	7.4
Strongly disagree	47374	10.1
Not reported	72055	15.4
Total	467860	100.0
Q11D. Teachers take us to the library and encourage us to read a variety of books.		
	Frequency	Percent
Strongly agree	216326	46.2
Agree	73208	15.6

Province		
Disagree	36303	7.8
Strongly disagree	73361	15.7
Not reported	68661	14.7
Total	467860	100.0
Q11E. Teachers take us to the library and suggest reading reference books		
	Frequency	Percent
Strongly agree	242568	51.8
Agree	74915	16.0
Disagree	26952	5.8
Strongly disagree	53944	11.5
Not reported	69482	14.9
Total	467860	100.0
Q11F. The math teacher makes learning fun by engaging us in games.		
	Frequency	Percent
Strongly agree	264337	56.5
Agree	63252	13.5
Disagree	24435	5.2
Strongly disagree	41880	9.0
Not reported	73956	15.8
Total	467860	100.0
Q12. How does your math teacher teach you?		
	Frequency	Percent
The teacher speaks and writes on the board.	326061	69.7
The teacher engages students in classwork and activities.	256054	54.7
The teacher asks questions, and students provide the answers.	222563	47.6
The teacher asks questions and provides the answers to the students.	206166	44.1

Province		
Q12. How does your Nepali teacher teach you?		
	Frequency	Percent
The teacher speaks and writes on the board.	257236	55.0
The teacher engages students in classwork and activities.	249479	53.3
The teacher asks questions, and students provide the answers.	235190	50.3
The teacher asks questions and provides the answers to the students.	210977	45.1
Q13. How do you spend most of your time at home?		
	Frequency	Percent
Reading and doing homework	351883	75.2
Playing games	34746	7.4
Watching mobile videos or TV	5804	1.2
Doing housework	23548	5.0
Not Reported	51879	11.1
Total	467860	100.0
Q14. Who helps you with your studies at home?		
	Frequency	Percent
Family members	334455	71.5
Friends	47503	10.2
No one at home can help with my studies	31087	6.6
Not reported	54815	11.7
Total	467860	100.0
Q15. Can your mother read and write?		
	Frequency	Percent
Yes	242661	51.9
No	155883	33.3
Not reported	69315	14.8
Total	467860	100.0
Q16. Can your father read and write?		
	Frequency	Percent
Yes	303397	64.8

Province		
No	89126	19.0
Not reported	75337	16.1
Total	467860	100.0
Q17. How often do you read reference books?		
	Frequency	Percent
Frequently	189462	40.5
Sometime	159993	34.2
Never	51430	11.0
Not reported	66975	14.3
Total	467860	100.0
Q18. Do your parents ask you, "What did you learn today?"		
	Frequency	Percent
They ask this question every day.	187490	40.1
They sometimes ask this question.	153066	32.7
They never ask this question.	58551	12.5
Not reported	68753	14.7
Total	467860	100.0
Q19. Do your parents visit the school to inquire about your studies with your teacher?		
	Frequency	Percent
Frequently	103302	22.1
Sometime	235888	50.4
Never	58351	12.5
Not reported	70319	15.0
Total	467860	100.0

Annex 4: Results on Reading

		Overall	Sub-task of Reading				
		Reading	Word Identification	Dictations	Vocabulary	Picture Description	Reading Comprehension
Nepal	Nepal	44.9	58.4	36.9	52.9	26.7	57.5
Province	Koshi	52.8	66.1	47.5	59.9	31.2	64.6
	Madhesh	38.7	50.0	27.2	48.1	22.6	56.9
	Bagmati	52.7	64.3	48.9	58.7	37.1	58.3
	Gandaki	61.4	67.8	55.1	68.5	46.7	75.6
	Lumbini	43.1	68.3	35.4	48.4	19.2	51.9
	Karnali	38.8	48.7	30.9	49.3	21.5	51.5
	Sudurpaschim	40.9	51.6	32.6	51.6	24.5	52.6
Municipality	Rural Municipality	42.6	59.6	34.9	49.4	23.3	53.5
	Municipality	45.0	56.1	36.1	54.5	27.5	59.7
	Sub Metropolitan City	49.8	68.3	43.8	54.0	30.0	59.0
	Metropolitan City	61.4	63.1	60.0	67.8	49.1	68.2
Municipality	Rural Municipality	42.6	59.6	34.9	49.4	23.3	53.5
	Municipality	46.4	57.5	38.2	55.3	29.1	60.2
Ecological Region	Mountain	43.9	46.9	34.9	54.2	37.4	54.8
	Hill	48.3	57.7	43.3	56.8	29.9	58.7
	Tarai	43.0	59.2	33.4	50.7	24.6	56.9
Gender	Boys	46.8	61.1	38.3	55.2	28.0	59.9
	Girls	47.1	61.2	39.3	54.2	28.7	59.6
	Not reported	35.8	46.1	28.1	45.2	19.6	47.5
Caste/Ethnicity	Madhesi Brahmin/Chhetri	42.5	58.6	34.7	49.3	23.8	53.9
	Madhesi Janjati	44.2	61.7	35.0	51.2	24.6	57.8
	Madhesi Dalit	43.1	55.7	31.3	55.7	24.3	60.1
	Madhesi Others	46.3	62.6	33.5	55.7	26.8	65.4
	Himali/Pahadi Brahmin/Chhetri	47.0	57.3	40.9	54.5	30.8	57.6
	Himali/Pahadi Janjati	55.1	69.6	50.5	62.1	34.2	63.8
	Himali/Pahadi Dalit	51.1	62.9	44.7	59.8	31.7	62.9
	Himali/Pahadi Others	50.0	64.9	44.6	57.7	29.8	58.7
	Not reported	29.9	39.6	22.7	37.2	16.5	41.1
	Total	44.9	58.4	36.9	52.9	26.7	57.5
Distance from home to school	15 Minutes	47.0	60.6	38.3	55.8	28.8	60.4
	30 Minutes	47.8	61.6	39.6	56.8	29.0	60.1
	45 Minutes	48.1	59.2	42.2	56.9	28.0	59.8
	1 Hour	46.2	58.7	41.1	52.2	28.0	56.2
	More than one hour	39.3	52.2	33.0	48.9	17.4	51.1

		Overall	Sub-task of Reading				
		Reading	Word Identification	Dictations	Vocabulary	Picture Description	Reading Comprehension
	Not reported	27.3	41.6	20.8	30.6	12.2	38.0
Use of leisure time during periods when there are no classes	Classwork	47.2	60.8	38.0	56.7	28.9	60.9
	Homework	50.3	62.7	43.6	57.7	31.5	62.8
	Playing	39.7	57.3	31.3	47.0	20.1	51.2
	Others	42.8	45.4	36.5	55.7	27.5	55.5
	Not reported	27.4	41.0	21.3	31.3	12.7	37.1
Availability of midday meal at school	Daily	48.4	61.3	40.0	57.3	29.9	61.9
	Frequently	41.9	58.1	33.2	51.6	21.3	53.7
	Sometime	39.1	58.7	35.4	42.5	17.9	44.8
	Not reported	27.0	40.9	20.3	31.0	12.9	36.9
Types of midday meal provided by school	Meals prepared at school using locally available ingredients	49.2	62.7	41.1	57.8	30.0	62.5
	Meals purchased from the market by the school	43.7	54.7	35.9	52.4	27.0	56.0
	Money provided instead of meals/food	46.0	60.6	38.5	51.4	30.8	56.2
	Others	47.8	58.2	35.1	64.9	28.7	64.6
	Not reported	28.3	43.5	20.8	33.8	12.1	38.9
Rating for the meals/food provided by the school	I like the most	51.2	65.0	43.5	59.2	31.4	64.5
	I like	44.1	58.2	34.5	54.2	25.5	57.6
	I like to some extend	47.7	59.4	40.8	55.2	31.1	58.8
	I don't like	33.7	45.9	20.7	46.8	24.8	43.4
	Not reported	28.2	41.4	21.1	33.4	13.2	38.9
Presence of Nepali teacher in the class	The teacher stays in class for the entire period	49.9	64.0	41.2	59.2	30.2	63.4
	The teacher arrives late and leaves early	43.2	58.9	37.8	46.8	27.5	50.4
	Not reported	32.0	43.2	24.4	38.4	17.5	43.7
Teacher teaches with care and affection	Strongly agree	47.0	60.5	38.5	55.5	28.4	60.4
	Agree	41.5	56.9	35.8	49.6	21.5	49.6
	Disagree	35.1	61.0	30.2	36.7	14.3	38.3
	Strongly disagree	37.5	48.4	30.8	41.9	23.9	49.5
	Not reported	31.0	43.3	25.4	36.4	16.3	39.3
Teachers pay attention to students	Strongly agree	47.5	61.5	39.4	55.7	28.0	60.8
	Agree	43.9	54.8	34.2	54.2	28.0	58.3
	Disagree	39.9	55.3	32.4	47.6	25.1	46.7
	Strongly disagree	50.0	63.4	45.3	51.7	33.5	61.2

		Overall	Sub-task of Reading				
		Reading	Word Identification	Dictations	Vocabulary	Picture Description	Reading Comprehension
	Not reported	31.5	44.2	24.8	37.4	17.6	39.9
Teachers do not give punishments	Strongly agree	46.4	62.3	37.2	55.6	26.5	59.4
	Agree	50.6	62.7	44.7	56.1	31.2	64.3
	Disagree	47.7	58.2	37.8	58.4	32.5	61.3
	Strongly disagree	45.4	51.8	38.5	54.2	29.6	59.7
	Not reported	32.0	45.5	25.6	37.3	17.7	40.4
Teachers take the students to the library and encourage to read a variety of books	Strongly agree	47.5	60.5	40.1	54.7	29.5	59.9
	Agree	49.8	63.8	40.7	60.0	30.6	63.2
	Disagree	42.1	47.1	33.8	57.2	23.5	57.2
	Strongly disagree	46.6	66.8	36.6	52.3	25.2	62.3
	Not reported	31.0	43.1	24.3	38.1	17.3	38.8
Teachers take the to the library and suggest reading reference books	Strongly agree	47.8	62.6	40.1	54.8	28.4	60.8
	Agree	46.1	53.5	35.5	58.7	30.3	63.0
	Disagree	46.3	60.4	41.1	53.6	27.4	54.1
	Strongly disagree	46.7	63.0	37.0	55.1	27.9	60.4
	Not reported	31.4	44.7	25.1	38.3	16.0	38.9
Spend most of your time at home	Reading and doing homework	48.7	62.1	40.5	57.1	30.0	61.8
	Playing games	35.8	52.4	26.4	43.9	18.4	47.2
	Watching mobile videos or TV	33.7	44.8	23.9	43.2	19.3	47.2
	Doing housework	42.7	53.5	35.8	50.6	24.3	56.3
	Not Reported	27.5	41.2	20.9	32.6	12.3	36.9
Supports for studies at home	Family members	49.1	61.9	41.0	57.7	30.7	62.3
	Friends	39.1	57.8	32.4	44.8	17.0	49.8
	No one at home can help with my studies	37.6	48.8	26.7	47.9	23.1	52.3
	Not reported	28.4	43.0	21.5	33.5	13.2	37.9
Mother read and write	Yes	49.0	63.4	41.8	56.2	29.7	61.2
	No	44.8	57.3	35.3	54.7	27.4	58.6
	Not reported	30.6	43.5	23.0	37.3	14.8	41.8
Father read and write	Yes	49.0	63.9	41.2	56.5	29.6	61.6
	No	42.3	52.2	33.6	52.7	25.9	55.7
	Not reported	31.4	43.6	23.4	38.6	16.2	43.0
Reading reference books	Frequently	49.1	63.0	41.8	55.8	31.1	61.3
	Sometime	48.5	61.9	39.8	57.6	29.5	62.4
	Never	40.4	55.2	32.1	51.0	20.7	51.3
	Not reported	27.7	39.5	19.7	35.2	12.5	39.7

		Overall	Sub-task of Reading				
		Reading	Word Identi fication	Dicta tions	Voca bulary	Picture Descrip tion	Reading Compre hension
Parents asked, “What did you learn today?”	They ask this question every day.	48.6	59.3	41.5	57.2	31.6	60.2
	They sometimes ask this question.	49.0	63.2	40.8	57.2	29.6	62.6
	They never ask this question.	41.7	63.5	31.1	48.9	19.7	56.2
	Not reported	28.3	41.0	20.2	35.1	13.0	39.9
Parents visiting the school to inquire about studies with the teacher	Frequently	44.9	56.6	36.9	53.7	28.1	57.0
	Sometime	50.6	64.6	42.4	58.6	31.9	63.7
	Never	41.8	59.6	34.4	49.1	19.6	53.8
	Not reported	28.2	39.2	20.3	35.8	13.3	40.5

Annex 5: Results on Numeracy

		Overall	Sub-Task of Numeracy							
		Numeracy	Geometric Shapes Identification	Angle Identification	Number Identification	Use of Arithmetic Operation	Fraction	Clock Reading	Identification of Currency	Reading Simple Graph
Nepal		50.2	44.7	56.3	48.4	45.7	43.6	38.7	73.2	78.2
Province	Koshi	54.8	51.4	63.3	54.2	48.1	49.5	43.1	74.0	84.1
	Madhesh	53.7	44.7	68.1	48.4	52.8	46.2	47.7	75.3	76.3
	Bagmati	47.6	48.2	44.0	50.9	40.7	41.3	28.8	71.2	76.5
	Gandaki	61.1	56.6	56.4	65.1	55.8	53.3	45.4	79.5	87.9
	Lumbini	44.8	42.1	48.9	41.3	38.7	39.6	36.3	69.6	76.5
	Karnali	42.2	29.3	46.2	40.9	37.2	35.9	25.9	69.1	77.9
	Sudurpashim	46.1	41.2	49.3	46.0	40.8	39.1	29.9	74.0	75.7
Municipality	Rural Municipality	47.4	41.5	52.8	45.1	42.4	42.0	35.3	71.6	77.8
	Municipality	51.8	45.3	59.0	50.1	48.0	44.3	41.7	74.3	78.5
	Sub Metropolitan City	51.3	48.0	61.0	49.7	47.1	47.5	34.8	70.1	77.8
Municipality	Metropolitan City	55.5	65.5	50.0	60.6	47.6	46.9	38.3	79.2	79.8
	Rural Municipality	47.4	41.5	52.8	45.1	42.4	42.0	35.3	71.6	77.8
	Municipality	52.0	46.8	58.6	50.7	47.9	44.8	40.9	74.2	78.5
Ecological Region	Mountain Hill	45.8	45.3	39.1	47.2	40.1	43.5	22.1	63.1	81.1
		48.0	42.9	50.5	48.4	41.7	41.1	33.6	73.9	79.2
	Tarai	51.5	45.6	60.2	48.5	48.1	45.1	42.1	73.2	77.6
Gender	Boys	53.2	47.4	59.8	52.3	48.3	46.0	40.3	79.2	80.6
	Girls	49.9	45.5	57.1	48.1	44.9	43.8	37.2	71.5	79.6
	Not reported	44.5	36.9	47.0	41.1	42.0	38.3	38.6	64.6	70.0

		Overall	Sub-Task of Numeracy							
		Numeracy	Geometric Shapes Identification	Angle Identification	Number Identification	Use of Arithmetic Operation	Fraction	Clock Reading	Identification of Currency	Reading Simple Graph
Cates/ Ethnicity	Madhesi Brahmin/Chhetri	47.5	40.5	53.0	44.8	43.6	41.4	35.0	74.1	76.3
	Madhesi Janjati	53.7	44.5	62.1	50.7	50.7	45.8	45.2	76.8	80.9
	Madhesi Dalit	51.6	49.5	63.5	47.4	47.5	45.3	39.1	78.1	79.9
	Madhesi Others	60.5	48.7	67.8	58.3	58.9	53.0	52.0	82.2	83.2
	Himali/Pahadi	48.2	43.4	49.3	47.7	43.5	41.1	34.4	72.1	78.2
	Brahmin/Chhetri	52.4	52.1	55.3	52.6	44.2	46.5	39.1	76.3	85.5
	Himali/Pahadi Janjati	52.7	45.7	62.4	51.8	46.1	47.7	38.7	76.5	83.9
	Himali/Pahadi Dalit	46.4	46.4	46.7	46.9	39.5	41.7	33.9	63.4	75.9
	Himali/Pahadi Others	36.8	34.4	44.7	34.9	32.7	31.8	26.8	54.7	60.6
	Total	50.2	44.7	56.3	48.4	45.7	43.6	38.7	73.2	78.2
Distance from home to school	15 Minutes	53.7	46.8	60.3	52.3	49.5	46.4	41.4	78.3	81.9
	30 Minutes	51.4	46.4	55.7	50.8	45.6	44.4	39.6	74.2	82.2
	45 Minutes	49.2	46.0	55.7	46.6	44.9	41.4	38.1	72.7	79.2
	1 Hour	46.2	40.7	52.2	44.1	39.9	42.7	34.7	66.6	77.2
	More than one hour	45.7	52.6	54.2	44.1	36.6	47.9	41.6	62.4	62.9
	Not reported	32.0	30.8	38.5	27.3	29.9	28.5	24.2	49.4	54.5
	Classwork	54.2	47.7	60.8	52.3	50.5	46.7	42.1	77.9	81.9
	Homework	53.3	47.3	55.2	53.2	47.0	46.3	42.3	77.3	83.8
	Playing	44.7	41.4	58.0	42.5	39.2	39.1	29.9	68.8	73.8
	Others	47.1	37.9	63.2	42.3	41.9	49.5	32.1	64.5	75.9
Availability of midday meal at school	Not reported	32.0	30.0	38.2	27.5	29.6	28.4	24.6	49.6	54.6
	Daily	54.2	48.7	59.9	53.2	49.4	47.1	42.2	77.8	82.5
	Frequently	45.7	37.7	50.5	44.1	40.4	36.7	35.4	69.5	80.2
	Sometime	40.0	25.1	48.5	35.1	37.2	35.2	28.9	65.7	71.5
	Not reported	31.3	30.0	39.3	26.4	28.6	28.7	22.0	50.0	54.2
Types of midday meal provided by school	Meals prepared at school using locally available ingredient	54.5	48.6	60.3	53.3	49.9	47.2	43.0	78.4	83.0
	Meals purchased from the market by the school	49.2	42.5	53.1	50.6	43.6	37.9	35.6	76.0	80.3
	Money provided instead of meals/food	48.6	43.7	56.8	47.5	42.2	47.1	34.9	68.6	76.0
	Others	60.6	41.0	60.6	57.5	63.8	53.2	44.8	81.5	87.0
	Not reported	33.6	31.7	42.4	27.8	30.6	31.6	24.8	52.3	58.4
Rating for the midday meals	I like the most	55.4	49.7	60.9	54.8	50.3	48.1	43.4	78.2	84.0
	I like	51.3	45.6	59.5	49.1	46.3	43.9	41.1	76.8	79.9

		Overall	Sub-Task of Numeracy							
		Numeracy	Geometric Shapes Identification	Angle Identification	Number Identification	Use of Arithmetic Operation	Fraction	Clock Reading	Identification of Currency	Reading Simple Graph
provided at school	I would like to some extend	52.3	40.5	53.4	52.3	48.2	46.7	36.3	75.3	82.4
	I don't like	38.9	39.9	49.7	34.1	32.0	34.6	28.2	66.2	71.7
	Not reported	33.8	33.5	41.9	28.6	31.5	29.8	25.0	53.5	57.9
Presence of Math teacher in the class	The teacher stays in class for the entire period	55.1	49.4	60.4	54.1	50.3	48.0	43.5	77.9	83.6
	The teacher arrives late and leaves early	40.9	34.9	44.8	40.3	36.1	32.6	23.5	68.0	74.4
	Not reported	34.3	29.4	45.0	29.7	31.6	30.2	25.1	56.0	58.4
Teacher teaches with care and affection	Strongly agree	52.9	47.0	59.2	51.4	48.3	46.2	41.1	76.0	81.0
	Agree	43.5	36.7	47.8	44.1	36.8	37.6	29.9	65.1	75.1
	Disagree	35.0	33.5	32.4	32.1	34.6	23.4	16.1	50.3	75.6
Teachers pay attention to students	Strongly disagree	45.7	30.3	60.8	43.1	40.2	37.5	32.4	76.6	80.3
	Not reported	32.5	31.6	37.4	28.3	29.1	27.8	24.4	54.7	57.4
	Strongly agree	53.5	46.8	60.1	51.7	48.7	46.9	42.3	77.1	81.9
Teachers do not give punishments	Agree	49.1	45.3	53.2	48.2	44.0	43.6	33.1	73.3	78.7
	Disagree	45.7	39.5	49.7	45.7	40.5	36.3	32.8	70.6	77.2
	Strongly disagree	47.2	51.2	49.9	48.6	42.5	37.4	29.7	68.3	75.5
Teachers take the students to the library and encourage to read a variety of books	Not reported	34.3	31.8	40.3	30.9	31.9	28.2	26.2	52.9	58.1
	Strongly agree	52.2	45.2	60.8	50.0	47.4	46.4	41.2	75.6	80.3
	Agree	55.0	50.5	58.6	55.9	48.7	49.0	41.3	76.7	83.4
Teachers take the to the library and suggest reading reference books	Disagree	52.9	47.7	52.5	52.0	49.4	47.2	36.9	75.3	82.0
	Strongly disagree	52.2	49.6	57.8	51.8	48.7	38.8	41.4	76.7	81.6
	Not reported	35.5	31.7	39.8	31.2	32.9	30.1	26.4	57.9	61.7
Math teacher makes learning fun by	Strongly agree	52.9	45.4	58.0	51.2	48.8	46.1	40.7	77.2	81.3
	Agree	55.9	53.2	62.4	56.3	50.4	48.3	45.2	74.7	81.9
	Disagree	49.6	42.2	56.4	48.9	44.3	40.1	38.3	74.7	80.8
Math teacher makes learning fun by	Strongly disagree	50.6	46.5	60.2	48.6	44.8	45.2	37.2	74.8	80.7
	Not reported	35.3	32.4	40.1	30.7	32.4	30.9	27.0	56.4	60.6
	Strongly agree	54.2	46.6	60.6	52.3	50.1	47.8	43.3	77.3	81.7
Math teacher makes learning fun by	Agree	54.5	52.1	58.7	55.0	49.0	46.3	41.9	76.3	82.7
	Disagree	46.2	46.6	52.6	44.8	39.6	39.1	28.8	75.6	80.2
	Strongly disagree	47.8	42.3	54.6	47.8	41.7	40.7	32.2	72.0	79.6
Math teacher makes learning fun by	Not reported	34.8	30.9	41.3	29.9	32.2	30.1	27.7	55.2	59.5
	Strongly agree	55.5	48.3	60.9	54.1	51.6	49.1	43.4	77.9	83.0
	Agree	50.9	49.3	55.7	49.8	44.0	45.9	38.7	75.6	81.0
Math teacher makes learning fun by	Disagree	47.2	43.4	59.6	47.9	39.8	39.3	32.1	72.7	77.3

		Overall	Sub-Task of Numeracy							
		Numeracy	Geometric Shapes Identification	Angle Identification	Number Identification	Use of Arithmetic Operation	Fraction	Clock Reading	Identification of Currency	Reading Simple Graph
engaging us in games	Strongly disagree	46.5	42.8	55.6	46.8	40.6	33.4	35.1	71.5	78.9
	Not reported	33.3	29.3	39.6	27.9	30.7	29.2	25.9	55.3	58.6
	Spend most of your time at home	53.8	47.9	58.8	52.9	49.1	46.7	41.6	76.8	81.9
	Playing games	44.9	35.5	56.5	39.8	40.0	38.3	38.9	71.9	75.7
Supports for studies at home	Watching mobile videos or TV	41.4	33.4	49.0	35.9	37.5	36.0	28.3	69.8	76.7
	Doing homework	48.4	45.2	57.6	46.7	41.9	41.9	37.6	70.1	79.8
	Not Reported	31.0	30.1	39.0	26.2	28.6	28.1	20.0	51.2	54.2
	Family members	54.5	48.7	58.8	54.0	49.6	47.2	42.5	77.9	82.9
Mother read and write	Friends	43.7	38.5	51.3	38.8	40.0	38.1	35.0	70.2	71.7
	No one at home can help with my studies	44.4	33.8	61.3	40.3	39.7	38.4	33.8	67.4	76.0
	Not reported	32.4	31.6	42.3	27.5	29.9	29.4	21.1	50.5	56.7
	Yes	53.2	48.3	58.2	52.4	48.2	46.5	41.0	75.6	81.4
Father read and write	No	52.0	43.9	59.5	50.2	47.7	44.3	41.0	77.1	80.9
	Not reported	35.4	33.6	42.3	30.8	32.3	32.1	25.2	55.9	61.2
	Yes	54.0	48.1	59.6	52.8	49.3	47.0	42.7	77.2	82.2
	No	48.7	42.5	56.1	47.3	43.9	42.1	35.8	73.5	77.5
Reading reference books	Not reported	36.4	33.4	43.0	32.2	33.3	32.1	25.9	56.9	63.2
	Frequently	53.6	48.7	58.6	52.7	49.0	45.6	42.2	77.3	81.4
	Sometime	54.8	47.5	60.6	54.2	50.0	47.9	43.3	76.4	83.2
	Never	44.6	36.9	55.7	41.4	39.3	37.3	32.3	73.0	76.8
Parents asked "What did you learn today?"	Not reported	33.6	32.3	39.7	28.0	30.8	32.6	22.4	53.9	58.7
	They ask this question every day.	52.7	42.2	55.8	52.3	49.1	45.3	38.3	78.1	81.2
	They sometimes ask this question.	54.5	49.0	62.9	53.7	49.1	45.1	45.2	77.5	83.7
	They never ask this question.	48.4	52.1	55.9	44.0	41.9	47.4	40.3	66.8	76.3
Parents visiting the school to inquire about studies with the teacher	Not reported	35.0	35.3	42.9	29.9	31.9	32.6	23.7	55.6	59.5
	Frequently	50.2	41.6	55.1	48.3	47.3	40.6	39.1	75.9	79.5
	Sometime	56.3	51.1	60.0	56.2	51.1	49.6	43.9	78.3	84.0
	Never	44.8	37.4	60.2	40.6	38.5	39.5	35.7	70.9	76.2
	Not reported	34.0	33.5	42.0	29.0	31.2	31.5	23.0	53.9	58.5



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