PAL NETWORK
People's Action for Learning

Foundational Literacy and Numeracy in Nepal and Tanzania

Baseline Findings from the My Village Initiative

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March 2025

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ACKNOWLEDGEMENTS

We extend our heartfelt gratitude to our implementing partners and fellow PAL Network members—Galli Galli in Nepal and UWEZO in Tanzania—for their unwavering commitment to My Village 2 initiative. Their tireless efforts in data collection, implementation, and monitoring were instrumental to the program's success.

We are equally thankful to the dedicated teachers who led the learning camps and carried out the data collection activities with great care and diligence.

My Village 2 was implemented across 20 villages in Tanzania and 15 villages in Nepal from July to December 2024, reflecting a shared commitment to improving learning outcomes at the grassroots level.

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EXECUTIVE SUMMARY

Foundational learning—the acquisition of essential literacy and numeracy skills—is a critical pillar of human capital development and underpins future educational, economic, and social outcomes (World Bank, 2021; UNICEF, 2022). Despite significant global progress in expanding access to education, improvements in learning outcomes remain uneven and context-specific (UIS, 2020; UNESCO, 2022). This report explores these dynamics through the *My Village* program, an innovative initiative led by the PAL Network under its "Whole Village" mission, which aims to support one million children in building foundational skills in literacy and numeracy across diverse rural contexts by 2027.

My Village is designed as a community-centered, multi-year intervention that engages households, schools, local leaders, and volunteers to strengthen children's foundational learning through structured learning camps and continuous assessment. It builds upon establishing level-based learning camps with broader community engagement, parental involvement, and life skills education, and is closely monitored through baseline, midline, and endline assessment of children in order to track progress.

IThe current report focuses on the second edition of *My Village* implemented in Nepal and Tanzania, covering a sample of 1,437 households and 3,057 children across 15 villages in Nepal, and 2,469 households and 4,105 children across 20 villages in Tanzania. The baseline assessment targeted all children aged 6 to 17 years in these villages, resulting in comprehensive data on their foundational numeracy and literacy skills, alongside socio-demographic and household-level learning environment information.

The baseline assessment tool, adapted from PAL's International Common Assessment of Numeracy (ICAN) and Reading (ICAR), consisted of 22 numeracy and 20 literacy questions covering a spectrum from basic number sense and letter recognition to reading comprehension and problem-solving. These were administered in Nepali and Swahili, respectively, capturing children's responses as correct, incorrect, or no response.

Demographically, Nepal's sample has a slightly higher proportion of boys (49%) compared to Tanzania (46%), with an average age of 10 years in both countries. Tanzania's population skews younger, with nearly half (47%) aged 6-9 years, whereas Nepal has a more even age distribution with significant representation across 6-9, 10-13, and 14-17 age groups.

KEY FINDINGS:

• **Gender and Learning Outcomes:** Girls in Tanzania outperform boys consistently in both literacy and numeracy, likely reflecting higher parental literacy rate and greater parental support. In Nepal, girls show stronger performance only in literacy.

• **School Enrollment and Learning:** In Nepal, school enrollment strongly correlates with higher learning outcomes, highlighting the importance of sustained attendance. Tanzania's data reveals complexity, with some out-of-school children exhibiting stronger skills in advanced tasks, suggesting that schools mostly provide children with basic skills.

• **Socioeconomic and Household Factors:** Household wealth and parental education strongly predict learning outcomes, emphasizing the critical role of enriched home learning environments. Access to resources such as books, homework support, and storytelling at home significantly boosts foundational skills beyond what formal schooling alone provides.

• **School Type and Supplementary Tuition:** Government school students in Nepal outperform their private school peers, challenging assumptions about private schooling's superiority in rural areas. Paid tuition emerges as a positive factor, especially for younger children, pointing to its role in supplementing classroom learning.

• **Language of Instruction:** Home language use critically impacts learning, with Nepali-speaking children in Nepal performing better across subjects. Tanzania's near-universal use of Swahili aligns with research advocating for mother tongue instruction in early education.

• **Community Context:** Village-level influences affect learning outcomes, reinforcing the need for community-tailored strategies that engage local leaders, families, and schools collaboratively.

MPLICATIONS AND WAY FORWARD

The findings reveal that foundational learning is influenced by a complex interplay of individual, familial, institutional, and community factors. Addressing learning gaps requires integrated strategies that go beyond increasing access to school.

Priority should be given to fostering inclusive and gender-sensitive learning environments that actively address socio-cultural barriers such as early marriage, gender-based violence, and household labor, especially in South Asia and Sub-Saharan Africa. Strengthening parental and community engagement remains essential, including programs to improve adult literacy and equip caregivers with tools to support children's learning at home.

Policymakers must critically evaluate the role of supplementary education, such as paid tuition, recognizing its potential both as an equalizer and a contributor to educational inequality. Evidence-based integration of these informal supports into formal education planning could enhance foundational learning at scale.

Investing in mother tongue instruction will improve comprehension and retention, easing transitions to second languages and supporting better educational outcomes in multilingual settings.

Finally, the strong influence of community and local contexts highlights the importance of decentralized, tailored interventions. Empowering local actors to co-design solutions will enable more responsive and sustainable improvements in foundational learning.

SECTION 1:

INTRODUCTION

Despite impressive progress in increasing school enrollment across low- and middle-income countries, foundational learning remains a persistent and deeply entrenched challenge. In both Tanzania and Nepal, national and citizen-led assessments have shown that a large proportion of children in early grades are unable to read simple text or solve basic arithmetic problems designed for lower grade levels. For example, Uwezo (2017) found that nearly 70% of Grade 3 children in Tanzania could not read a Grade 2-level Swahili passage, while ASER Nepal (2022) reported that many Grade 5 students struggled with basic subtraction and reading comprehension tasks. These findings reveal a critical gap between curriculum expectations and actual learning levels, especially in rural and resource-constrained settings where instructional methods often follow a rigid, grade-level approach that does not account for individual student progress

It is within this context that the My Village project was conceptualized—rooted in the principles and pedagogy of **Teaching at the Right Level (TaRL)**. Recognizing that children learn best when instruction matches their current level of understanding rather than their age or grade, My Village was designed to identify each child's learning level and deliver

targeted support accordingly. The approach draws from proven TaRL strategies that have demonstrated success in improving foundational outcomes across diverse contexts, including India, Kenya, and Ghana (Banerjee et al., 2017; Pratham, 2020). In Nepal and Tanzania, My Village builds on these insights by combining level-based learning camps with broader community engagement, parental involvement, and life skills education. By placing foundational learning at the core and tailoring support to meet children where they are, My Village aims to ensure that no child is left behind—especially those who are in school but not learning.

This report presents the findings from the baseline survey of the second phase of My Village project, implemented in Tanzania and Nepal between July and December 2024. The My Village project aims to ensure that every child within the targeted communities, whether in or out of school, acquires foundational skills in reading and basic arithmetic. The first phase of My Village project was implemented in more than 300 villages across three countries -- Kenya, Nepal, and Tanzania—during 2022 and 2023. The second phase of the project was carried out across 20 villages in Tanzania and 15 villages in Nepal.

This report is structured as follows: Section 2 lays out the intervention design and implementation process, Section 3 provides details on the data collection and study design, Section 4 presents the findings from the baseline survey, and Section 5 concludes with challenges and recommendations.

SECTION 2:

INTERVENTION DESIGN AND IMPLEMENTATION

My Village project encompasses the following four components:

(i) Accelerated learning camps

Following the Teaching at the Right Level (TaRL) approach and Accelerated Learning Pedagogy (ALP), children are grouped according to theirlearning levels as determined by the baseline assessment tool. In numeracy, the assessment classifies children into the following learning levels: beginner, one digit recognition, two-digit recognition, easy operations (addition, subtraction, multiplication, division), difficult operations. Depending on the classroom size, learning dynamics, and the number of children at each levels, the categories are further consolidated. For instance, in many classrooms, children at the beginner and number recognition stages are often grouped together, while those at the addition and subtraction level form another group. Children working on multiplication and division are typically grouped together as well.

In literacy, the assessment categorizes children in the following learning levels: letter recognition, word recognition, paragraph reading, story reading, and comprehension. Following the same approach as in numeracy, children at the letter and word recognition stages are grouped together, while those at the paragraph and story reading level form another group. Throughout the period of the program, midline assessments and teachers' observations are used to regroup children every 10-15 days based on their evolving learning levels, enabling a process of continuous and adaptive learning. The structure of the sessions in the two countries follows different approaches in terms of

camp duration and implementation processes, tailored to the specific contexts and stakeholder needs. Table 1 outlines the implementation modalities adopted in each country.

Table 1: Implementation of learning

Design aspect	Nepal	Tanzania
Criteria for being assessed for baseline and endline	All the 6-17 years old children in the targeted villages	All the 6-17 years old children in the targeted villages
Total duration	2 cycles of 60 days and 45 days respectively	3 cycle of total 30 days
Duration of each cycle of learning camp (regrouping cycles)	15 days	10 days
Selection criteria of children for the learning camps	The 6-17 years old children who lack proficiency in foundational skills	Grades 3-6 school-enrolled children, plus out of school children who lack proficiency in foundational skills
Average class size	40-50 children	35-50 children
Class duration	1 hour literacy and 1 hour numeracy learning camp, daily for five-six days per week, after school hours.	1 hour literacy and 1 hour numeracy learning camp, daily for five days per week. 1hour in the morning before the school starts and one hour after school hours.
Place of learning camp	Community or personal spaces	Schools

(ii) Short Messaging Service (SMS)

This component engages parents through regular SMS check-ins, which provides updates on their child's learning progress along with practice questions for the child to attempt. Participation in the SMS component depends on parents owning a mobile phone, having the ability to read the messages, and providing consent to receive them.

Text messages were sent once a week in Nepal and twice a week in Tanzania, in Nepali and Kiswahili respectively. In Nepal, only children at the letter recognition level in literacy and the number recognition level in numeracy were included in this component. In Tanzania, SMS messages were sent to all parents who had consented to receive them, regardless of whether their child was participating in the learning camp.

These messages read as follows *"Hello from X [the name of PAL Network's members in Nepal and Tanzania]. We will send 2 questions per week for the children's learning. Please ask them these questions and have them answer"*.

In Nepal, the content of the text messages included a range of tasks such as counting objects like stars, recognizing and identifying letters and numbers, reading simple words and sentences, and solving basic arithmetic problems. These text messages serve as a

guide for children's learning activities. In Tanzania, simple messages were sent to parents to encourage reading practice with their children, aimed at improving literacy skills.

In Nepal, in addition to the text messaged, volunteers followed up through phone calls to provide direct assistance, answer questions, and address any difficulties the children may encounter with the tasks provided. In Tanzania, some parents were also reached out to provide additional feedback on the component. This approach ensures that the learning process remains interactive and supportive, even if parents do not respond directly to the messages.

(iii) Community libraries

Through community libraries, children are encouraged to engage with reading materials, fostering a reading culture and enhancing their foundational literacy skills. In Nepal, this component was implemented in all villages through mobile libraries, which contained 40-45 books for children in grades 5-8. The mobile libraries were set up once a week at the learning camp for two hours, during which children were allowed to borrow one book per week to take home. Within these two hours, children could borrow/return books, shared what they had read with the volunteers and their peers, engage in writing, poetry, jokes, and conclude with a speech activity. In Tanzania, an average of 40 books were supplied to each school hosting the learning camps and children were encouraged to borrow a book for a period of five days. While all children in the selected schools had the opportunity to borrow books, children enrolled in the learning camps were given priority. In addition, the school libraries were activated form more children to have access and borrow books.

(iv) Life Skills Sessions

The life skills sessions are designed for children aged 12 to 17 years, with a focus on communication, problem solving, and collaboration. In Nepal, these sessions were delivered through a series of five themes covering a total of 22 lessons. The five themes included (i) introduction to life skills, (ii) communication, (iii) problem solving, (iv) collaboration and teamwork, and (v) child rights. The sessions were conducted every Saturday, with two lessons per session. In Tanzania, the life skills component followed a different schedule, with sessions taking place every 10 days, separated by a 5-day interval before the next cycle. During this 5-day period, life skills sessions were offered to both participants of the learning camps and those who were not attending, provided they fell within the specified age group of 12-17 years. The life skills sessions were structured around two major themes: problem solving skills and cooperation skills. The problem-solving skills focused on identifying issues and selecting appropriate solutions, while the cooperation skills focused on adhesive skills and the art of working together.

SECTION 3:

DATA COLLECTION AND RESEARCH DESIGN

My Village was monitored and evaluated through a series of baseline, midline, and endline surveys. The baseline survey was conducted by the volunteers between July – September 2024 using Survey CTO. The team surveyed all households in the selected villages where the families reported having children in the target age group of 6 to 17 years. The aim of the baseline survey was two-fold: (i) assess the numeracy and reading

levels of the targeted children in the surveyed households using an adaptive assessment tool adapted from PAL's existing assessment tools: International Common Assessment of Numeracy (ICAN) and International Common Assessment of Reading (ICAR), and (ii) to collect socio-demographic information on the targeted children, parents, and households.

The baseline assessment consists of 22 questions in the numeracy section and 20 questions in the reading section. The numeracy assessment includes questions on number sense, number recognition, easy and difficult operations, and word problems based on difficult arithmetic operations. The literacy assessment covers letter recognition, word recognition, paragraph reading comprehension, story reading comprehension, and a listening section. The assessments were administered in Nepali in Nepal and Swahili in Tanzania. The responses from the students were recorded as "No Response/I don't know", "Incorrect", or "Correct".

At the household level, the survey included questions to capture socio-economic and demographic information, as well as details regarding the child's learning environment at home. This covered aspects such as household infrastructure and assets, education and occupation level of the parents/guardians, and the availability of learning resources at home. At the child level, the survey gathered information on the child's demographic characteristics, schooling, and the extent of parental engagement in the child's learning.

For the outcome variables, we first construct an overall measure for each subject separately, calculated as the percentage of total questions answered correctly by the child. Next, we break down the assessment into sub-domains (e.g., 1-digit and 2-digit recognition, basic arithmetic, word recognition, story reading, etc.) and create binary outcome measures (correct vs. incorrect) for each child.

For econometric analysis, we apply 2-parameter Item Response Theory (IRT) models and ordinal measures to generate a continuous proficiency measure for both numeracy and literacy. In our descriptive analysis, we compare proficiency levels across various potential explanatory factors, including the child's gender, schooling status, language of instruction, household wealth status, and learning support outside of school.

1 The volunteers are essentially the teachers in the learning camps. In Nepal, they are all volunteer teachers while in Tanzania, they are a mix of volunteers and the teaching staff from the schools where the learning camps are taking place.

Using established measures in the literature, we utilize household data on assets and infrastructure to construct a household wealth index, following the principal component analysis approach used in Demographic and Health Surveys (DHS).

Finally, we will present a rigorous analysis using standardized IRT scores and ordinal scores as outcome variables in a series of regressions on a combination of explanatory variable, some of which are also featured in the descriptive analysis. The explanatory factors include demographic characteristics of the child, school enrollment, language spoken at home, household wealth index, parental education attainment levels, and indicators on learning resources available at home. All regressions will include village fixed effects and cluster standard errors at the village level. To begin, we will perform standard regression (ordinary least squares (OLS) for numeracy and logistic for literacy) for all children which will be modeled as follows –

$$\text{IRT Score}_{ij}\text{ (Numeracy)} = \beta 0 + \beta 1\text{Gender}_{ij} + \beta 2\text{AgeGroup}_{ij} + \beta 3\text{School Enrollment}_{ij} + \beta 4\text{Read stories to the child}_{ij} + \beta 5\text{Reading materials}_{ij} + \beta 6\text{WealthIndex}_{ij} + \beta 7\ \text{ChildLivesWith}_{ij} + \beta 8\text{Parent education}_{ij} + \beta 9\ \text{HomeLanguage}_{ij} + u_{ij} + \epsilon_{ij}$$

Ordinal Score$_{ij}$ (Literacy)= β0 + β1Gender$_{ij}$ + β 2AgeGroup$_{ij}$ + β3School Enrollmentij + β 4Read stories to the child$_{ij}$ + β5Reading materials$_{ij}$ + β6WealthIndex$_{ij}$ + β 7ChildLivesWith$_{ij}$ + β8Parent education$_{ij}$ + β 9HomeLanguage$_{ij}$ +u$_{ij}$ +ϵ$_{ij}$
(2)

where:

- *i* indexes individuals and *j* indexes households/villages.
- u_{ij} represents village-level fixed effects.

Next, we focus only on the sub-sample of school going children and include independent variables that are specific to school going children. These include (i) whether the child takes any paid tuition support, (ii) whether the child has ever repeated a grade in school, (iii) whether the child is in private or government school, (iv) whether the child brings reading materials home (only for literacy), and (v) whether someone at home supports the child with their homework. The regressions specification is as follows:

IRT Scoreij (Numeracy) = β0 + β1Gender$_{ij}$ + β 2AgeGroup$_{ij}$ + β3School Enrollment$_{ij}$ + β 4WealthIndex$_{ij}$ + β5ChildLivesWith $_{ij}$ + β 6Parent education$_{ij}$ + β7Paid tuition $_{ij}$ + β 8Repeated grade$_{ij}$ + β9Type of school$_{ij}$ + β 10Homework support$_{ij}$ + u$_{ij}$ +ϵ$_{ij}$
(3)

Ordinal Scoreij (Literacy) = β0 + β1Gender$_{ij}$ + β 2AgeGroup$_{ij}$ + β3School Enrollment$_{ij}$ + β 4WealthIndex$_{ij}$ + β5ChildLivesWith $_{ij}$ + β 6Parent education$_{ij}$ + β7Paid tuition $_{ij}$ + β 8Repeated grade$_{ij}$ + β9Type of school$_{ij}$ + β 10Homework support$_{ij}$ + βReading materials$_{ij}$ + u$_{ij}$ +ϵ$_{ij}$ (4)

where:

- i indexes individuals and j indexes households/villages.
- uij represents village-level fixed effects.

Lastly, we run a mixed effects model with specifications (1) and (2) to understand the variation that is introduced by villages and the extent to which child outcomes are influenced by village level variation. We compare the results of the fixed effects and mixed effects model in the context of intra-cluster correlation (ICC) effects.

SECTION 4:

SECTION 4: FINDINGS

We begin with an overview of the target population, examining the demographic and socio-economic characteristics of children, parents, and households. Next, we analyze the baseline assessment results for numeracy and literacy, utilizing a range of outcome variables disaggregated by factors such as gender, age, household wealth, home learning environment, school enrollment, and school type. We further explore the baseline performance of children who are at the beginner level in both subjects as per the baseline assessment results to better understand the potential intersections and their characteristics. Finally, we present a more advanced analysis of the assessment performance using Item Response Theory (IRT) scores for numeracy and ordinal scores for literacy.

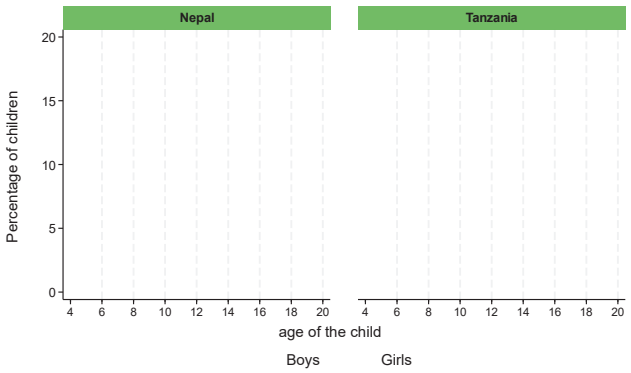
4.1. Demographic and socio-economic profile

The program covers 1437 households and 3057 children across 15 villages in Nepal and 2469 households and 4105 children across 20 villages in Tanzania. The baseline assessment was We begin the analysis by examining the gender and age distribution of the target population. In terms of gender distribution, Nepal has a slightly higher proportion of boys (49 percent) compared to Tanzania (46 percent). The average age of children in the program is 10 years in both countries. In Tanzania, the age distribution

skews more towards younger age groups, with 47 percent of children falling in the 6–9 year age group, and only 8 percent in the 14-17 year age group. In Nepal, while the 6-9 year age group is also the largest (43 percent), there is a notable proportion of children in the middle (10-13 years) and older (14-17 years) age groups.

At the intersection of age and gender (see Figure 1), in Tanzania, both boys and girls are predominantly in the younger age groups, but boys are more likely to belong to the older age categories compared to girls. In contrast, in Nepal, boys are more likely to be in the younger age groups, whereas girls are more evenly distributed across all age groups.

Figure 1: Age and gender distribution of children who participated in the baseline assessment

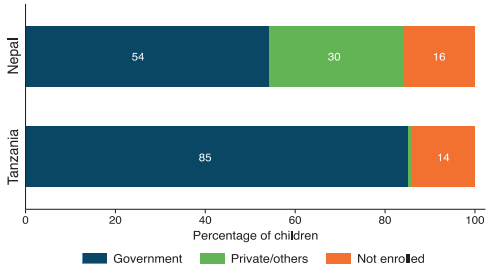


Note: **Nepal = 3057, Tanzania = 4105**

Next, we examine school enrollment, finding a slightly higher proportion of children enrolled in school in Tanzania compared to Nepal (86 percent versus 84 percent respectively). Amongst the children currently out of school, 67 percent in Nepal and only 8 percent in Tanzania reported having been enrolled in school at some point in the past. Therefore, we find that 5 percent of children in Nepal and 13 percent in Tanzania in our study have never attended school.

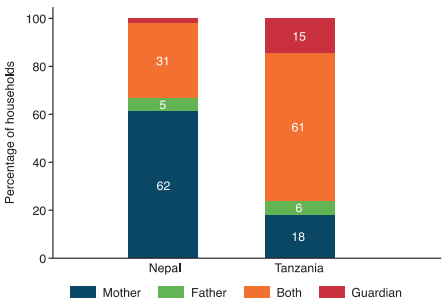
Government schools are the predominant choices, though with a significantly higher proportion of children in government schools in Tanzania. In Tanzania, nearly all school going children (99 percent) are enrolled in government schools, while in Nepal, 65 percent of school going children are enrolled in government schools followed by 35 percent in private schools. Amongst children currently attending school, 10 percent in Nepal and 22 percent in Tanzania reported having repeating a grade.

Figure 2: School enrolment and type of school distribution



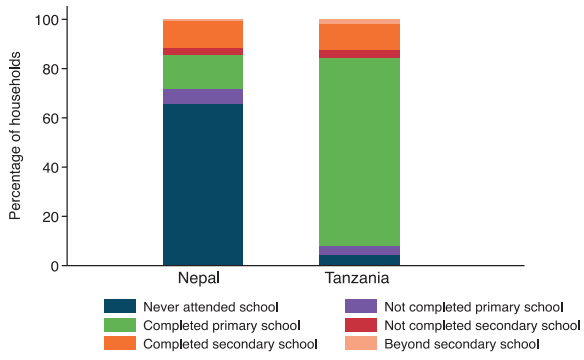
Note: Nepal = 3057, Tanzania = 4105

Figure 3: Distribution of households by living situation of the children



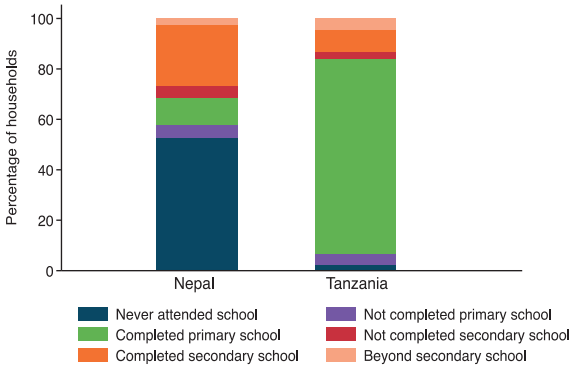
Note: Nepal = 3057, Tanzania = 4105

Figure 4a: Mother's education level



Note: Nepal = 1333, Tanzania = 1965

Figure 4b: Father's education level



Note: Nepal = 526, Tanzania = 1662

We also asked households whether the children in the household live with the mother, father, both parents, or a guardian (see Figure 3). In Nepal, 62 percent of households reported that the child/children live with their mother whereas the share is only 18 percent in Tanzania. In contrast, the majority of households in Tanzania (61 percent) are two-parent households, which is twice the proportion found in Nepal (31 percent). Only about 5 percent of households in both countries reported that the child/children live with their father. Although the interpretation of this question may vary based on the social context of each community, these are still notable findings. Such comparative analyses are crucial for understanding the diverse contexts of the two countries as we delve deeper into the assessment results.

Based on who the children live with, we ask the households about the educational attainment level of the parents (Figure 4a & 4b). For both parents, the education attainment level are found to be higher in Tanzania compared to Nepal. In Nepal, majority of the mothers (65 percent) reported never attending school, 14 percent completing primary school and 11 percent completing secondary school. In contrast in Tanzania, 77 percent of mothers reported completing primary education and only 5 percent had never attended school. However, it is worth noting that the education attainment rates in Nepal are lower than the national estimates reported by the UNESCO Institute for Statistics (UIS). At the national level, 34 percent of women (ages 25 and above) in Nepal and 63 percent of women in Tanzania have completed at least primary education (UNESCO, 2022).

With respect to father's education status, we observe similar differences across the two countries. In Nepal, 53 percent of fathers reported never attending school, 11 percent completing primary school, and 24 percent completing secondary school indicating relatively better education attainment compared to mothers in our study sample. In Tanzania, 77 percent of fathers reported completing primary school and 9 percent completing secondary school, while less than 5 percent reported never attending school. According to UIS data, 59 percent of men age 25 and above in Nepal and 73 percent of men in Tanzania reported completing at least primary education (UNESCO, 2022).

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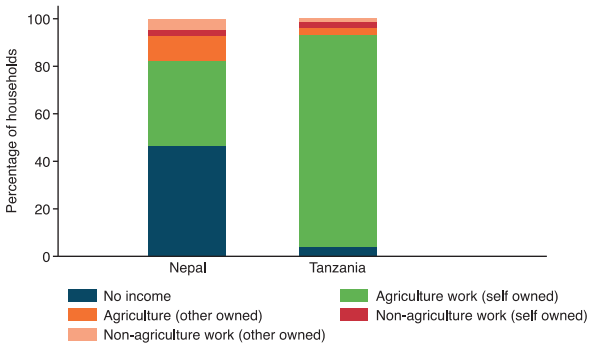
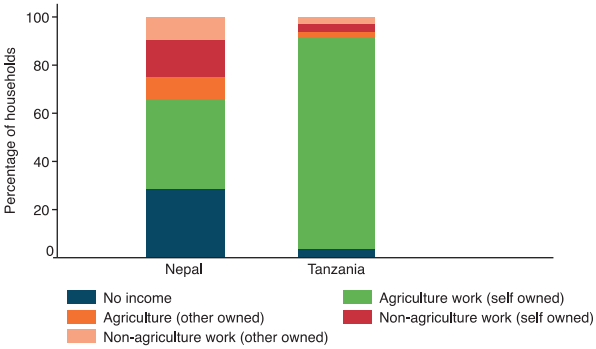
2 In numeracy, beginner level means that the child failed to answer at least four out of five questions on single digit recognition correctly. In literacy, beginner level means that the child failed to answer at least four out of five questions on letter recognition correctly.

Figure 5a: Mothers work status



Note: Nepal = 1333, Tanzania = 1965

Figure 5b: Fathers work status



Note: Nepal = 526, Tanzania = 1662

We also found that 18 percent of households in Nepal and 28 percent in Tanzania have at least one adult in the household (other than parents) who has completed high school education. In terms of occupation status (Figure 5a & 5b), 47 percent of mothers and 29 percent of fathers in Nepal sample reported not earning any income. In fact, 31 percent of households in Nepal have both parents living with the child, and within this group, 30 percent have both parents reporting no income. Among parents who reported working: self-owned agriculture work was found to be the most common occupation for both mothers and fathers. This contrasts significantly with our findings in Tanzania, where nearly 90 percent of both fathers and mothers are engaged in self-owned agriculture work. Fewer than 5 percent of either parent in Tanzania reported earning no income.

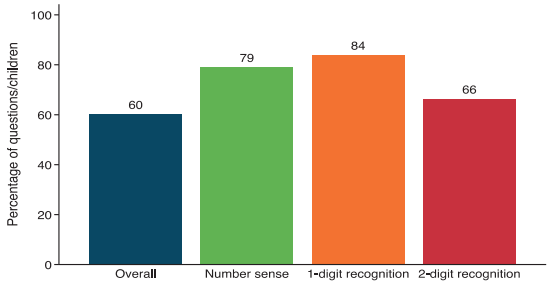
4.2. Foundational learning skills

4.2.1. Numeracy

The program covers 1437 households and 3057 children across 15 villages in Nepal and 2469 households and 4105 children across 20 villages in Tanzania. The baseline assessment was We begin the analysis by examining the gender and age distribution of the target population. In terms of gender distribution, Nepal has a slightly higher proportion of boys (49 percent) compared to Tanzania (46 percent). The average age of children in the program is 10 years in both countries. In Tanzania, the age distribution skews more towards younger age groups, with 47 percent of children falling in the 6–9 year age group, and only 8 percent in the 14-17 year age group. In Nepal, while the 6-9 year age group is also the largest (43 percent), there is a notable proportion of children in the middle (10-13 years) and older (14-17 years) age groups.

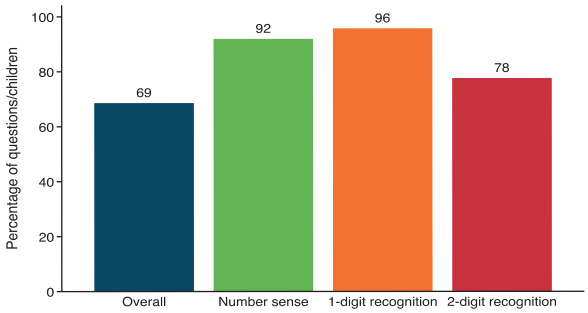
At the intersection of age and gender (see Figure 1), in Tanzania, both boys and girls are predominantly in the younger age groups, but boys are more likely to belong to the older age categories compared to girls. In contrast, in Nepal, boys are more likely to be in the younger age groups, whereas girls are more evenly distributed across all age groups.
On average, children in Nepal answered 60 percent of all questions correctly, whereas children in Tanzania performed significantly better, with an average accuracy of 69 percent (Welch's test). In number sense, we find that 79 percent of children in Nepal were able to recognize numbers, compared to 92 percent in Tanzania—indicating stronger early numeracy skills in the latter. For digit recognition, a child was considered proficient if they answered at least 4 out of 5 questions correctly.

Figure 6a: Basic Numeracy, Nepal



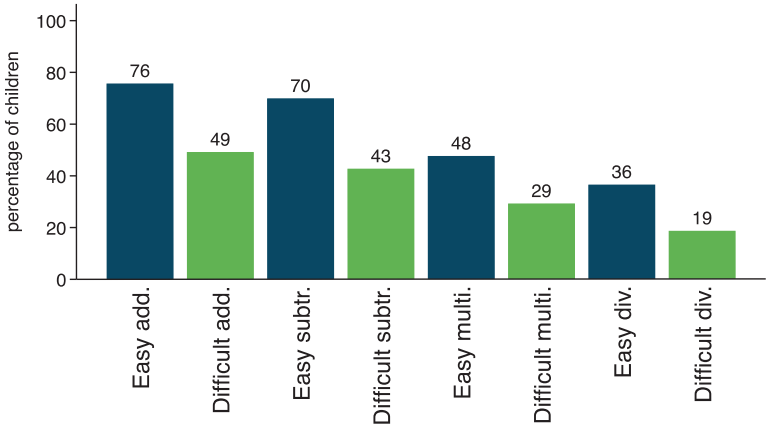
Note: Overall refers to the average percentage of questions the children answered correctly.

Figure 6b: Basic Numeracy, Tanzania



Note: Overall refers to the average percentage of questions the children answered correctly.

Figure 7b: Operations, Tanzania assessment



Note: Number of children = 4105

On average, children in Nepal answered 60 percent of all questions correctly, whereas children in Tanzania performed significantly better, with an average accuracy of 69 percent (Welch's test). In number sense, we find that 79 percent of children in Nepal were able to recognize numbers, compared to 92 percent in Tanzania—indicating stronger early numeracy skills in the latter. For digit recognition, a child was considered proficient if they answered at least 4 out of 5 questions correctly.

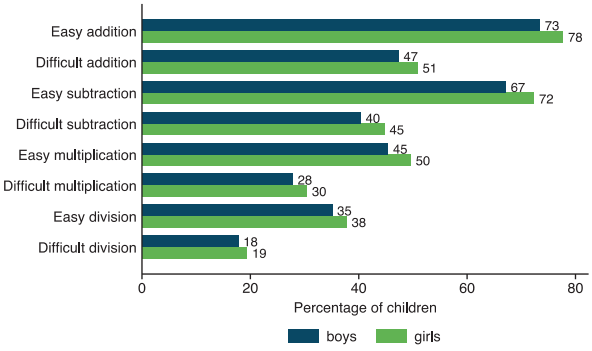
In Nepal, 84 percent of children demonstrated proficiency in recognizing one-digit numbers, while 66 percent could correctly recognize two-digit numbers. In contrast, Tanzanian children showed near-universal proficiency in one-digit recognition (96 percent), and 78 percent were able to accurately identify two-digit numbers. Performance across mathematical operations (addition, subtraction, multiplication, and division) revealed a consistent decline from simpler to more complex tasks in both countries. Interestingly, children in Tanzania outperformed their Nepali peers in both easy and difficult levels of addition and subtraction. However, the reverse trend was observed for multiplication and division, where children in Nepal showed comparatively stronger outcomes. As shown in Figure 7, 48 percent of children in both countries were able to correctly solve an easy multiplication problem. Yet for more advanced multiplication tasks, the performance diverged: 35 percent of Nepali children answered correctly, compared to 29 percent in Tanzania

4.2.1.1. Gender

An analysis of assessment performance by gender reveals important cross-country differences in foundational numeracy skills. In Tanzania, girls consistently outperform boys across all sub-skills, with statistically significant differences. The performance gap is most pronounced in basic arithmetic tasks: girls score 4–5 percentage points higher than boys on easier operations such as addition and subtraction. While the gender gap narrows in more complex tasks such as multiplication and division—down to 1–3 percentage points—girls continue to maintain an advantage. The differences remain statistically significant for all operations except at the difficult levels of multiplication and division. This consistent outperformance by girls may be influenced by broader contextual factors. For instance, Tanzanian girls are more likely to be enrolled in school and are overrepresented in younger age groups. Additionally, higher maternal education levels observed in the Tanzanian sample could be positively influencing girls' learning outcomes.

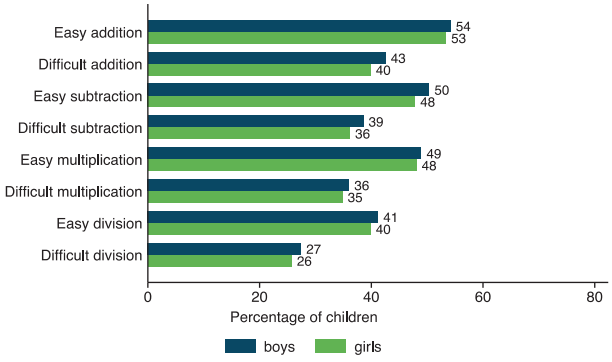
In Nepal, gender patterns differ. Girls perform marginally better than boys in number sense, but the difference is not statistically significant. There are no observable gender gaps in digit recognition. However, boys outperform girls across all arithmetic sub-skills, although the differences are only statistically significant at the difficult levels of addition and subtraction. Unlike Tanzania, school enrollment patterns in Nepal show boys being more likely to be in school, and the age distribution is relatively balanced across genders. These intersecting factors—such as school exposure, age composition, and parental education—are likely contributing to the gendered differences in learning outcomes observed across the two countries

Figure 8b: Operations by gender, Tanzania



Note: Number of children (% of girls), Tanzania = 4105 (54 percent)

Figure 8a: Operations by gender, Nepal

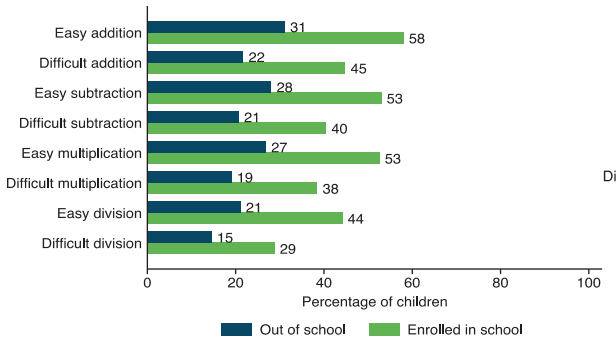


Note: Number of children (% of girls): Nepal = 3057 (51 percent)

4.2.1.2. School Enrollment

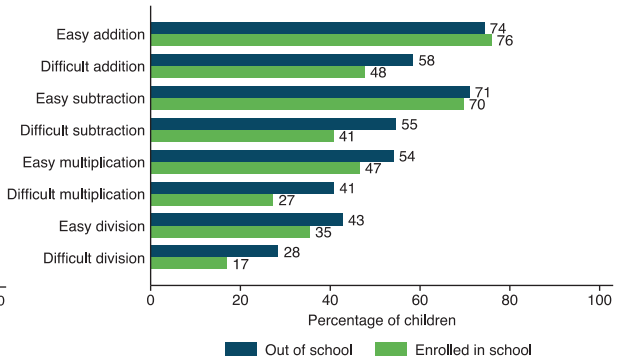
With respect to school enrollment, the performance gap between in and out of school children is significantly more pronounce in Nepal compared to Tanzania and this gap widens as the difficulty of questions increases. In Nepal, across all items related to mathematical operations, in-school children are twice as likely to answer as their out of school peers. Specifically, 81 percent of in school demonstrate proficiency in number sense, compared to 66 percent of out of school children. Similarly, 71 percent of in school children can recognize two-digit numbers, whereas only 41 percent of out of school children can do so. For operations, performance levels are nearly double or more—for in school relative to those who are out-of-school. In contrast, the trends observed in Tanzania present a different picture with more mixed results observed. While in-school children perform better in number sense and single-digit number recognition, these differences—though statistically significant—are less consistent across other domains .

Figure 9a: Operations by school enrollment, Nepal



Note: Number ofa children (% enrolled in school): Nepal = 3057 (84 percent)

Figure 9b: Operations by school enrollment, Tanzania

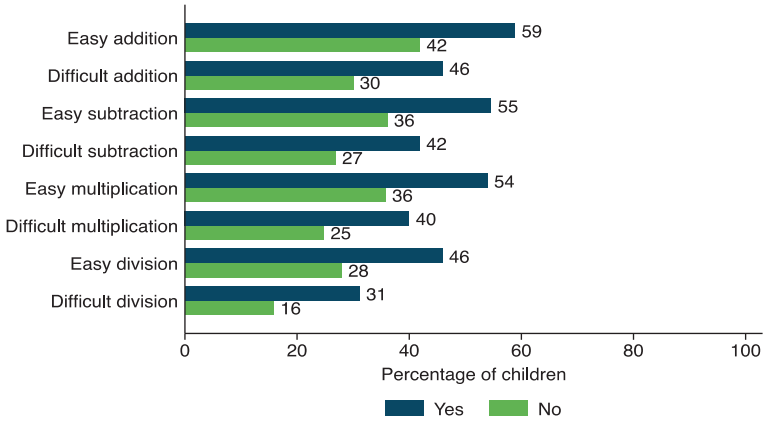


Note: Number of children (% enrolled in school): Tanzania = 4105 (86 percent)

However, in the domain of operations, we observe a reverse trend in Tanzania, where out-of-school children exhibit higher proficiency rates than their in-school counterparts for every question except those involving easy arithmetic. These differences are statistically significant for all questions except easy subtraction and become more pronounced as the level of difficulty increases. For instance, 54 percent of out-of-school children are able to perform easy multiplication, compared to 47 percent of in school --a7 percentage point difference in favor of out of school children. Conversely when it comes to difficult multiplication, 41 percent of in school children succeed against 27 percent of out-of-school children, reflecting a 14 percent point advantage for those in school.

3 According to the Welch's test, the t-statistic is significant for number sense (-3.23) and single digit recognition (-4.11).

Figure 10: Operations by language of instruction, Nepal



Note: Number of households = 1437, Number of children = 3057 (70 percent of households speak Nepali at home)

4.2.1.3. Home Language

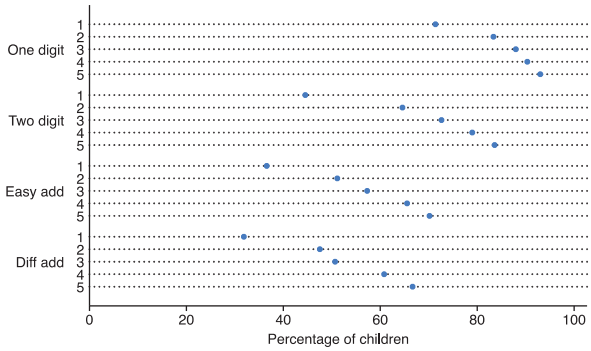
The survey captures whether the language of instruction—Nepali in Nepal and Swahili in Tanzania—is spoken at home. In Nepal, 70% of households reported speaking Nepali at home, while in Tanzania, this figure is 99% for Swahili. Due to the highly skewed distribution in Tanzania, we limit our analysis of student performance by language of instruction to Nepal. Among Nepali-speaking households, 91% reported that Nepali is spoken at home "sometimes," while only 9% reported speaking it "always."

We find that speaking Nepali at home is associated with higher performance levels with statistically significant differences observed across all assessed areas. In basic numeracy, 72% of children from Nepali-speaking households demonstrate proficiency in double-digit number recognition, compared to 53% of children from non-Nepali-speaking households. The performance gap is even more pronounced in operations: 59% of children who speak Nepali at home are proficient in easy addition, versus 42% of those who do not—a 17 percentage point difference. Similarly, 46% of Nepali-speaking children are proficient in easy division, compared to just 28% of their peers from non-Nepali- speaking households.

4.2.1.4. Household Wealth

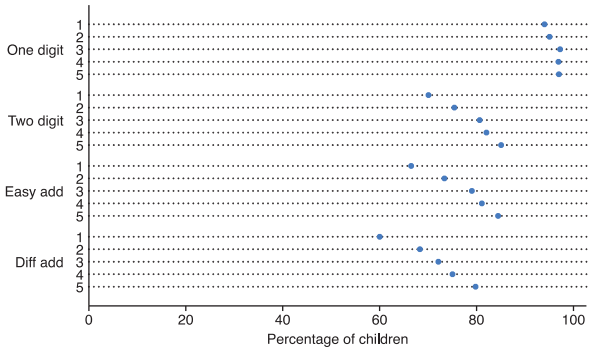
Next, we use principal component analysis (PCA) to create household wealth quintiles and examine differences in performance across these groups (Figures 11 and 12). We find that disparities across wealth quintiles are more pronounced in Nepal compared to Tanzania. In Nepal, children in the poorest quintile perform significantly worse in number recognition than those in the other four quintiles, where inter-quintile differences are relatively narrower (Figure 11a). In operations, performance among children in the 2nd and 3rd quintiles is similar, as is the case for those in the 4th and 5th quintiles (Figure 12a).

Figure 11a: Numeracy (part 1) by wealth quintiles, Nepal



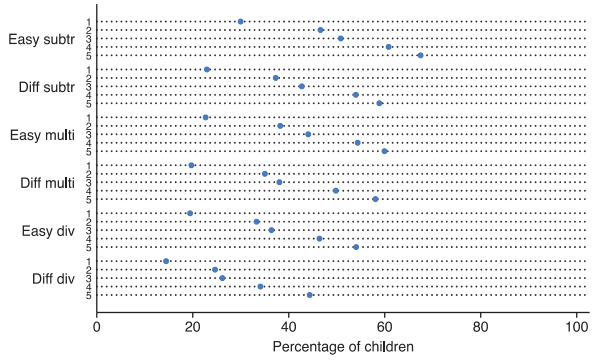
Note: 1-5 are the wealth quintiles with1 being the poorest and 5 being the richest.

Figure 11b: Numeracy (part 1) by wealth quintiles, Tanzania



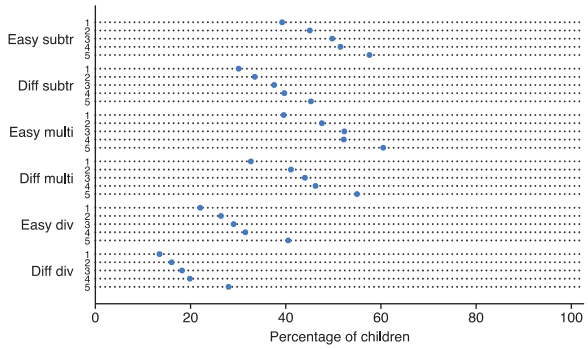
Note: 1-5 are the wealth quintiles with1 being the poorest and 5 being the richest.

Figure 12a: Numeracy (part 2) by wealthquintiles, Nepal



Note: 1-5 are the wealth quintiles with 1 being the poorest and 5 being the richest.

Figure 12b: Numeracy (part 2) by wealth quintiles, Tanzania



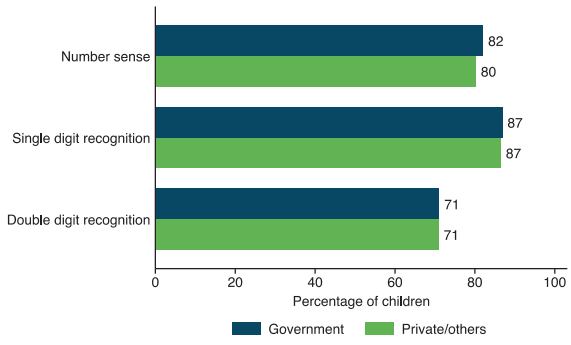
Note: 1-5 are the wealth quintiles with 1 being the poorest and 5 being the richest.

4.2.1.5. School Going Children

Next, we focus on children currently enrolled in school and analyze their assessment performance based on factors relevant to this sub-group including type of school, tuition support, and homework support. To begin, we examine school type: government or private. Since 99 percent of school going children in Tanzania sample attend government schools, this analysis is limited to Nepal sample.

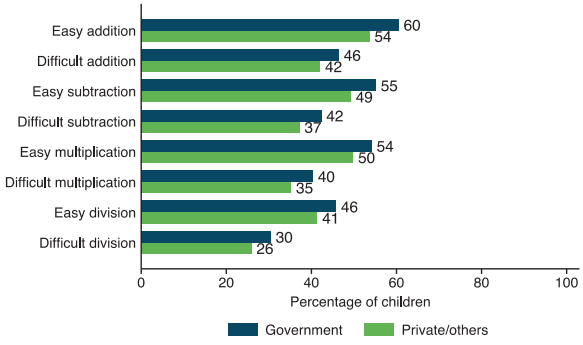
In Nepal, 65 percent of school going children are enrolled in government schools. We find no significant differences between private and government school students, in the areas of number sense and number recognition. However, across all questions related to operations, children in government schools perform significantly better than their private school counterparts, with differences ranging from 4-7 percentage points. For example, 55% of children in government schools are proficient in easy subtraction, compared to 49% in private schools. At the advanced level, 42% of government school students demonstrate proficiency in difficult subtraction, versus 36% of private school students.

Figure 13a: Basic numeracy by school type, Nepal



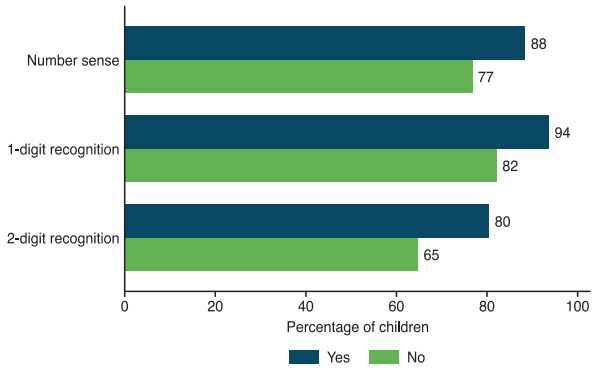
Note: Number of children in school = 2569, 64 percent enrolled in government schools

Figure 13b: Operations by school type, Nepal



Note: Number of children in school = 2569, 64 percent enrolled in government schools

Figure 10: Operations by language of instruction, Nepal



Note: Number of households = 1437, Number of children = 3057 (70 percent of households speak Nepali at home)

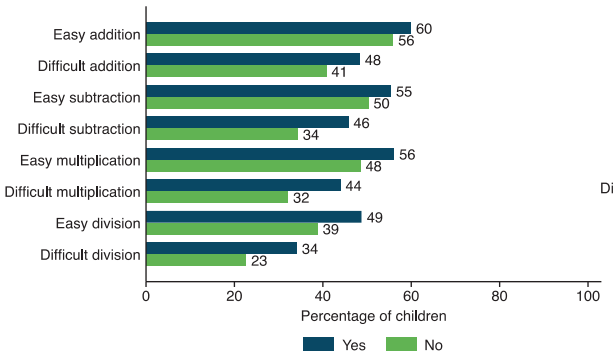
We also examine differences in performance based on whether children are attending paid tuition classes outside of school (Figures 14a and 14b). In Nepal, 40% of school-going children take paid tuition classes, compared to only 10% in Tanzania. Therefore, this analysis focuses solely on the Nepal sample. We find statistically significant differences across all domains, with the gap widening as the difficulty level increases. For instance, in basic numeracy, 88% of children receiving tuition support demonstrate proficiency in number sense, compared to 77% of those without tuition. In arithmetic, the difference is even more pronounced: 69% of children with paid tuition successfully perform easy subtraction, whereas only 51% of children without tuition support achieve the same.

4.2.1.6. Homework Support

Lastly, we analyze children's performance based on whether they receive help with their homework during the school term. According to the baseline survey, 54 percent of children in Nepal and 27 percent of children in Tanzania received such support. Across both countries, the results for number sense and number recognition are mixed. In Nepal, children who receive support with their homework perform relatively better in number recognition. However, this difference is statistically significant only for two-digit number recognition, not for one digit recognition (Figure 15a and 15b).

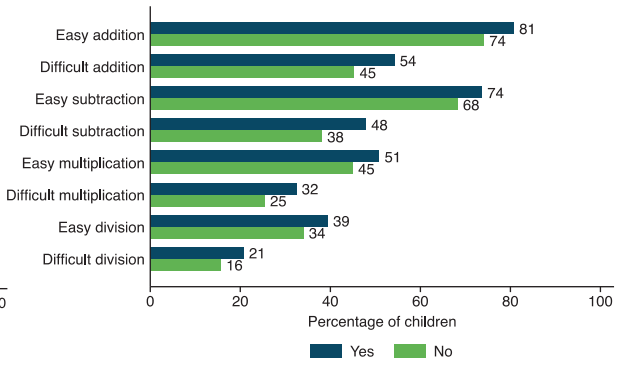
In Tanzania, children who receive homework support perform significantly better than those who do not in both number sense and number recognition. For addition and subtraction operations at the easy level, the performance gap between children with and without homework support is similar in both countries, with those receiving help scoring 4–6 percentage points higher. However, in other operations, the performance differences are more pronounced in Nepal compared to Tanzania. For example, in difficult division, children with homework support outperform those without by 11 percentage points in Nepal (34% versus 23%), while the gap in Tanzania is smaller at 5 percentage points (21% versus 16%).

Figure 15a: Arithmetic by homework support, Nepal



Note: Number of children = 2569, 54 percent with homework support

Figure 15b: Arithmetic by homework support, Tanzania

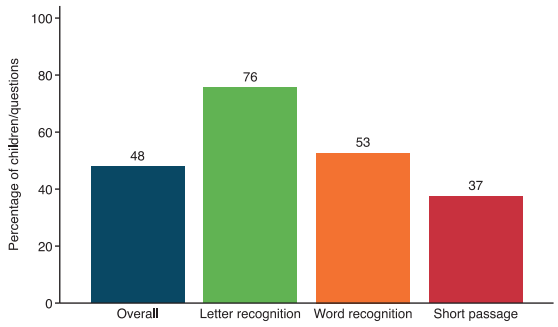


Note: Number of children = 3532, 27 percent with homework support

4.2.2. Literacy

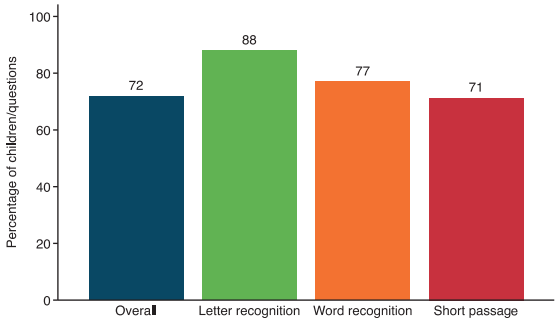
In the literacy assessment, children are asked questions on letter recognition, word recognition, short paragraph reading, long passage reading, comprehension, and a listening section totaling 20 questions. For letter and word recognition, a child is considered proficient if they correctly identify at least 3 out of 4 items. In the comprehension subsection, where children answer four questions based on the long passage they read, proficiency is defined as correctly answering at least 3 of the 4 questions. Finally, the listening section—administered to all children regardless of their performance on other sections—involves listening to a story followed by four related questions.

Figure 16a: Literacy assessment (part 1), Nepal



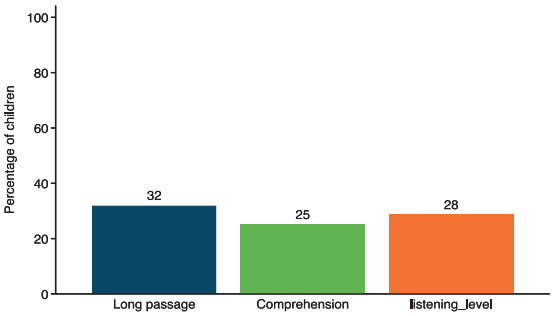
Note: Note: Nepal = 3057, "Overall" refers to the average percentage of questions answered correctly.

Figure 15b: Arithmetic by homework support, Tanzania



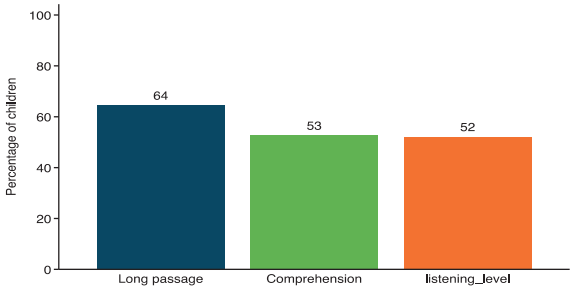
Note: Number of children = 3532, 27 percent with homework support

Figure 17a: Literacy assessment (part 1), Nepal



Note: Nepal = 3057, "Overall" refers to the average percentage of questions answered correctly.

Figure 17b: Literacy assessment (part 2), Tanzania



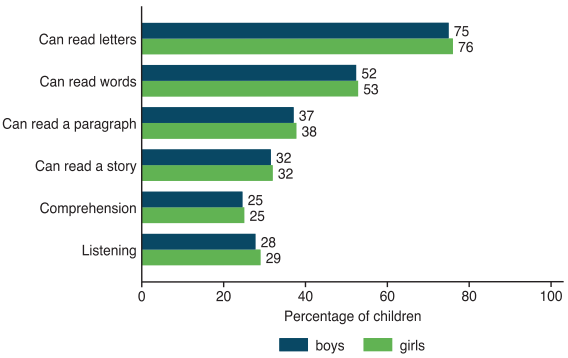
Note: Tanzania = 4105, "Overall" refers to the average percentage of questions answered correctly

4.2.2.1. Gender

On average, children in Nepal answered 48 percent of all questions correctly while in Tanzania, the overall performance was much higher (at 72 percent). Across all questions, children in Tanzania consistently outperformed those in Nepal. In beginner literacy, 88 percent of children in Tanzania were able to recognize letters, compared to 76 percent in Nepal. The performance gap between the two contexts widens for more advanced literacy skills. For instance, in Nepal, only 32% of children can read a long passage, and just 25% demonstrate comprehension of the passage (Figure 17a).

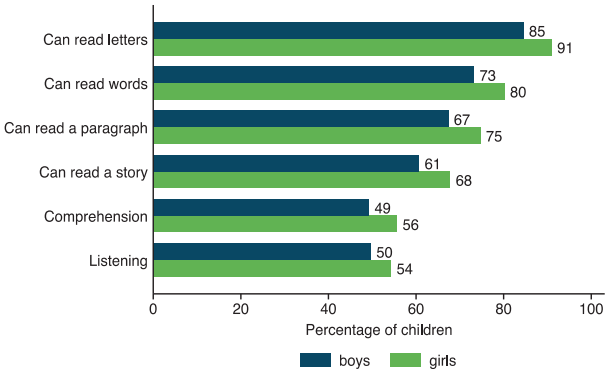
Whereas, in Tanzania, the proficiency rates are more than twice as that of Nepal, with65 percent of children able to read a long passage and 53 percent successfully comprehending it (Figure 17b). The listening section which involves listening to a passage and answering related questions, is administered to all children regardless of their performance in other sections. In this section, 52% of children in Tanzania are proficient, compared to only 28% in Nepal.

Figure 18a: Literacy by gender, Nepal



Note: Number of children (% of girls): Nepal = 3057 (51 percent)

Figure 18b: Literacy by gender, Tanzania



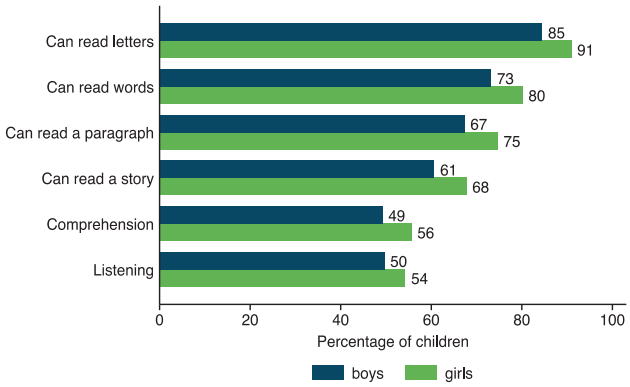
Note: Number of children (% of girls): Tanzania = 4105 (54 percent)

Unlike numeracy, there are clear gender differences in literacy performance, with girls consistently demonstrating higher proficiency than boys. In Nepal, these differences are small—about 1-2 percentage points and statistically insignificant across all literacy questions (Figure 18a). However, in Tanzania, girls significantly outperform boys, with gender gaps ranging from 4 to 7 percentage points that remain consistent even as the difficulty level of the assessment increases (Figure 18b). For example, 91% of girls in Tanzania can recognize letters compared to 85% of boys. This gap persists in more advanced tasks: 68% of girls can read a long passage, while only 61% of boys can do so. This pattern highlights a key difference between numeracy and literacy: whereas gender gaps in numeracy tend to narrow as difficulty increases, the literacy gender gap remains stable across all levels of difficulty.

4.2.2.2. Home Language

On average, children in Nepal answered 48 percent of all questions correctly while in Tanzania, the overall performance was much higher (at 72 percent). Across all questions, children in Tanzania consistently outperformed those in Nepal. In beginner literacy, 88 percent of children in Tanzania were able to recognize letters, compared to 76 percent in Nepal. The performance gap between the two contexts widens for more advanced literacy skills. For instance, in Nepal, only 32% of children can read a long passage, and just 25% demonstrate comprehension of the passage (Figure 17a).speaking children. Interestingly, the language of instruction does not appear to influence performance in the listening section: 29% of children who speak Nepali at home are proficient, compared to 28% of those who do not.

Figure 19: Literacy by language of instruction, Nepal



Note: Number of children = 3057 (70 percent of householdsspeak Nepali at home)

4.2.2.3. School Enrollment

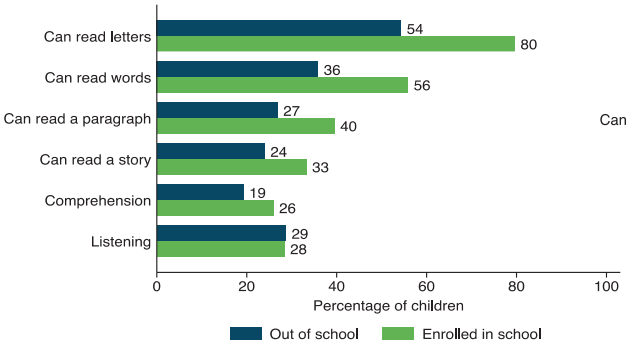
In Nepal, school-going children perform significantly better than out-of-school children across all literacy questions, with the exception of the listening section. While the differences are statistically significant, they tend to narrow as the difficulty level of the assessment increases. For instance, in letter recognition, 80% of school-going children are proficient compared to 54% of out-of-school children. In the comprehension section, 26% of school-going children are proficient versus 19% of out-of-school children, with a corresponding t-statistic of -3.35 (compared to -10.57 for letter recognition). Interestingly, in the listening section, out-of-school children slightly outperform their peers, with 29% proficiency compared to 28% among school-going children.

In Tanzania, the trends are largely reversed—as also observed in numeracy—with out-of-school children outperforming their school-going peers in most areas of the literacy assessment. School-going children

perform marginally better only in letter recognition. In all other literacy components, including short passage reading, story reading, comprehension, and the listening section, out-of-school children score significantly higher. The differences are especially pronounced in the comprehension section (a 10 percentage point gap) and the listening section (a 9 percentage point gap), indicating a consistent advantage for out-of-school children in more advanced literacy skills.

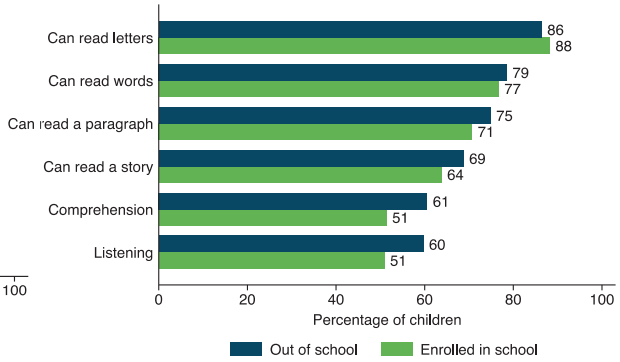
4 In Tanzania, 99 percent of households report speaking Kiswahili at home.

Figure 20a: Literacy by school enrollment, Nepal



Note: Number of children (% enrolled in school): Nepal = 3057 (84 percent)

Figure 20b: Literacy by school enrollment, Tanzania

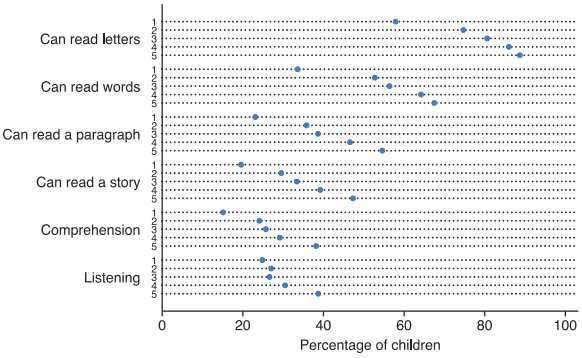


Note: Number of children (% enrolled in school): Tanzania = 4105 (86 percent)

4.2.2.4. Household Wealth

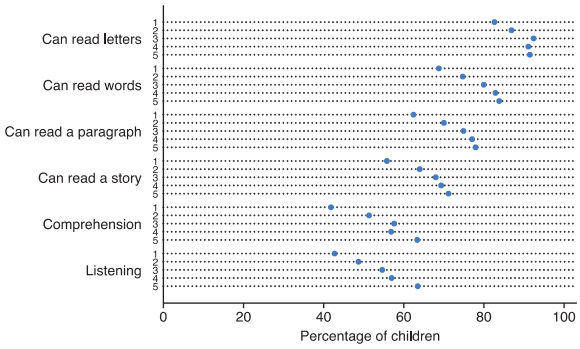
Literacy performance across household wealth groups mirrors trends observed in the numeracy assessment. In Nepal, there are significant differences between the richest and poorest quintiles across all domains, with the middle quintiles showing performance levels skewed toward those of the wealthier households. This is supported by ANOVA estimates, which show that wealth quintiles explain 5% to 7% of the variation in letter recognition, word recognition, and paragraph reading. In contrast, Tanzania shows smaller variations across quintiles. However, children in the bottom two quintiles consistently demonstrate significantly lower proficiency compared to those in the top three quintiles. According to ANOVA estimates, household wealth explains minimal variation in overall proficiency, with slightly more variation in comprehension and listening sections than in foundational skills like letter and word recognition.

Figure 21a: Literacy by household wealth, Nepal



Note: 1-5 are the wealth quintiles with1 being the poorest and 5 being the richest.

Figure 21b: Literacy by household wealth, Tanzania



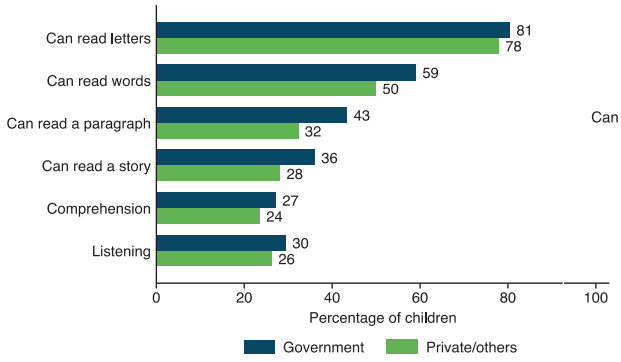
Note: 1-5 are the wealth quintiles with1 being the poorest and 5 being the richest.

4.2.2.5. School going children

Next, we examine literacy assessment performance among enrolled children, focusing on factors such as type of school, paid tuition support, and homework support. As with the numeracy section, due to limited variation in the Tanzania sample, we analyze only the Nepal sample for the first two factors—school type and paid tuition. In Nepal, 65 percent of enrolled children attend government schools. Across all literacy domains, children in government schools consistently perform better than those in private schools.

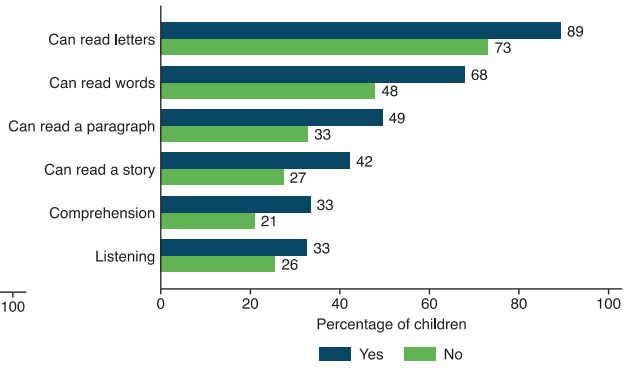
In letter recognition, the difference between school type is marginal with 81 percent of children in government schools and78 percent of children in private schools able to recognize letters correctly. The largest performance gaps are observed in word recognition (59 percent versus 50 percent), paragraph reading (43 percent versus 32 percent), and story reading (36 percent versus 30 percent). In comprehension and listening, children in government schools also demonstrate higher proficiency levels, though the differences are modest, ranging between 3-4 percentage points.

Figure 22a: Literacy by school type, Nepal



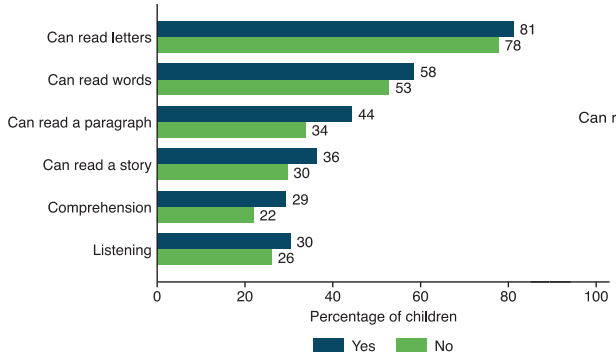
Note: Number of children in school = 2569, 64 percent enrolled in government schools

Figure 22b: Literacy by paid tuition support, Nepal



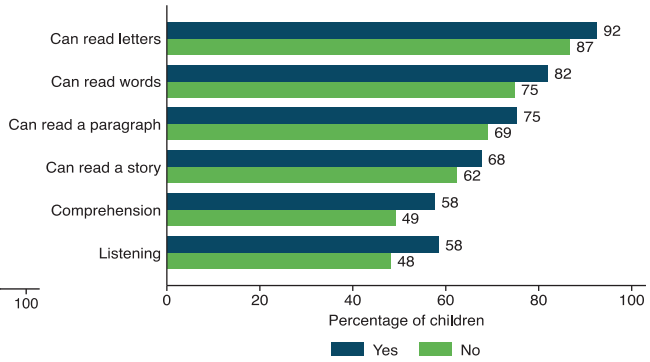
Note: Number of children in school = 2569, 40 percent with paid tuition support

Figure 23a: Literacy by homework support, Nepal



Note: Number of children in school(% with homework support) = 2569 (54 percent)

Figure 23b: Literacy by homework support, Tanzania

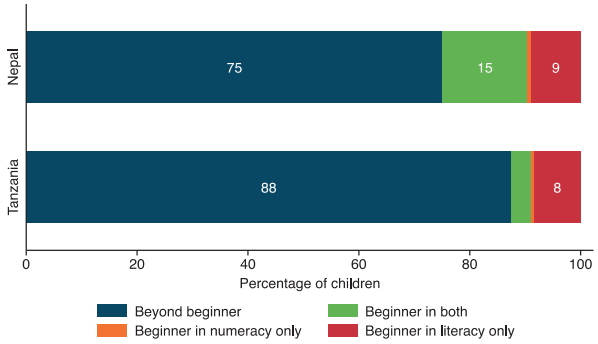


Note: Number of children in school (% with homework support) = 3532 (26 percent)

With respect to paid tuition support, 40 percent of children in Nepal reported receiving paid tuition in addition to regular schooling. We find statistically significant differences across all literacy questions, with consistently large performance gaps that persist even as the assessment increases in difficulty. For instance, 89 percent of children receiving tuition support are proficient in letter recognition, compared to 73 percent of children without a support-- a 16-percentage point difference. In long passage reading, 42 percent of children with tuition support can read a story correctly, versus 27 percent without support—a 15-percentage point gap. The listening section is a slight exception (with slightly lesser gains), where 33 percent of children with tuition support are proficient, compared to 26 percent of those without. For homework support, we examine trends across both Nepal and Tanzania, where there is notable variation in terms of access. In Nepal, 54 percent of children report receiving help with their homework, compared to just 27 percent in Tanzania. In Nepal, the most pronounced impact of homework support is observed in paragraph reading, where 44 percent of children with support can read a paragraph correctly, compared to 34 percent of those without—a 10-percentage point difference. While differences in other literacy questions are statistically significant, the magnitude is comparatively smaller, ranging from 3 to 7 percentage points. In Tanzania, children with homework support consistently outperform those without, with the largest differences seen in comprehension (57 percent vs. 49 percent) and listening (58 percent vs. 48 percent), as compared to the more basic literacy tasks.

Finally, we examine the subgroup of children who performed at the beginner level in both numeracy and literacy—specifically, those who were unable to correctly answer the “one-digit number recognition” and “letter recognition” questions. These children did not progress to the adaptive portions of the assessment. We observe that the proportion of children who are beginners in numeracy but not in literacy is minimal—just 1 percent in both Nepal and Tanzania. However, the proportion of children who are beginners in literacy but not in numeracy is notably higher: 9 percent in Nepal and 8 percent in Tanzania. Most strikingly, 15 percent of children in Nepal are at the beginner level in both domains, compared to only 4 percent in Tanzania, highlighting a more substantial overlap of foundational learning gaps in the Nepalese context.

Figure 24: Beginner level in numeracy and literacy, Nepal and Tanzania



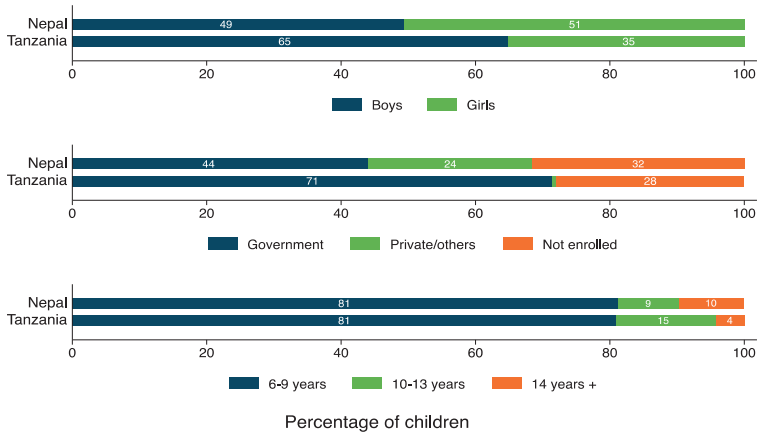
Note: Nepal = 3057 children, Tanzania = 4105

Figures 25a and 25b present the demographic composition of children identified at the beginner level in numeracy and literacy. In Nepal, a slight majority of beginner-level children are girls (51 percent), whereas in Tanzania, boys are disproportionately represented in this group—accounting for 65 percent in numeracy and 60 percent in literacy.

Regarding school enrollment, most beginner-level children in both countries are enrolled in school, with the proportion being higher in Nepal than in Tanzania. In Nepal, 31–32 percent of these children are out of school, while in Tanzania, the share varies by domain—28 percent in numeracy and 16 percent in literacy.

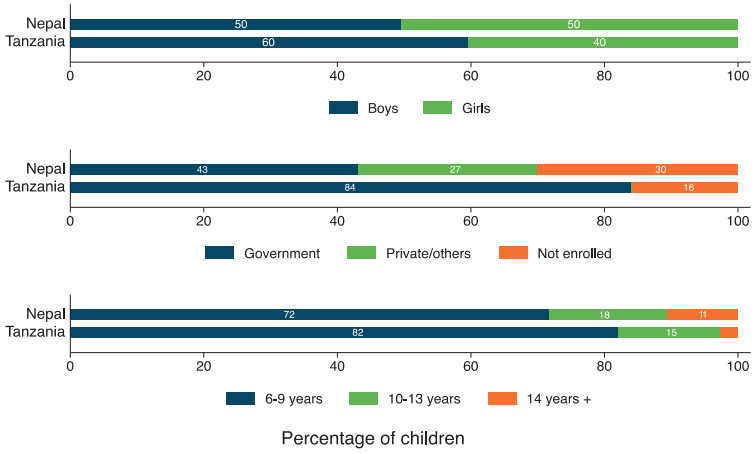
As expected, a significant majority of children at the beginner level fall within the youngest age group of 6–9 years. In numeracy, approximately 81 percent of beginner-level children in both countries are aged 6–9. In literacy, there is some variation: 72 percent of beginner-level children in Nepal and 82 percent in Tanzania fall within this age bracket.

Figure 25a: Demographic composition of Numeracy beginners



Number of children, Nepal = 490, Tanzania = 170

Figure 25b: Demographic composition of literacy beginners

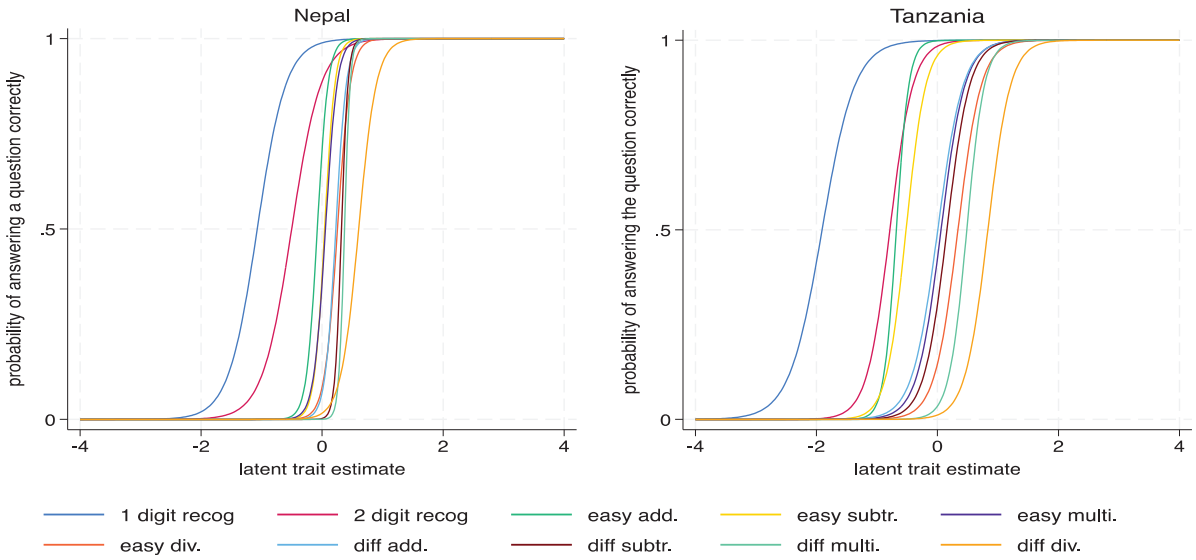


4.2.3. Regressions

In this section, we conduct regression analysis using IRT scores for numeracy and ordinal score for literacy incorporating a range of explanatory variables related to the child, parents, and household. For numeracy, we apply the 2 parameter IRT model to generate a continuous latent ability score foreach child. The test items included in this model are– 1 digit recognition, 2-digit recognition, all the arithmetic items (both easy and difficult), and word problems involving subtraction and division. The 2-parameter model, estimates both the difficulty and discrimination parameters for each items allowing for a nuanced measurement of children's numeracy abilities.

Item Response Theory (IRT) is a statistical technique commonly used in adaptive assessments to estimate latent traits—such as ability—based on the specific set of questions administered to each child. As the assessments are adaptive, some children do not attempt certain questions; these un attempted items are coded as missing rather than incorrect (zero) when estimating IRT scores. This approach helps avoid bias, as missing responses are treated differently from incorrect ones, and IRT models are designed to appropriately handle such missing data. For literacy, however, due to difficulties in fitting the available assessment items and data into an IRT framework, we instead used a categorical dependent variable ranging from 1 to 6, corresponding to progressively advanced skills: letter recognition, word recognition, paragraph reading, story reading, and comprehension.

Figure 26: ICC estimation for numeracy, Nepal and Tanzania



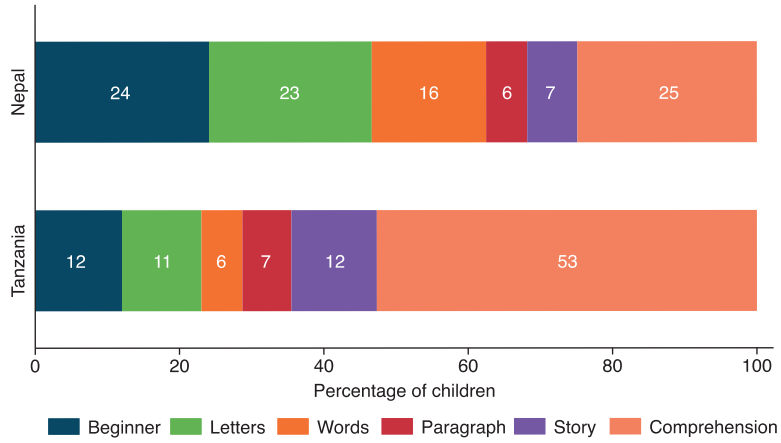
Note: IRT estimation for numeracy uses the 2-parameter model.

In Figure 26, the Item Characteristic Curve (ICC) illustrates the relationship between a child's latent ability (as measured by the IRT score) and the probability of correctly answering a given question. The steepness of the ICC reflects the question's discrimination power—the ability to differentiate between children of varying ability levels—while the position of the curve along the x-axis indicates the question's difficulty. Our survey results show that the assessment questions generally have high discrimination power, as evidenced by the steep ICCs. Moreover, the discrimination tends to increase with question difficulty. We observe that some ICCs overlap, particularly for children with higher ability. This overlap occurs due to several factors, including items measuring similar skills (notably among operation-related items) and lower discrimination parameters for those items. Additionally, ICCs in Nepal are closer together compared to Tanzania, indicating a lower variance in latent ability among children in Nepal.

Distribution of literacy levels, by country

In literacy, Figure 27 depicts the distribution of children across different levels of the literacy assessment. The assessment is linearly adaptive, meaning children progress to the next level only if they correctly answer the previous question. We find that children in Nepal are twice as likely as those in Tanzania to be at the beginner and letter recognition levels, where they fail to recognize letters and words, respectively. At more advanced levels, over half of the children in Tanzania (53 percent) can comprehend a long passage, compared to only a quarter (25 percent) in Nepal.

Figure 27: Distribution of literacy levels, by country



Note: Nepal = 3057 children, Tanzania = 4105

Next, we analyze the regression results presented in Table 5. We regress standardized IRT scores for numeracy and ordinal scores for literacy on several explanatory variables: child's gender, age group, household wealth quintile, school enrollment status, child-parent living arrangement, language of instruction, story reading exposure, and parent's education level. For numeracy, we standardize the IRT scores and apply ordinary least squares (OLS) regression, while for literacy, we use an ordinal logistic regression model given the six-category dependent variable. Overall, the models demonstrate stronger explanatory power for numeracy than for literacy in both countries, as reflected by higher R-squared values.

Gender emerges as a significant predictor of both numeracy and literacy outcomes in the two contexts. Our earlier descriptive analysis showed that boys performed slightly better than girls in Nepal, though the difference was statistically insignificant, while girls significantly outperformed boys in Tanzania. The regression results for numeracy largely align with these findings: in Nepal, being a girl is associated with a decrease in ability by 0.093 standard deviations, whereas in Tanzania, girls perform significantly better than boys with an increase of 0.112 standard deviations. For literacy, the gender effect is somewhat different—being a girl reduces the odds of higher performance by 11 percent in Nepal, but increases the odds by 59 percent in Tanzania.

Regarding age, we find that in both countries, children in older age groups are significantly more likely to demonstrate higher performance in both numeracy and literacy compared to the reference group of 6–9-year-olds. The correlation between age and ability/performance is notably stronger in Tanzania. Specifically, in numeracy, children aged 10–13 show an increase in ability of 1.05 standard deviations in Tanzania and 0.98 standard deviations in Nepal. Concerning school enrollment, the regression results indicate a positive but statistically insignificant relationship with ability/performance. This contrasts somewhat with our descriptive analysis, where we observed a significant positive association between enrollment and performance in Nepal, but a negative relationship across most sub-skills in Tanzania.

Considering household wealth, we find that children from richer households generally exhibit higher performance compared to those from the poorest quintiles. The positive effect of socio-economic status tends to increase progressively across wealth quintiles. However, our analysis also suggests a possible non-linear relationship between income and ability/performance, particularly

in Tanzania. For example, in numeracy, children in the third income quintile show an increase in ability by 0.245 standard deviations, while those in the fourth quintile show a slightly smaller increase of 0.229 standard deviations.

In literacy, however, the effects of parental education differ between the two contexts. We observe a relatively stronger positive impact of parental education on literacy performance in Nepal, where having parents educated up to the primary level increases the odds of higher literacy performance by 43 percent. In contrast, this relationship is statistically insignificant in Tanzania.

As noted earlier, due to the limited variation in language of instruction in Tanzania—where 99 percent of children speak Swahili at home—we examine the relationship between language of instruction and ability/performance only in Nepal. We observe a positive but statistically insignificant effect of speaking Nepali at home on both numeracy and literacy outcomes.

For literacy, we also consider additional factors such as whether someone reads stories to the child and the availability of books and other reading materials at home. We find that having stories read to the child at home has a positive and statistically significant association with literacy performance only in Tanzania, where the odds of higher literacy performance increase by 26 percent. In contrast, in Nepal, the coefficient is negative and statistically insignificant.

Similarly, for the availability of books and reading materials—measured through a composite score constructed using principal component analysis (PCA)—we find a positive and significant relationship in Tanzania, with the odds of higher literacy performance increasing by 17 percent.

Next, we analyze the performance and ability levels focusing exclusively on school going children (Table 6). At the time of the baseline assessment, 85-86 percent of children across both countries were enrolled in school. In addition to the factors considered in Table 5, we include variables specific to school going children. These variables are (i) whether the child receives any paid tuition support, (ii) whether the child has ever repeated a grade, (iv) whether the child attends private or government school , (iv) whether the child brings reading materials home (only for literacy), and (v) whether the child receives homework support from someone at home.

In both countries, the relationship between gender and ability/performance for school going children is significant only for numeracy. This contrasts with our broader sample where gender was a significant factor across all domains. In Tanzania, school-going girls outperform boys in numeracy by 0.090 standard deviations—a smaller difference than that observed in the full sample (0.112 SD). For literacy, school-going girls in Tanzania have 60% higher odds of performing better than boys. In both countries, age is positively associated with literacy and numeracy outcomes, with this relationship being stronger in Tanzania than in Nepal. Household wealth remains a significant predictor of learning outcomes, with children from richer households performing notably better than those from the poorest households. However, compared to the full sample (Table 5), the effect of household wealth on numeracy ability is less pronounced among school-going children. This pattern holds across all income quintiles in .

both countries. For example, in Tanzania, school-going children in the richest quintile show a 0.288 standard deviation increase in numeracy ability, compared to 0.385 SD among all children

Parental education is positively and significantly associated with better learning outcomes among school-going children. However, similar to household wealth, the magnitude of this

5 Only relevant for Nepal as 99 percent of school going children are in government schools.

effect is smaller than that observed in the full sample. For instance, in Nepal, having parents with secondary education or higher is linked to a 0.176 standard deviation increase in ability among school-going children, compared to 0.312 SD in the overall sample. Regarding household composition, children who live with their mothers show higher numeracy ability in both countries. However, no significant association is observed between living with the mother and literacy performance in either context.

We now turn to factors specific to school-going children. As noted earlier, 99 percent of school-going children in Tanzania attend government schools. Therefore, we include school type as a variable only for Nepal. In Nepal, attending a private school is associated with higher performance in both numeracy and literacy, although the effect is statistically significant only for numeracy (0.16 standard deviations). Interestingly, this contrasts with the descriptive analysis, where children in government schools outperformed those in private schools on most questions across both subjects.

The baseline survey shows that 40 percent of school-going children in Nepal attend paid tuition classes, compared to only 10 percent in Tanzania. Participation in paid tuition is positively associated with improved performance in both literacy and numeracy in both countries, consistent with the descriptive analysis. Notably, the magnitude and precision of this effect are greater in Nepal than in Tanzania. For instance, the odds of higher literacy performance among children receiving paid tuition are 113 percent higher in Nepal, compared to 43 percent in Tanzania.

Support with school homework at home is positively associated with better learning outcomes in Tanzania, but shows a negative and statistically insignificant relationship in Nepal. In Tanzania, homework support correlates with a 0.124 standard deviation increase in numeracy ability, and an 18 percent higher likelihood of better literacy performance.

Lastly, the baseline survey indicates that 6 percent of school-going children in Nepal and 12 percent in Tanzania bring reading materials home. This practice is positively and significantly associated with higher literacy performance in Tanzania, where it increases the odds by 67 percent. In contrast, the effect in Nepal is negative and not statistically significant.

Given that our study population is clustered at the village level, we examine the extent to which village-level factors influence learning outcomes. To this end, we employ a mixed effects model that incorporates both fixed effects (capturing within-village similarities) and random effects (capturing variability between villages). The model uses the same set of explanatory variables as previous analyses, with a focus on the variation attributable to villages and intra-cluster correlation (ICC) estimates. As previously noted, the sample includes 15 villages in Nepal and 20 in Tanzania.
In numeracy, village-level differences account for approximately 14 percent of the variation in Tanzania and 11 percent in Nepal. For literacy, the proportion of variance explained by village-level clustering is slightly higher—18 percent in Tanzania and 14 percent in Nepal. According to the literature, ICC values in the range of 0.1 to 0.4 are considered moderate, suggesting that our estimates reflect a meaningful level of village-level influence.

The random effects variance estimates, which capture the degree of performance variability across villages, are statistically significant based on their confidence intervals. Nevertheless, the majority of variation in learning outcomes remains at the individual level, underscoring the importance of child- and household-specific factors in shaping educational performance.

The relationship between certain independent variables and learning outcomes changes notably in the mixed effects model compared to the fixed effects model. Key variables showing variation include school enrollment, reading stories to the child, availability of reading resources at home, child's living arrangement (with mother or father), and the language of instruction.
School enrollment emerges as a statistically significant predictor of both numeracy and literacy outcomes in the mixed effects model for both countries. This contrasts with the fixed effects model, where enrollment had a positive but statistically insignificant association. The significance in the mixed effects model may be attributed to its ability to account for unobserved heterogeneity across villages, thus better capturing contextual influences on learning.

For variables where the magnitude of the coefficients remained largely unchanged across models, we observe that the standard errors are smaller in the mixed effects model. This is expected, as mixed effects models incorporate both within-group and between-group variation, resulting in more precise estimates.

SECTION 5:

DISCUSSION

This chapter reflects on the implications of our baseline assessment findings, emphasizing the multifaceted factors shaping children's learning outcomes. Foundational learning is influenced by an interplay of elements spanning teachers, school structures, curricula, learning materials, households, and the wider community environment. While gender gaps in learning have narrowed or closed in many parts of the world, progress remains uneven and context-dependent.

In Tanzania, girls outperform boys consistently in both numeracy and literacy. This aligns with the government's flagship fee-free basic education program, launched in 2016, which has enhanced gender parity in access and learning outcomes. Nationally, the primary school completion rate stood at 72 percent for girls compared to 66 percent for boys (UIS, 2020). An important factor contributing to these better outcomes for girls appears to be the higher educational attainment of mothers and other adult household members in Tanzanian households. Our data indicate a greater share of mothers with primary education in Tanzania compared to Nepal. Furthermore, Tanzanian girls are more likely to be enrolled in school and are overrepresented in younger age groups.

Conversely, in Nepal, girls lag behind boys in both subjects despite being enrolled in higher numbers. Here, the lower maternal education levels and a higher proportion of out-of-school children living in single-mother households may be contributing factors. These findings underscore the need to explore gender's nuanced role in foundational learning, especially considering the additional barriers girls face across many Sub-Saharan African and South Asian contexts — including household responsibilities, early marriage, teenage pregnancies, and gender-based violence in schools. Addressing these requires not only equal access but also safe, inclusive, and gender-responsive learning environments that support girls' retention and success.

Our study highlights notable differences in learning outcomes by school enrollment status, with a significantly larger performance gap between in-school and out-of-school children in Nepal compared to Tanzania. In Nepal, school-going children consistently outperform out-of-school peers across both numeracy and literacy domains. In contrast, Tanzania shows a more mixed pattern: while in-school children perform better on basic skills like number sense and single-digit

recognition, out-of-school children outperform their peers on more complex operations and advanced literacy tasks. This divergence may be explained by the differing age and gender distributions in the two countries. Tanzania's younger-skewed population and older age of many out-of-school children—especially boys—suggest that these children might have acquired foundational skills outside formal schooling through informal learning or community engagement. Meanwhile, Nepal's more evenly distributed ages, with girls spread across age groups and boys concentrated in younger cohorts, reflect greater dependence on formal schooling for learning gains. These dynamics underscore how age, gender, and alternative learning pathways influence the relationship between school enrollment and foundational learning outcomes across contexts. Finally, the regression analysis affirms the complexity of factors influencing foundational learning in Nepal and Tanzania, revealing that while individual child characteristics such as age and gender consistently affect outcomes, their impact varies significantly by context.

Private schooling is expanding rapidly in many developing countries, especially South Asia, where it has grown faster than in any other region (UNESCO, 2022). In Nepal, about a quarter of school going children attend private schools. However, private schooling does not always translate to better learning. Our data revealed that government school students outperformed private school students across Nepal, in both numeracy and literacy, underscoring that school type alone is not a reliable proxy for quality .

The rise of paid tuition as a supplementary learning tool is another important factor. This phenomenon is particularly common in South Asia, where parents often view classroom teaching as insufficient. Our study confirms that children attending tuition classes perform better than their peers without such support. Notably, younger children—those in early grades where foundational skills are expected to be cemented—are more likely to receive tuition. This suggests that tuition may partly compensate for gaps in foundational learning within schools. To fully understand this dynamic, further investigation is needed into the structure and content of tuition, motivations for enrollment, and the role of parental engagement in these decisions.

The home learning environment emerges as a critical support system beyond formal schooling. Activities such as help with homework, access to books, and storytelling enhance learning outcomes. Our findings show stronger positive associations for these activities in Tanzania compared to Nepal, despite Nepal having a larger proportion of children with access to homework support and bedtime stories. This difference may reflect qualitative factors such as parents' literacy levels, motivation, intensity of support, and involvement of other adults (e.g., older siblings). For example, 28 percent of Tanzanian households in our sample have an adult other than the parents who completed high school, compared to 20 percent in Nepal, which could contribute to the differing impacts of home support. These findings suggest that policies aimed at improving parental education and increasing home-based learning support could be key levers for improving learning outcomes.

Household wealth remains a robust predictor of learning outcomes, with greater disparities evident in numeracy than literacy. This aligns with findings from a UNICEF analysis of Multiple Indicator Cluster Surveys (MICS) across 32 low- and middle-income countries, which found that children from the poorest households are significantly less likely to achieve proficiency in foundational reading (UNICEF, 2022).

Language of instruction also plays a pivotal role. Our study shows that children who speak Nepali at home outperform their peers in numeracy and literacy, reflecting the global evidence favoring mother tongue-based education for early grades. Tanzania's near-universal use of Swahili at home (99 percent) precluded a similar comparison there, but worldwide research underscores the cognitive and linguistic benefits of learning in one's home language before

acquiring additional languages (World Bank, 2021). Implementing effective mother tongue instruction in early education can enhance comprehension, engagement, and long-term learning trajectories.

Finally, the regression analysis affirms the complexity of factors influencing foundational learning in Nepal and Tanzania, revealing that while individual child characteristics such as age and gender consistently affect outcomes, their impact varies significantly by context. The stronger positive effect of girls' performance in Tanzania compared to Nepal highlights how gender dynamics in learning are shaped by local social and educational environments. Household wealth and parental education consistently support higher numeracy and literacy skills, underscoring persistent socio-economic disparities in access to quality learning opportunities. Importantly, the significance of living arrangements and parental engagement—particularly the positive influence of living with mothers in Tanzania—reflects the nuanced role of family support systems. School enrollment gains prominence only when accounting for village-level variation, emphasizing that community context and local educational ecosystems are critical to unlocking learning potential. The mixed effects model also points to the considerable influence of village-level factors, suggesting that targeted interventions at the community level could complement household and individual efforts to improve learning outcomes. Together, these findings highlight that efforts to enhance foundational learning must be multifaceted, tailored to specific country contexts, and address both the micro-level child and household factors alongside macro-level community influences.

SECTION 6:

CONCLUSION AND WAY FORWARD

This baseline analysis offers critical insights into the diverse and interconnected factors shaping foundational learning outcomes for children in Tanzania and Nepal. Our findings highlight that learning is influenced by a complex interplay of child-level attributes—such as gender, age, and school enrollment—and household dynamics including parental education, household wealth, language use, and the quality of the home learning environment. By systematically examining these dimensions, the study provides a comprehensive snapshot of the current state of foundational learning, which serves as a valuable resource for educators, policymakers, families, and communities aiming to enhance educational equity and quality.

Importantly, our analysis reveals that foundational learning is not a uniform experience even at early stages of education. Gender disparities, for example, manifest differently across contexts: while Tanzanian girls outperform boys in both literacy and numeracy, the reverse is true in Nepal, underscoring the need for context-sensitive gender-responsive policies that go beyond equal access to address deeper social and cultural barriers. Likewise, the role of household and parental engagement emerged as a significant driver of learning outcomes, particularly in Tanzanian households where higher maternal education and extended family support appear to bolster children's foundational skills.

The study also sheds light on the critical influence of school enrollment status and alternative learning pathways. In Nepal, school-going children significantly outperform their out-of-school peers, emphasizing the centrality of formal education for learning

gains. In Tanzania, however, out-of-school children perform better on certain complex tasks, suggesting the importance of informal and community-based learning experiences experiences that warrant further investigation. These nuances highlight the necessity for multifaceted strategies that support both in-school learners and children outside formal schooling systems.

Furthermore, our findings challenge common assumptions about private schooling and supplementary tuition. Despite the rapid growth of private schools in Nepal, government school students demonstrate better learning outcomes, indicating that school type alone does not guarantee quality. At the same time, paid tuition is shown to provide important learning support, particularly for younger children, signaling gaps within formal classrooms that families attempt to bridge. These insights call for a deeper understanding of the content, delivery, and accessibility of such supplementary education to optimize its benefits and equity implications.

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The home learning environment also emerges as a pivotal factor, with activities like homework help and storytelling positively linked to improved outcomes, particularly in Tanzania. This emphasizes the importance of policies that enhance parental literacy, motivate meaningful engagement, and leverage broader household resources to support children's learning outside school. The significance of mother tongue instruction, confirmed by superior outcomes among children speaking Nepali at home, further advocates for language-sensitive education policies that facilitate comprehension and long-term learning success.

The programmatic journey of My Village 2, which concluded in December 2024, integrated these insights through iterative data collection and adaptive intervention design. Moving forward, these findings underscore the necessity for holistic, intersectional approaches to foundational learning that simultaneously address individual, household, school, and community factors. Policies and programs must prioritize creating safe, inclusive, and gender-responsive learning environments, strengthen parental and community engagement, and recognize the varied learning trajectories shaped by socio-economic and cultural contexts. By leveraging this evidence, stakeholders can design and implement more nuanced, equitable interventions that truly unlock every child's potential for foundational learning and lifelong success.

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APPENDIX

Table 5: Regressions of Numeracy and Literacy, all children

VARIABLES	(1) Tanzania: Numeracy	(2) Nepal: Numeracy	(3) Tanzania: Literacy	(4) Nepal: Literacy
Gender, child (1=girls)	0.112***	-0.092***	0.456***	-0.115*
	(0.026)	(0.027)	(0.073)	(0.063)
Age group, 10-13 years	1.057***	0.910***	2.284***	1.868***
	(0.059)	(0.071)	(0.155)	(0.138)
Age group, 14 years +	1.742***	1.317***	3.345***	3.033***
	(0.075)	(0.106)	(0.273)	(0.207)
Read stories to the child at, yes/no			0.231**	-0.485
			(0.096)	(0.515)
Reading resources at home, pc score			0.161***	0.068
			(0.052)	(0.065)
Household wealth, Second Quintile	0.120***	0.303***	0.221**	0.807***
	(0.038)	(0.051)	(0.138)	(0.224)
Household wealth, Second Quintile	0.244***	0.386***	0.573***	1.041***
	(0.031)	(0.068)	(0.132)	(0.247)
Household wealth, Second Quintile	0.232***	0.484***	0.469***	1.190***
	(0.053)	(0.063)	(0.122)	(0.260)
Household wealth, Second Quintile	0.361***	0.585***	0.638***	1.438***
	(0.035)	(0.071)	(0.127)	(0.249)
Child lives with, Mother	0.104**	-0.198	0.377***	-0.430
	(0.039)	(0.126)	(0.132)	(0.297)
Child lives with, Father	-0.047	-0.220	-0.194	-0.581
	(0.049)	(0.164)	(0.180)	(0.412)
Child lives with, Guardian	-0.004	-0.061	0.120	-0.404
	(0.030)	(0.235)	(0.097)	(0.651)
Parent education level, primary and below	0.157***	0.198**	0.016	0.359**
	(0.040)	(0.068)	(0.137)	(0.161)
Parent education level, secondary and above	0.313***	0.309***	0.358*	0.812***
	(0.078)	(0.075)	(0.187)	(0.247)
Language of instruction, yes/no		0.137		0.324
		(0.130)		(0.440)
Observations	4,105	3,057	4,105	3,057
R-squared	0.465	0.489	0.164	0.169

Note: Standard errors are clustered at village level. All regressions include village fixed effects. The reference category for child's living situation is living with both parents, for parental education is no schooling, and for age group is 6-9 years old. Language of instruction is used only for Nepal as 99 percent of households in Tanzania reported speaking Swahili at home. Numeracy uses IRT scores and Literacy uses a ranked categorical variable with a range of 1-6.

Table 6: Regressions of Numeracy and Literacy, school going children

VARIABLES	(1) Tanzania: Numeracy	(2) Nepal: Numeracy	(3) Tanzania: Literacy	(4) Nepal: Literacy
Gender, child (1=girls)	0.089***	-0.031	0.457***	-0.052
	(0.025)	(0.025)	(0.072)	(0.075)
Age group, 10-13 years	1.063***	0.884***	2.401***	1.933***
	(0.061)	(0.079)	(0.174)	(0.170)
Age group, 14 years +	1.852***	1.413***	3.734***	3.527***
	(0.072)	(0.108)	(0.263)	(0.220)
Household wealth, Second Quintile	0.104***	0.192***	0.254*	0.553***
	(0.031)	(0.061)	(0.134)	(0.188)
Household wealth, Second Quintile	0.229***	0.224***	0.651***	0.705***
	(0.034)	(0.058)	(0.136)	(0.223)
Household wealth, Second Quintile	0.201***	0.287***	0.552***	0.838***
	(0.045)	(0.064)	(0.112)	(0.265)
Household wealth, Second Quintile	0.292***	0.371***	0.730***	1.144***
	(0.037)	(0.075)	(0.110)	(0.254)
Child lives with, Mother	0.068*	-0.187	0.312**	-0.416
	(0.038)	(0.116)	(0.135)	(0.272)
Child lives with, Father	-0.034	-0.174	-0.202	-0.529
	(0.056)	(0.168)	(0.211)	(0.422)
Child lives with, Guardian	0.017	0.155	0.164*	0.170
	(0.034)	(0.191)	(0.098)	(0.558)
Parent education level, primary and below	0.126***	0.130**	-0.028	0.230
	(0.038)	(0.059)	(0.143)	(0.157)
Parent education level, secondary and above	0.262***	0.174***	0.403**	0.554***
	(0.084)	(0.045)	(0.203)	(0.162)
Repeated grade, yes/no	-0.253***	-0.182***	-0.408***	-0.663***
	(0.056)	(0.060)	(0.150)	(0.091)
Homework support, yes/no	0.123***	-0.006	0.150*	-0.069
	(0.040)	(0.065)	(0.091)	(0.171)
Paid tuition, yes/no	0.241***	0.310***	0.353**	0.758***
	(0.079)	(0.056)	(0.168)	(0.150)
Bring reading materials home, yes/no			0.505***	-0.150
			(0.181)	(0.280)
Type of schooling, (1=Private)		0.160**		0.255
		(0.054)		(0.175)
Observations	3,532	2,569	3,532	2,569
R-squared	0.496	0.556	0.171	0.208

Note: Standard errors are clustered at village level. All regressions include village fixed effects. The reference category for child's living situation is living with both parents, for parental education is no schooling, and for age group is 6-9 years old. Language of instruction is used only for Nepal as 99 percent of households in Tanzania reported speaking Swahili at home. Numeracy uses IRT scores and Literacy uses a ranked categorical variable with a range of 1-6.

Table 6: Regressions of Numeracy and Literacy, school going children

VARIABLES	(1) Tanzania: Numeracy	(2) Nepal: Numeracy	(3) Tanzania: Literacy	(4) Nepal: Literacy
Gender, child (1=girls)	0.113***	-0.092***	0.455***	-0.115*
	(0.023)	(0.026)	(0.065)	(0.069)
Age group, 10-13 years	1.057***	0.911***	2.279***	1.865***
	(0.024)	(0.030)	(0.075)	(0.083)
Age group, 14 years +	1.738***	1.317***	3.319***	3.026***
	(0.045)	(0.035)	(0.182)	(0.106)
School enrollment status, yes/no	0.343***	0.514***	0.776***	1.138***
	(0.053)	(0.049)	(0.162)	(0.148)
Read stories to the child at, yes/no			0.244***	-0.438***
			(0.079)	(0.109)
Reading resources at home, pc score			0.166***	0.069*
			(0.035)	(0.038)
Household wealth, Second Quintile	0.123***	0.302***	0.225**	0.799***
	(0.034)	(0.039)	(0.094)	(0.108)
Household wealth, Second Quintile	0.364***	0.589***	0.637***	1.437***
	(0.038)	(0.054)	(0.114)	(0.147)
Child lives with, Mother	0.103***	-0.187***	0.373***	-0.396***
	(0.033)	(0.043)	(0.095)	(0.113)
Child lives with, Father	-0.046	-0.195**	-0.191	-0.520***
	(0.054)	(0.077)	(0.157)	(0.201)
Child lives with, Guardian	-0.004	-0.055	0.115	-0.388
	(0.036)	(0.118)	(0.099)	(0.331)
Parent education level, primary and below	0.156***	0.198***	0.014	0.355***
	(0.052)	(0.035)	(0.142)	(0.092)
Parent education level, secondary and above	0.314***	0.307***	0.348*	0.794***
	(0.065)	(0.049)	(0.181)	(0.134)
Repeated grade, yes/no		0.137***		0.311**
		(0.047)		(0.126)
Observations	4,105	3,057	4,105	3,057
Number of villages	20	15	20	15
Intra-cluster coefficient (ICC) estimate	0.138	0.104	0.180	0.140
ICC standard error	0.0401	0.0360	0.0501	0.0465
Random effects variance estimate	0.0864	0.0599	0.00425	0.00473
C.I. of random effects variance	{0.44, 0.16}	{0.02, 0.12}	{0.366,1.38}	{0.25,1.14}

This table presents the results of the mixed effects regression for all children to estimate the variability in outcomes across the villages. The reference category for child's living situation is living with both parents, for parental education is no schooling, and for age group is 6-9 years old. Language of instruction is used only for Nepal as 99 percent of households in Tanzania reported speaking Swahili at home. Numeracy uses IRT scores and Literacy uses a ranked categorical variable with a range of 1-6. The middle household wealth quintiles are omitted from the table, not the estimation to keep the table compact.

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