



Are All Our Children Learning?

*Facts and figures for
education transformation
in Kenya and beyond!*

Learning Assessment in Refugee and Host Communities
in Garissa and Turkana Counties | 2025

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Abbreviations

FLANA	Foundational Literacy and Numeracy Assessment
GES	Global Refugee Education Strategy
IRC	International Rescue Committee
ICT	Information and communication technology
UNHCR	United Nations High Commissioner for Refugees
TW	TeachWell
CRRF	Comprehensive Refugee Response Framework
KNBS	Kenya National Bureau of Statistics
MoE	Ministry of Education
RELI	Regional Education Learning Initiative
KICD	Kenya Institute of Curriculum Development
TSC	Teacher Service Commission

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to fruition the dedicated efforts of a

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Executive Summary



This report presents findings from the 2025

Refugee and Host Community Learning

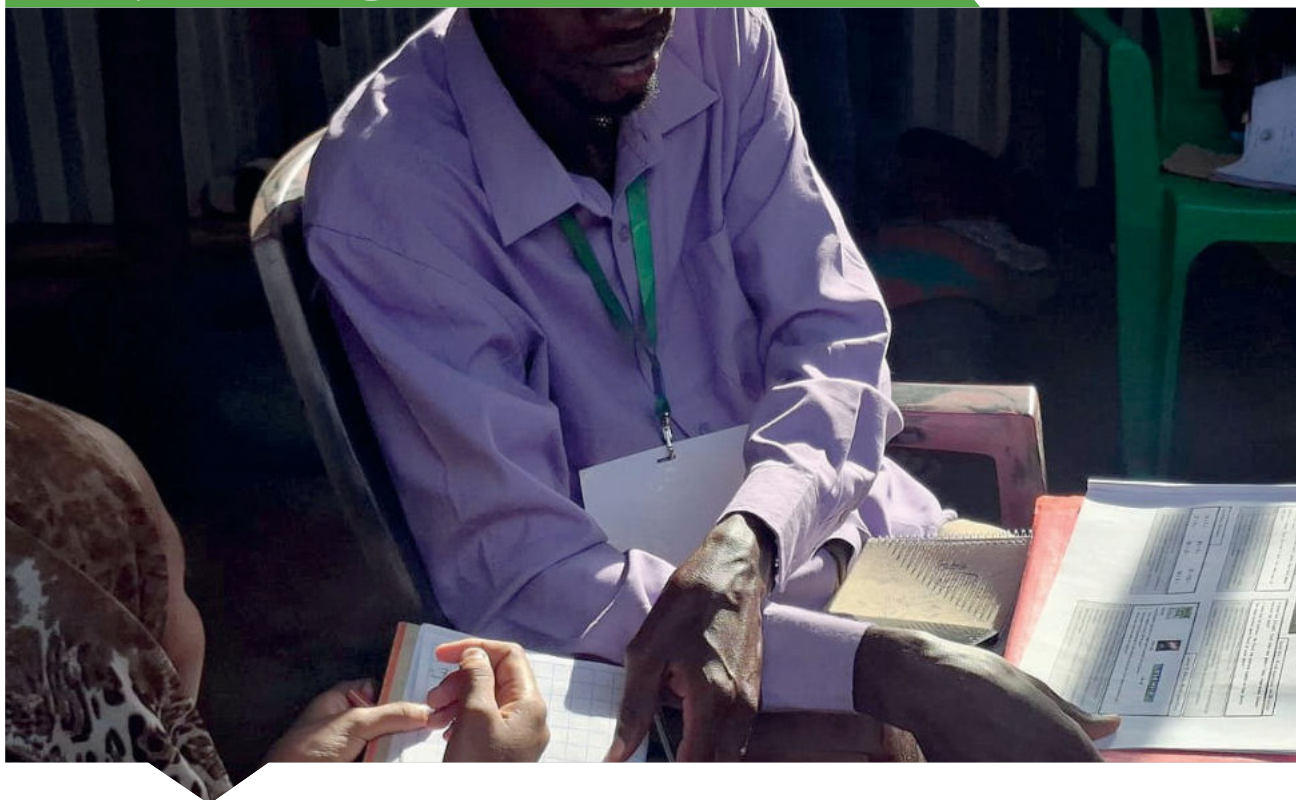
Turkana counties, covering refugee populations in Dadaab, Kakuma, and Kalobeyi camps alongside surrounding host communities. Implemented by Usawa Agenda in partnership with the International Rescue Committee (IRC), the assessment represents an important step toward addressing long-standing evidence gaps by systematically including refugee learners within Kenya's national Foundational Literacy and Numeracy Assessment (FLANA) framework.

Kenya has established a policy foundation for the inclusion of refugees within the national education system through instruments such as the Refugee Act (2021) and alignment with the Global Refugee Education Strategy. However, implementation remains at an early stage, and refugee learners have historically been excluded

from national learning assessments, limiting the availability of comparable evidence on access, learning outcomes, and equity. This assessment responds to that gap by generating robust, comparable data on schooling participation, learning environments, and foundational learning outcomes for children aged 10–15 years and learners in Grades 3–9, whether in school or out of school.

The study employed nationally aligned methodology using a stratified probability sample based on the 2019 Kenya Population and Housing Census Enumeration Areas. Household-based learning assessments and school surveys were conducted across 58 enumeration areas in refugee camps and host communities. Ethical approvals were obtained from national authorities, UNHCR, and implementing partners, and data were collected by trained citizen-led volunteers using digital tools.

Key Findings



Access to Schooling

School enrolment is relatively high in both refugee and host communities, with approximately four in five children attending school. Refugee children show slightly higher overall enrolment and retention at older ages, although participation in early childhood education remains low, particularly among refugee households. Geographic disparities persist across locations, with Kakuma and Kalobeyei showing higher participation compared to Dadaab, where enrolment, especially for girls, remains more constrained.

Household characteristics strongly influence enrolment patterns. Parental education is a consistent predictor of school participation across both refugee and host communities. Gender dynamics vary by context: refugee girls in male-headed households face higher risks of exclusion, while children in female-headed refugee households show relatively higher enrolment. Socioeconomic patterns also differ between settings, with refugee enrolment showing weaker links to wealth compared to host communities, where enrolment increases with household economic status.

Learning Environments

School conditions differ substantially between refugee and host communities. Refugee schools face overcrowding and high learner–teacher ratios, particularly at the junior secondary level, despite relatively stronger support from development partners in areas such as ICT access and school leadership. Host community schools generally have smaller class sizes and more stable staffing, although they often have fewer external resources and limited access to technology-supported learning.

Learning Outcomes

Learning outcomes remain low overall and reveal persistent inequities. Refugee learners perform substantially worse than host community learners in foundational literacy and numeracy, particularly at lower Grade levels such as Grade 4. Performance improves by Grade 6 and the gap narrows, but refugee learners continue to lag behind their host community peers. Children with disabilities are consistently disadvantaged across both contexts.

Regression analysis highlights important differences in the drivers of learning across settings. In refugee communities, household and caregiver characteristics, particularly maternal

presence, household socioeconomic status, and caregiver education, show strong associations with both literacy and numeracy outcomes. Even modest improvements in household stability are linked to higher likelihoods of meeting minimum proficiency. In host communities, learner characteristics and school-related factors appear more prominent, including gender disparities, Grade progression, and access to school supports.

Classroom Practices and Learner Engagement

Classroom observation findings provide additional insight into instructional quality. Across both Mathematics and English lessons, teachers spend most instructional time on explanation, board work, and whole-class instruction, with relatively limited use of interactive pedagogies, instructional materials, or collaborative learning approaches. Correspondingly, learners spend large portions of lesson time listening to teachers, answering questions, or copying from the board, with fewer opportunities for active, hands-on participation. While off-task behavior does not dominate lessons, the patterns suggest that instructional time could be used more effectively to promote engagement and deeper learning.

Implications For Policy And Practice

The findings demonstrate that improving learning outcomes requires context-specific strategies rather than uniform interventions. In refugee settings, strengthening household support mechanisms and reducing socioeconomic barriers appear particularly important. In host communities, addressing gender disparities and improving instructional quality may yield stronger gains. Across both contexts, improving classroom practices and learner engagement represents a critical

opportunity for enhancing learning outcomes without substantial infrastructure investment.

The prioritised recommendations emerging from this study therefore focus on:

1. Strengthening caregiver engagement and household learning support in refugee communities
2. Reducing socioeconomic barriers that constrain participation and learning
3. Addressing gender disparities among host community learners
4. Improving foundational learning in early Grades
5. Enhancing the effective use of learning resources
6. Strengthening attendance monitoring and continuity of learning
7. Improving instructional practices and the use of lesson time to increase learner engagement

Short Overview

This assessment was conducted across refugee camps in Dadaab, Kakuma, and Kalobeyei and the surrounding host communities in Garissa and Turkana counties. A total of 6,149 children were assessed at the household level using nationally aligned Foundational Literacy and Numeracy Assessment (FLANA) tools. The study collected data on access to schooling, learning environments, and foundational learning outcomes for children aged 10–15 and those enrolled in Grades 3–9, whether in or out of school. This report responds to a long-standing evidence gap by generating comparable learning data for refugee learners who have historically been excluded from national learning assessments.

1. Introduction



1.1 Context

Turkana and Garissa counties represent the two Arid and Semi-Arid Lands that not only contend with harsh climatic conditions and underdeveloped infrastructure but are also home to 302,372 refugees hosted in the Kakuma refugee camp and 423,674 refugees hosted in the Dadaab refugee camp as of the end of February 2025. The educational landscape in these areas is strained by systemic challenges, including overcrowded classrooms, low teacher-to-student ratios, limited learning materials, and inadequate school facilities. The refugee camps are regarded as underserved and marginalised regions in Kenya in terms of access to education and learning outcomes.

Kenya has made significant strides toward including refugees within its national education system before the introduction of the Global Refugee Education Strategy (GES) in 2019. As early as the 2000s, refugee learners in camps such as Dadaab and Kakuma were following the Kenyan national curriculum and sitting for national examinations like the Kenya Certificate of Primary Education (KCPE) and the Kenya Certificate of Secondary Education (KCSE). These learners were integrated into schools supported by UNHCR and its implementing partners, with

curriculum and assessment systems aligned to national standards. Furthermore, Kenya's collaboration with education stakeholders, including UNHCR, Windle Trust Kenya, and the Lutheran World Federation, has enabled the development of a semi-formalised system that supports refugee learners using national education structures (UNHCR, 2016). These efforts have laid a strong foundation that positions Kenya to align quickly with the Comprehensive Refugee Response Framework (CRRF) in 2017 and later the GES. Kenya's enactment of the Refugee Act (2021) formally grants refugees the right to access public services, including education. The GES and the CRRF operationalise Kenya's commitments under Sustainable Development Goal 4, specifically SDG 4.1 and indicator 4.1.1a, which measures the proportion of children achieving at least a minimum proficiency level in reading and numeracy at the end of primary education, alongside SDG 4.5 on equity and inclusion, by integrating refugee learners into national curriculum, assessments, and learning outcomes reporting systems.

Refugee learners, despite forming a significant portion of the population in these countries, have historically been excluded from national learning assessments. This exclusion has led

to a lack of evidence-based insights into their educational experiences, learning levels, and associated support needs, thus undermining efforts to design targeted interventions.

It is against this backdrop that the TeachWell project partnered with Usawa Agenda to include refugee learners in our national assessments, 'Foundational Literacy and Numeracy Assessments (FLANA)' which is carried out every two years. Usawa Agenda's FLANA 2025 is supported by the government, specifically the Ministry of Education, Kenya National Bureau of Statistics and other relevant government entities. The inclusion of refugee learners in Usawa Agenda's learning assessments has received support from the TeachWell (TW) project funded by LEGO and Grundfos Foundation.

The Refugee and Host Community Learning Assessment aims to answer the following key questions:

1. What are the literacy and numeracy competencies of learners in refugee and host communities in Turkana and Garissa?
2. Are there disparities in learning outcomes between boys and girls, and between refugee and host learners?
3. What contextual and systemic factors affect learning achievement in the target areas?
4. What policy or programmatic changes are necessary to reduce gaps and improve learning outcomes?

1.2. Methodology

Overview

This section outlines the study design, data collection, and analytical approaches used in this assessment. The study covered 6,149 children in the region and employed quantitative, computer-assisted survey tools to collect data on children's learning outcomes and household and school characteristics. The sample was drawn in collaboration with the Kenya National Bureau of Statistics (KNBS), ensuring representativeness and adherence to national sampling standards. All data were cleaned, processed, and analysed using Stata.

Given the binary nature of the key outcome variables, whether a child meets minimum proficiency in literacy and numeracy, the analysis applies binary logistic regression models to estimate the probability (odds) of achieving minimum learning outcomes, controlling for a range of child-, household-, and school-level factors. In addition, the methodology includes descriptive statistics and comparative analyses to highlight differences in educational access and learning outcomes, and to examine key drivers of education outcomes across refugee and host community contexts in the region.

Population and settings

Usawa Agenda, in partnership with the International Rescue Committee, conducted home-based assessments on children aged 10-15, whether in or out of school or learners in Grades 3 to 9, regardless of age. The households visited had five categories of children.



Categories of children visited and assessed

Age of the child	What information to record	Administer the assessment?	Number of children reached
0 months - 3 Years	Do not take their bio data Include them in the number of household members	■ No. Do not assess them	■ Host Community Learners- 0 ■ Refugee Community Learners- 0
4-9 Year-olds	List Take bio data Note schooling status Include them in the number of household members	■ No. Do not assess them unless enrolled in Grades 3 to 9.	■ Host Community Learners- 1,735 ■ Refugee Community Learners- 1,178
10-15-year-olds	List Take bio data Note schooling status Include them in the number of household members List ONLY if enrolled in Grades	■ Yes. Administer the test to all 10-15-year-olds, whether they are enrolled in school or not.	■ Host Community Learners- 1,255 ■ Refugee Community Learners- 1,360
16-17-year-olds	3 to 9. Take their bio data ONLY if enrolled in Grades 3 to 9. Include all of them in the total number of household members	■ Yes. Administer the test to all 16-17-year-olds if enrolled in Grades 3 to 9; ■ No. Do not administer the test to any child aged 16 years and above if out of school. ■ No. Do not administer the test to any child aged 16 years and above if enrolled in classes above Grade 9.	■ Host Community Learners- 313 ■ Refugee Community Learners- 308
Over 17-year-olds	Do not list Do not take their biodata Do not note their schooling status Include them in the total number of household members	■ No. Do not administer the test to any child above the age of 17 years, even if she/he is enrolled in school.	■ Host Community Learners- 0 ■ Refugee Community Learners- 0

Historically, national learning assessments in Kenya, including those conducted by the Ministry of Education (e.g., National Assessment System for Monitoring Learner Achievement (NASMLA)) and its partners, have not incorporated refugee learners, largely due to funding constraints and logistical challenges. As a result, there is limited nationally and regionally comparable evidence on foundational literacy and numeracy outcomes that captures both refugee and host-community children. Gaps remain in understanding learning disparities among in-school and out-of-school refugee children, and how the nexus of both school and household-level conditions shapes learning outcomes in refugee-host community contexts. The absence of this evidence has limited the ability of policymakers and practitioners to design, target, and track just education programmes that address the existing challenges. This assessment seeks to address the mentioned gap by generating comparable evidence on access to schooling, learning environments, and foundational learning

outcomes for children aged 10–15 years and for learners in Grades 3–9, regardless of age and schooling status. By including both in-school and out-of-school children, the assessment provides a much-needed evidence base to support just education planning, resource allocation, and accountability in refugee-hosting contexts.

1.2.1. Sampling and Sample Size

The sampling for Usawa Agenda's home-based Foundational Literacy and Numeracy Assessment (FLANA) utilised the 2019 Kenya Population and Housing Census Enumeration Areas (EAs) as the sampling frame. The EAs, each averaging 100 households and classified as rural or urban, were cleaned, checked for duplications, completeness, proper coding, and removal of special EAs with non-conventional households before being designated as the sampling frame.

The 2025 National Learning Assessment (FLANA), including the refugee setting, was designed with a sample size of 58 EAs,

distributed equally across Dadaab and Kakuma and Kalobeyi Refugee Camps in Garissa and Turkana counties, to generate county-level estimates. The Host community, defined as the counties hosting the refugee camps, had 3,303 visited children from 1,692 households, while 2,846 visited children in the refugee camps were from 1,153 households.

The sampling frame was stratified by county and further by rural-urban residence, for the Host community. The sample was allocated using the square-root allocation method to ensure sufficient representation from low-population counties. From each stratum, samples were independently selected using probability-proportional-to-size methods. Geographic implicit stratification ensured national spread. An additional 255 replacement EAs and 21 pilot EAs (20 in Makueni and 1 in Kalobeyi) were drawn. The selection of the specific households to participate in the study was preceded by household listing. This listing was implemented by our partners in the EAs that were randomly sampled to balance for location, county and refugee status. The household listing involved going to all households in the sampled EA and obtaining non-sensitive information about the household, including listing all children of school-going age. The listing helped to have a frame of households in the EA and therefore randomly select the 20 households required in each county, with an extra three households picked for replacement.

1.2.2. Ethical considerations

All accountability and legal clearance processes were completed. Usawa Agenda secured the national research permit from NACOSTI and obtained permission from the Permanent Secretary, Ministry of Education, to access public schools. Additional approvals were received from UNHCR and LWF to access refugee camps and refugee community schools, while we sought and received participation consent from household heads/ guardians during the household visits and headteachers during the school visits. All participants provided informed consent before recruitment into the study.

1.2.3. Hiring and training of volunteers

Usawa Agenda uses a citizen-led approach to its research activities, where they partner with grassroots organisations across the country to collect data. This model of assessment started off with a comprehensive review and analysis of all 51 county implementing partners (community-

based organisations), followed by due diligence visits. Based on the partner mapping analysis, suitable partners were retained, new partners were onboarded, and organisational information was updated. A Heads of Organisations (HoOs) Partners Conference was successfully held to orient all partners on 2025 operations, roles, reporting responsibilities and contractual obligations. This ensured common understanding and alignment with Usawa Agenda's 2025 programs and strategy, as they played an important role in hiring data collection staff and supervising data collection. We used a cascaded model of training where we first trained National Master Trainers, who then trained Trainer of Trainers together with staff (referred to as County and Village Coordinators), seconded for the exercise by our county partners. Finally, the Trainer of Trainers trained over 140 volunteers from both the refugee and host communities (82 volunteers-Host communities; 58 volunteers-refugee camps) in a three-day session with a full day of hands-on field practice. Volunteers collected data using computerised questionnaires on SurveyCTO. The data was retrieved from the server, cleaned and analysed using STATA software.

1.2.3.1. Training of Quality Assurance Standards Officers and Tutors

The classroom observation tool was administered by MOE's Quality Assurance Officers and Standards (QASOs) and the tutors from select Teacher Training Colleges. The QASOs and Tutors were trained separately by the consultant who developed the classroom observation tool with support from UA staff. The training focused on defining key terminology in classroom observation and on administering the tool at each snapshot.

1.2.4. Data collection tools development

1.2.4.1. Household and school questionnaires

Household and school questionnaires were developed and reviewed by a panel of experts consisting of KNBS, MoE, IRC, academia, RELI, UN agencies, school heads, and master trainers through a two-day workshop. The workshop validated the survey tools (household and primary school), identified areas for improvement, and ensured alignment with standards, usability, and accuracy. The workshop achieved its objectives of validating functionality, collecting stakeholder feedback, improving usability, ensuring alignment with standards, and approving the tools for deployment.

1.2.4.2. Test Development

The development of literacy and numeracy assessment tools was completed through a rigorous collaborative process involving Kenya Institute of Curriculum Development (KICD) experts, practising teachers, Teachers Service Commission (TSC) officers, and MoE Quality Assurance officials. Similar to the questionnaire review workshop, a three-day test development workshop was held, producing six samples aligned with the “Framework for Development of Usawa Agenda’s Literacy and Numeracy Assessment Tools”. Subsequent pre-tests in Nairobi, Kiambu, and Kajiado and a full pilot exercise were conducted, followed by a revision meeting to improve the tools. All test revisions were tracked, and final versions were prepared for printing using Flesch-Kincaid and Type Token Ratio methods to ensure equivalency. Four sets of literacy and numeracy tests were pre-tested in Nairobi, Kajiado, and Kiambu. Three schools in each sub-county participated. The pre-test assessed the difficulty, clarity, timing, and appropriateness of the tools across different contexts, and feedback informed tool refinement. The tests were then revised for improvement and finalised for a pilot survey.

1.2.4.3. Classroom observation tool

The classroom observation tool was developed by a consultant with expertise in education. The tool covered class background characteristics, teacher focus, teacher activities, learner activities, and classroom resources. A snapshot of the classroom was taken every three minutes for 30 minutes in Grade 3 and every three minutes for 35 minutes in Grade 6. The learning areas observed were English and Mathematics. The tool was then reviewed internally by UA staff for clarity before being digitised.

1.2.5. Pilot (Including Refugee Camp Pilot)

A pilot study was conducted in a total of 20 Enumeration Areas (EAs) in Machakos county and in the refugee camps. During the pilot, all assessment tools, including school questionnaires, household questionnaires, and learner assessments were used to further clarify and cultural sensitivity of the tools. Specifically, the pilots validated:

1. Training adequacy
2. Suitability of SurveyCTO
3. Volunteer competence
4. Data transmission reliability

5. Time requirements for interviews and assessments

6. Field logistics and administrative arrangements

For the refugee community, a targeted pilot was carried out in Kalobeyei refugee camp. This confirmed the cultural and linguistic appropriateness of tools for refugee learners and identified refinements for multilingual, interrupted-schooling, and humanitarian contexts. The assessment tools were developed exclusively in English. However, to accommodate participants’ and respondents’ preferences, volunteers conducted on-site translations into Kiswahili and other relevant local languages during data collection. Feedback from refugee volunteers and learners was incorporated into the final tool adjustments.

1.2.6 Data collection

After the training, two volunteers were dispatched to recruit and administer household questionnaires and assess all children aged 4-17 in each household sampled. Children’s learning assessment in the presence of the guardian was preceded by administering the household questionnaire. Each child was assessed separately, and all other children were asked to keep off until their turn. Each volunteer had three learning assessment booklets, each child in the household, from the first to the third, assessed using a different booklet and the booklets were repeated if there were more than three children in the household. The school questionnaire was administered by one of the two volunteers with the other’s support. The priority was to obtain consent and recruit the head of the institution (HOI), unless the HOI had assigned a deputy or a senior teacher. The classroom observation in select schools that had been recruited and responded to the school questionnaire. Each QASO and Tutor were assigned schools in their area of jurisdiction. On arrival, the QASOs/Tutors sought permission from the HOI before proceeding to organise with English and Mathematics teachers in Grade 3 and Grade 6 to observe their lessons. Data collection used phones and tablet computers with SurveyCTO, and the encrypted data was immediately synchronised to the server and reviewed, downloaded and cleaned by the data team at UA for management.

1.2.7 Data management and analysis

Downloaded and cleaned data were imported into Stata and stored in encrypted computers

with copies backed up offsite. During additional data review and cleaning, queries were immediately sent to the respective volunteers through their coordinators for resolution. Data analysis involved descriptive and inferential statistics. The descriptive statistics included frequencies, means and median, while the inferential statistics included regression analysis with marginal coefficients. For household data, all EAs and the households therein were weighted to account for unequal sampling probabilities, creating the variable weight. We therefore controlled for sampling weight in all the analyses.

1.2.8 Data Limitations

Several data-related constraints should be considered when interpreting the findings of this study.

First, lesson observations were not conducted in refugee schools due to delays in obtaining access approvals. By the time permissions were secured, schools had already closed for the August holiday period, making it impossible to complete classroom observations within the planned timeline. As a result, the analysis of instructional practices is limited to host community schools, and direct comparisons of classroom processes between refugee and host settings could not be undertaken. This limits the

ability to fully contextualise differences in learning outcomes across the two environments.

Second, the study design did not establish linkages between household-level learning data and classroom-level observation data at the individual learner level. While both datasets provide valuable insights independently, more advanced analysis examining the relationship between teaching practices and learner performance was not possible. Approaches such as cluster analysis or multilevel modelling, which could have strengthened causal interpretation by accounting for classroom or school effects, were therefore not feasible within the current dataset. Consequently, the study is unable to draw firm conclusions about how observed teaching practices translate into learning outcomes.

These limitations primarily reflect logistical and methodological constraints rather than weaknesses in data quality. Future rounds of the assessment could address them through earlier coordination with relevant authorities to secure access to refugee schools within the academic calendar, and by incorporating unique learner identifiers to enable linkage across household, school, and classroom datasets. Such improvements would support more comprehensive analysis of instructional quality and its relationship to learning outcomes, thereby strengthening the policy relevance of future evidence.

2. Key Findings



The 2025 FLANA assessment (tools) focused on the ability of children to read and comprehend English and complete basic numeracy tasks, set at a Grade 3 level. This report presents learning outcomes of all assessed children, with an interest in learners in Grade 4 who were expected to have completed the Grade 3 level work by the time of the assessment, as well as Grade six, who were completing primary education. The report further highlights both home and school factors that influence learning and underscores observable inequalities, as well as reckons with the underlying drivers of the observed learning outcomes and their distribution.

2.1. Characteristics of the households and schools selected

This section highlights the key characteristics of the households and schools sampled for this study. Continuous variables were summarised using medians and interquartile ranges (IQRs) due to evidence of skewed distributions and potential outliers. The IQR reflects the dispersion of the central 50% of observations and is less influenced by extreme values than the standard deviation. Minimum and maximum values were

additionally reported to provide information on the observed range.

Over two-thirds (58%) of the households sampled in the host community were in rural areas. Overall, 67.6% were from female-headed households compared to 62.9% in the host community and 73.2% in the refugee community. The median age of the household head was 41 (IQR 35, 50), with the refugee households having slightly younger household heads aged 40 (IQR 33, 47). The majority (77.9%) of household heads had not completed primary school, with no discernible difference between host and refugee households. Half of the households had 6 (IQR 5, 8) members, with refugee communities reporting slightly more compared to host communities (Table 1). Of the household members, a median of 3 (IQR 2, 4) children aged 4-17, with no difference between host and refugee households. For the majority (81.4%) of the households, the main language spoken at home was mother tongue. Other languages spoken at home included Kiswahili (12.6%), English 2.7% and other languages 3.4%). Obviously, we had more households in the host community with Kiswahili as the main language spoken at home compared

to the refugee community. The majority of households (64.7%) were categorised as poor, with 25.4% and 9.9% falling in the middle and rich households, respectively. More refugee households (34.2%) were in the middle cadre category compared to the host community (17.8%). Of the children assessed, 53.1% were male and 5.4% had disabilities, with more in refugee communities (6.4%) compared to host

(4.5%). Overall, 79.1% of the children were currently enrolled in school, with more enrolled in refugee communities (81.7%) compared to the host (76.8%). As expected, the majority (91.1%) of children in host communities were enrolled in public schools, and almost all (97.2%) under the national curriculum and a small percentage (2.0%) were undertaking a non-formal curriculum

Table 1: Household Characteristics

Attribute	All	Host	Refugee
Location of the household [Count (%)]			
Rural	1914(58)	1914(58)	-
Urban	)	)	-
Gender of the household head [Count (%)]			
Male	11990(32.4)	11227(37.1)	763(26.8)
Female	)	)	2082(73.2)
Age of the household head [Median (IQR)]	4158(67.6)	2076(62.9)	40(33, 47)
Education level of the household head [Count (%)]			
Primary not completed	4018(77.9)	5030(79.6)	2159(78.0)
Primary completed	)	) 280(8.5)	414(14.4)
Secondary completed	694(11.3)	205(6.2)	216(6.2)
Post-secondary training	421(6.8)	188(5.7)	57(1.4)
Number of people in the household [Median (IQR)]	245(4.0)	6(5, 8)	7(5, 10)
Number of children aged 4-17[Median (IQR)]	7(5, 8) 3(2, 4)	3(2, 4)	3(2, 4)
Language spoken at home [Count (%)]			
English	163(2.7)	64(1.9)	99(3.5)
Kiswahili	773(12.6)	593(18)	180(6.3)
Mother tongue	5005(81.4)	2572(77.9)	2433(85.5)
Other languages	208(3.4)	74(2.2)	134(4.7)
Number of meals in day [Count (%)]			
None	23(0.4)	19(0.6)	4(0.1)
One	2332(37.9)	1154(34.9)	1178(41.4)
Two	)	)	)
Three	2720(44.2)	1312(39.7)	1408(49.5)
Wealth class of the household [Count (%)]			
Poor	) 256(9.0)	)	) 256(9.0)
Middle	1678(59.0)	2186(69.7)	1678(59.0)
Rich	1559(25.4)	587(17.8)	196(6.8)
Gender of the child [Count (%)]			
Male	) 610(9.9)	414(12.5)	)
Female	3263(53.1)	1711(51.8)	1552(54.5)
Age of the child [Median (IQR)]	)	)	)
2884(46.9)	1591(48.2)	1293(45.4)	
Disability status of the child [Count (%)]			
No disability	) 10(4, 17)	) 9(4, 17)	) 10(4, 17)
5817(94.6)	3153(95.5)	2664(93.6)	
Has disability	332(5.4)	150(4.5)	182(6.4)

School enrolment status of the child [Count (%)]			
Currently in school	4864(79.1	2538(76.8)	2326(81.7)
Currently out of school	)	765(23.2)	520(18.3)
Type of school attended by the child [Count (%)]			
Public	2220(46.9)	2220(91.1)	- - -
Private	209(4.4)	209(8.6)	2298(100.0)
Home schooling	5(0.1)	5(0.2)	)
Refugee school	2298(48.6)		
Curriculum the child is enrolled in [Count (%)]			
National curriculum (CBE/844)	4748(97.6	2466(97.2	2282(98.1
International curriculum (IGCSE)	) 39(0.8)	) 21(0.8)	) 18(0.8)
Non-formal curriculum	77(1.6)	51(2.0)	26(1.3)

The majority (52.6%) of the schools selected to participate in the study were public, and 45.1% were from the refugee community. However, only 2.2% were private schools. Of the schools, three-quarters (77.4%) were day schools, and 22.6% were day and boarding. In the refugee community, all but one were day schools compared to 10 (17.9%) in the host community. Two-thirds (68.6) of the schools were described as regular schools, with the remainder (31.4%) being integrated. Over 82% of the schools in the host community were regular compared to 52.2% in the refugee community (Table 2). This effectively means that most schools in the refugee community were integrated as opposed to those in the host community.

Overall, the schools had a median of 782 (IQR 245, 1580) population of learners, with refugee schools having a higher population (1487.5: 1003, 2232) than host schools (409.5: 182.5, 783). Of the schools participating in the survey, 59% reported having sponsors, with more (95.6%) refugee schools having sponsors than the host community schools (27.8%). Generally, the schools had been in existence for a median of 22.5 (IQR 12, 33) years, with host community schools having been in existence for a longer period (25: 14, 41.5) compared to refugee schools (19: 11, 32).

Of the community schools that had a board of management (98.1%), 90.6% of their board of management chairperson was a male. Related to this, 80.4% of the board of management chairpersons of the schools were male. Ironically, 80.4% of the heads of institutions (HOI) of the schools were male, with host schools having more male heads (83.9%) compared to refugee schools (76.1%). The median age of the heads of the institutions was 38 (32, 47.5), with those

managing host schools being older (43: 35, 51) and refugee community schools (35: 32, 38). Similarly, a higher percentage of the heads of institutions of the host community schools (35.7%) had Bachelor's degrees compared to 30.5% Head of institutions of the refugee community schools. Overall, the HOI had served as heads for a median of 4 (2, 9) years, with those in host community schools having served for longer times than their refugee schools' counterparts. The HOI had served in their respective schools for a median of 2 (1,4) years with the length of the HOI of host community schools had served in the current schools being twice that of their counterparts in HOI of refugee community schools. In terms of school management training, 96.9% reported having been trained, with almost similar proportions in host (92.9%) and refugee (95.6%) community schools.



Table 2: Characteristics of the sampled schools

Attribute	All	Host	Refugee
Type of school [Count (%)]			
Private	2(2.0)	2(3.6)	0
Public	54 (52.9)	54(96.4)	0
Community	46(45.1)	0	46(100.0)
Category of school [Count (%)]			
Day	79(77.4)	34(60.7)	45(97.8)
Day and boarding	23(22.6)	22(39.3)	1(2.2)
Whether school is regular or integrated [Count (%)]			
Regular	70(68.6)	46(82.1)	24(52.2)
Integrated	32(31.4)	10(17.9)	22(47.8)
Learner population of the school [Median (IQR)]	782(245, 1580)	409.5(182.5, 783)	1487.5(1003, 2232)
School is sponsored [Count (%)]			
Yes	59 (59)	15(27.8)	44(95.6)
No	41 (41)	39(72.2)	2(4.4)
Length of time school as been in existence [Median (IQR)]	22.5(12, 33)	25(14, 41.5)	19(11, 32)
School has board of management [Count (%)]			
Yes	53(98.1)	1(1.9)	-
No	1(1.9)	53(98.1)	-
Gender of the chairperson of the board of management [Count (%)			
Male	48 (90.6)	48(90.6)	-
Female	5(9.4)	5(9.4)	-
Gender of the school Head Teacher [Count (%)]			
Male	82(80.4)	47(83.9)	35(76.1)
Female	20(19.6)	9(16.1)	11(23.9)
Age of the school Head Teacher [Median (IQR)]	38(32, 47.5)	43(35, 51)	35(32, 38)
Highest academic achievement of Head Teacher [Count (%)]			
Diploma	35(34.3)	17(30.4)	18(39.1)
Bachelor's degree	34(33.3)	20(35.7)	14(30.4)
Other (PhD, Master, Post Graduate diploma)	33 (32.4)	19(34.0)	14(30.4)
Number of years served as Head Teacher [Median (IQR)]	4(2, 9)	6.5(3, 10)	3(1, 5)
Number of years served as Head Teacher in current school [Median (IQR)]	2(1, 4)	3 (1, 5)	1.5(1, 4)
Has attended school management training [Count (%)]			
Yes	96(94.1)	52(92.9)	44(95.6)
No	6(5.9)	4(7.1)	2(4.4)

2.2. Access to School

Across all age groups, refugee children show a higher overall school enrolment rate at 80.0% compared to host children, 74.8%, though the patterns vary by age as shown in Table 3.

Table 3: In & Out of School Children by age and Gender

Schooling Status	Child Age Group	Boys	Girls	Average
In School	Age 4-5 years- Refugee	43.6	43.4	43.5
	Age 4-5 years- Host	65.5	58.7	62.0
	Age 6-12 years- Refugee	82.9	76.3	79.7
	Age 6-12 years- Host	76.3	79.1	77.6
	Age 13-17 years- Refugee	93.2	94.3	93.7
	Age 13-17 years- Host	74.1	86.4	79.5
	Refugee Average	81.5	78.2	80.0
	Host Average	73.5	76.2	74.8
Out of School	Age 4-5 years- Refugee	56.5	56.6	56.5
	Age 4-5 years- Host	34.6	41.3	38.0
	Age 6-12 years- Refugee	17.1	23.7	20.3
	Age 6-12 years- Host	23.7	20.9	22.4
	Age 13-17 years- Refugee	6.8	5.7	6.3
	Age 13-17 years- Host	25.9	86.4	20.5
	Refugee Average	18.5	21.8	20.0
	Host Average	26.5	13.6	25.2

The widest gap appears among the youngest children aged 4–5, where host children are more likely to be in school at 62.0% than refugee children at a rate of 43.5%, highlighting early childhood access barriers in refugee settings.

In the later years, from age 6, tides turn for a higher proportion of refugee children have access compared to host community children. Among adolescents aged 13–17, refugee children have higher participation at a rate of 93.7% than host adolescents at 79.5%, indicating stronger retention of refugee learners at older ages.

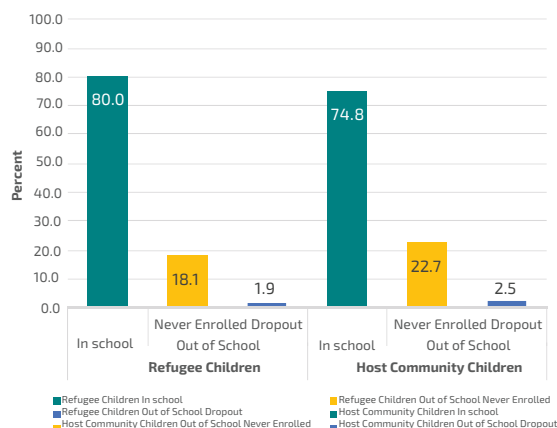


Figure 1: School Enrolment Rate

Refugee community children have slightly higher school attendance, 80.0% compared to host-community children, 74.8% (Figure 1). This indicates that access to school is relatively high for both groups, but at least 1 in 5 children in both communities are not in school.

Host-community children have a higher rate, 22.7%, than refugee children, 18.1%. This suggests that initial access to schooling may be more challenging for host-community families than for refugees.

Dropout rates are generally low but slightly higher among host children (2.5%) than among refugees (1.9%).

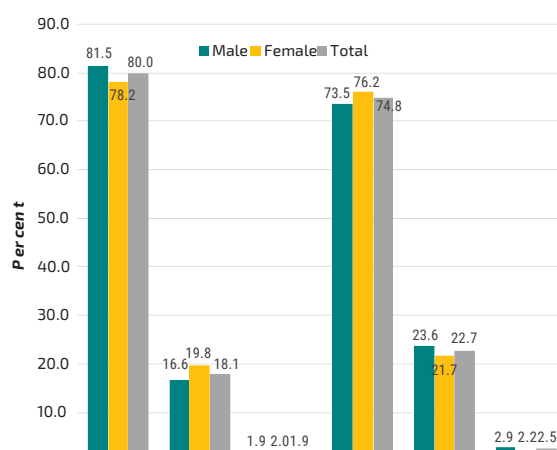


Figure 2: School Enrolment Rate by Child Gender

Among refugee community children, in-school enrolment is slightly higher for boys at 81.5% than for girls at 78.2% (Figure 2). Girls in refugee settings are marginally more likely to have never been enrolled at a rate of 19.8% compared to boys, 16.6%, while dropout rates are low and nearly identical for both genders, 1.9% for boys

and 2.0% for girls. This suggests that gender gaps in refugee contexts are driven more by initial access to schooling than by retention once enrolled.

In host communities, the pattern is reversed but similarly small in magnitude. Girls record a slightly higher in-school rate, 76.2%, than boys (73.5%), while never-enrolment is slightly higher for boys (23.6%) compared to boys (21.7%). Dropout remains low overall, though marginally higher for boys at 2.9% than for girls at 2.2%.

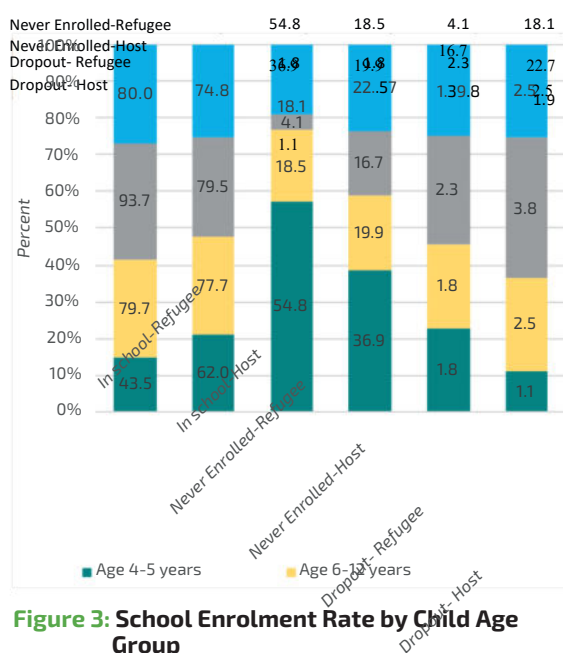


Figure 3: School Enrolment Rate by Child Age Group

Early-childhood education is the weakest point in the system, and it is much more limited for refugees (Figure 3). Only 43.5% of refugee children and 62.0% of host children aged 4–5 are enrolled in school. Over half of refugee children, 54.8%, and more than a third of host children, 36.9%, in this age group have never enrolled.

School participation increases with age in both refugee and host communities. Enrolment is lowest among children aged 4–5 years, particularly among refugees, reflecting delayed school entry that is consistent with documented constraints in ECDE provision in humanitarian settings, including limited availability of ECDE centres, shortages of trained caregivers, and heavy reliance on volunteer-based services (UNHCR, 2019; UNICEF, 2021; World Bank, 2020). By ages 6–12 years, enrolment rises to around 79.7% among refugee community children and 77.7% among host community children, indicating that access improves substantially once children reach primary-school age. Among adolescents aged 13–17 years, refugee children

exhibit higher school retention (93.7%) than host-community children (79.5%), while dropout, though low overall is concentrated among older children and remains slightly higher in host communities, reflecting challenges in adolescent retention outside camp settings (Education Cannot Wait, 2022; UNESCO, 2023).

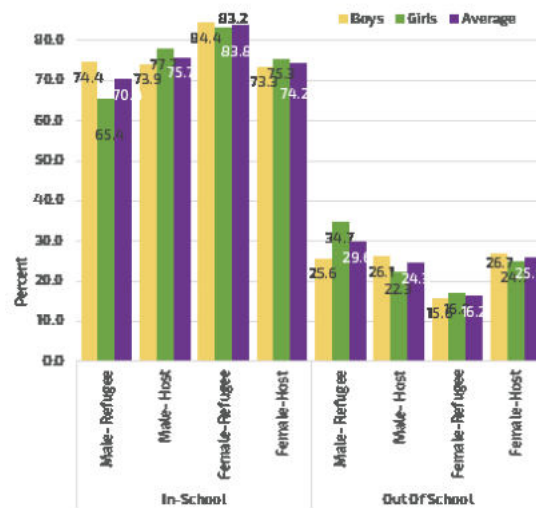


Figure 4: School Enrolment Rate of Children by Household Head Gender, Child Gender and Schooling Status

Children from refugee female-headed households record the highest school enrolment rates, averaging 83.8% in-school, with minimal gender differences between boys (84.4%) and girls (83.2%) (Figure 4). In contrast, enrolment is lower among children in male-headed refugee households, particularly for girls, highlighting variations in school participation by household head gender.

Children from male-headed refugee households are less likely to be enrolled than those from female-headed refugee households, with girls particularly disadvantaged. Only 65.4% of refugee girls in male-headed households are in school compared to 74.4% of boys in similar households, indicating a gender gap in enrolment. As a result, refugee girls in male-headed households are more likely to be out of school than other groups.

Host-community children show relatively stable enrolment regardless of household-head gender. In-school rates for host children are relatively similar whether the household head is male (75.7%) or female (74.2%). Thus, host-community enrolment patterns are more gender-balanced and less affected by household-head gender.

Out-of-school rates are lowest among female-headed refugee households (16.2%). The highest exclusion is among girls in male-headed refugee households (34.7%). Gender inequity in schooling is driven largely by refugee household dynamics.

Table 4: Percentage of School-aged children out of school by the education level, the gender of the household head, and the child

Level of education of head of household	Refugee		Host	
	Boys	Girls	Boys	Girls
At least degree	-	-	25.3	6.7
Diploma	21.4	36.5	17.4	5.3
Post-secondary certificate	17.9	26.1	0	9.8
Secondary school	11.2	7.4	14.3	6.4
Secondary school dropout	1.6	8.2	8.1	8.7
Post-primary certificate	0	10.0	27.0	11.7
Primary school	12.0	13.3	9.1	9.4
Primary school dropout	20.0	22.2	14.2	18.3
None	21.2	24.7	29.6	28.1
Average	18.5	21.8	26.5	23.8

Parental education influences whether children are out of school in both refugee and host communities (Table 4). Children from households where the household head has no formal education or has dropped out of primary school consistently exhibit the highest out-of-school rates. This pattern underscores the intergenerational transmission of educational disadvantage; whereby lower adult educational attainment is associated with reduced school participation among children.

In refugee communities, out-of-school rates are generally higher for girls than for boys across most education categories. The gender gap is particularly pronounced in households where the household head holds a diploma, where nearly 36.5% of girls are out of school compared to about 21.4% of boys. Girls also show higher exclusion in households where the household head has no education or has dropped out of primary school. These patterns indicate that refugee girls face compounded disadvantages linked to both gender and household educational background.

In host communities, gender differences in out-of-school rates vary by the education level of the household head and gender of the child rather than following a uniform pattern. Among households with no formal education, boys and girls have almost equal high out-of-school rates (28.1 % each). Girls out of school rates seem to increase with lower levels of parental education achievements. Overall, while higher parental education is associated with lower out-of-school rates for both genders, gender gaps persist in host communities and shift direction depending on the household head's level of education, rather than consistently disadvantaging either boys or girls.

Overall averages further reinforce these differences. In refugee communities, the average out-of-school rate is slightly higher for girls (21.8%) than for boys (18.5%), whereas in host communities, boys (26.5%) have higher out-of-school rates than girls (23.8%). Together, these findings highlight that while low parental education increases the risk of school exclusion for all children, the gender dimension of this risk differs by context, with girls more vulnerable in refugee settings as compared to boys.

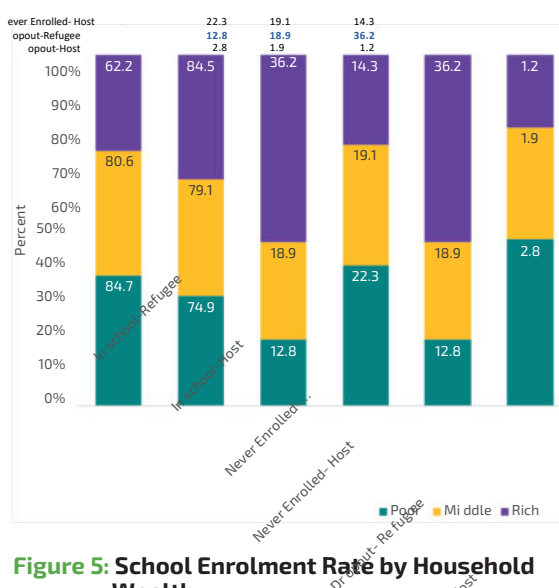


Figure 5: School Enrolment Rate by Household Wealth

Socio-economic status plays a role in shaping school participation for both refugee and host children, but the patterns differ sharply between the two groups (Figure 5).

Among refugees, children from poorer households are more likely to be in school, with enrolment declining as wealth increases from 84.7% in poor households to just 62.2% in rich households. Correspondingly, the proportion of refugee children who have never enrolled rises

steeply with wealth, reaching 36.2% among the richest households.

In contrast, the trend among host-community children is more typical, with school attendance increasing with wealth, from 74.9% in poor households to 84.5% in rich households, while never-enrolled rates fall from 22.3% to 14.3% with an increase in household wealth.

Dropout rates in refugee communities decline steadily with wealth from 36.2% to 12.8% and seem to take the reverse direction in host communities though relatively lower rates (from 2.8% in poor households to 1.2% high wealth index households). Overall, these patterns highlight a reversed socio-economic gradient for refugees, where poorer households are more engaged in the education system, while host communities follow the expected pattern of improved participation with rising household wealth.

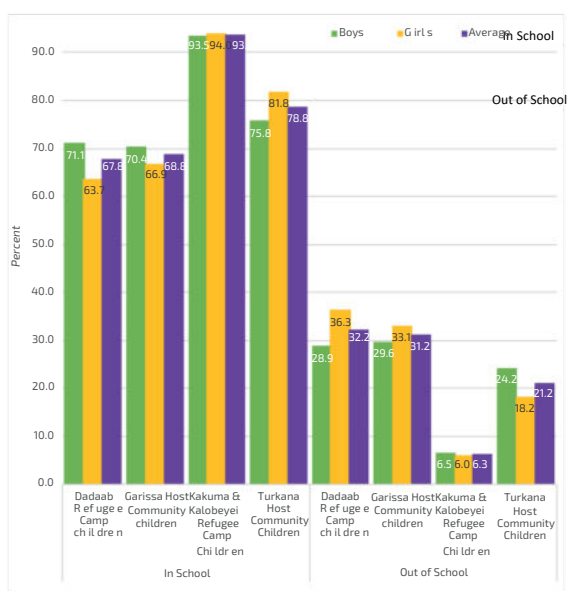


Figure 6: Distribution of enrolment status by county, gender and Refugee-Host

School attendance varies across the two refugee camps, revealing pronounced geographic

disparities. Children in Kakuma and Kalobeyi Refugee Camps show the highest in-school rates (93.7% on average), indicating strong educational participation with minimal gender differences (Figure 6).

In contrast, Dadaab Refugee Camp records the lowest attendance levels, with only 67.8% of children in school and 63.7% of girls in school. There is no much difference in the enrolment status of Refugee community children in Dadaab and host community children in Garissa (67.8% vs 68.8%).

Garissa host children show a moderate in-school rate of 68.8%, while Turkana host children reach 78.8%, with girls slightly outperforming boys in Turkana and boys doing better than girls in Garissa. Dadaab has the highest out-of-school rate, 32.2%, followed by Garissa (31.2%) and Turkana (21.2%), while Kakuma/Kalobeyi has the lowest (6.0%). These findings highlight large location-based disparities, with Dadaab facing the most severe access challenges and Kakuma/Kalobeyi demonstrating comparatively strong in-school attendance for both boys and girls.

Differences in enrolment between Kakuma/Kalobeyi and Dadaab reflect long-standing variations in how the two refugee contexts have evolved. Kakuma and Kalobeyi have seen sustained investment in school infrastructure and service delivery, supported by more recent camp planning approaches and closer integration with host-community systems. Education provision in these camps has expanded steadily, including improved access to primary schooling and better linkages to post-primary pathways.

Dadaab, by contrast, continues to face structural constraints that limit school participation. The camps are older and more congested, schools are often located far from households, and access has at times been disrupted by security concerns (UNHCR, 2019; REACH, 2021; INEE, 2020).

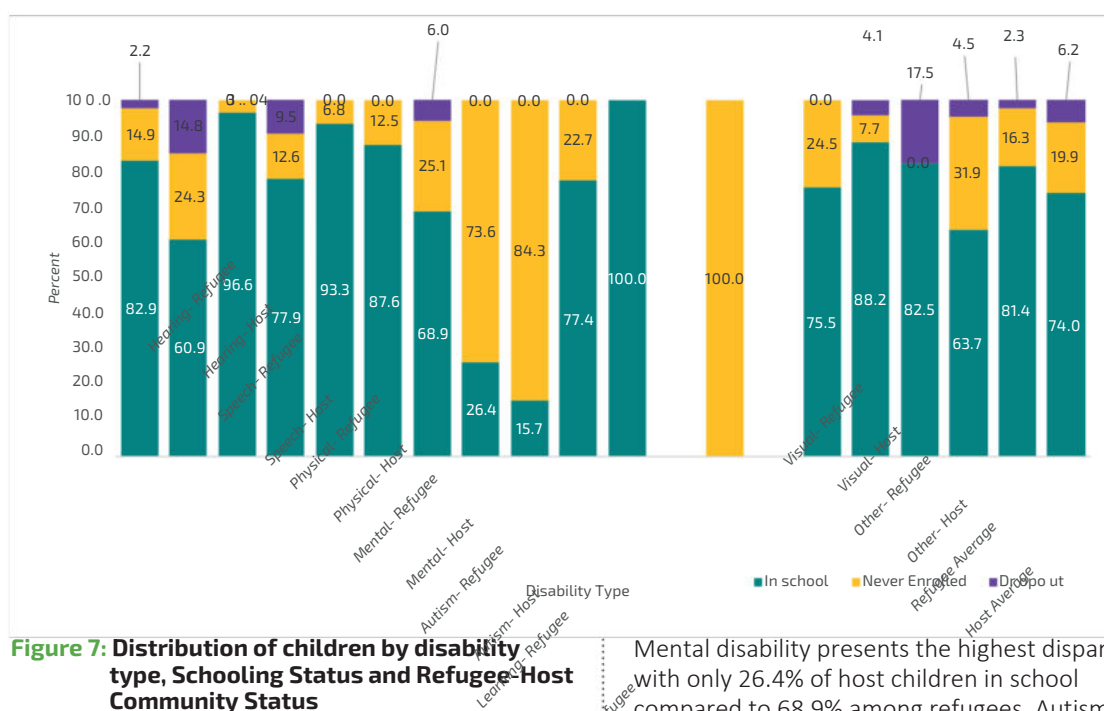


Figure 7: Distribution of children by disability type, Schooling Status and Refugee/Host Community Status

Of the 6,149 school-aged children assessed, 332 children (5.4 %) were reported to have at least one known disability. Among children with disabilities, the most commonly reported conditions were physical disabilities (21.6 %), hearing impairments (22.0 %), and visual impairments (20.1 %).

Smaller proportions of children were reported to have speech disabilities (8.8 %), mental disabilities (6.1 %), learning disabilities (6.4 %), and autism (2.7 %), with very few cases of albinism and other disabilities. The percentages of children who are in school and those who are out of school by disability type are calculated based on the sub-sample of children identified as having a disability (N = 332).

Children with mental disabilities, autism, and other cognitive or behavioural disabilities consistently show the lowest in-school participation and the highest levels of non-enrolment among all disability categories. These patterns appear across both refugee and host communities (Figure 7).

However, it is important to note that these percentages are based on the total number of children with disabilities (both in school and out), and some categories, particularly Learning disabilities, Albinism, and Autism, have very low total counts.

Refugee children with disabilities have higher in-school rates (84.3%) than host children (75.5%).

Mental disability presents the highest disparity, with only 26.4% of host children in school compared to 68.9% among refugees. Autism also shows substantial exclusion, among refugees, where just 15.7% are in school and 84.3% have never enrolled, while host children with autism are better with 77.4% in school.

Children with physical and visual disabilities show comparatively strong school participation across both groups, with in-school rates consistently at 93.3% for refugee children and 87.26% for host children with physical disabilities, and 75.5% for refugee and 88.2% for host children with visual disabilities.

Hearing disabilities reveal the sharpest disparity between refugee and host communities: while 82.9% of refugee children with hearing impairments are in school (with 14.9% never enrolled and 2.2% dropped out), only 60.9% of their host counterparts are enrolled, and they experience substantially higher exclusion, with 24.3% never enrolled and a striking 14.8% dropout rate

2.3. School Factors and Learning Environment

This section presents a comprehensive assessment of school-level factors that shape the learning environment across both 59 host community schools and 46 refugee camp schools. It draws on observations from public and private primary schools, as well as schools within Dadaab and Kakuma refugee camps. The analysis covers a wide range of indicators,

including class sizes, streams per Grade, learner–teacher ratios (LTR), school leadership capacity, safety concerns, and the availability of key infrastructure such as libraries, playgrounds, sanitation facilities, and handwashing points. It also examines access to essential services such as drinking water and menstrual hygiene support, as well as the extent to which schools meet standards for health, safety, and gender-responsive facilities. These findings provide critical insights into the disparities and challenges that influence learners’ well-being, safety, and overall educational experience across diverse schooling contexts.

2.3.1. School Leadership

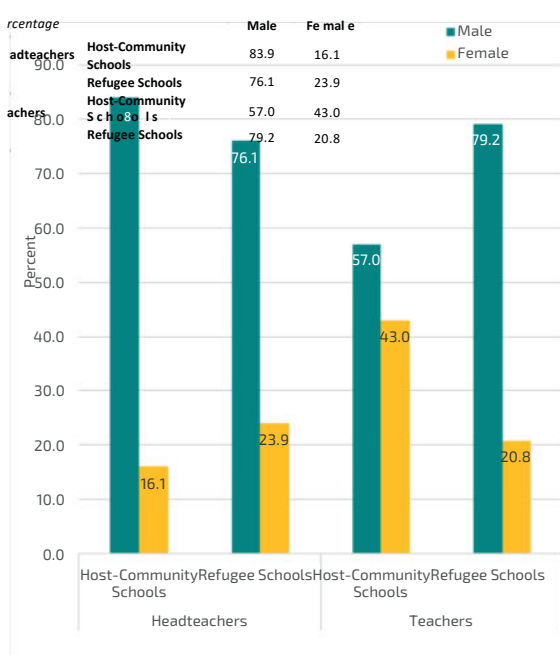


Figure 8: Distribution of teachers and headteachers by gender and Host community and refugee

On average, male headteachers in host community schools account for 83.9%, while female headteachers account for 16.1% (Figure 8).

For teachers, the gender distribution is more balanced, with males accounting for 57.0% and females for 43.0%. Similarly, male headteachers still predominate in refugee schools, comprising 76.1%, while female headteachers represent a share of 23.9%.

However, among teachers in refugee schools, males make up a much larger majority at 79.2%, while females are underrepresented at 20.8%.

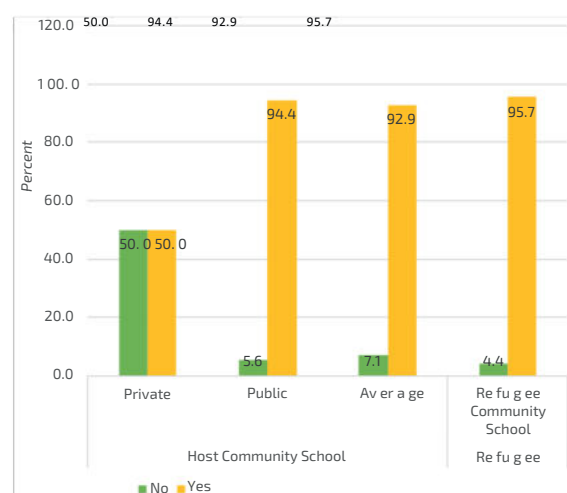


Figure 9: Head Teacher attended any education management training in the last 2 years, by school type and location

Head teacher participation in education management training is high in both host and refugee community schools (Figure 9). Nearly all head teachers in public host-community schools (94 %) and refugee community schools (96 %) report having attended education management training over the past two years.

In contrast, only half of head teachers in private host-community schools have received such training, highlighting a gap in leadership support between public and private schools.

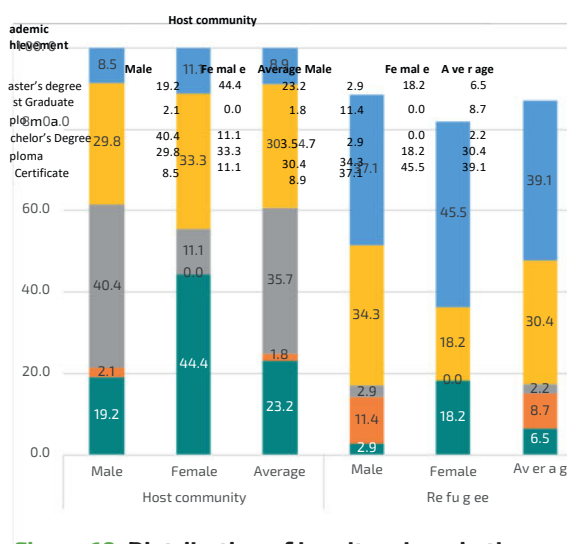


Figure 10: Distribution of headteachers in the refugee and host communities by academic qualifications & gender

Head teacher academic qualification profiles differ markedly between host-community and refugee schools, with clear variation by gender. In host-community schools, head teachers are generally highly qualified. On average, 35.7

% hold a Bachelor's degree, and 23.2 % hold a Master's degree, while 30.4 % have a Diploma, and only 8.9 % hold a P1 certificate. Female head teachers in host communities are particularly highly qualified, with 44.4 % holding a Master's degree, compared to 19.2 % of male head teachers. (Figure 10).

A third of female headteachers in host community schools have attained a diploma.

In refugee schools, a large share of headteachers hold P1 certificates (39.1% average), with females at 45.5%. Refugee school headteachers have very low representation of master's degrees (6.52% average), with males slightly more represented than females.

Bachelor's and postgraduate diplomas are rare among refugee headteachers. Overall, host community headteachers have considerably higher academic qualifications compared to refugee schools.

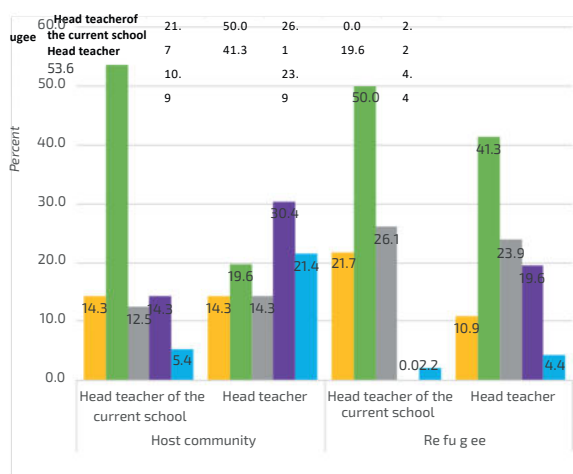


Figure 11: Distribution of headteachers by years of experience in instructional leadership

The majority of headteachers in host community schools (53.6%) have 1–3 years of overall experience, but only 19.6% have served 1–3 years in their current school (Figure 11). Headteachers in refugee schools, 21.7% have served less than 1 year in their current school, while 10.9% served less than 1 year in instructional leadership.

For 4–5 years, 12.5% of host community school headteachers have this overall experience, with 14.3% serving this long at their current school. Refugee schools have a higher proportion of headteachers with 4–5 years of instructional leadership experience, overall, 26.1% and 23.9% at their current school.

Long-serving headteachers (11+ years) are fewer in both contexts but slightly more represented

in host community schools (5.4% overall, 21.4% current school) than in refugee schools (2.2% overall, 4.4% current school).

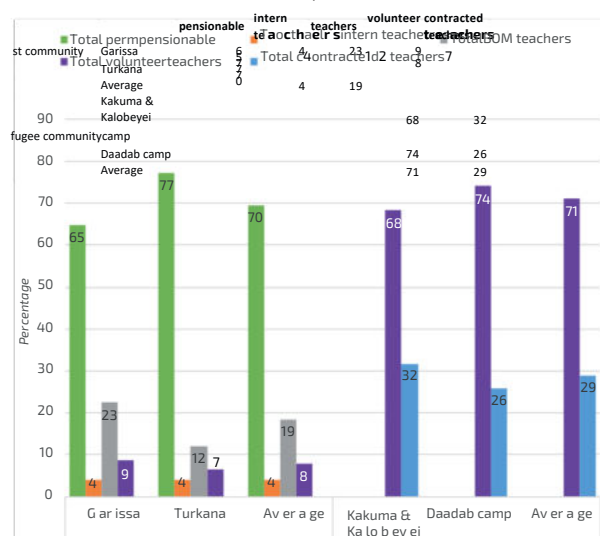


Figure 12: Distribution of primary school teachers by employment status

On average, 7 in 10 teachers in host community schools are permanent and pensionable (TSC P&P). Intern teachers constitute a small proportion (about 4.1%), while Board of Management (BOM) teachers average 18.5%, and volunteer teachers make up about 7.9% (Figure 12).

In refugee schools, 7 in 10 teachers are volunteer teachers, and the rest are contracted teachers, on average.

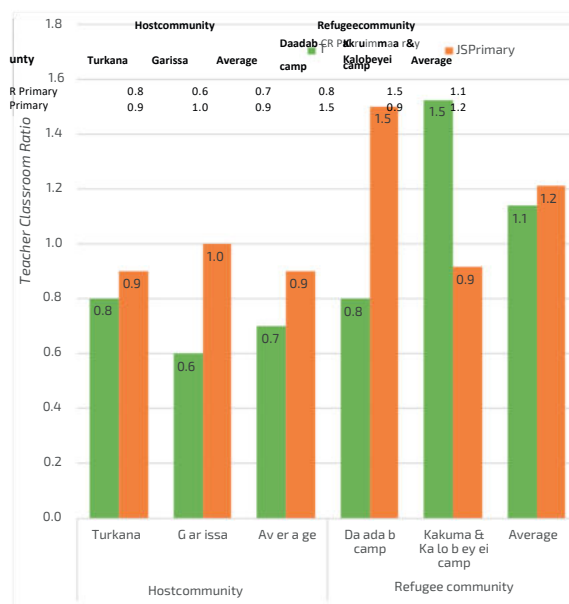


Figure 13: Teachers-classroom ratio by level of school

On average, the Teacher-Classroom-Ratio (TCR) for primary and Junior schools in host community

schools is 0.7 and 0.9, suggesting that at any given time in a school session, a classroom lacks a teacher in class (Figure 13).

In refugee community schools, the average primary school TCR is higher, at 1.1, indicating more teachers per classroom. In refugee Junior Schools, the average ratio is 1.2, which is also higher than in host schools. Particularly, Dadaab camp shows high ratios of 1.5 for primary school and 1.5 for Junior School, reflecting the sufficiency of teachers in the camp. However, in refugee camp settings, classrooms often accommodate very large numbers of learners, meaning that a higher Teacher–Classroom–Ratio may coexist with high learner–teacher ratios and large class sizes and may therefore not fully reflect teacher workload or classroom-level instructional conditions.

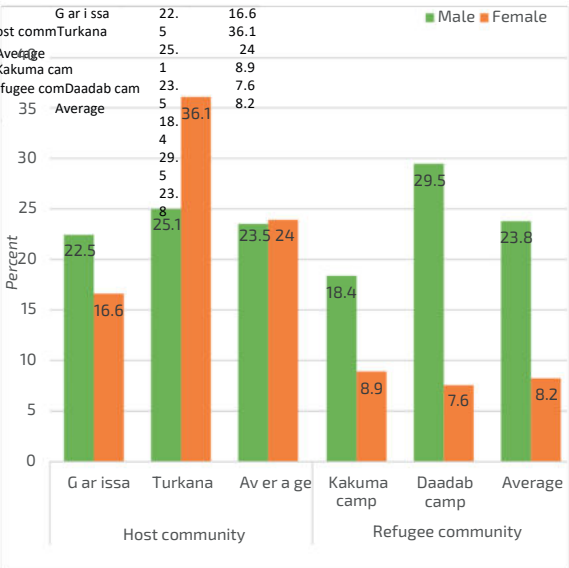


Figure 14: Teachers who attended in-service training in the last 2 years

On average, 23.5% of male teachers in host community schools, and 24% of female teachers have attended in-service training, showing a relatively balanced participation between genders (Figure 14).

In Turkana, host community schools, female teacher in-service training attendance (36.1%) exceeds that of males (25.1%). Male teacher training attendance in refugee schools is comparable to host community schools at 23.8%.

Female teachers in host community schools participate in in-service training at rates higher than male teachers, while in refugee community schools, female teacher participation is lower despite similar male participation levels.

2.3.2. ICT in Schools

Access to ICT resources differs noticeably between Host Community and Refugee schools. Percentages are calculated based on responses from 102 surveyed schools, comprising 54 public schools, 46 refugee community schools, and 2 private schools. Access to ICT resources varies across host-community and refugee schools, reflecting differences in infrastructure. Access to electricity or solar power is high in both settings, with 92.9 % of host-community schools and 95.7 % of refugee schools reporting connection to electricity or solar power (Table 5).



Table 5: Percentage of schools reporting possession of the following ICT resources by school type

ICT Resources	Host community			Refugee Community		
	Turkana	Garissa	Average	Dadaab Camp	Kakuma & Kalobeyei Camp	Average
Schools connected to electricity or solar as main source of power	90.9	94.1	92.9	100	92.3	95.7
LCD Projector	59.1	50	53.6	80	23.1	47.8
Functional Computers	40.9	47.1	44.6	85	76.9	80.4
School internet	50	41.2	44.6	100	61.5	78.3
Mobile Phones	31.8	41.2	37.5	5	19.2	13
TVs	22.7	26.5	25	35	38.5	37
Functional telephone lines/ dedicated mobile numbers	13.6	23.5	19.6	10	19.2	15.2
Teacher Digital Devices (eg, software for classroom control)	9.1	14.7	12.5	55	26.9	39.1
Radios	4.5	11.8	8.9	5	26.9	17.4
Operational computer labs	4.5	11.8	8.9	25	38.5	32.6
VCD/DVD/Deck Players	9.1	5.9	7.1	25	11.5	17.4

In host-community schools, access to digital hardware remains moderate and varies by county. On average, 44.6% of host-community schools report having functional computers, with slightly higher access in Garissa (47.1%) than in Turkana (40.9%).

Access to more advanced infrastructure is limited in both counties: only 8.9% of host-community schools have operational computer laboratories, ranging from 11.8% in Garissa to 4.5% in Turkana.

Similarly, access to teacher digital devices, such as classroom management software, remains low overall (12.5 %), though somewhat higher in Garissa (14.7%) compared to Turkana (9.1%).

By contrast, refugee schools report substantially higher access to core digital infrastructure, with notable variation across camps. On average, 80.4% of refugee schools have functional computers, driven by high availability in Dadaab (85.0%) and Kakuma & Kalobeyei (76.9%). Similarly, internet connectivity is reported by 78.3% of refugee schools, with near-universal access in Dadaab (100%) compared to 61.5% in Kakuma & Kalobeyei. Access to operational computer laboratories remains more limited but is higher than in host-community schools, at 32.6% overall, ranging from 25.0% in Dadaab to 38.5% in Kakuma & Kalobeyei. Access to teacher digital devices is also notably higher in refugee schools (39.1% overall), particularly in Dadaab (55.0%), compared to 26.9% in Kakuma & Kalobeyei. These patterns suggest stronger

provision of ICT resources in refugee school settings, reflecting targeted support from humanitarian and development partners, with some variation in focus across camps.

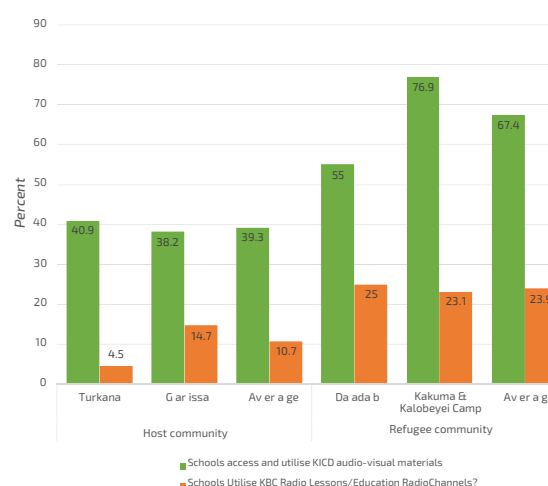
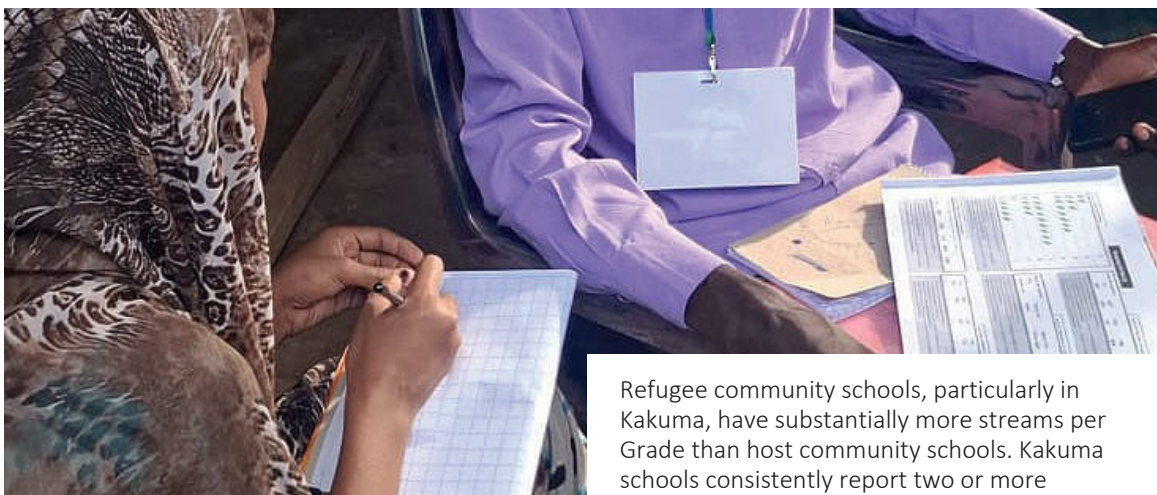


Figure 15: Utilisation of KICD audio-visual and KBC Radio lessons for teaching and learning

Host community schools show moderate use of KICD audio-visual materials, with an average of about 4 out of 10 schools using the materials (Figure 15). These materials include curriculum-aligned digital and broadcast lessons developed by the Kenya Institute of Curriculum Development (KICD) and are primarily used by teachers to support classroom instruction, particularly in literacy and numeracy. In refugee community schools, utilisation of KICD audio-



visual materials is higher, averaging 67%, reflecting greater reliance on structured audio-visual content to supplement teaching.

Utilisation of KBC radio lessons in host community schools is low, averaging only around 11%, compared to refugee schools, which have relatively higher utilisation of the same at 24%. Refugee schools demonstrate more extensive use of both audio-visual materials and radio lessons compared to host community schools

2.3.3. School Characteristics

Table 6 shows that while the number of streams per Grade is generally stable across Grades, there are clear differences between host and refugee community schools. Host community schools in Garissa and Turkana typically have fewer and more uniform streams, reflecting smaller school sizes and steadier enrolment patterns.

Table 6: Average number of streams per Grade by school location & Refugee-Host Community Status

	Host community			Refugee community		
	Garissa	Turkana	Average	Dadaab camp	Kakuma & Kalobeyei camp	Average
Grade 1	1.5	1.5	1.5	1.9	2.0	2.0
Grade 2	1.5	1.5	1.5	2.0	2.2	2.1
Grade 3	1.6	1.5	1.6	2.0	2.4	2.2
Grade 4	1.6	1.5	1.6	2.0	2.5	2.3
Grade 5	1.7	1.5	1.7	2.0	2.5	2.3
Grade 6	1.7	1.5	1.6	2.0	2.2	2.1
Grade 7	1.9	1.6	1.8	1.9	2.7	2.4
Grade 8	1.9	1.6	1.7	1.9	2.4	2.2
Grade 9	1.9	1.6	1.8	1.4	2.0	1.8

Refugee community schools, particularly in Kakuma, have substantially more streams per Grade than host community schools. Kakuma schools consistently report two or more streams across most Grades, indicating higher enrolment pressure associated with larger and often fluctuating learner populations in camp settings. Even within refugee camps, Kakuma records more streams than Dadaab, suggesting potentially stronger enrolment demand linked to differences in population size, settlement density, or school catchment arrangements. Dadaab schools, while also serving large cohorts, show comparatively moderate stream numbers on average as compared to Kakuma. In general, these patterns indicate how demographic dynamics shape schooling capacity; refugee camps face heavier and more variable enrolment pressure, whereas host community schools experience more stable and predictable enrolment levels.

A wide variation in class sizes exists across school types and locations (Table 6). In host communities, private schools have the smallest class sizes, typically 15 to 30 learners, while public schools have moderately larger classes, generally between 35 and 50 learners. This reflects the relatively stable populations and smaller school catchments in these areas.

Table 7: Average Class Size by School Type & Refugee-Host Community Status

	Host community						Refugees		
	Public schools			Private schools			Refugee Community Schools		
	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min
Grade 1	118	52	18	25	23	21	413	119	1
Grade 2	162	53	17	24	19	15	335	121	1
Grade 3	160	51	18	31	26	21	347	129	1
Grade 4	119	47	15	30	27	24	366	127	1
Grade 5	99	46	15	31	27	23	321	124	1
Grade 6	101	47	16	32	29	26	301	99	10
Grade 7	90	46	15	32	32	32	182	81	1
Grade 8	81	43	16	38	38	38	230	100	1
Grade 9	80	40	15	31	31	31	191	82	1

Refugee schools consistently record the largest average class sizes, ranging from 99 learners in Grade 6 to 129 learners in Grade 3, far exceeding those observed in host-community schools. Maximum class sizes in refugee schools are exceptionally high, reaching over 300 learners in several Grades and peaking at 413 learners in Grade 1, highlighting overcrowding in some classrooms (Table 7).

In host-community public schools, average class sizes are considerably lower but remain large by international standards, ranging from 40 to 53 learners across Grades 1–9, with maximum class sizes exceeding 150 learners in several Grades. Private schools consistently have the smallest class sizes, with averages ranging from 19 to 38 learners and a relatively narrow range.

The minimum class sizes across all school types are notably low in some cases, particularly in refugee schools, indicating uneven distribution of learners across classrooms within the same Grade. Overall, the wide gap between minimum and maximum class sizes, especially in refugee schools, underscores significant within-Grade disparities and suggests that average class size alone masks extreme congestion in some classrooms.

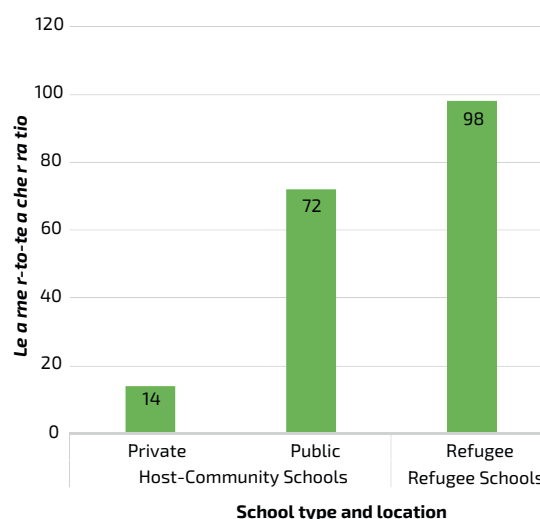


Figure 16: Average learner to teacher ratio by type of ECDE centre and Refugee -Host Community

Figure 16 shows notable variation in learner-to-teacher ratios across ECDE centres in both host and refugee communities. In host communities, private ECDE centres have the smallest ratios, around 14 learners per teacher, suggesting smaller classes and greater potential for individualised learner support.

Public ECDE centres in these host areas, by contrast, show much higher ratios, averaging 72 learners per teacher, which reflects not only crowded learning conditions but also substantially higher enrolment levels in public schools compared to private schools within the host communities.

While in the refugee context, the finding shows extremely high learner-to-teacher ratios in refugee ECDE centres, where one teacher serves an average of 98 learners. This underscores

a critical pressure point in early childhood education in refugee settings.

These ratios are consistent with indicating challenges in camp-based education systems, where rapid population inflows, constrained teacher recruitment, and limited infrastructure drive severe overcrowding. These elevated ratios in refugee centres suggest considerable strain on early childhood educators, with potential implications for instructional quality, learner engagement, and early developmental outcomes.

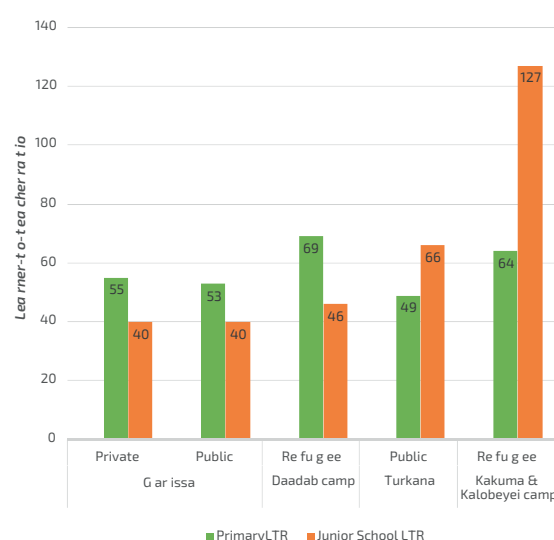


Figure 17: Average learner-to-teacher ratio by Location and school type

The learner-to-teacher ratio (LTR) varies considerably across primary and junior secondary levels and differs by school type and location. In host community schools in Garissa, both private and public institutions show comparable primary-level LTRs, 55 and 53 learners per teacher, respectively, indicating moderate class sizes. Their junior secondary LTRs are lower, at about 40 learners per teacher (Figure 17).

In the refugee settings, schools in Dadaab camp record higher primary-level LTRs, averaging 69 learners per teacher, with junior secondary ratios at 46. These figures point to greater teacher workload and higher learner concentration than in host community schools. The challenge is more pronounced in Kakuma, where primary-level ratios average 64 learners per teacher, but junior secondary LTR rises sharply to 127 learners per teacher, more than triple the levels observed in host community schools.

The contrast between Dadaab and Kakuma camps reflects the differing demographic

pressure in these refugee-hosting areas. Kakuma has experienced sustained population growth and expanded inflows over the past decade, contributing to high demand for schooling, particularly at the junior secondary level. Dadaab, by contrast, has seen relatively slower growth in recent years, which may explain its comparatively lower but still elevated ratios.

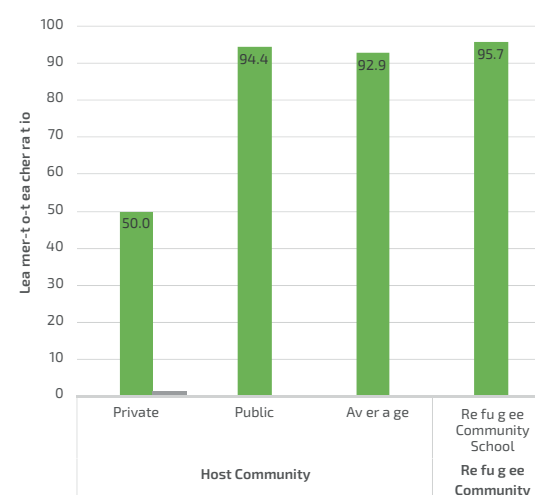


Figure 18: Headteacher attended any education management training in the last 1 year

The share of head teachers who participated in education management training within the past year varies by school type and location. In host community schools, participation of headteachers is higher in public schools, where 94 % of head teachers reported having undergone training (Figure 18). Private schools show considerably lower commitment, with only half of their head teachers receiving such training in the same period. This contrast may potentially reflect differences in access to government-supported training opportunities.

Across refugee community schools, participation is similarly high, with about 96 % of head teachers having attended education management training in the last year. This strong engagement may potentially indicate ongoing capacity-building efforts commonly implemented in refugee settings, where development partners and education actors frequently invest in strengthening school leadership to address the unique demands of camp-based education environments.

2.3.4. School Infrastructure

Table 8 shows availability of various school facilities varies across host and refugee community schools. In host community areas such as Turkana and Garissa, most schools



report having playgrounds and administration blocks, with coverage between 70 and 85 %, on average. However, fewer schools are fully fenced, and only a minority have functional libraries or libraries linked to online learning resources. Incidents such as learners studying in the open occur but at a lower rate than in refugee settings.

In refugee community schools, particularly in Kakuma, the presence of some basic infrastructure, such as playgrounds and administration blocks, is relatively present, and in some cases, it surpasses host community averages. Kakuma also displays provision of fully fenced school environments and libraries compared to Dadaab. However, both refugee camps continue to experience

Table 8: Schools reporting the following learning conditions

1	Host Community			Refugee Community		
	Turkana	Garissa	Average	Dadaab camp	Kakuma & Kalobeyi camp	Average
School has a playground	86.4	82.4	83.9	95.0	88.5	91.3
Schools with an administration building /block	68.2	73.5	71.4	100.0	73.1	84.8
Schools fully fenced	54.5	41.2	46.4	50.0	96.2	76.1
Schools with at least one incident of learners sitting on the floor	36.4	38.2	37.5	10.0	57.7	37.0
Schools with a library	22.7	29.4	26.8	25.0	34.6	30.4
Schools partially fenced	9.1	20.6	16.1	45.0	3.8	21.7
Schools with at least one incident of children learning in the open	4.5	0.0	1.8	0.0	0.0	0.0
Schools with a library linked to online resources	0.0	5.9	3.6	5.0	11.5	8.7
Schools with at least one incident of shared classroom	0.0	8.8	5.4	0.0	0.0	0.0

learning conditions that compromise safety and comfort. Reports of learners studying outdoors or sharing classrooms are more common in refugee settings, reflecting challenges of overcrowding and insufficient classroom infrastructure. Comparing Dadaab and Kakuma, the data suggest that Kakuma schools' benefit from relatively better infrastructure coverage, although both face persistent gaps.

2.3.5. Water, Sanitation & Hygiene (WASH)

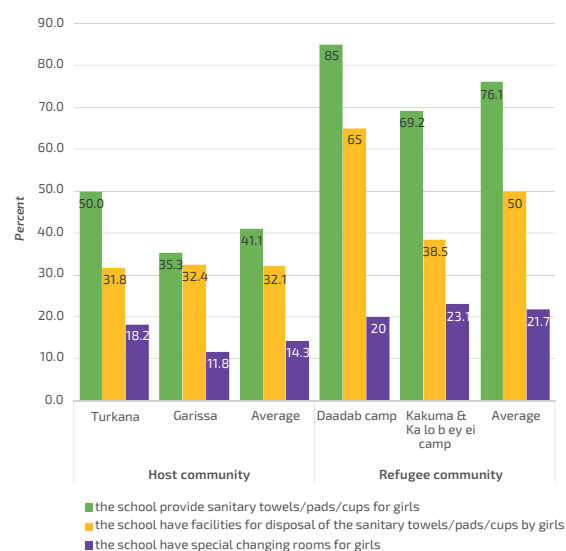


Figure 19: Schools providing menstrual hygiene services by Location

Evidence shows that the provision of menstrual hygiene services varies across locations, highlighting clear differences between host community counties and refugee camps. In host communities, schools in Turkana and Garissa demonstrate relatively modest support for menstrual hygiene (Figure 19): Schools providing menstrual hygiene services by Location. Only about half of the schools in Turkana and just over a third in Garissa provide sanitary towels, pads, or menstrual cups for girls, statistics that fall below national expectations for gender-responsive WASH in schools. Disposal facilities are available in approximately one-third of host community schools, while designated changing rooms remain limited, particularly in Garissa.

In contrast, schools in refugee camps, Dadaab and Kakuma, report a higher percentage rate in the provision of menstrual hygiene materials.

Dadaab schools show high levels of support on average, with about 85% providing sanitary products and two-thirds offering disposal facilities. Kakuma and Kalobeyei schools also perform better than host community schools, though at slightly lower levels compared to Dadaab. However, the availability of special changing rooms remains low across both camps, with only about one-fifth of schools offering such facilities.

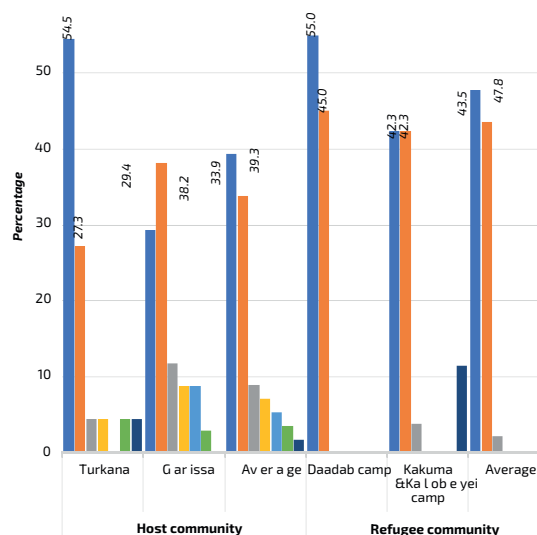


Figure 20: Main source of drinking water for the school by Location & School Type

Figure 20 reveals notable differences in the sources of drinking water across school locations, with both host and refugee community schools relying heavily on boreholes and piped water. In host communities, more than half of the schools in Turkana depend primarily on boreholes (54.5 %), while Garissa schools show a more diversified mix, with boreholes (29.4 %) and piped water (38.2 %) serving as major sources. This reflects the broader water scarcity in arid and semi-arid regions, where groundwater abstraction through boreholes is common due to limited surface water availability.

Across the refugee camps, the pattern is similar but slightly more consistent. Daadab schools rely predominantly on boreholes (55 %), while Kakuma shows a more balanced reliance between boreholes (42.3 %) and piped water (42.3 %).

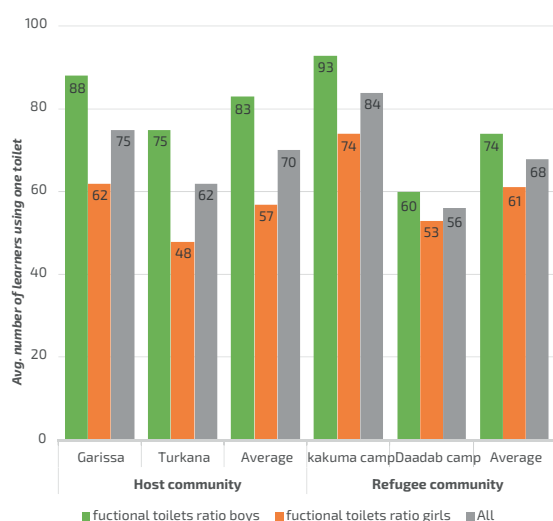


Figure 21: Number of Learners using one toilet by gender, type of school attended and location

Substantial disparities exist in toilet-to-learner ratios across school locations, with refugee camps, particularly Kakuma, experiencing the highest levels of pressure on sanitation facilities. In host community schools, an average of 75 boys and 62 girls share a single functional toilet (Figure 21). Garissa schools demonstrate the highest congestion within host communities, with 88 boys and 62 girls using one toilet, while Turkana displays slightly lower ratios.

In refugee camps, the situation is even more pronounced. Schools in Kakuma report the highest congestion, with 93 boys and 74 girls sharing one functional toilet, far above host-community averages and more than triple recommended standards. Dadaab schools present comparatively lower ratios (60 boys and 53 girls), yet still fail to meet national or international benchmarks.

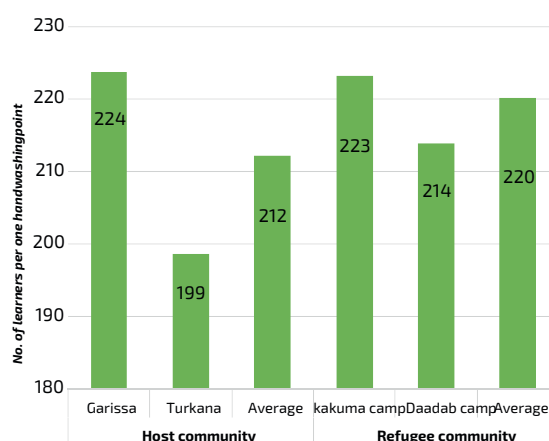


Figure 22: Number of Learners per one handwashing point by county and location

Figure 22 indicates that handwashing facilities are severely overstretched across both host and refugee community schools. In host communities, schools in Garissa display the highest congestion, with 224 learners sharing a single handwashing point, while Turkana schools fare slightly better at 199 learners per handwashing point. The overall host community averages 212 learners per handwashing point.

Refugee camp schools show similarly strained conditions. Kakuma leads with 223 learners per handwashing point, followed closely by Dadaab at 214 learners. These figures reflect longstanding challenges in refugee settings, where high enrolment, population growth, and limited infrastructure place significant pressure on school WASH facilities. Across all settings, the average of 220 learners per handwashing point highlights a critical gap in basic hygiene provision.

3. Learning Outcomes



The learning outcomes presented in this section highlight clear differences between refugee and host-community learners, with refugee children, particularly in the lower Grades, facing deeper foundational learning challenges that require targeted instructional support.

Overview of Learning Outcomes in Refugee Camps

Refugee learners demonstrate significant challenges in foundational learning, particularly in the lower Grades. In Grade 4, only 19.7% of refugee learners met expectations in reading a Grade 3–appropriate English story, compared to 27.1% of host-community learners. Numeracy performance shows similar patterns, with 14.9% of refugee Grade 4 learners meeting minimum expectations, compared to 18.0% among host learners. These early-Grade deficits indicate substantial foundational learning gaps within camp settings.

Learning outcomes improve by Grade 6, and the gap with host communities narrows. Refugee learners achieve 44.3% proficiency in English comprehension and 52.4% proficiency in numeracy, approaching the levels of host learners (44.1% and 56.3%, respectively). This suggests that while refugee learners start behind,

they make meaningful academic progress over time, demonstrating resilience despite challenging conditions.

There are also important geographic differences.

Learners in Kakuma and Kalobeyei show stronger outcomes, reflecting more consistent educational investment and infrastructure. In Dadaab, lower performance aligns with higher overcrowding, more unstable access conditions, and greater barriers to resources. Gender differences are modest among refugee learners, with girls performing slightly higher in Grade 6 literacy but lagging behind boys in Grade 4 numeracy. Children with disabilities have the lowest proficiency across all groups, particularly those with cognitive and developmental disabilities.

These findings underscore the need for targeted early-Grade interventions in refugee settings, with a deliberate focus on strengthening foundational literacy and numeracy skills before learners' progress to upper primary Grades.

In English, learners were assessed across five hierarchical competency levels: letter-sound recognition, word reading, paragraph reading, story reading, and reading comprehension. Learners were classified as proficient in English comprehension if they

successfully demonstrated all preceding literacy competencies, indicating mastery of the full literacy progression.

In Mathematics, learners were assessed across multiple numeracy domains, including counting and matching, number recognition, numbers in words, and the four core operations (addition, subtraction, multiplication, and division), with each operation assessed through both direct computation and word-based problem-solving. Learners were classified as proficient in Mathematics if they demonstrated successful performance across all assessed numeracy levels up to and including division, reflecting mastery of the full numeracy progression.

Across both host and refugee communities, learning proficiency is concentrated largely among children who are in school. Among host-community learners, 411 in-school children met English comprehension proficiency, compared to only one who never-enrolled. None of the dropout children met English proficiency (Table 9). Similarly, in Mathematics, 320 in-school learners in the host community met proficiency, compared to one child who never enrolled. Again, none of the dropout children met the Mathematics proficiency.

The pattern is even more pronounced among refugee learners. In English comprehension, 523 in-school refugee learners met proficiency, while only two never-enrolled and one dropout met English comprehension.

Table 9: Learning proficiency by enrolment status

	Enrolment status	Number of children who did not meet proficiency in English comprehension	Number of children who met proficiency in English comprehension	Number of children who did not meet proficiency in Mathematics	Number of children who met proficiency in Mathematics
Host-Community learners	In school	652	411	677	320
	Never Enrolled	36	1	36	1
	Dropout	8	0	8	0
	Total children	696	412	721	321
Refugee learners	In school	942	523	1049	370
	Never Enrolled	17	2	17	1
	Dropout	5	1	6	0
	Total children	964	526	1072	371



In Mathematics, 370 in-school refugee learners met proficiency, compared to just one never-enrolled. No children who dropped out met the Mathematics proficiency. These results underline that school participation is a critical gateway to learning.

Host community learners outperform refugee learners in reading a Grade 3 English story, with 27.1% of host learners meeting expectations compared to 19.7% of refugee learners (Figure 23).

Table 10: Overall County comparison on Learning outcomes

County	Mathematics Proficiency		English Proficiency	
	Host Community	Refugee Community	Host Community	Refugee Community
Garissa	24%	48%	27%	39%
Turkana	76%	52%	73%	61%

Table 10 shows clear differences in learning outcomes across the two counties and between host and refugee learners. In Garissa, overall proficiency levels are low, particularly among host community learners, with 24% meeting minimum proficiency in Mathematics and 27% in English. Refugee learners in Garissa perform somewhat better, with 48% reaching Mathematics proficiency and 39% in English, although performance remains modest for both groups. Turkana presents a very different picture, with much higher proficiency levels overall. Among host community learners, 76% meet Mathematics proficiency and 73% meet English proficiency, while refugee learners record 52% and 61% respectively. These results point to substantial geographic variation in learning outcomes, with Turkana performing considerably better than Garissa.

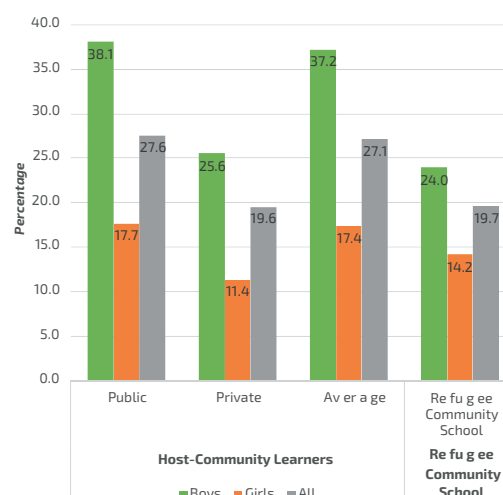


Figure 23: Percentage of Grade 4 learners who at least met expectations in reading a Grade 3 appropriate English story by gender and school type & Refugee-Host Community Status

Within the host community, public-school boys show the highest performance, while girls in public schools lag. Refugee schools show consistently lower performance, with boys performing better (24.0%).

In Host private schools, 25.6% of boys and 11.4% of girls met expectations in reading a Grade 3 English story. On the other hand, in host public schools, 38.1% of boys met expectations in reading a Grade 3 English story compared to only 17.7% of girls, with an overall performance of 27.6%. This reflects a substantial gender gap of 20 percentage points, showing that boys in host public schools perform better than girls and an existing disparity in reading proficiency.

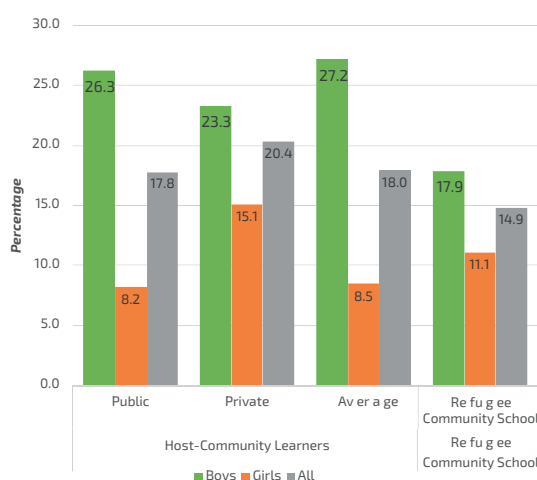


Figure 24: Percentage of Grade 4 learners who at least met expectations in solving a Grade 3 appropriate numeracy problem by gender and type of school attended & Refugee-Host Community Status

Learners in refugee community schools performed lower in English comprehension compared to their peers in host community schools. For host community learners, 26.3% of boys and 8.2% of girls in public schools meet expectations, with an overall average of 17.8%. In private schools, performance is higher, with 23.3% of boys and 15.1% of girls meeting expectations, 20.4% overall (Figure 24).

Figure 24 shows that numeracy performance among Grade 4 learners varies markedly by school type, gender, and refugee and host community status. Within host communities, learners in private schools perform better, with 20.4 % overall meeting Mathematics division proficiency, compared to 17.8 % in public schools. In both settings, boys consistently outperform girls, although the gender gap is wider in public schools (26.3% of boys as compared to 8.2 % of girls) than in private schools (23.3% of boys compared to 15.1% of girls, where girls slightly outperform boys).

On average, host-community learners perform substantially better than refugee learners in numeracy. Across host-community schools, 18.0% of learners meet expectations, compared to only 14.9% in refugee community schools. Gender disparities persist in refugee schools, where 17.9% of boys meet expectations compared to 11.1% of girls. Both lower numeracy achievement and persistent gender gaps among refugee learners, underscores compounded disadvantages linked to school context and displacement.

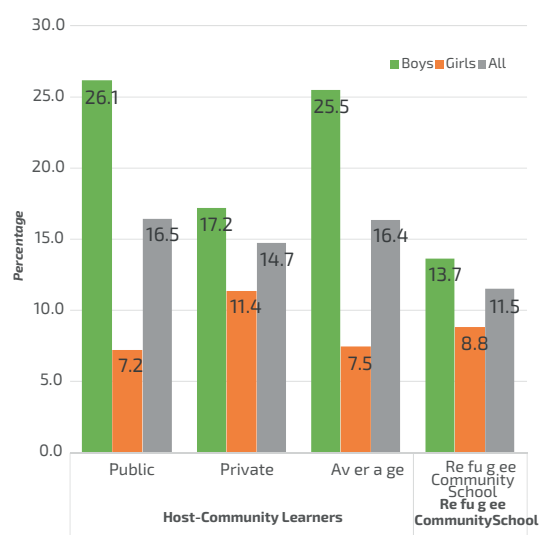


Figure 25: Percentage of Grade 4 learners who at least met expectations in both reading a Grade 3 appropriate English story and solving a Grade 3 appropriate numeracy problem by school attended and gender & Refugee -Host Community Status

Figure 25 shows that achieving proficiency in both literacy and numeracy is considerably more challenging than meeting proficiency in either Mathematics or English. Within host communities, public schools perform slightly better performance, with 16.5% of Grade 4 learners meeting proficiency in both English and Mathematics, compared to 14.7% in private schools. Gender gaps are pronounced in public schools, where 26.1% of boys meet combined proficiency compared to 7.2% of girls, indicating persistent disadvantages for girls in these settings.

Across host-community schools overall, 16.4% of learners meet combined literacy and numeracy proficiency, while performance in refugee community schools is substantially lower, with only 11.5% of learners meeting both proficiencies. Among refugee learners, 13.7% of boys and 8.8% of girls meet combined proficiency, reflecting both low overall achievement and continuing gender gaps.

Even where literacy or numeracy outcomes may be moderate, far fewer learners succeed across both domains, underscoring the need for integrated interventions that strengthen foundational skills in reading and Mathematics simultaneously, with targeted support for girls and learners in refugee settings.

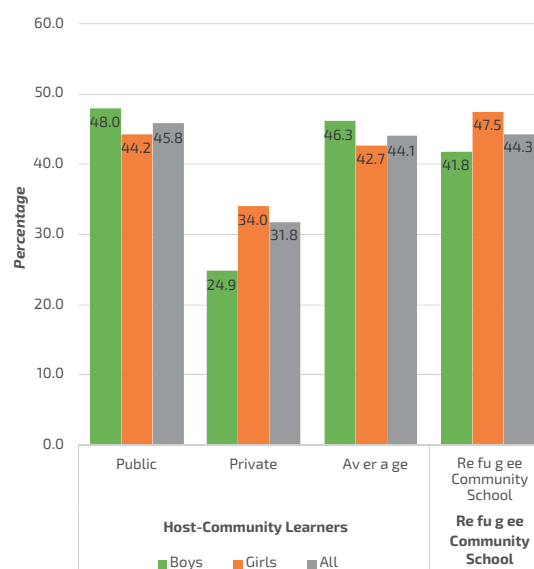


Figure 26: Percentage of Grade 6 learners who met expectations in reading a Grade 3 appropriate English story by gender, type of school attended and Refugee-Host Community Status

Figure 26 shows that literacy outcomes improve markedly by Grade 6, though gaps remain

by school type, gender, and refugee and host community status. In host-community schools, 44.1% of learners meet English comprehension proficiency, with small gender differences across both public and private schools.

In refugee community schools, 44.3% of learners meet English comprehension proficiency with modest gender gap, where 41.8% of boys meet expectations compared to 47.5% of girls.

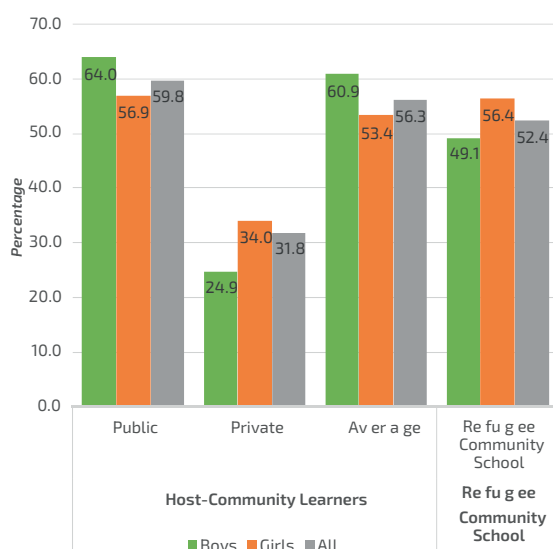


Figure 27: Percentage of Grade 6 learners who met expectations in solving a Grade 3 appropriate numeracy problem by gender, type of school attended and Refugee-Host Community Status

Figure 27 presents the ratio of Grade 6 learners who met expectations in solving a Grade 3 appropriate numeracy problem, highlighting differences by school type, gender, and refugee and host community status. Within host communities, performance is variable across school types. In public schools, 59.8% of learners meet expectations overall, compared to 31.8% in private schools. Gender gaps are modest across the school types: in public schools, 64.0% of boys meet expectations compared to 56.9% of girls, while in private schools, girls perform slightly better than boys (34.0% and 24.9%, respectively).

Across host-community schools on average, 56.3% of learners meet numeracy expectations, compared to only 52.4% of learners in refugee community schools. Refugee learners show slightly lower performance for both genders, with 49.1 % of boys and 56.4% of girls meeting expectations. Gender gaps are similar in both refugee schools and host-community schools. Overall, while numeracy performance improves by upper primary, substantial gaps remain

between host and refugee learners. These findings point to ongoing learning deficits in refugee school settings and underscore the need for targeted support to strengthen foundational numeracy skills, particularly for girls in refugee communities.

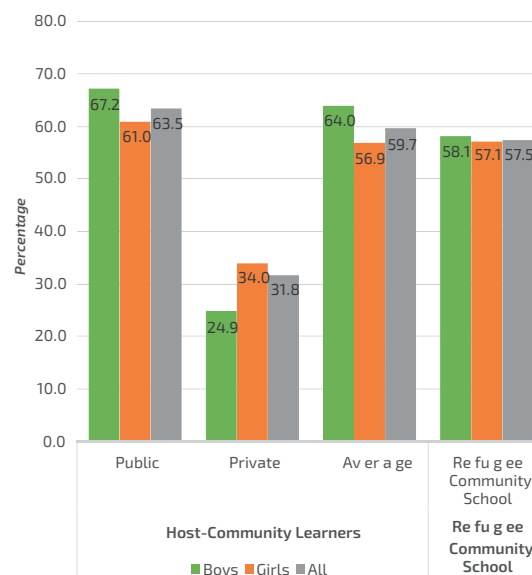
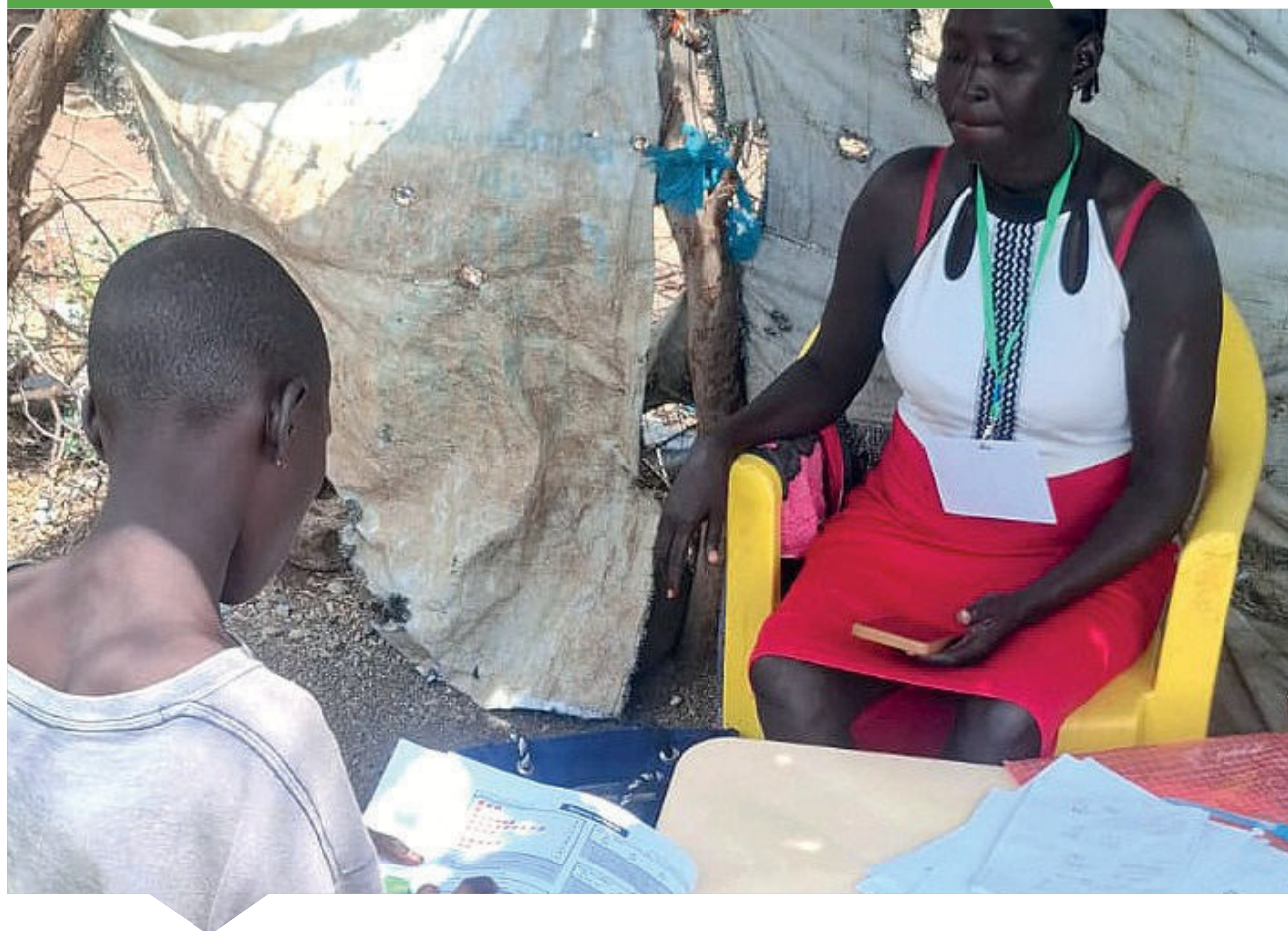


Figure 28: Percentage of Grade 6 learners who at least met expectations in both reading a Grade 3 appropriate English story and solving a Grade 3 appropriate numeracy problem by school attended and gender & Refugee-Host Community Status

Figure 28 shows the proportion of Grade 6 learners who met expectations in both English reading and numeracy, highlighting how combined learning outcomes vary by school type, gender, and refugee and host community status. Within host communities, learners in public schools perform better, with 63.5% overall meeting expectations in both subjects, compared to 31.8% in private schools. Gender gaps within host schools are relatively small—in public schools, 67.2% of boys and 61.0% of girls meet expectations, while in private schools, 24.9% of boys and 34.0% of girls meet expectations.

In host-community schools, 59.7% of learners on average meet expectations in both literacy and numeracy. The performance in refugee community schools is slightly lower, with only 57.5% of learners meeting combined expectations. Among refugee learners, 58.1% of boys meet expectations compared to 57.1% of girls, indicating a modest gender gap at lower overall levels of achievement. While combined literacy and numeracy outcomes improve substantially by Grade 6 compared to earlier Grades, significant gaps remain between host and refugee learners.

4. Lesson Observation in Host Community Schools



This section presents the distribution of teacher and learner time on task across Mathematics and English instructional activities for Grades 3 and 6, disaggregated by school type and location within host community schools only.

Note: Classroom observations were not conducted in refugee schools due to delayed access approvals and the closure of schools during the data collection window. As a result, it is not possible to interpret refugee learning outcomes alongside classroom practice or compare instructional quality across refugee and host school environments. This remains a key evidence gap and will be prioritised in future rounds of assessment.

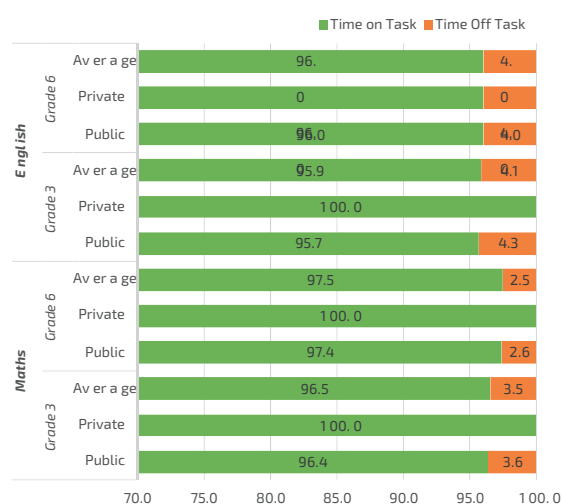


Figure 29: Percentage distribution of teachers' time on task by School Type and Grade

In Figure 29, the proportion of teacher time spent on task and off task during Mathematics and English lessons across Grades 3 and 6,

disaggregated by school type (public and private) within host community schools, is presented.

In English, Grade 6 lessons show identical levels of time on task across school types, with both public and private schools recording 96.0% time on task and 4.0% time off task on average. In Grade 3 English, the average time on task is 95.9%, with private schools recording 100% time on task compared to 95.7% in public schools. Correspondingly, time off task in Grade 3 English is 4.3% in public schools, while no off-task time was observed in private school lessons.

In Mathematics, time on task is slightly higher overall than in English. Grade 6 Mathematics lessons recorded an average of 97.5% time on task, with private schools reaching 100% compared to 97.4% in public schools. Time off task in Grade 6 Mathematics was 2.6% in public schools, while none was observed in private schools. In Grade 3 Mathematics, the average time on task was 96.5%, with private schools again recording 100% compared to 96.4% in public schools. Time off task in Grade 3 Mathematics was 3.6% in public schools and negligible in private schools.

Across subjects, Grade 6 lessons show slightly higher time on task compared to Grade 3, with corresponding reductions in time off task. For both Mathematics and English, time off task is generally above 3% in Grade 3 lessons and below 3% in Grade 6 lessons, indicating more efficient classroom time use in the upper Grade.

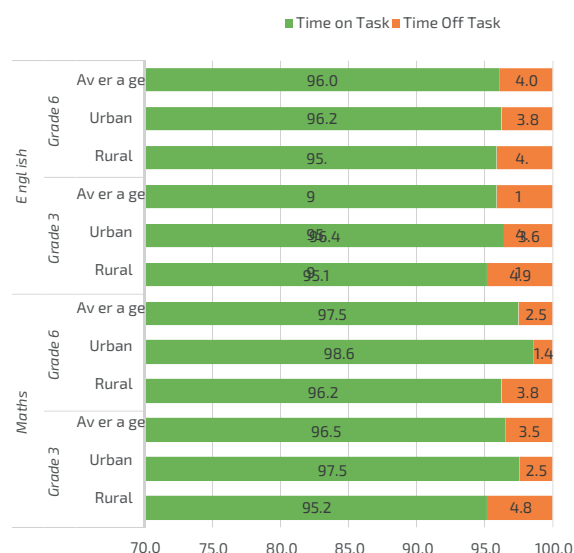


Figure 30: Percentage distribution of teachers' time on task by Location and Grade

Figure 30 presents the proportion of teacher and learner time spent on task and off task during

Mathematics and English lessons across Grades 3 and 6, disaggregated by location (urban and rural) within host community schools. Overall, time on task is consistently high across subjects, Grades, and locations, exceeding 95% in all categories, with correspondingly low levels of time off task.

In English, Grade 6 lessons recorded an average time on task of 96.0%, with urban schools slightly higher at 96.2% compared to 95.9% in rural schools. Time off task in Grade 6 English lessons ranged from 3.8% in urban schools to 4.1% in rural schools. In Grade 3 English, the average time on task was 95.9%, with 96.4% observed in urban schools and 95.1% in rural schools. Correspondingly, time off task was higher in rural settings (4.9%) compared to urban schools (3.6%), indicating slightly lower classroom engagement in rural Grade 3 English lessons.

In Mathematics, time on task was generally higher than in English, particularly in Grade 6. Grade 6 Mathematics lessons recorded an average time on task of 97.5%, with urban schools reaching 98.6%, compared to 96.2% in rural schools. Time off task was lowest in urban Grade 6 Mathematics lessons at 1.4%, while rural schools recorded 3.8%. In Grade 3 Mathematics, the average time on task was 96.5%, with 97.5% in urban schools and 95.2% in rural schools, while time off task ranged from 2.5% in urban schools to 4.8% in rural schools.

Across both subjects, Grade 6 lessons demonstrate slightly higher time on task than Grade 3, and urban schools consistently show marginally higher time on task than rural schools.

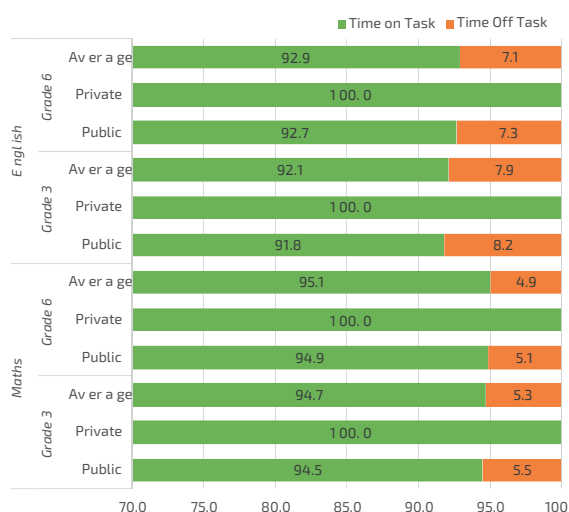


Figure 31: Percentage distribution of Learners' time on task by school type and Grade

Figure 31 presents the proportion of learners' time spent on task and off task during Mathematics and English lessons across Grades 3 and 6, disaggregated by school type (public and private) within host community schools. Time on task generally exceeds 92% across all categories, while time off task remains below 8%.

In English, Grade 6 lessons recorded an average of 92.9% learner time on task, with public schools showing 92.7% and private schools recording 100%. Correspondingly, time off task was 7.3% in public schools, while no off-task behaviour by learners was observed in private school lessons. In Grade 3 English, the average learner time on task was 92.1%, with 91.8% in public schools and 100% in private schools. Time off task was higher in Grade 3 compared to Grade 6, reaching 8.2% in public schools.

In Mathematics, learner engagement was higher than in English across both Grades. Grade 6 Mathematics recorded an average learner time on task of 95.1%, with 94.9% in public schools and 100% in private schools. Time off task was 5.1% in public schools. Similarly, Grade 3 Mathematics recorded an average of 94.7% learner time on task, with 94.5% in public schools and 100% in private schools, and a time off task of 5.5% in public schools.

Across both subjects, Grade 6 learners demonstrate slightly higher engagement than Grade 3 learners, and Mathematics lessons show higher learner time on task compared to English.

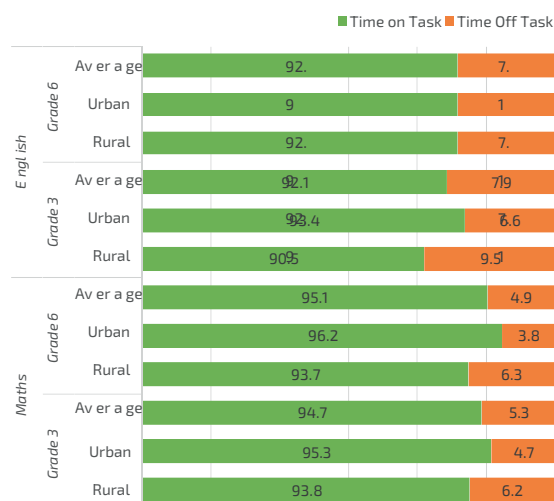


Figure 32: Percentage distribution of Learners' time on task by Location and Grade

Figure 32 presents learners' time on task and off task across Mathematics and English lessons, disaggregated by location (urban and rural) and

Grade in the host community.

In English, Grade 6 lessons recorded an average learner time on task of 92.9%, with similar levels across urban (92.9%) and rural (92.9%) schools, and time off task of 7.1%. In Grade 3 English, the average learner time on task was 92.1%, with urban schools recording 93.4% compared to 90.5% in rural schools. Correspondingly, time off task was higher in rural schools (9.5%) than in urban schools (6.6%), indicating lower engagement among rural Grade 3 learners in English lessons in the host community.

In Mathematics, learner engagement was higher overall. Grade 6 Mathematics recorded an average learner time on task of 95.1%, with 96.2% in urban schools and 93.7% in rural schools. Time off task ranged from 3.8% in urban schools to 6.3% in rural schools. Similarly, Grade 3 Mathematics recorded an average learner time on task of 94.7%, with 95.3% in urban schools and 93.8% in rural schools, while time off task ranged from 4.7% in urban schools to 6.2% in rural schools.

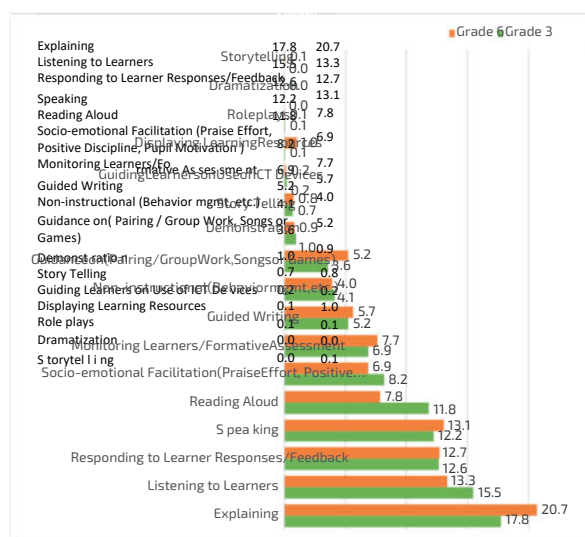


Figure 33: Percentage distribution of Teachers' time on specific Mathematics instructional activities

Figure 33 shows how host community teachers distributed their time across different Mathematics instructional activities in Grade 3 and Grade 6 lessons. In both Grades, most of the lesson time is concentrated on activities led directly by the teacher, particularly explaining procedures and guiding learners through how to solve problems.

The largest share of time is spent on explaining or demonstrating how to solve Mathematics tasks, accounting for about one-fifth of lesson

time in Grade 6 (20.4%) and slightly less in Grade 3 (18.2%). Teachers also spend considerable time writing on the board (around 16% in both Grades) and responding to learner answers or providing feedback (approximately 16%). Together, these activities indicate that classroom instruction is largely teacher-directed, with a strong focus on procedural explanation and whole-class engagement.

There is some evidence of interaction during lessons. Teachers allocate time to asking questions, listening to learners, and monitoring learner work, with these activities generally taking between 8% and 12% of lesson time. Socio-emotional support such as encouraging learners or acknowledging effort also accounts for close to 10% of time. These elements suggest that while lessons are teacher-led, there are opportunities for learner participation within that structure.

However, activities that typically support more interactive or experiential learning appear limited. Very little time is spent on using teaching and learning materials, demonstrations involving resources, or repetition and practice activities. Approaches such as storytelling, role play, dramatisation, or the use of digital devices are virtually absent in both Grades. This pattern suggests that lessons rely heavily on verbal explanation rather than varied instructional methods or resource-supported learning.

Non-instructional activities related to classroom management take a relatively small proportion of time (about 2.5% to 3.5%), indicating that most observed time remains focused on task activities rather than off-task.

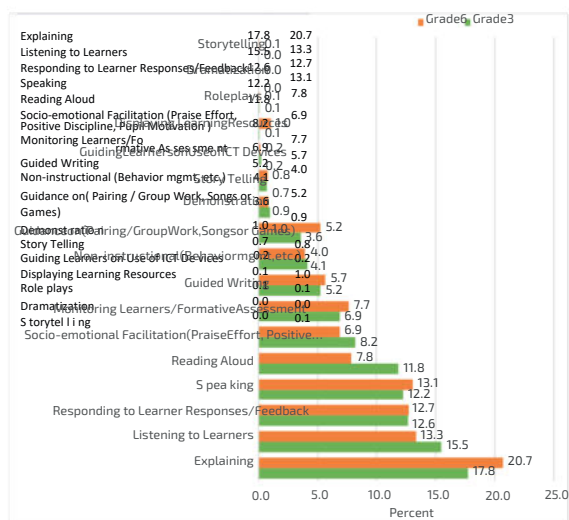


Figure 34: Percentage distribution of Teachers' time on specific English instructional activities

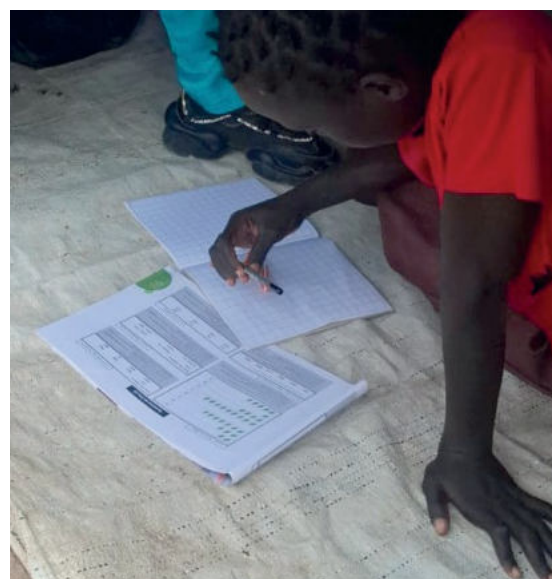


Figure 34 presents how host community teachers allocated lesson time across different English instructional activities in Grade 3 and Grade 6 classrooms. Generally, the pattern suggests that lessons are largely driven by teacher talk and whole-class interaction, with somewhat greater learner participation than was observed in Mathematics lessons.

The largest share of teachers' lesson time in both Grades is devoted to explaining content, accounting for about 20.7% of time in Grade 6 and 17.8% in Grade 3. Teachers also spend considerable time listening to learners (15.5% in Grade 3 and 13.3% in Grade 6), speaking or presenting content (around 12–13%), and responding to learner answers or providing feedback (approximately 12–13%). Together, these activities indicate that classroom instruction remains teacher-led but includes meaningful opportunities for learners to contribute verbally.

One notable difference between Grades is in reading aloud, which takes a larger share of time in Grade 3 (11.8%) compared to Grade 6 (7.8%). This reflects the stronger emphasis on foundational reading skills in lower primary. Activities such as guided writing, monitoring learners or using formative assessment, and socio-emotional facilitation each account for roughly 5–8% of lesson time, suggesting that teachers do incorporate elements of learner support and feedback during instruction.

However, activities associated with more interactive or collaborative learning approaches are less common. Time spent on group work or paired activities is relatively limited (5.2% in

Grade 6 and 3.6% in Grade 3), while the use of learning resources, ICT devices, and approaches such as role play or dramatisation is minimal across both Grades. Non-instructional activities related to classroom management account for about 4% of lesson time, indicating that most classroom time is spent on teaching tasks rather than off teaching tasks.

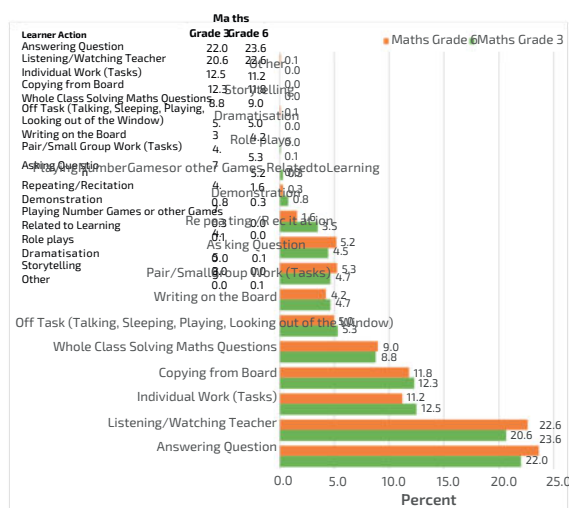


Figure 35: Percentage distribution of Learners' time on specific Mathematics instructional activities

Figure 35 presents how learners spent their time during observed Mathematics lessons in Grade 3 and Grade 6. The overall pattern shows that most learner time is concentrated on activities linked to teacher-directed instruction, with comparatively less time devoted to collaborative or activity-based learning.

The largest share of learner time in both Grades is spent answering teacher questions (23.6% in Grade 6 and 22.0% in Grade 3) and listening to or watching the teacher (22.6% in Grade 6 and 20.6% in Grade 3). This suggests that learners are primarily engaged through whole-class interaction rather than independent exploration of concepts. Substantial time is also allocated to copying from the board (11.8% in Grade 6 and 12.3% in Grade 3) and individual written work (11.2% in Grade 6 and 12.5% in Grade 3), indicating that classroom activities are largely structured around teacher explanation followed by practice tasks completed individually.

Activities involving whole-class problem-solving account for around 9% of lesson time across both Grades, suggesting some opportunities for collective engagement in solving Mathematics problems. However, more interactive approaches appear limited. Time spent on pair or small group work is relatively modest (5.3% in Grade

6 and 4.7% in Grade 3), while activities such as Mathematics games, demonstrations using materials, and role-based or experiential learning approaches are minimal. These patterns mirror the teacher activity findings, reinforcing the observation that lessons rely heavily on teacher-centred instructional approaches.

A small proportion of learner time is classified as off-task behaviour (approximately 5% in both Grades), including talking, disengagement, or unrelated activities.

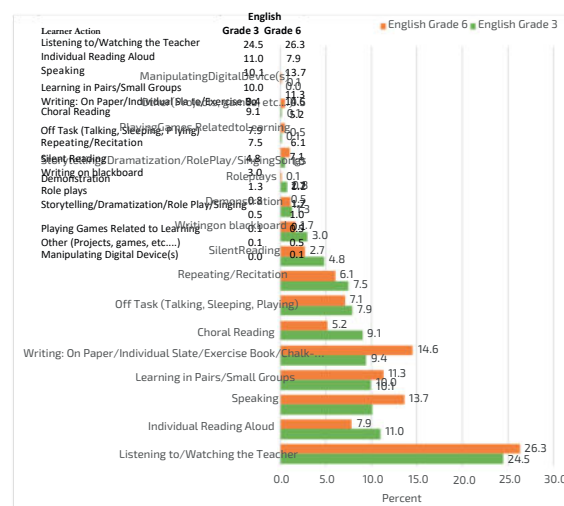


Figure 36: Percentage distribution of Learners' time on specific English instructional activities

Figure 36 shows how learners spent their time during observed English lessons in Grade 3 and Grade 6. Overall, the pattern suggests that learners are actively engaged for most of the lesson, although participation is still largely shaped by teacher-led instruction.

The largest share of learner time in both Grades is spent listening to or watching the teacher, accounting for about 26.3% in Grade 6 and 24.5% in Grade 3. This is followed by substantial time spent on writing activities in exercise books or on paper (14.6% in Grade 6 and 9.4% in Grade 3), as well as speaking activities, where learners respond verbally during lessons (13.7% in Grade 6 and 10.1% in Grade 3). These patterns suggest that lessons combine teacher explanation with opportunities for learners to practise language skills through written and oral responses.

There are also notable differences between the two Grades. In Grade 3, learners spend more time on individual reading aloud (11.0%) compared to Grade 6 (7.9%), reflecting the continued emphasis on foundational reading skills in lower primary. Similarly, choral reading is more common in Grade 3 (9.1%) than in Grade 6 (5.2%),

which is consistent with early literacy teaching approaches. In contrast, Grade 6 learners spend slightly more time on writing and speaking tasks, which may reflect greater expectations for independent language use at higher Grade levels.

Some degree of collaborative learning is evident, with pair or small group activities accounting for about 10–11% of lesson time across both Grades. However, activities such as role play, storytelling, games, and the use of digital devices occur very rarely. Demonstrations

and the use of the blackboard also take only a small share of learner time, suggesting that lessons rely primarily on verbal instruction and written practice rather than varied instructional methods.

A small but noticeable proportion of time is classified as off-task behaviour (around 7–8% in both Grades), including talking or disengagement. While this does not dominate the lesson, it represents time that could potentially be reduced through more engaging instructional approaches.

5. Inequality Markers and Drivers of Learning Outcomes



This section empirically examines the drivers of learning outcomes among children in refugee and host community settings, with a specific focus on identifying similarities and differences in the factors shaping learning achievement across the two contexts. Drawing on comparative quantitative analysis, the section explores how contextual and systemic factors are associated with learning outcomes in refugee settings relative to host communities.

Given the binary nature of the learning outcome, the analysis employs a binary logit model to estimate the probability that a child meets minimum proficiency, while controlling for a range of relevant covariates. Regression models are estimated separately for refugee and host community populations to allow for meaningful comparison across contexts. This approach enables the identification of factors that are consistently associated with learning achievement, as well as those whose effects differ between displacement and non-displacement

settings. The findings from this section provide evidence to inform context-responsive policy and programmatic interventions aimed at improving learning outcomes for children in both refugee and host community settings.



Table 11: Household and school factors influencing learners' numeracy learning outcome in Refugee and Host Communities

Mathematics_meet_divide	Refugee Community				Host Community			
	Odds ratio	P>z	[95% confidence Interval]		Odds ratio	P>z	[95% confidence Interval]	
Child_gender (Ref: Male)								
Female	2.43	0.035	1.07	5.53	0.29	0.006	0.12	0.70
Mother_presence (Ref: Mother not present)								
Mother present	2.49	0.049	1.01	6.19	0.72	0.500	0.27	1.88
Prior_preprimary_attendance (Ref: No)								
Yes	0.60	0.370	0.20	1.82	2.73	0.093	0.85	8.82
Child_age	1.19	0.095	0.97	1.46	1.31	0.020	1.04	1.65
Missed School in previous week (Ref: No)								
Yes	0.68	0.356	0.29	1.55	0.43	0.120	0.15	1.25
Household wealth (Ref: Poor)								
Middle	5.96	0.000	2.38	14.90	1.11	0.889	0.27	4.56
Rich	1.46	0.680	0.24	8.65	2.15	0.407	0.35	13.23
Homework_assist (Ref: None)								
Father	1.26	0.820	0.18	8.97	0.88	0.943	0.03	30.01
Both mother & father	5.27	0.050	1.00	27.81				
Other family member	3.17	0.072	0.90	11.15	0.81	0.786	0.17	3.83
mother	1.15	0.882	0.19	7.12	0.91	0.878	0.29	2.88
HH_head_gender (Ref: Male)								
Female	0.76	0.620	0.26	2.23	0.48	0.147	0.18	1.29
HH_head_education_level (Ref: None)								
Primary School	1.26	0.689	0.40	3.93	0.37	0.329	0.05	2.72
Secondary School	5.01	0.035	1.12	22.36	0.13	0.158	0.01	2.23
Grade (Ref: Grade 1)								
Grade 2	0.15	0.266	0.01	4.28	2.98	0.430	0.20	44.70
Grade 3	0.74	0.823	0.05	10.28	2.09	0.575	0.16	27.43
Grade 4	0.79	0.860	0.06	10.40	3.82	0.285	0.33	44.70
Grade 5	1.19	0.895	0.09	15.82	13.03	0.048	1.02	166.54
Grade 6	4.05	0.298	0.29	56.35	10.88	0.079	0.76	156.02
Grade 7	3.95	0.331	0.25	63.29	10.50	0.085	0.72	152.47

Grade 8	11.16	0.130	0.49	253.92	8.93	0.134	0.51	156.42
Grade 9					20.01	0.044	1.09	366.99
Household_size	0.97	0.587	0.87	1.08	1.00	0.998	0.85	1.17
Average class size	0.98	0.097	0.96	1.00	0.99	0.697	0.97	1.02
School_library_availability (Ref: No)								
Yes	0.18	0.076	0.03	1.19	1.57	0.377	0.58	4.24
TCR_Primary	0.79	0.715	0.22	2.80				

Note: All predictors controlled for are included in Table 10

Among refugee community learners, several factors show statistically significant associations with meeting minimum proficiency in Mathematics. Female learners have 2.43 times higher odds of meeting minimum proficiency compared to boys, indicating a gender advantage in favour of girls within refugee settings. Similarly, learners whose mothers are present have 2.49 times higher odds of meeting minimum proficiency compared to those whose mothers are absent, underscoring the importance of maternal presence in supporting learning among displaced children.

Household socioeconomic characteristics are also influential for refugee learners. Children from middle-wealth households have 5.96 times higher odds of meeting minimum proficiency compared to those from poor households, highlighting the strong role of household economic conditions in shaping learning outcomes in refugee contexts. Parental education also shows a meaningful association: learners whose household heads have secondary education have 5.01 times higher odds of meeting minimum proficiency compared to those whose household heads have no education. These findings suggest that both economic and educational advantages within households provide important protective effects for refugee learners.

Parental engagement appears to play a role as well. Learners receiving homework assistance from both parents have 5.27 times higher odds of meeting minimum proficiency compared to those receiving no assistance, although this association is marginally significant. In addition, older refugee learners show a tendency toward improved outcomes, with each additional year of age associated with approximately 19% higher odds of meeting minimum proficiency, although this relationship is also marginal. At the school level, larger average class sizes are associated

with slightly lower odds of meeting minimum proficiency, suggesting potential resource or attention constraints, though this relationship is modest.

In contrast, host community learners show a different pattern of associations. Female learners have 71% lower odds (OR = 0.29) of meeting minimum proficiency compared to boys, indicating a gender disadvantage that contrasts with the refugee context. Age is positively associated with performance among host learners, with each additional year associated with 31% higher odds of meeting minimum proficiency. Grade level also plays an important role: learners in Grade 5 have 13.03 times higher odds, and those in Grade 9 have 20.01 times higher odds, of meeting minimum proficiency compared to Grade 1 learners, reflecting expected progression in numeracy skills across Grades. Learners in Grade 6 also show substantially higher odds (10.88 times) of meeting minimum proficiency, although this finding is marginally significant.

Prior pre-primary attendance is associated with 2.73 times higher odds of meeting minimum proficiency among host community learners, though this relationship is only marginally significant. Other household characteristics, including wealth and parental education, do not show statistically significant associations in the host community sample.

Overall, the results suggest that household socioeconomic status, parental presence, and parental education are particularly important predictors of Mathematics proficiency among refugee learners, whereas individual characteristics such as age, gender, and Grade progression play a more prominent role among host community learners. These differences highlight the importance of context-specific interventions

Table 12: Household and school factors influencing learners' literacy learning outcome in Refugee and Host Communities

English_meet_comprehension	Refugee Community				Host Community			
	Odds ratio	P>z	[95% Confidence Interval]		Odds ratio	P>z	[95% Confidence Interval]	
Child_gender (Ref: Male)								
Female	0.96	0.839	0.67	1.38	0.52	0.042	0.28	0.98
Mother_presence (Ref: Mother not present)								
Mother present	1.31	0.165	0.89	1.93	0.95	0.874	0.49	1.84
Prior_preprimary_attendance (Ref: No)								
Yes	1.81	0.020	1.10	2.97	1.27	0.564	0.56	2.88
Child_age	1.10	0.033	1.01	1.21	1.16	0.069	0.99	1.37
Missed School in previous week (Ref: No)								
Yes	0.69	0.077	0.46	1.04	0.77	0.473	0.37	1.59
Household wealth (Ref: Poor)								
Middle	1.75	0.006	1.17	2.61	0.54	0.162	0.23	1.28
Rich	1.41	0.554	0.46	4.34	2.21	0.191	0.67	7.28
Homework_assist (Ref: None)								
Father	0.77	0.528	0.35	1.72	0.33	0.394	0.03	4.21
Both mother & father	1.08	0.841	0.50	2.33	4.64	0.291	0.27	80.15
Other family member	1.43	0.131	0.90	2.29	0.87	0.835	0.24	3.12
mother	0.63	0.263	0.28	1.41	1.19	0.653	0.56	2.53
HH_head_gender (Ref: Male)								
Female	0.95	0.845	0.57	1.58	0.68	0.262	0.34	1.34
HH_head_education_level (Ref: None)								
Primary School	1.08	0.783	0.64	1.81	0.92	0.893	0.28	3.04
Secondary School	2.16	0.016	1.15	4.04	0.84	0.815	0.19	3.64
Grade (Ref: Grade 1)								
Grade 2	1.05	0.960	0.17	6.26	0.75	0.749	0.13	4.45
Grade 3	1.24	0.800	0.23	6.61	1.12	0.884	0.25	4.90
Grade 4	1.59	0.590	0.30	8.51	2.63	0.180	0.64	10.83
Grade 5	3.58	0.134	0.67	19.04	3.24	0.119	0.74	14.23

Grade 6	6.65	0.028	1.23	35.87	5.74	0.037	1.11	29.66
Grade 7	5.51	0.055	0.96	31.60	17.84	0.001	3.07	103.62
Grade 8	6.99	0.034	1.16	42.04	5.41	0.072	0.86	33.93
Grade 9	9.27	0.022	1.38	62.32	17.14	0.007	2.21	133.08
Household_size	0.95	0.066	0.90	1.00	1.03	0.571	0.92	1.16
Primary_avg_class_size	1.00	0.561	1.00	1.01				
School_library_availability (Ref: No)								
Yes	0.85	0.559	0.50	1.45	2.04	0.032	1.06	3.91
_cons	0.06	0.007	0.01	0.45	0.03	0.003	0.00	0.29

Among refugee community learners, several household and learner characteristics show statistically significant associations with meeting minimum proficiency in English comprehension. Learners who attended pre-primary education have 1.81 times higher odds of meeting minimum proficiency compared to those who did not attend pre-primary, highlighting the importance of early childhood education for literacy development in refugee contexts. Age is also positively associated with literacy outcomes, with each additional year associated with approximately 10% higher odds of meeting minimum proficiency, suggesting that older learners may have accumulated greater exposure to literacy instruction.

Household socioeconomic factors also play an important role among refugee learners. Children from middle-wealth households have 1.75 times higher odds of meeting minimum proficiency compared to those from poor households, indicating that even moderate economic advantages contribute to improved literacy outcomes. In addition, having a household head with secondary education is associated with 2.16 times higher odds of meeting minimum proficiency compared to learners whose household heads have no education, underscoring the importance of parental education in supporting children's literacy development.

Grade progression is strongly associated with literacy achievement among refugee learners. Compared to Grade 1 learners, those in Grade 6 have 6.65 times higher odds, those in Grade 8 have 6.99 times higher odds, and those in Grade 9 have 9.27 times higher odds of meeting minimum proficiency, reflecting expected improvements in literacy skills with increased schooling exposure. Learners in Grade 7 also

show higher odds (5.51 times) of meeting minimum proficiency, although this association is marginally significant. Additionally, learners who missed school in the previous week have 31% lower odds (OR = 0.69) of meeting minimum proficiency, though this relationship is only marginally significant, suggesting that absenteeism may negatively affect literacy outcomes.

In contrast, host community learners show fewer household-level predictors but notable associations related to learner characteristics and school factors. Female learners have 48% lower odds (OR = 0.52) of meeting minimum proficiency compared to boys, indicating a gender disadvantage in literacy outcomes within host communities. Age is also positively associated with literacy performance, with each additional year linked to 16% higher odds of meeting minimum proficiency, although this relationship is marginally significant.

Grade level is strongly associated with literacy outcomes among host community learners. Compared to Grade 1 learners, those in Grade 6 have 5.74 times higher odds, Grade 7 learners have 17.84 times higher odds, and Grade 9 learners have 17.14 times higher odds of meeting minimum proficiency. Learners in Grade 8 also show higher odds (5.41 times), although this association is marginally significant. These results reflect the cumulative effect of schooling exposure on literacy acquisition.

At the school level, the availability of a school library is associated with 2.04 times higher odds of meeting minimum proficiency among host community learners compared to those in schools without a library, suggesting that access to learning resources may support literacy development in host community contexts.

6. Conclusion & Policy Recommendations



The empirical analysis reveals clear and context-specific drivers of learning outcomes among children in refugee and host community settings. The findings demonstrate that while both household and school factors matter for learning, their influence differs substantially between displacement and non-displacement contexts. These results underscore the need for context-responsive education policies, as uniform interventions are unlikely to yield equitable learning gains across both settings.

In refugee communities, household and caregiver-related factors emerge as particularly influential for both numeracy and literacy outcomes. Maternal presence, household wealth, and the education level of the household head show strong and consistent associations with learning outcomes, alongside evidence of positive effects from early childhood participation and caregiver support. Even modest socioeconomic advantages substantially increase the likelihood of meeting minimum proficiency, highlighting the fragility of learning environments in displacement contexts and the sensitivity of outcomes to household support structures. These findings suggest that

strengthening family-level stability and learning support mechanisms may yield substantial gains in refugee settings.

Conversely, in host communities, learner characteristics and school-level conditions appear more prominent. Gender disparities are evident, with girls showing lower likelihoods of meeting minimum proficiency in several models, while Grade progression and age are strongly associated with improved outcomes, reflecting cumulative schooling effects. Evidence also points to the importance of school resources and welfare supports, including school feeding programmes and access to learning materials, although the effectiveness of infrastructure alone appears uneven. Negative associations observed for female-headed households suggest that broader socioeconomic vulnerability remains an important constraint on learning.

Overall, the results highlight that improving learning outcomes requires a combination of household support, school-level interventions, and targeted assistance for vulnerable learners, with priorities varying across refugee and host community contexts.

7. Recommendations

Priority	Recommendation	Key Findings Addressed	Practical Actions	Resource Implications
1	Strengthen household and caregiver support mechanisms in refugee communities	Strong positive associations between learning outcomes and maternal presence, household wealth, and household head education among refugee learners. Evidence of a positive association between parental homework support and numeracy.	- Caregiver engagement sessions through schools/community centres - Guidance on supporting homework and attendance - Strengthened school–parent communication - Parenting support programmes targeting mothers/guardians	Moderate cost: Can leverage existing school/community structures and NGO platforms. Has high potential impact.
2	Address socioeconomic learning barriers among vulnerable refugee households	Household wealth is significantly associated with numeracy and literacy outcomes among refugee learners, indicating that economic vulnerability affects learning attainment.	- Provision of basic learning materials - Attendance support interventions - Targeted support for economically vulnerable learners - Linkages with social protection programmes where feasible	Moderate to High cost: depending on scale, but can be targeted for efficiency.
3	Reduce gender disparities in host community learning outcomes	Female learners in host communities have significantly lower odds of meeting minimum proficiency in both numeracy and literacy.	- Targeted remedial programmes for girls - Mentoring and academic encouragement initiatives - Attendance monitoring for at-risk girls - Gender-responsive teaching practices in teacher training	Low to Moderate cost — Can be implemented through existing school systems.
4	Strengthen foundational learning and early Grade progression	Strong positive associations between age, Grade progression, and learning outcomes indicate cumulative learning effects and early learning gaps.	- Early Grade remediation programmes - Structured teaching approaches for Foundational Literacy and Numeracy - Early identification of struggling learners - Catch-up support in lower Grades	Moderate cost with high long-term returns. Primarily, teacher training and instructional support.
5	Improve utilisation of school learning resources rather than focusing only on infrastructure provision	Mixed or weak associations between library availability and learning outcomes, suggesting utilisation challenges rather than access alone.	- Teacher training on guided reading and use of materials - Integration of resources into lesson planning - Monitoring actual classroom use of materials	Low to Moderate cost: Focus on pedagogy rather than infrastructure.
6	Strengthen attendance monitoring and learning continuity support	Missing school is associated with lower odds of meeting minimum proficiency in cognitive skills, particularly literacy, among refugee learners.	- Attendance tracking systems - Caregiver follow-up for absentee learners - Catch-up sessions for frequently absent learners	Low cost: Mainly administrative and community engagement. High feasibility.
7	Strengthen learner-centred instructional practices and effective use of lesson time	Lesson observation data show that teachers spend a large proportion of instructional time on explanation, board work, and whole-class instruction, with relatively limited time allocated to interactive pedagogies such as group work, use of instructional materials, or learner-centred activities. This pattern is evident across both Mathematics and English lessons.	Introduce targeted teacher professional development and instructional coaching focused on: - Increasing learner participation during lessons - Structured group and pair work strategies - Effective questioning and formative assessment techniques - Use of teaching and learning materials to support conceptual understanding - Time management within lessons to maximise active learning opportunities	Moderate cost: Requires investment in teacher support systems, coaching, and supervision rather than infrastructure. High potential impact on learning quality.

Priority	Recommendation	Key Findings Addressed	Practical Actions	Resource Implications
8	Increase active learner engagement and reduce passive learning time during lessons	Learner time distribution shows that a large proportion of lesson time is spent listening to the teacher, copying from the board, and responding to teacher prompts, with relatively limited time devoted to collaborative learning, hands-on activities, or interactive learning approaches. A small but notable share of time is also lost to off-task behaviour. These patterns are evident across both Mathematics and English lessons and suggest opportunities to strengthen learner engagement.	Introduce instructional approaches that increase active learner participation during lessons, including: • Structured pair and small-group learning tasks • Interactive questioning techniques that involve more learners • Use of learning materials and practical activities in Mathematics • Reading and speaking activities that promote learner participation in English • Lesson Pacing strategies to reduce passive copying and waiting time	Low to moderate cost. Primarily requires teacher training, coaching, and instructional support rather than additional infrastructure. High feasibility within existing systems

Annex 1: All Survey Tools

Tool	ORIGINAL URL
2025_Assessment Toolkit	https://drive.google.com/drive/folders/18BzlWwfrqcgilApX6UatKdebsM6goAJF?usp=drive_link
FLANA_2025_Household_Survey Questionnaire	https://drive.google.com/drive/folders/1zqamHu9F-7VOlpvaH-X_csmKH1_N0-NP?usp=drive_link
FLANA_2025_Primary_School_Survey Questionnaire	https://drive.google.com/drive/folders/1VymnmS1jl49jNrMn0uaDiLww62f9mDdF?usp=drive_link
Classroom_observation_maths Questionnaire	https://drive.google.com/drive/folders/1UmlddkmVATa3HhU364fLI0TkNZUTRsx?usp=drive_link
Classroom_observation_reading Questionnaire	https://drive.google.com/drive/folders/1rBmlJOuvhVZFgcDirzDALp45q_eiKpk?usp=drive_link

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