THE KHANA GROUP

THE LUMINOS FUND

2024–25 EXTERNAL EVALUATION REPORT FOR THE LUMINOS FUND IN LIBERIA: SUMMARY

DECEMBER 2025

Executive Summary

Since 2016, the Luminos Fund has partnered with community-based organizations and the Government of Liberia to scale its proven accelerated learning program, reaching more than 44,700 vulnerable and out-of-school children with foundational learning. This report summarizes key findings from the 2024–25 independent external evaluation conducted by The Khana Group (TKG).

Luminos students in Liberia achieved substantial learning gains in literacy and numeracy during the 2024–25 school year. **At the start of the program, when given one minute to read a short passage of text, students could read on average only 4 correct words, reflecting very limited fluency and an inability to read simple connected text independently. By the end of the 10-month program, they could read 51 correct words per minute (CWPM), an improvement of 47 CWPM from baseline. This is 4.6 times a 2016 benchmark average for primary school-age children in Liberia[1], and more than 12 times faster than students' initial reading rate at the start of the program. In math, students also made strong progress, more than doubling their fluency scores on timed numeracy assessments.**

2024–25 School Year

4,637
students

150
classrooms

9
counties

Correct Words Per Minute (CWPM) at Endline

These findings mirror external evaluation results from prior years of Luminos programming in Liberia. Notably, a 2022–23 randomized controlled trial showed that children in the Luminos program learn more in one year than the average Liberian learns over the entire course of their schooling.[2]

Background

The Luminos accelerated learning program enables children ages 8–14 years to acquire foundational literacy and numeracy skills and catch up on the first three years of schooling in ten months. The program uses a joyful, student-centered approach with phonics-based instruction, incorporating local materials, songs, and stories into daily lessons. Small classes of 25–30 students meet five days a week. Luminos partners closely with community-based organizations and government to co-deliver the program, weaving global best practices with community insights and experiences.

During the 2024–25 school year, Luminos and its community partners supported 4,637 children across 150 classrooms and 9 counties.

1 Mauricio Romero, Justin Sandefur, and Wayne Aaron Sandholtz, "Outsourcing Education," American Economic Review 110, no. 2 (2020): 364–400.

2 Based on Learning Adjusted Years of schooling.

Evaluation Overview & Method

The evaluator (TKG) partnered with Luminos to assess the impact of the Luminos program in Liberia, measuring student learning gains in literacy and numeracy at the start and end of the 2024–25 school year.

TKG conducted baseline and endline evaluations using the national Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA) tools. The sample included eight students randomly selected from 150 Luminos classrooms, totaling 1,200 students (50 percent girls and 50 percent boys).

Enumerators received five days of training, including field practice and inter-rater reliability testing. Inter-rater reliability was 98 percent, indicating very high consistency in scoring. Data were collected using the Tangerine mobile platform and analyzed across three key indicators—per-minute, mean, and percentage-correct scores—as well as by subgroups, including gender, prior schooling, and language background.

50% girls | **50% boys**

1,200
students

150
classrooms

Results

During the 2024–25 school year, students made substantial gains in literacy and numeracy, with particularly strong improvement in foundational phonics skills and reading fluency. The pattern held across subgroups, with girls outperforming boys by a small margin. Notably, students who had no prior schooling and those who did not speak the language of instruction at home, though they started behind, were able to quickly catch up in foundational skills.

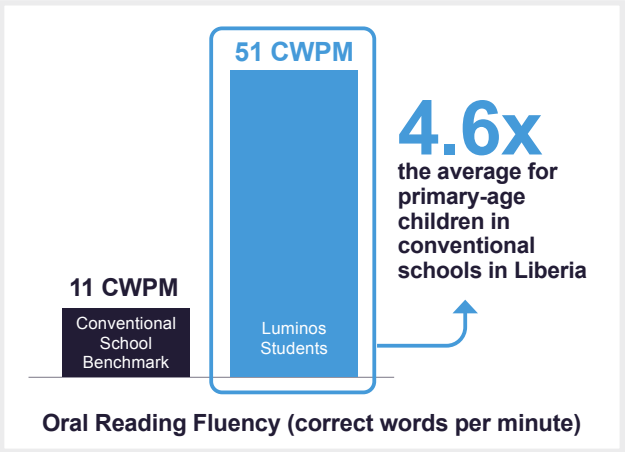
Literacy

Students excelled on timed literacy assessments at endline, reflecting improvements in reading fluency or the ability to complete tasks accurately and at an appropriate pace. **Most notably, by the end of the program, students had progressed from reading only 4 CWPM at the start to reading short passages with an average fluency of 51 CWPM. This level of fluency is 4.6 times the average for primary-age children in conventional schools.**

Automaticity gains were equally impressive—by the end of the program, students correctly identified an average 92 letter names and 80 letter sounds in a minute, which is well above the level required to progress to more advanced literacy tasks. Students' ability to read frequent grade-level-appropriate words in one minute also improved from an average 3 words at baseline to 30 words at endline.

When tasked with 10 initial word sounds to identify, students scored an average of 9.4 at endline. In comprehension, students' scores averaged 2.3 out of 5 reading comprehension items and 2.2 out of 3 listening comprehension items.

These results highlight the program's impact improving students' foundational reading skills. While further practice is needed to fully master comprehension, students have the necessary foundation to continue making strong progress.



Please see Tables 1a and 1b for more details[3]; for a full description of the EGRA subtasks see the Appendix on page 7.

Table 1a: Students' Performance on Timed EGRA Subtasks in Liberia Show Dramatic Improvements in Reading Proficiency and Fluency

Subtasks	Mean Scores		
	Baseline	Endline	Gain
Letter Name Identification	37.8	92.2	+54.4
Letter Sound Identification	15.4	79.9	+64.5
Familiar Word Reading	2.8	29.7	+26.9
Nonword Reading	0.2	11.8	+11.6
Oral Reading Fluency	3.5	50.8	+47.3

Table 1b: Students' Performance on Untimed EGRA Subtasks in Liberia

Subtasks	Max Score	Mean Scores			Percent Correct Scores		
		Baseline	Endline	Gain	Baseline	Endline	Gain
Initial Sound Identification	10	3.9	9.4	+5.5	39%	94%	+55%
Reading Comprehension	5	0.1	2.3	+2.2	2%	45%	+43%
Listening Comprehension	3	1.7	2.2	+0.5	58%	75%	+17%

Numeracy

By the end of the program, students' fluency scores on timed numeracy assessments more than doubled, despite starting with very limited math skills. In number identification, students identified an average of 27 numbers in a minute at endline, an improvement from 10 numbers at baseline. In basic math, students completed an average of 10 addition and 7 subtraction items in a minute by the end of the program, up from 4 additions and 2 subtractions, respectively, at baseline.

In number discrimination, which assesses students' ability to identify which of two numbers is larger, students scored an average of 7.5 out of 10 items. They also improved in word problems, correctly answering an average of 3.2 out of 5 real world problems using basic addition and subtraction.

Overall, the program enabled students to move from minimal math skills to solid numeracy fluency by endline, providing the necessary foundation for advancing to more complex concepts. Please see Tables 2a and 2b for more details[4]; for a full description of the EGMA subtasks see the Appendix on page 8.

3 Table 1a presents timed subtasks scores, which assess the number of items students can correctly complete in one minute (fluency). Table 1b presents untimed subtasks, which assess students' average number of correct responses on a fixed set of questions.

4 Table 2a presents timed subtasks scores, which assess the number of items students can correctly complete in one minute (fluency). Table 2b presents untimed subtasks, which assess students' average number of correct responses on a fixed set of questions.

Table 2a: Students' Performance on Timed EGMA Subtasks in Liberia Show Fluency More Than Doubled

Subtasks	Mean Scores		
	Baseline	Endline	Gain
Number Identification	10.0	26.8	+16.8
Addition Level 1	3.8	9.7	+5.9
Subtraction Level 1	2.1	6.6	+4.5

Table 2b: Students' Performance on Untimed EGMA Subtasks in Liberia

Subtasks	Max Score	Mean Scores			Percent Correct Scores		
		Baseline	Endline	Gain	Baseline	Endline	Gain
Number Discrimination	10	3.7	7.5	+3.8	37%	75%	+38%
Missing Number	10	0.5	3.3	+2.8	5%	33%	+28%
Word Problem	5	2.0	3.2	+1.2	39%	63%	+24%

Equity Analysis

Results by Gender

The sample included equal numbers of girls and boys. Both groups made substantial learning gains across EGRA and EGMA subtasks, with girls slightly outperforming boys on several measures.

In literacy, girls scored higher than boys in three assessments, though the differences were generally small. The largest advantage for girls appeared in nonword reading, where girls scored an average of 12.8 compared to 10.6 for boys at endline—a difference of 21 percent. Girls also held smaller advantages in reading comprehension (8 percent) and familiar word reading (7 percent).

In numeracy, the largest advantage was in missing numbers (39 percent), where girls scored an average of 3.9 compared to 2.8 for boys. Their advantage was also notable in addition (16 percent), number discrimination (16 percent), and number identification (14 percent).

Results by Prior Schooling Status

Nearly one-third of students had no prior schooling before joining the Luminos program, resulting in lower baseline scores compared to their peers with previous school experience. Despite this initial disadvantage, these students made larger gains in foundational literacy skills, narrowing the gap with their peers. In letter name identification, students who had no prior schooling showed a 40 percent advantage, improving to an average of 84.9 letter names at endline (+61 gain), compared to 87.3 for students who had prior schooling (+44 gain). These students also made bigger gains in letter sound identification, initial sound recognition, and listening comprehension, underscoring how quickly students can catch up when given effective instruction and support.

Conversely, students who had prior schooling showed small advantages in more advanced literacy skills, with larger gains in familiar word reading, nonword reading, oral reading fluency, and reading comprehension.

Similar trends appeared in numeracy: although students without prior schooling started behind, they narrowed the gap in foundational math skills, including number identification, number discrimination, and addition, as well as in word problems.

Results by Language Spoken at Home

The majority of students sampled (70 percent) spoke the language of instruction at home, whereas the remaining students did not and may have encountered language-related challenges in the classroom. Both groups demonstrated significant improvements across EGRA and EGMA subtasks, although their levels of progress varied slightly.

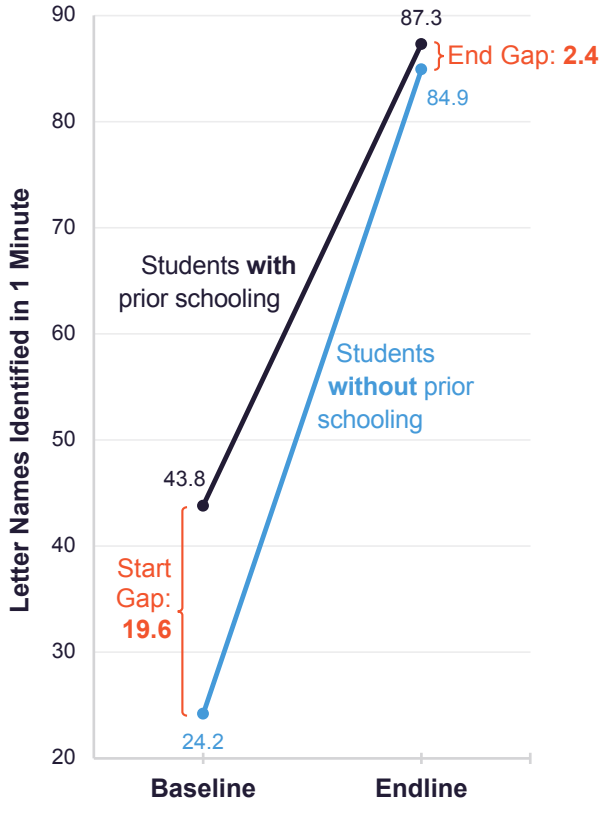
Students who did not speak the language of instruction at home, despite starting with an initial disadvantage, made larger gains in foundational literacy skills and narrowed the gap with their peers. In letter name identification, these students showed a 17 percent advantage, improving to an average of 84.5 letter names at endline (+55 gain), compared to 87.4 for students who spoke the language of instruction at home (+47 gain). They also made bigger gains in letter sound identification, initial sound recognition, and listening comprehension.

Conversely, students who spoke the language of instruction at home had small advantages in more advanced skills, with larger gains in familiar word reading and reading comprehension.

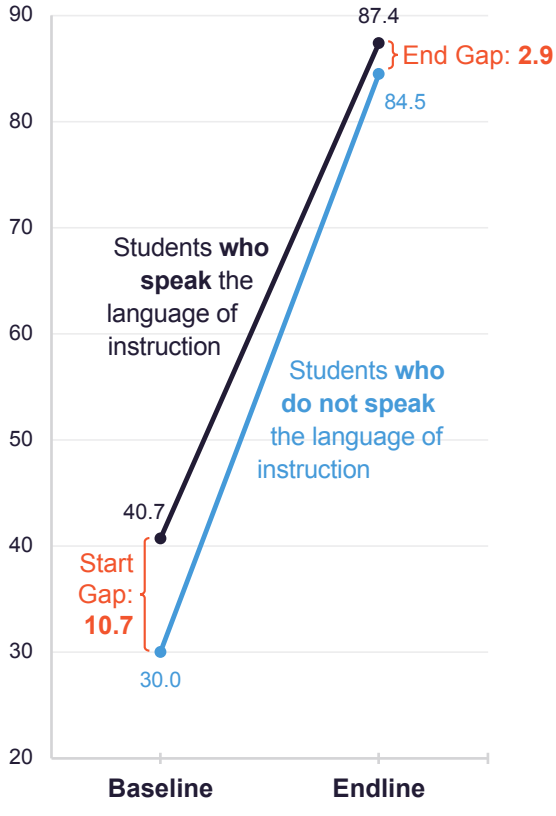
Similar trends appeared in numeracy, where students who did not speak the language of instruction at home had small advantages in foundational math skills, including number discrimination, addition Level 1, as well as in word problems.

The Most Vulnerable Students in the Luminos Program Quickly Catch Up on Foundational Skills

Luminos Student Letter Name Identification Progress by Prior Schooling Status



Luminos Student Letter Name Identification Progress by Language Background



Conclusion

The 2024–25 external evaluation results show that students in the Luminos program in Liberia made substantial gains in literacy and numeracy, with particularly strong improvement in foundational phonics skills and reading fluency. **By the end of the 10-month program, students read 51 correct words per minute (CWPM), an improvement of 47 CWPM from baseline. In math, students also made strong progress, more than doubling their fluency scores on timed numeracy assessments.**

Literacy and numeracy scores were strong across subgroups, though they varied slightly on several subtasks. Girls generally outperformed boys, and the most vulnerable or disadvantaged students—those with no prior schooling and those who did not speak the language of instruction at home—quickly caught up in foundational skills, despite starting behind.

Appendix

Early Grade Reading Assessment (EGRA)

Subtask	Reading Skill	Description
Letter Name/Sound Identification	Alphabet knowledge	Students read letters/sounds and accurately say their corresponding name/sound in one minute.
Initial Sound Identification	Phonemic awareness	Students correctly identify the initial sounds of words
Nonword Reading	Decoding	Students read simple nonsense words in one minute
Familiar Word Reading	Word recognition	Students read frequent grade level appropriate words in one minute
Oral Reading Fluency	Oral reading fluency	Students read a short, written passage in one minute
Reading Comprehension	Reading comprehension	Students are asked to answer up to five questions relating to the text they read aloud for the oral reading fluency subtask
Listening Comprehension	Oral language comprehension	Students are asked questions relating to a short passage read aloud to them

Early Grade Math Assessment (EGMA)		
Subtask	**Numeracy skill**	**Description**
Number Identification	Number knowledge	Students are given one, two, and three-digit numbers and asked to identify the numbers in one minute
Number Discrimination	Comparing numbers	Students are given a series of problems where they are asked to identify which number is bigger
Missing Number	Number patterns	Students are presented with sets of numerical sequences and asked to identify the number that belongs in the empty box
Addition Level 1	Addition fluency	Students are asked to solve a series of basic addition problems in one minute (no problems are greater than 20)
Subtraction Level 1	Subtraction fluency	Students are asked to solve a series of basic subtraction problems in one minute. Problems are the inverse of the Addition Level 1 items
Word Problems	Real world problems	Students are asked to solve real world problems using basic addition and subtraction

(Cover Photo Credit: Mara Chan/Luminos Fund)

THE KHANA GROUP

About the Evaluator

The Khana Group (TKG) is a leading independent research and evaluation firm focused on driving social impact across Africa. Established in 2008, TKG specializes in rigorous data collection, strategic analysis, and evidence-based policy development. Over the past 14 years, the organization has completed more than 300 projects in 25 countries.