

## Building Blocks for a Brighter Future: How a Kindergarten Program Prepared Liberian Children for School, Even During COVID-19

Entering grade 1 ready to learn takes more than a book, a pencil, and the enthusiasm every young child brings to learning. To be better prepared for school, it helps for a child to have certain basic, foundational skills.<sup>1</sup> Let's look specifically at reading. When young Joy walks into her grade 1 classroom on that momentous first day of school, what skills does her teacher hope she brings with her? Certainly, Joy will need the ability to understand and speak the language the teacher will use to teach. This extends to also being able to understand elements of a story that she hears read aloud. Her teacher also hopes that Joy will have learned to play with the sounds that make up words and to name letters that represent the sounds she hears. If Joy has these emergent literacy skills, she will be ready to learn the kinds of reading skills in grade 1 that will set a strong foundation for the rest of her life.

**Emergent literacy skills are skills that children must develop before they are taught to read and write on their own. Emergent skills include oral language (the language children speak and understand when spoken), vocabulary (recognizing words and their meaning), oral comprehension (understanding a story that is read out loud), identifying sounds in words (e.g., the first sound of the word “mom” is /m/), and identifying letter symbols (this is an “m” which says /m/ and represents the first sound in “mom”).**



*Children at Read Liberia supported school. Photo credit. RTI.*

Children with a strong foundation in oral language and emergent literacy skills have a much greater chance of becoming successful readers, and success in reading in early primary grades can predict success in later years of schooling.

From birth, a child's home environment and experiences can help lay that foundation. When a child's caregivers talk with them and engage in oral give-and-take, when they play with and expose the child to letter sounds and tell or read stories that are rich in vocabulary, they are building that foundation. Unfortunately, not all children are able to benefit from that kind of environment—and that's where quality early childhood and kindergarten programs play a particularly critical role. Quality pre-primary programs help children gain those critical early skills, leveling the playing field for children so that they all have a solid chance of success in grade 1 and beyond.<sup>2</sup>

### EARLY CHILDHOOD EDUCATION IN LIBERIA

Over the past 10 years, the Liberian Ministry of Education (MOE) has made great strides toward strengthening early childhood education (ECE) in Liberia. The Ministry's Bureau of Early Childhood Development (ECD) and its partners have developed a comprehensive set of policies to support the provision of high-quality early childhood services, including a National ECD Policy, an Early Learning Framework, an ECD Curriculum, and a Professional Development Framework. Together, these policy documents create a solid and evidence-

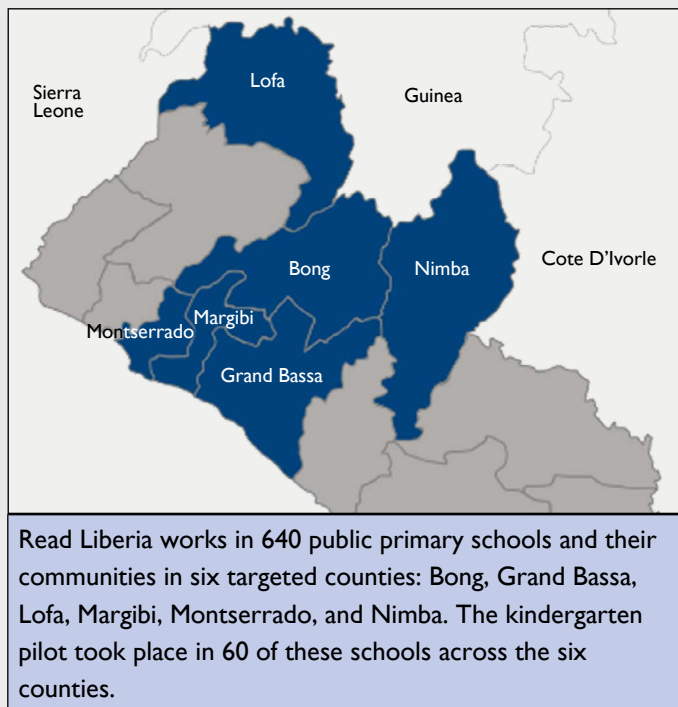
based foundation for early child development and learning, and they demonstrate a strong political will to strengthen the system to support the country's youngest students.

However, Liberia is not yet seeing the desired outcomes of its investment in ECE. Fewer than one-third of three-to-five year olds are able to attend early childhood programs,<sup>3</sup> and even when they do, many ECE teachers use didactic and rote-learning instructional methods in the classroom,

rather than the developmentally appropriate and play-based approaches called for in the nation's curriculum. As a result, many Liberian pre-school-aged children are not able to demonstrate strong emergent literacy when they enter grade 1.

Overage enrollment is also a challenge in kindergarten classrooms. Nearly half of students enrolled in Liberia ECE centers are six years of age or older; many children start ECE late and do not progress into grade 1 until they are eight, nine, or even 10 years old<sup>4</sup>—well beyond the government's target age (six years).<sup>5</sup> For example, in 2021, the mean age of children entering grade 1 was 10.7 years for Read Liberia schools and 10.5 years for comparison schools. With such a wide age range in a single classroom, ECE teachers struggle to find instructional approaches and activities that can meet the diverse learning needs of all their students.

Figure 1: Map of Read Liberia - supported Counties



## READ LIBERIA'S KINDERGARTEN MODEL

In partnership with the Liberian MOE, the United States Agency for International Development (USAID) launched the Read Liberia Activity (Figure 1) in 2017 to directly increase reading outcomes in grades 1 and 2 and, importantly, to improve the oral language and vocabulary skills of kindergarten children in Liberia. Read Liberia has collaborated with the MOE to improve existing teaching and learning

materials in grades 1 and 2—including teacher instruction guides, student activity books, and student decodable and leveled readers—and by the end of 2021, the activity had distributed a total of 390,171 teaching and learning materials to 148,656 students. Read Liberia also partnered with the Ministry's Bureau of ECD to develop and pilot a play-based kindergarten program that benefited 5,400 learners in 60 ECE

centers. The kindergarten teacher instruction guide was developed to directly align with existing curriculum themes, so that teachers could easily integrate the 30-minute literacy lessons into their daily routine.

What does a play-based kindergarten program look like, and how can play be used to promote learning? Children learn through play, whether structured play as might occur in an ECE classroom or unstructured play that one might observe children engaging in on a playground.<sup>6</sup> Play builds cognitive, physical, social, and emotional skills and engages young children in the kinds of interactions in which they can fully participate. Play stimulates the brain, fosters creativity,



Children at Read Liberia supported school. Photo credit. RTI.

and helps children regulate their emotions and impulses.<sup>7</sup> Play also gives children outlets for energy, all things that are not fostered when young children are expected to sit still and listen to the often one-directional instruction that comes from teachers in a non-play-based approach to instruction.

For Read Liberia, developing a play-based model for kindergarten instruction meant embedding stories, singing, dancing, role playing, and rhyming throughout lessons, encouraging all children to learn and practice new vocabulary, play with letters and letter sounds, and both ask and answer questions. Through the Read Liberia kindergarten program, children were encouraged to be children and to bring their innate curiosity, hunger to learn, and energy to every task.


More specifically, Read Liberia collaborated with the MOE's Bureau of ECD to develop a teacher instruction guide<sup>8</sup> organized by thematic area (**Figure 2**) and a Student Activity Book<sup>9</sup> (**Figure 3**) that incorporated engaging pictures, simple vocabulary, and places to draw and practice forming letters. The daily 30-minute lessons emphasize interactive whole-group as well as play-based small-group activities, such as read aloud, vocabulary, phonological awareness, and letter recognition activities. Prior to using these materials, teachers were trained on how to use them; subsequently, they were trained again as a refresher halfway through the school year. Teachers also received monthly coaching support from Read Liberia coaches.

Figure 2: Sample Page from the Read Liberia Kindergarten Teacher Guide

**Week 2 • Day 1**

Week 1 • Day 1

Fatuma and Armah Run



<b>Theme</b>	<b>Me and My Family</b>
<b>Sub-Theme</b>	<b>My Body</b>
<b>Vocabulary</b>	<b>legs, feet, arms</b>
<b>Objectives</b>	By the end of the lesson, student should begin to: <ul style="list-style-type: none"> <li>• Listen to a short story</li> <li>• Tell who the story is about</li> <li>• Act out the story</li> </ul>
<b>Suggested Resources</b>	<i>Student Activity Book</i> , page 6

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**Introduction** **5 minutes**

Use the vocabulary words **legs, feet, arms** to introduce the story.

- Today you will listen to another story about Fatuma, Armah, and Yammah. You will find out what they are good at. This is something they use their legs for.
- What do we use our legs for? Our feet? Our arms?
- What do you think Fatuma and Armah are good at? Listen and find out.

**WHOLE GROUP** **10 minutes**

**Read Aloud: Fatuma and Armah Run**  
Have students look at the picture on page 6 of the *Student Activity Book*.

Point to and read the title.

- This is the name of the story.
- Who can remember what the name of a story is called? (title)
- Let's look at the picture together. What do you think the story will be about?

Read the story aloud with expression and gestures.

**Fatuma and Armah Run**

Fatuma and Armah love to run. They can run fast. Their **feet** move fast. Their **arms** move fast. Fatuma and Armah race home from school. They pass their friend, Yammah, walking slowly along the road. "Wow!" Yammah said, "your **legs** move so fast!" "Thanks Yammah!" said Fatuma. "See you at school tomorrow, Yammah," said Armah.

**Discussion Questions**

1. Who are the children in this story?
2. What do Fatuma and Armah love to do?
3. What is the name of Fatuma and Armah's friend?
4. Look at the picture. What parts of Fatuma's body are moving when she runs?

**SMALL GROUP** **10 minutes**

**Role-playing**  
Ask 3 students to act out the story.

Model one role to start.

In groups of 3, have students act out the story, using the picture to help them remember it.

As you walk around, ask:

- How did you decide who was Fatuma? Armah? Yammah?
- Where do you think Fatuma and Armah are running to?
- Where do you like running to?

**Teacher TIP** ✓

Remember to ask questions that relate the story to everyday life.

**Conclusion** **5 minutes**

Have students act out the story again, replacing running and walking with other actions (*hopping, skipping, jumping*).

**Remarks**

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6 *Read Liberia Activity, Kindergarten*

Figure 3: Sample Page from Read Liberia Kindergarten Student Activity Book


**Week 6 • Day 1**

**Yammah, Fatuma, and Armah Eat**




26 *Read Liberia Activity, Kindergarten*


**Week 6 • Day 2**



smell



taste



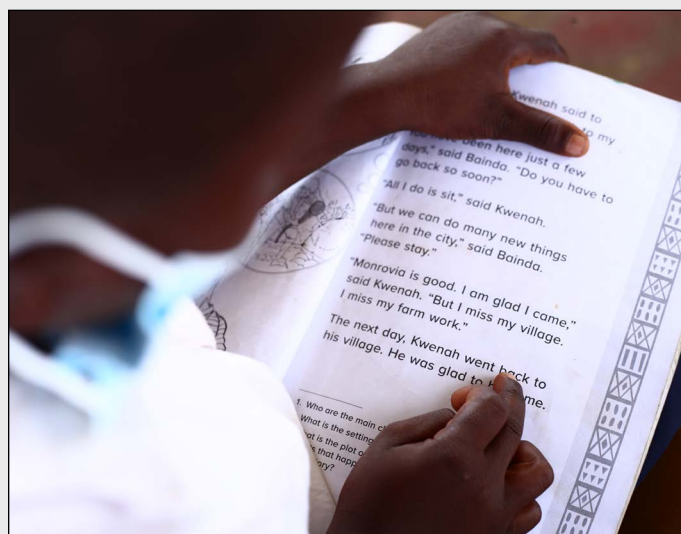
delicious

27 *Read Liberia Activity, Kindergarten*

## KINDERGARTEN PILOT EVALUATION

To measure the impact of this pilot, Read Liberia conducted an impact evaluation to measure differences in performance on four emergent literacy skills as a result of the piloted model. The evaluation measured the performance of children in schools with a Read Liberia-supported kindergarten class and compared that performance with the performance of a comparison group: children in schools without a Read Liberia-supported kindergarten class.

Read Liberia intended to pilot test this kindergarten model from August 2018 through September 2020, collecting baseline (pre-test) data on student emergent literacy skills in September 2018 and endline (post-test) data on those skills in September 2020 (once children who had completed the full year of the kindergarten pilot entered grade 1). However, the COVID-19 global pandemic closed schools in March 2020, and children who had gone through the pilot program were out of school from March 2020 through February 2021<sup>10</sup> and not able to be post-tested



*Child Reading from Read Liberia Let's Read book. Photo credit. RTI.*

until March 2021. At both baseline and endline, all children were tested in four skills: expressive vocabulary, letter name identification, letter sound identification, and listening comprehension (**Table 1**).

*Table 1. Kindergarten Pilot Impact Evaluation Assessment Tasks*

Task	Emergent literacy skill	Skill demonstrated by child's ability to:
Expressive Vocabulary	Oral language	List words in a specific category (e.g., animals, foods)
Letter Name Identification	Letter recognition	Identify letter names by sight
Letter Sound Identification	Phonological awareness	Identify letter sounds
Listening Comprehension	Listening comprehension, oral language	Respond correctly to different types of questions about a text read aloud

## EVALUATION RESULTS

Using a difference-in-difference analysis of the average gain in Read Liberia pilot schools above and beyond comparison schools, we see a significant and meaningful impact of the Read Liberia kindergarten pilot on two of the four tasks: letter sound identification and listening comprehension.<sup>1</sup>

<sup>1</sup> Statistical significance at  $p < .01$  for difference-in-difference comparisons and at  $< .001$  for regression analyses.

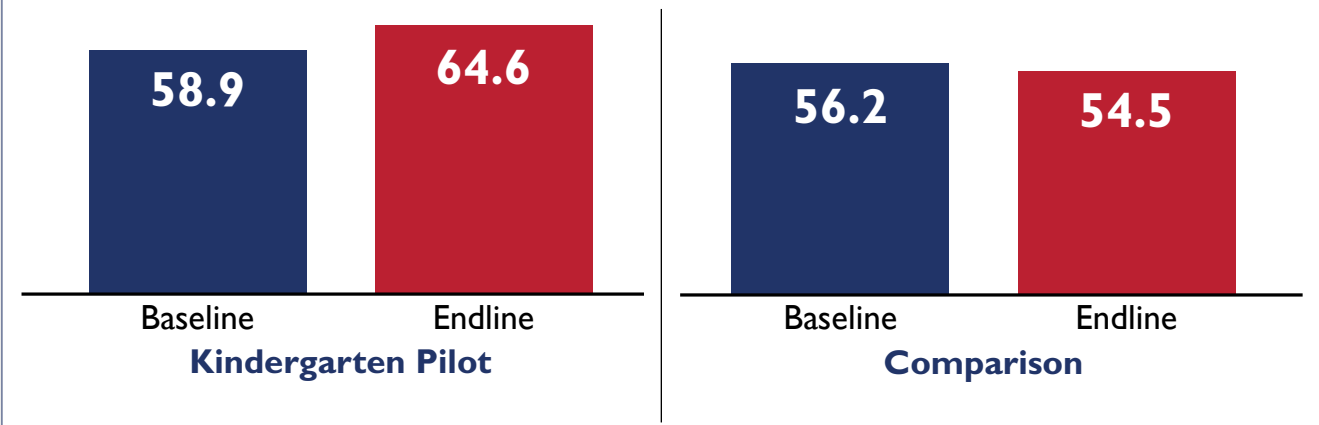
## LETTER SOUND IDENTIFICATION

Being able to identify letter sounds is a fundamental early reading skill, and in this task children were shown four letters and asked to produce the sound each letter makes.

While the average correct scores of children in comparison classes declined slightly between baseline and

endline on this task (from 56.2% to 54.5%), kindergarten children in the Read Liberia kindergarten pilot improved over time (from 58.9% to 64.6%) (Figure 4). This is true even given school closures and a year delay in conducting endline data collection.

Figure 4: Letter Sound (% correct out of 10) Results of Kindergarten Pilot and Comparison Students at Baseline and Endline



## LISTENING COMPREHENSION

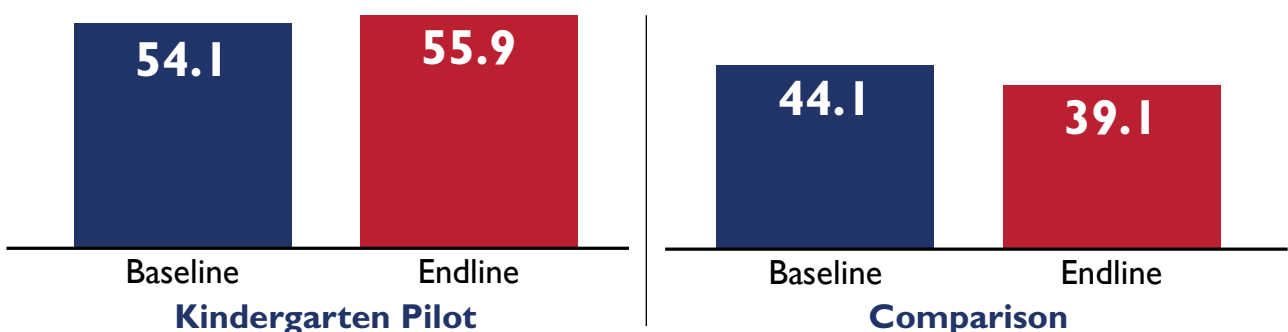
Listening to and being able to comprehend the meaning of a story is important for children's literacy development. In this task, children listened to the assessor read a short passage about a cat stealing a dog's hat and answered five comprehension questions. The questions measured both explicit comprehension (e.g., "What color was the dog's hat?") and inferential comprehension (e.g., "Why did the dog chase the cat?").

Listening comprehension performance increased slightly for the Read Liberia kindergarten pilot children, with a mean increase from 54.1% to 55.9% over time (just over 2¼

questions answered correctly, on average) even with COVID-19-related delays (Figure 5). However, performance declined for comparison students over time (from 44.1% to 39.1%).

Interestingly, this listening comprehension task was the most challenging of the four tasks for both groups of children. At endline, nearly one-third (30.4%) of comparison students could not answer even one comprehension question correctly. However, this percentage was only 12.7% for the Read Liberia kindergarten pilot children, which further shows that the kindergarten program helped prepare children for success in grade 1.

Figure 5: Listening Comprehension (% correct out of 5) Results of Kindergarten Pilot and Comparison Students at Baseline and Endline



## REGRESSION ANALYSIS

To better understand the impact of the Read Liberia pilot apart from other factors that could impact children's performance, a regression analysis was conducted, controlling for variables associated with the pilot outcomes. This analysis showed that the impact of being in the Read Liberia kindergarten pilot was positive and significant for three of the four skills: expressive vocabulary, letter name identification, and listening comprehension.

- For the expressive vocabulary task, Read Liberia pilot children on average scored 6.5 percentage points higher than comparison children. Scores on this task declined from baseline to endline for both groups, but there was less of a decline for Read Liberia pilot children: at endline, Read Liberia pilot children listed 58.4% of the total words possible, while comparison children listed only 48.7% of the total number of words possible.
- For the letter name identification task, Read Liberia pilot children scored 5.6 percentage points higher than comparison children. At endline, Read Liberia pilot children knew 90.2% of the letter names, compared with 80.8% for comparison children.
- For the listening comprehension task, Read Liberia pilot children scored 9.3 percentage points higher than comparison children.



Teacher conducting a lesson in Read Liberia supported school. Photo credit. RTI.

*“My confidence level in teaching literacy and language skills has changed and really improved since my participation in Read Liberia. I would have never taught a lesson freely with strange people sitting in my class and watching me, I would have given an excuse and didn't even show up for class today. My method of engaging the entire class during the lesson is amazing. I sometimes wonder if I am the same person.”*

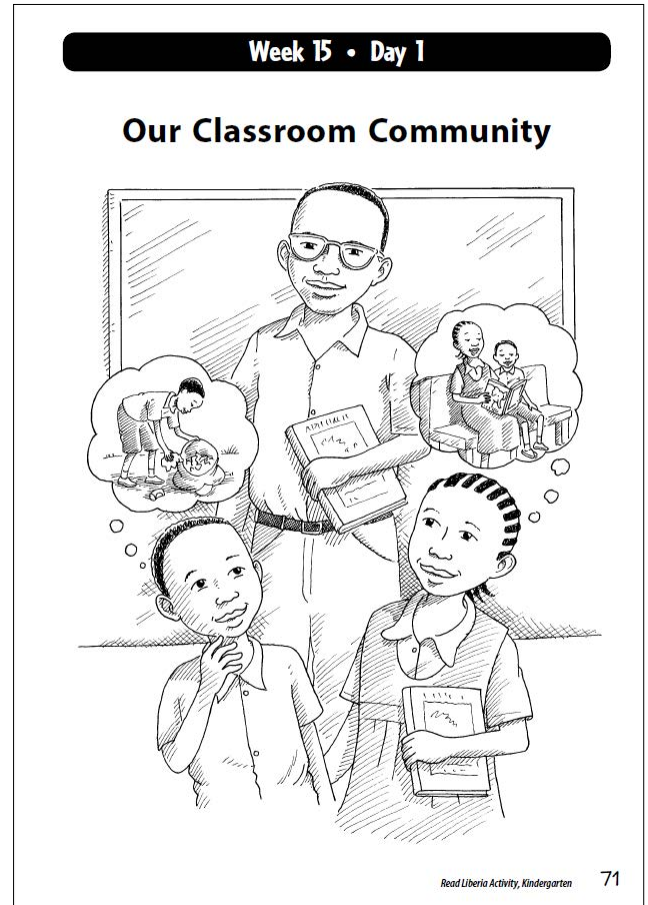
**- Read Liberia Kindergarten Pilot Teacher**

## KEY TAKEAWAYS AND IMPLICATIONS

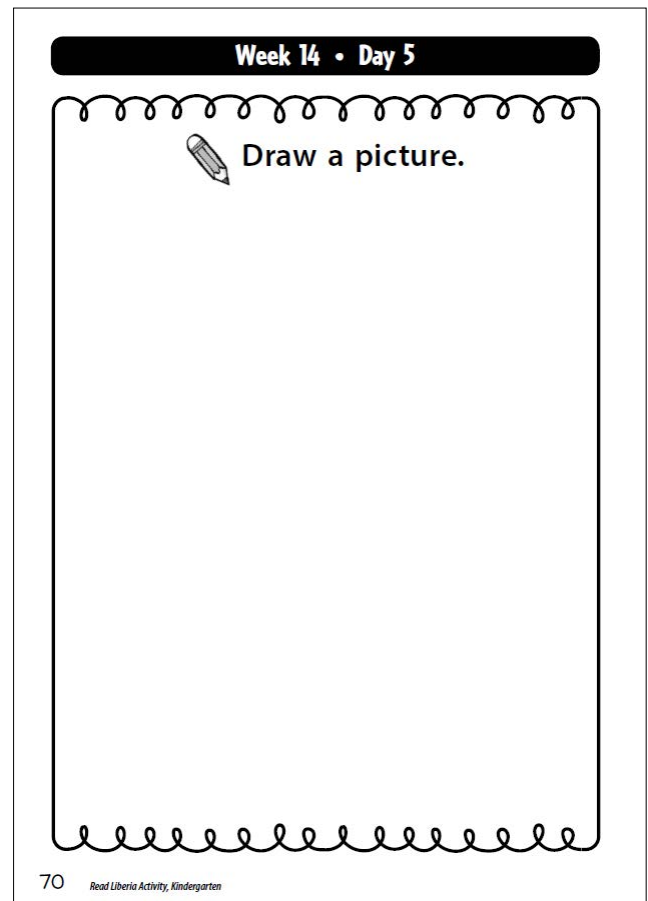
It is important to note that interpreting and generalizing these impacts is challenging given the impact COVID-19-related school closures had on the duration of the pilot and the timing of the impact evaluation endline data collection. While the COVID-19 context impacted both children in the Read Liberia pilot and those in the comparison group, it was not possible to measure the degree of impact across all facets of children's lives and experiences, and so it is not possible to quantify the role COVID-19 may have played in the results. However, it appears that the Read Liberia pilot increased children's skills relative to their comparison peers for some skills, and for other skills, the pilot may have just kept children from backsliding, insulating them from losing skills as steeply as they might have without the program.

Even in the face of a system-level shock such as a global pandemic, these data suggest that the learning losses experienced by children as a result of school closures may have been mitigated by a quality kindergarten program, at least in the domain of expressive language. The COVID-19 shutdown has affected children's lives in ways this study could not capture. Nevertheless, this study shines a bright light on the impact that quality programming for young children can have, even in the darkest of times.

Figure 6: Sample Pages from Read Liberia Kindergarten Student Activity Book



Student reading from Read Liberia Student Activity Book. Photo credit: RTI.





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**Authors: Cat Henny, Jennae Bulat, Ana Robledo**

- [1] Stumbling at the first step: Efficiency implications of poor performance in the foundational first five years
- [2] Taking preprimary programs to scale in developing countries | RTI
- [3] The situation for children in Liberia | UNICEF Liberia
- [4] The situation for children in Liberia | UNICEF Liberia
- [5] MoE – Liberia – Show The Light, The People Will Find The Way (moeliberia.com)
- [6] The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds | American Academy of Pediatrics (aappublications.org)
- [7] Importance of Play in Early Childhood (9 Benefits & Infographic) (parentingforbrain.com)
- [8] Read Liberia Activity Kindergarten Teacher Instruction Guide | SharEd (rti.org)
- [9] Read Liberia Activity Student Activity Book Kindergarten Part I | SharEd (rti.org)
- [10] Schools officially reopened in December 2020; however, for a variety of reasons—including concerns about COVID—many parents did not start sending their children back to school until January or early February 2021, and so enrollments were not high enough to conduct a post-test until March 2021.



*Student reading from Read Liberia Student Activity Book. Photo credit. RTI.*

### **More Information:**

The USAID Read Liberia Activity is a five-year (September 2017–September 2022) program that aims at improving early grade reading skills for Liberian students in 640 public schools in grades 1 and 2. Read Liberia also pilot tested a program to develop emergent literacy skills for Liberian students in 60 public kindergarten schools. The Activity is implemented in six targeted counties—Lofa, Bong, Grand Bassa, Nimba, Margibi, and Montserrado. Read Liberia is funded by USAID and implemented by RTI International with subcontractors Another Option, Brattle Publishing Group, and Diversified Educators Empowerment Program (DEEP) through direct partnership with the Liberian MOE.

**USAID/Liberia**  
**Read Liberia Activity**  
**Chief of Party: Trokon Wayne**

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