

# Building Literacy Ecosystems

IREX's approach to community-based early literacy programs

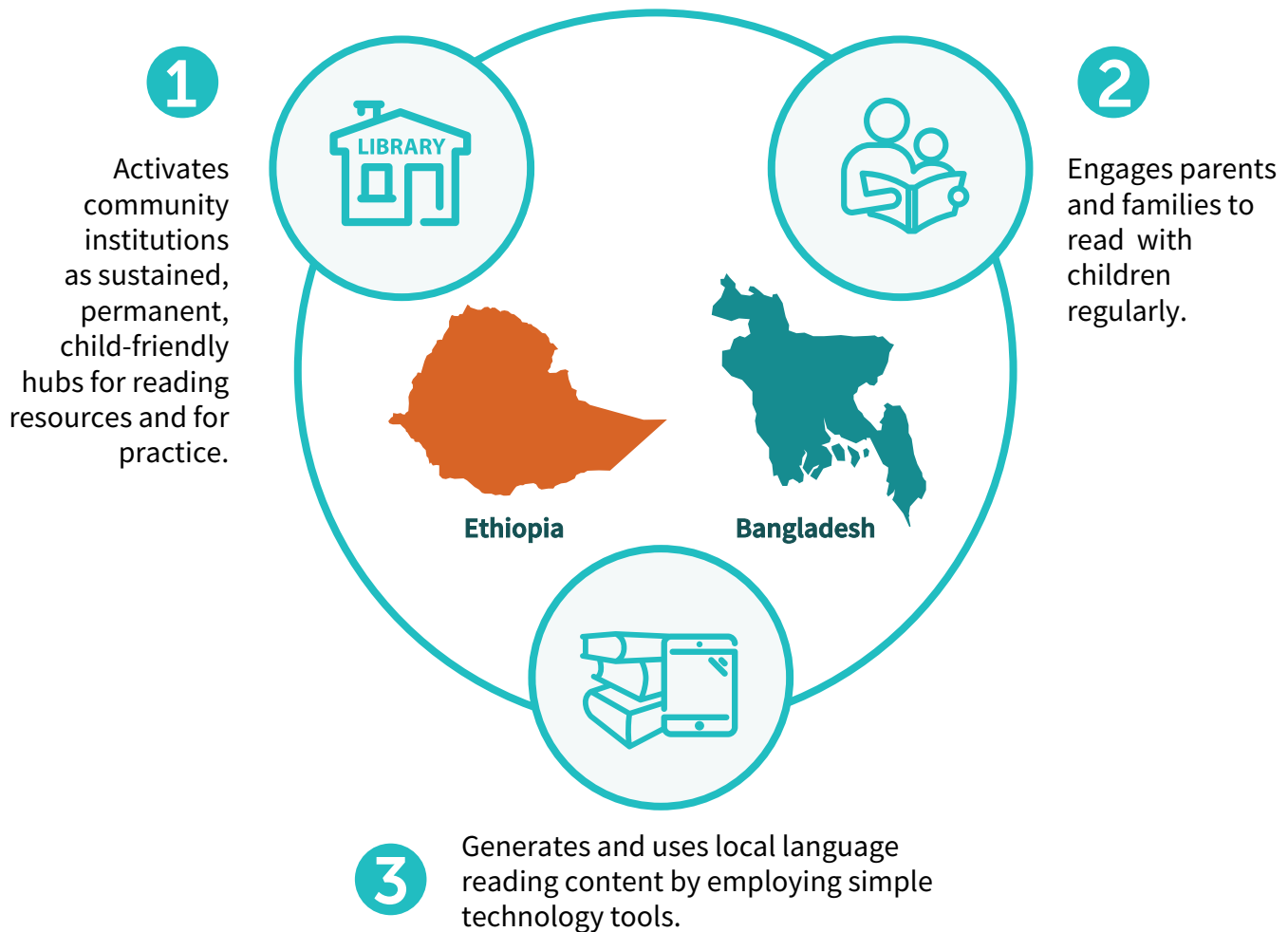


# Executive Summary

Schools alone aren't enough to support literacy, especially where persistent rates of childhood illiteracy exist. They can't provide the amount of time, practice, and repetition necessary for children to learn how to read. Literacy interventions need people who can think creatively about using resources outside of and in connection with schools and who can consider the entire literacy ecosystem of a community.

Since 2013, IREX has been implementing a community-based model for early literacy that uses libraries as leading partners. This approach enhances school-based early literacy interventions in three ways:

“ According to the Global Reading Network, **250 million** children around the world are not learning foundational learning skills, **130 million** of whom have spent at least four years in school.<sup>1</sup> ”



IREX has used this approach in Bangladesh, Ethiopia, and the Philippines. As a result, children have a greater exposure and proximity to text, spend more time reading, and have improved reading outcomes.

Increased exposure to text	Increased time spent reading	Improved reading outcomes												
Ethiopia	Ethiopia	Bangladesh												
Percentage of students visiting libraries who reported having storybooks at home	Average number of days per week library users reported reading outside the classroom	Number of words read aloud correctly from most frequently used words												
 <table><thead><tr><th>Point</th><th>Percentage</th></tr></thead><tbody><tr><td>baseline</td><td>36%</td></tr><tr><td>endline</td><td>52%</td></tr></tbody></table>	Point	Percentage	baseline	36%	endline	52%	 <table><thead><tr><th>Point</th><th>Days per week</th></tr></thead><tbody><tr><td>baseline</td><td>0.9</td></tr><tr><td>endline</td><td>2.7</td></tr></tbody></table>	Point	Days per week	baseline	0.9	endline	2.7	<div><div>75%</div><div>Non-User</div></div> <div><div>86%</div><div>Library User</div></div>
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Percentage of children whose parents read aloud to them	Percentage of children who said they spent time reading with friends	Total correct comprehension answers (out of 10)												
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# Global Literacy Rates Have Stagnated

Globally, 250 million children lack basic literacy skills.<sup>2</sup> When we imagine a global community that is just, prosperous, and inclusive, we think of a place where those 250 million children have the resources and support they need to learn how to read.

One of the Millennium Development Goals was achieving universal primary education. Great strides have been made towards this goal, and 91% of primary-school-aged children were enrolled in schools by 2015.<sup>3</sup> However, globally, literacy growth rates have stagnated. Success in increasing global enrollment rates has revealed that schools alone are not able to solve illiteracy.

First, a pressing global teacher gap, in both quantity and quality, is impacting education. Around 24.4 million teachers will need to be recruited and trained to reach the 2030 Sustainable Development Goals.<sup>4</sup> Among current primary school educators, only 93% have the minimum qualifications to teach, and even more lack recommended levels of in-service training.<sup>5</sup> Teachers are often underpaid, unsupported, and stretched thin, which in some countries leads to high attrition rates.<sup>6</sup>

Second, children have limited instruction time in their classrooms. To accommodate teacher shortages amid expanding school enrollment, many countries have increased classroom size and moved to splitting shifts, ultimately decreasing the amount of classroom time children have. For example, in Bangladesh, most first graders in the newly nationalized public schools are in a classroom with 60-70 students for only four hours a day.<sup>7</sup>

More children are spending time in school, but many are still not learning the basic reading skills they need.



## In Ethiopia,

**32%** of children are out of school and **76%** of youth have not completed primary education, according to 2014 data from the Education Policy and Data Center.<sup>8</sup>



## In Bangladesh,

**45%** of students in newly nationalized primary schools could not read at all by the end of Grade 2, according to a 2016 baseline survey by Save the Children.



# Why Do These Problems Persist despite Decades of Effort?

Quality reading instruction is an essential but insufficient condition for ensuring basic literacy skills. Reading is a skill that takes time, repetition, and practice. Quality instruction lays an essential foundation for reading, but in many cases there isn't enough classroom time for children to get the necessary level of practice.

When governments and donors target investment in education exclusively to schools, they miss out on reaching children outside the classroom, where, as research has shown, much of early learning takes place. Schools alone can't teach children how to read.

Instead, we must consider the entire literacy ecosystem of a community. Literacy interventions need to think creatively of how to use resources outside of and in connection with schools. They need to collaborate with community-based partners that are able to maintain a literacy ecosystem, which in turn supports and promotes the practice of reading.

In the best-case scenarios, kids spend **15–20%** of their time in a classroom. In most of the countries dealing with low literacy rates, this rate is as low as **7–10%**. And only a fraction of that is dedicated to learning to read.



# A Literacy Ecosystem



## Family and community engagement

Research consistently demonstrates that family and community involvement in education is a leading indicator of higher academic performance, school quality improvement, and literacy achievement. Children need adults, siblings, neighbors, and others who will support and encourage reading practice outside of school.

### Barriers:

- Community members assume that if they are illiterate, they don't have anything to offer to a child learning to read.
- Adults don't model reading habits, particularly reading for pleasure.
- A high demand on a caregiver's time spent on other activities competes with time spent reading with their child.



## Time spent reading

Reading is a skill that needs consistent practice. Children require time to practice words they are familiar with by encountering them in different books and places. This is how children can build their vocabulary, but it is a slow and tedious process. Cultivating a habit of reading in early grades lays a foundation for academic success in later grades.<sup>10</sup> It helps children make the essential transition from learning to read to reading to learn.

### Barriers:

- Limiting reading activities to only school reinforces the association of reading skills with academics, rather than as a universal life skill.
- Rote learning in school leads children to interpret reading as a burdensome chore rather than an enjoyable habit.
- Limited access to reading materials outside the classroom creates less opportunities to read.



## Access to diverse, relevant, and engaging reading materials

For children to feel motivated to engage in the amount of practice needed to master reading and have support for further learning, they should be able to access materials that are enjoyable and that propel them to keep reading. Particularly for early readers, books need to be tailored to the language(s) and places that children know. The context that children are familiar with can be used as scaffolding to help them make sense of what they are learning to read.

### Barriers:

- A lack of materials in the languages children speak at home and are learning to read in at school.
- An over-reliance on textbooks and a lack of resources that are focused on being engaging and fun.



# How IREX Strengthens Reading Ecosystems

To address these problems, IREX developed and tested a community-based model that uses libraries as key partners in early literacy programs and develops librarians as advocates within a community's literacy ecosystem. This approach enhances school-based early literacy interventions in three ways:

1

Activate community institutions as child-friendly hubs for reading

Librarians transform spaces in their library to be child-friendly and print-rich.

Librarians offer ongoing literacy activities that engage children in reading outside of school.

Libraries form a community to share best practices and lessons learned.

2

Engage parents and families in reading together with children

Librarians coordinate activities with local schools and serve as a link to parents and community members.

Librarians model reading mentorship and support through the activities they host at their library.

3

Generate and use local reading content by employing simple technology tools

Librarians use tablets as a tool to engage early grade readers with age-appropriate books and games.

Librarians engage the community in creating early grade reading materials in local languages.

# What Makes the Approach Work?

## *Safe and engaging learning spaces outside of school*

Child-friendly spaces are incredibly rare in low-resource communities. Offering a safe space for children outside of school and home draws children into this learning environment.

## *Engaging and relevant resources*

Tablets provide novelty, excitement, and interactivity that pulls children into the library and encourages the use of both digital and print materials.

## *Adult and peer-to-peer engagement in reading*

A shared community space and shared interactive technology encourages both adult and peer engagement in literacy activities.

## *Librarians as advocates and change makers*

IREX's approach empowers librarians to play an important role within literacy ecosystem by serving as connectors between teachers, parents, and students, and as advocates for literacy support within the community.

## Why a Community-Based Approach?

IREX's approach responds directly to the key barriers to building a broader literacy ecosystem.



### Family and community engagement

#### Barrier

#### Response

Community members assume that if they are illiterate they don't have anything to offer to a child learning to read.

Community engagement activities directly address the stigma of illiterate parents, and give all community members, despite their literacy level, specific ways to support a literacy ecosystem in their community.

Adults don't model reading habits, particularly reading for pleasure.

Librarians serve as literate role models and help create a text-rich environment where reading is associated with fun.

Demand on a caregiver's time spent on other activities that competes with time spent reading with a child.

Parents can encourage and enable their children's visits to the library, participation in reading activities, and reading practice even if time constraints don't allow them to fully engage themselves.





## Time spent reading

### Barrier

Limiting reading to only school reinforces the association of reading skills with academics, rather than as a universal life skill.

Rote learning in school leads kids to interpret reading as a burdensome chore rather than an enjoyable habit.

A limited access to reading materials outside of classroom creates less opportunities to read.

### Response

Engaging and entertaining literacy activities outside of school promotes reading as more than just an academic skill.

Transforming libraries into a child friendly space filled with books, games, and toys connects reading with fun.

Filling libraries with relevant and engaging reading materials in both print and digital formats increases access through shared community space and makes resources available to everyone.



## Access to diverse, relevant, and engaging reading materials

### Barrier

A lack of materials in the languages children speak at home and are learning to read in at school.

An over-reliance on textbooks and a lack of materials that are focused on being engaging and fun.

### Response

Providing simple tools and processes for creating books enables librarians to engage the community in generating content in local languages.

Technology provides a pull factor into the library with education applications that introduce a new form of interactive learning. Once in the library, children can benefit from a shared community resource of engaging and entertaining content in both digital and printed form.

# What We Achieved

Starting in 2015, IREX has experimented with complementing school-based reading programs with community activities in Bangladesh, the Philippines, and Ethiopia. As a result, children participating in these initiatives had an increased exposure to text, spent more time practicing reading, and improved their reading performance.



## Increased exposure to text

Children in IREX community literacy projects are exposed to more text both at the library and at home. This increased exposure was the result of:

- Increased visits to the library.
- Greater participation by children and caregivers in literacy activities.
- Increased access to books at home.

As a result of the project, **more children were visiting the library more often.** This is particularly meaningful since in low resource environments exposure to text (even in the forms of signs, labels, etc.) is often extremely limited. Visiting the print-rich environment of the library means greater exposure to text for these children.

### Ethiopia



Children visited libraries

**87,000**  
times.



over a **9-month** period

### Bangladesh



Monthly average  
library visits  
increased by 60%.



Children visited  
project libraries  
**100,000**  
times.



over a **20-month** period

As a result of the project, **more children and adults participated in literacy activities outside of school.** Beyond providing access to a print-rich environment, libraries take an advantage of their shared community space to actively engage children and families in literacy activities, such as storytimes

and community reading fairs. These activities provide additional learning opportunities for children and model literacy engagement for caregivers.



over a **9-month** period

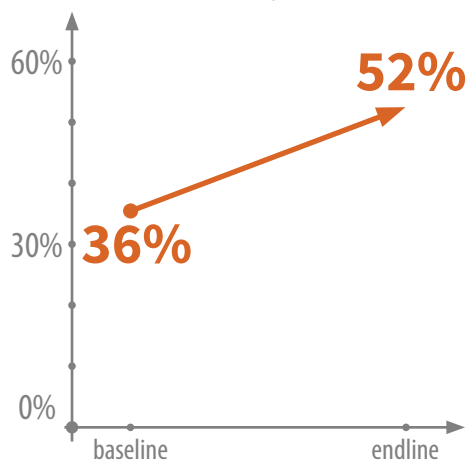


over a **20-month** period

By the end of the IREX projects, more children reported having access to storybooks at home. Not only are children benefiting from shared resources of the library, but library advocacy is galvanizing community and family support of literacy activities outside of classroom.

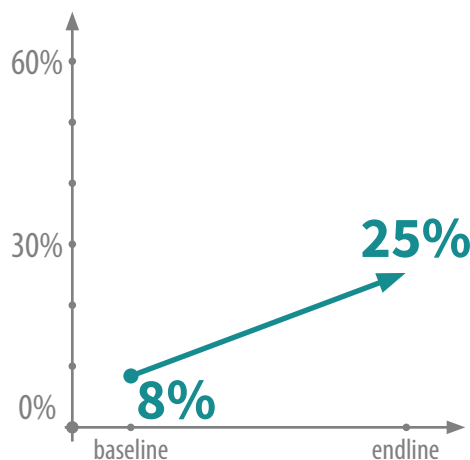
#### Ethiopia

In nine months, the percentage of students visiting the library who reported having storybooks at home



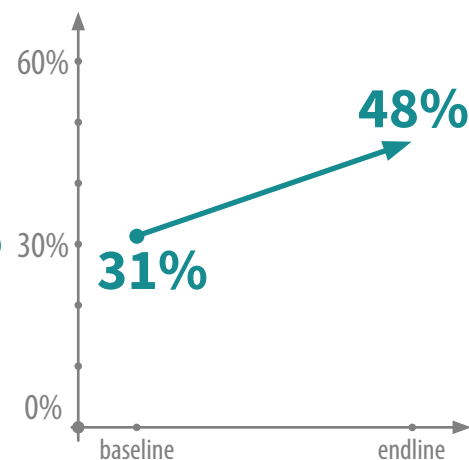
#### Bangladesh

In 18 months, the percentage of children who live in a household with storybooks



#### Bangladesh

The percentage of children whose parents read aloud to them





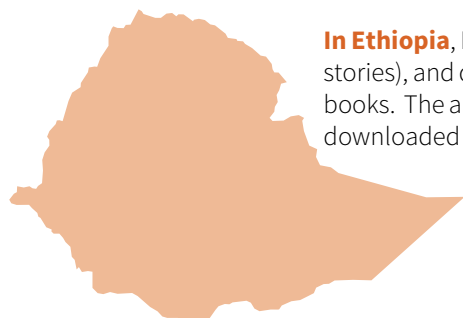
IREX found that **print and digital text can complement each other**. The novelty of technology often draws children into the library, and the apps help prompt active engagement with text. Meanwhile, the project's usage statistics imply that most children used both types of materials when they came to the library. Many of the libraries saw an increased number of print books being used and checked out from the library.



**In the Philippines**, IREX worked with librarians to mobilize community members in creating print books in the mother tongue used in their communities.



**In Bangladesh**, in partnership with Save the Children, IREX deployed tablets loaded with already existing literacy apps in Bangla along with a selection of 250 print books that Save the Children uses in its Reading Corners.



**In Ethiopia**, IREX worked with local developers to create three categories of apps (letter, words, stories), and deployed these apps via tablets to participating libraries along with a selection of print books. The apps were also made freely available on the app marketplace and have been downloaded over 38,000 times.

### Ethiopia

In each library, tablets were used



**525**  
times each  
month.



## Bangladesh

In each library, tablets were used



**150** times each month.



**90** books were checked out for use at home.

## Philippines



**1,300** books were created in 15 communities in less than 12 months.



**35** students used locally created books each week.



## More time spent reading (alone and with others)

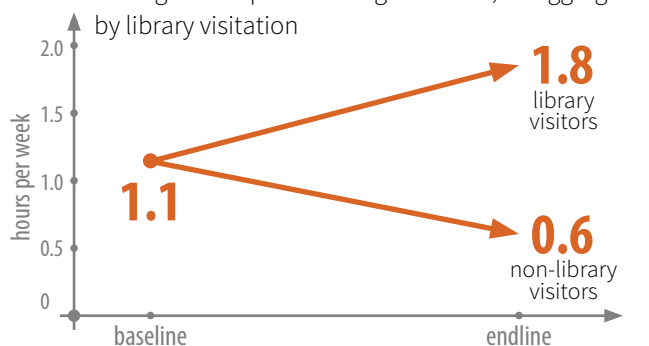
Children that participated in IREX's projects increased the amount of time they spent reading. Over the life of the project:

- Children spent more time practicing reading.
- Children read with greater frequency.
- More children reported reading for pleasure and reading with peers.

Participation in IREX's projects encouraged and increased reading practice. For children to achieve the level of reading proficiency needed to be successful in later grades they should spend time reading in early grades. The more time a child spends reading, the more likely they are to achieve reading proficiency.

### Ethiopia

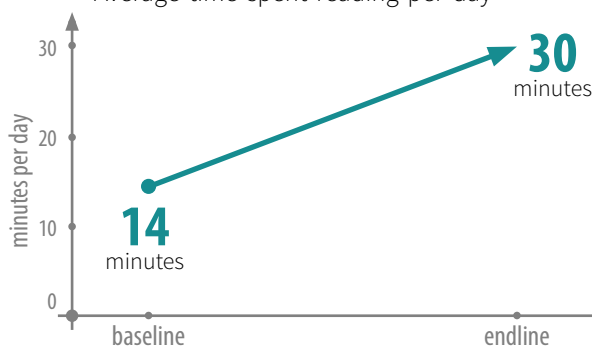
Average time spent reading last week, disaggregated by library visitation



over a 9-month period

### Bangladesh

Average time spent reading per day

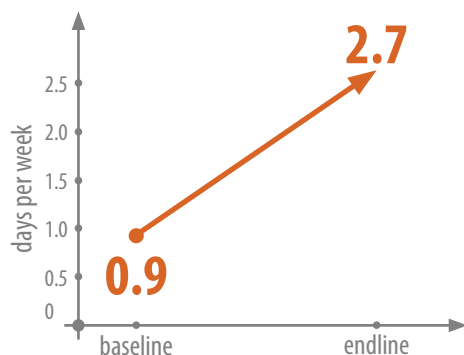


over a 20-month period

Like for any other skill, reading proficiency is achieved by not only the amount of time a person spends practicing, but also by the frequency with which that practice happens. In IREX's projects, children not only spent more time reading, but they engaged in reading practice more often.

## Ethiopia

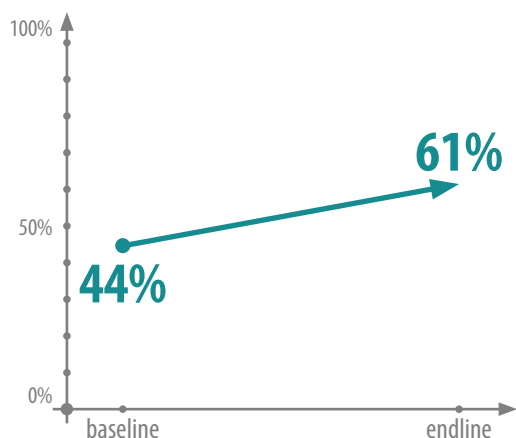
Average number of days per week library users reported reading outside of the classroom



Children that participated in the project also reported reading for fun more frequently. Those same children also reported reading more often with peers over the course of the project. These indicators matter because they point towards the development of reading practice as a universal life skill rather than a strictly academic one.

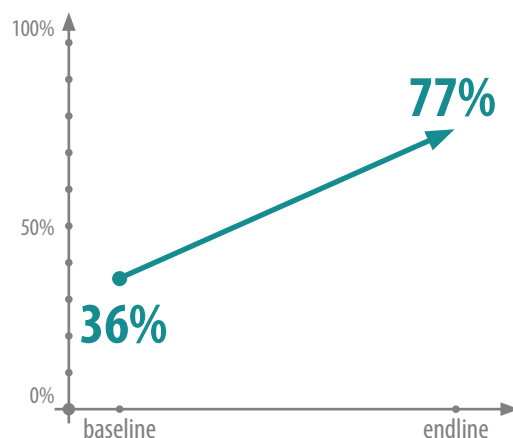
## Bangladesh

Children who reported reading for pleasure increased



## Bangladesh

Children who said they spent time reading with friends

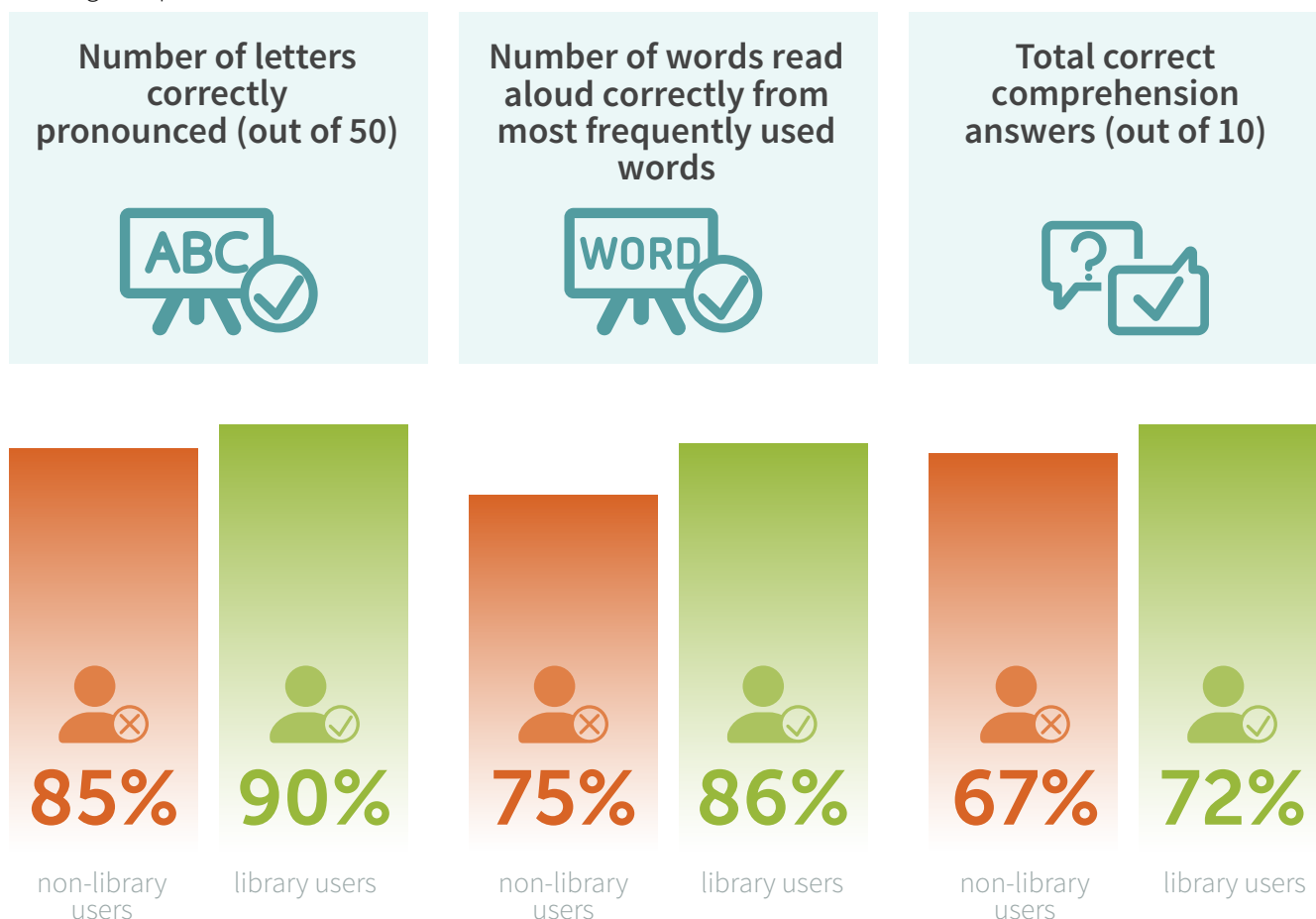




# Improved Reading Outcomes

The goal of increased exposure to text and increased time practicing reading is to improve children's literacy. In Bangladesh, IREX in partnership with Save the Children administered a modified Early Grade Reading Assessment (EGRA) to compare the reading performance of children who participated in the project to those who did not.

The study sampled 236 students in Grades 2 and 3. Among the respondents, 52% were library users and 48% were non-users. Library users outperformed non-users on key reading performance indicators, including reading comprehension.



## A note on EGRA

In USAID-supported projects, the Early Grade Reading Assessment (EGRA) is the gold standard for measuring reading outcomes. This tool was designed for national-level school-based programs. We sought to learn if EGRAs can be applied to community-based literacy projects. In Bangladesh, we partnered with Save the Children, which is currently implementing the USAID-supported READ project. The results provide a promising link between increased time reading and improved reading outcomes. However, adapting an EGRA

to fit a community-based project is challenging and resource intensive. IREX has found that in a community-based project that doesn't have the necessary resources for an EGRA, focusing measurement on access to text and increased time reading is an efficient form of evaluation.

# Recommendations

## More research is needed on how community-based programs support reading outside of school.

A rich body of information exists on school-based literacy programs. However, more research needs to be done to strengthen the evidence of how community-based programs can complement and enhance school programs and support home literacy environments.

While existing evaluative tools, including EGRAs, consider at home environment factors (number of books at home, time spent reading with caregiver, etc.), these tools need to take a broader approach to understand how community-based organizations supplement and improve home environment factors. Areas of exploration include:

1. Understanding how community-based organizations help promote and improve literacy engagement at home.
2. Testing and refining approaches to capture access to text and time spent reading and to build a tighter causal link to improved reading performance.
3. Investigating the ways that shared community resources, like libraries, supplement access and literacy support for children who don't have those resources at home.

## More research is needed on the connections between literacy and technology.

To date, research on the role of technology in learning and literacy acquisition have tended to pit digital technologies against traditional approaches and have primarily looked at individual technology use in classroom settings.

More research needs to be done that takes a medium-agnostic approach. IREX's approach revealed ways in which digital and print resources reinforce one another.

Additional research is needed to understand why and when this happens and what the long-term impacts are, with the goal of creating a set of replicable suggestions for program implementers.

Finally, research needs to investigate unique impacts of shared, community-based technology.

## About IREX

IREX is a global development and education organization that works with partners in more than 100 countries on four areas essential to progress: cultivating leaders, empowering youth, strengthening institutions, and increasing access to quality education and information.

## Contact

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# References

- <sup>1</sup> Global Reading Network, July 3, 2019, <https://globalreadingnetwork.net/>
- <sup>2</sup> Ibid
- <sup>3</sup> "Primary education," UNICEF, July 2018, <https://data.unicef.org/topic/education/primary-education/>
- <sup>4</sup> Jeffrey Sachs, "Education for people and planet: creating sustainable futures for all," UNESCO, 2016, <http://unesdoc.unesco.org/images/0024/002457/245745e.pdf>
- <sup>5</sup> "Many teachers have not received minimum training. In the Caribbean, 85% of primary school teachers are trained. In Northern Africa and Western Asia, 73% of pre-primary school teachers are trained. In sub-Saharan Africa, less than half of pre-primary and less than three quarters of secondary school teachers are trained." Ibid, p.326
- <sup>6</sup> Ibid, p. 338-339
- <sup>7</sup> Save the Children, READ Data, 2016
- <sup>8</sup> Education Policy and Data Center, July 3, 2019, [https://www.epdc.org/sites/default/files/documents/EPDC%20NEP\\_Ethiopia.pdf](https://www.epdc.org/sites/default/files/documents/EPDC%20NEP_Ethiopia.pdf)
- <sup>9</sup> "A NEA Policy Brief: Parent, family, community involvement in education," NEA Education Policy and Practice Development, 2008, [http://www.nea.org/assets/docs/PB11\\_ParentInvolvement08.pdf](http://www.nea.org/assets/docs/PB11_ParentInvolvement08.pdf)
- <sup>10</sup> The Programme for International Assessment (PISA), a triennial survey to evaluate international education systems, finds that daily reading for fun is associated with better performance in PISA. "Do students today read for pleasure?" OECD, September, 2011, <https://www.oecd.org/pisa/pisaproducts/pisainfocus/48624701.pdf>