

THE LUMINOS LEARNING DIFFERENCES APPROACH

INCLUSION OF
CHILDREN WITH
DYSLEXIA IN LITERACY
PROGRAMS IN
LOW-LEARNING
CONTEXTS

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This paper was inspired by the unwavering dedication of the entire team at the **Luminos Fund**. Their commitment to ensuring that all children—including those with learning differences such as dyslexia—can thrive in literacy programs in low-learning contexts forms the foundation of this work. The paper was prepared by principal authors Kirsty Newman and Rastee Chaudhry, with significant guidance and contributions from Luminos colleagues including Manuella Ankrah, Hassen Assen, Caitlin Baron, Kirstin Buchanan, Caitlin Collis, Donnalee Donaldson, Alemayehu Gebre, Amrita Gopal, Matthew Jukes, Aishwarya Kaple, James Kiawoin, Ernesta Orlovaité, Neha Raheel, Michael Stulman, Senyo Tettegah, Katherine Treat, and Edward Tsinigo.

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EXECUTIVE SUMMARY

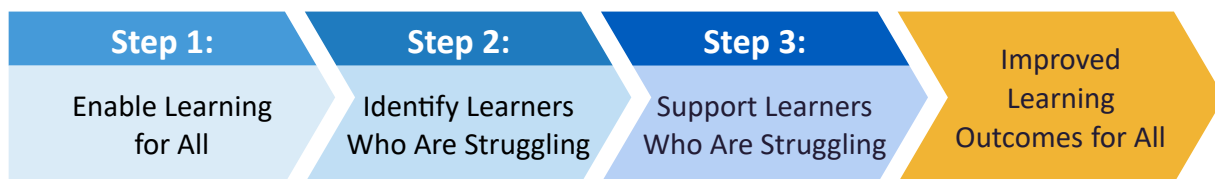
Globally, the single greatest predictor of low literacy is the country in which a child is born.¹ While literacy challenges also exist in high-income countries, the scale of the crisis in low- and middle-income countries is far more severe. In these contexts, even the most advantaged children achieve significantly lower literacy outcomes than the most disadvantaged children in high-income countries.²

Over the past decade, growing political commitment to inclusive education in many low- and middle-income countries has been encouraging. These policies aim to make mainstream education systems more inclusive of all learners, including those with learning differences. However, they consistently overlook a harsh reality: in most of these countries, mainstream education systems are failing to provide children with the instruction they need to actually learn.

As a result, millions of children go to school every day but come away having learned very little. Roughly 70% of children in low- and middle-income countries do not learn to read by age ten—a pivotal point in their learning journey when they are expected to shift from learning to read to reading to learn.³ The consequences are lifelong: children who fail to acquire foundational literacy skills are far less likely to succeed in school, pursue further education, or access opportunities that could transform their lives.

Education systems are failing almost all children in low- and middle-income countries.

Expanding access to children with learning differences in systems where most children are not learning is not the answer. In such environments, achieving inclusivity requires a fundamentally different approach.



The Luminos Learning Differences Approach

All children, everywhere, can learn to read—but only if we provide them with the right support. We propose that in low-income and low-learning environments the first step towards meaningful inclusion of children with learning differences must be radical efforts to implement effective instruction that benefits all children.

There is clear evidence that an approach which includes explicit and systematic phonics instruction is most effective for all children, including those with learning differences such as dyslexia. By contrast, approaches such as “whole word” or “balanced literacy”—common in some parts of the United States—are less effective for most learners and are particularly problematic for children learning to read in African languages which have more regular letter-sound relationships and can convey more meaning per word.

Further, children with learning differences often enter classrooms carrying the weight of negative prior experiences and face additional barriers in learning environments that do not support their needs. Those with visible learning differences are also at higher risk of abuse, violence, and low self-esteem—both at home and in school.⁴ This is why our approach urges that effective instruction must be *inclusive from the outset*. Because every classroom will include children with learning differences such as dyslexia, designing instruction to be both effective and inclusive is not optional—it is essential to ensure no child is left behind.

Only once this first step—implementing effective instruction in an inclusive manner—is in place, then can approaches to monitor learning and provide targeted support become valuable. In Steps 2 and 3 of this paper, we outline how learning can be effectively monitored and how additional targeted instruction can be provided to children who are struggling.

By following the steps outlined in this paper and the policy recommendations provided at the end of each section, policymakers and implementers can ensure that all children have access to the joyful, foundational learning they deserve—unlocking their potential and laying the foundation for a lifetime of opportunity.

INTRODUCTION

The Luminos Fund is an international, non-governmental organization dedicated to ensuring all children have equal access to joyful, foundational learning. Since 2016, we have delivered transformative education programs to children at the margins, enabling them to successfully build foundational skills and catch up to their peers. Through ongoing learning, research, and refinement, we have developed some of the most impactful and cost-effective education programs ever evaluated. To date, our organization has reached 377,626 children across five countries in sub-Saharan Africa and the Middle East.⁵

Luminos' extraordinary impact has been consistently validated by over thirty external evaluations as well as a longitudinal study and randomized controlled trials (RCTs). After ten months in Luminos' accelerated learning program, learners read up to 7.5 times faster than their peers in mainstream schools—a remarkable outcome given that Luminos students come from significantly disadvantaged socioeconomic backgrounds.⁶ Despite these transformative results on average, we recognized that a portion of children in our classrooms were making minimal progress in literacy. With the generous support of the Oak Foundation, we conducted focused inquiry and reflection into this persistent challenge, in line with our commitment to ensure learning for all.

This paper summarizes key insights from our efforts to support children who struggle to learn to read, including those with learning differences such as dyslexia, within low-income and low-learning environments. This paper provides evidence for policy makers, implementers, donors and development partners committed to ensuring that all children—including those with learning differences—realize the central promise of going to school: that they will learn to read.

The Problem: A Global Learning Crisis

Most children in low- and middle-income countries (LMICs) are not acquiring foundational literacy and numeracy skills. Around 70% of ten-year-olds in LMICs, and a staggering 90% in low-income countries, are unable to read and understand a simple text.⁷ This widespread lack of foundational learning has profound negative consequences for children's futures and entire countries' economic development.^{8,9}

A staggering 90% of children in low-income countries are unable to read

Recent research highlights that many children fail to master the most basic building blocks of reading, such as the ability to identify letter sounds and blend them together to decode words. Without these core skills, children struggle to engage with more advanced content, diminishing the effectiveness of later schooling.¹⁰ Children who struggle to keep up in the classroom also exhibit higher levels of stress and lower self-esteem.^{11,12} While challenges in literacy acquisition exist in high-income countries, the extent of the crisis in LMICs is hard to overstate. In fact, even the poorest children in high-income countries learn significantly more than the most advantaged children in LMICs.¹³ However, it is important to distinguish that this is not in any way a reflection of the capabilities of children in LMICs, but rather a failure of education systems to provide them with adequate instruction and learning opportunities.

What Are Learning Differences?

Learning differences include specific learning disabilities (e.g., dyslexia, dyscalculia, and dysgraphia) as well as neurological processing challenges (e.g., attention deficits, sensory processing disorders, and executive function challenges) that can affect learning.ⁱ In high-income education systems, many children with learning differences are formally identified and provided with support. In low-income settings, developing and implementing effective screening is challenging. Nevertheless, statistically we can expect children with learning differences to be present in every classroom—and they will particularly benefit from effective classroom instruction.¹⁴

Dyslexia is the most common learning difference, affecting between 5–17% of children globally.^{15,16} It is a brain-based learning disability that primarily affects a person's ability to read words fluently and/or spell words

ⁱ In the US, the [Individuals with Disabilities Education Act \(IDEA\)](#) references a “specific learning disability” (SLD) as a brain-based disorder that affects an individual's ability to read, write, and do math. The terms “[learning disabilities](#)” and “attention issues” are also terms used to describe “learning differences”. In the [UK](#), a “learning disability” is a reduced intellectual ability and difficulty with everyday activities, whereas “learning difficulties” does not imply reduced intellect. “[Learning difficulties](#)” in the UK context can be equated to a “learning difference” in the US and the term “learning disability” has a different meaning across the two countries. There is less published work on these topics in LMICs; therefore, terminology and definitions are less well established and may differ significantly across settings.

accurately. Dyslexia can hinder reading fluency and comprehension and is associated with challenges in language processing, writing, and even mathematics.¹⁷⁻¹⁹ This paper focuses specifically on literacy instruction and children with dyslexia; however, many recommendations will be relevant to inclusive education more broadly.

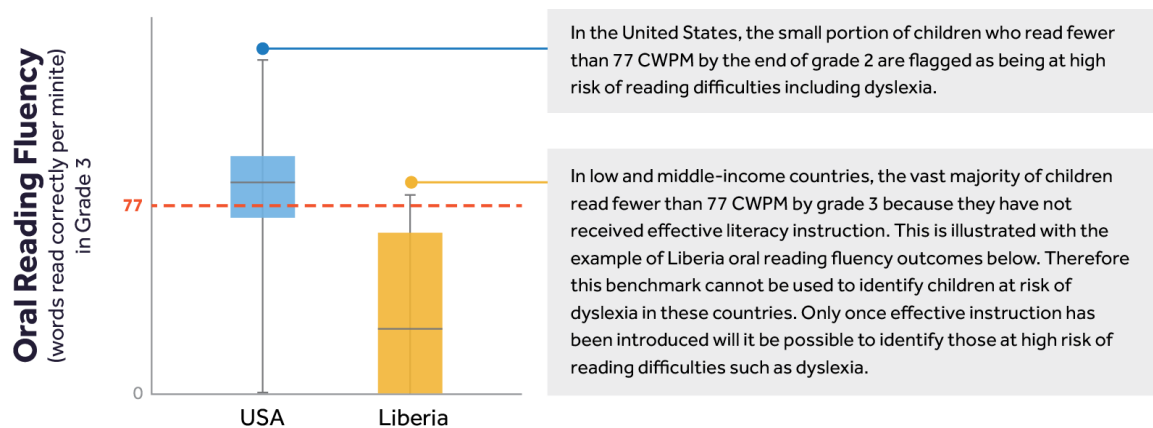
While speaking tends to develop naturally, learning to read requires the intentional formation of neural circuits to connect the sounds of speech to letters written on a page. Children with dyslexia often have difficulty developing these neural circuits.²⁰ All children—especially those with learning differences—need early and repeated exposure to words and text and effective instruction from early years to develop the neural systems necessary for reading.²¹⁻²³

Learning Differences in Low- and Middle-Income Countries

Most research on learning differences has been conducted in high-income contexts where children with learning differences such as dyslexia are typically identified in the early years of schooling based on slow progress in reading. However, as discussed above, the majority of children in LMICs are failing to master foundational learning goals, making it difficult to identify children with learning differences this way.

For example, in the countries where Luminos operates, data from the latest national Early Grade Reading Assessment (EGRA) evaluations reveal that the average second grade child reads between three to twelve correct words per minute (CWPM): twelve CWPM in Ethiopia, eleven CWPM in Liberia, six CWPM in The Gambia, and only three CWPM in Ghana.²⁴ In the United States, children reading fewer than seventy-seven words per minute by the end of second grade are considered at high risk of reading difficulties including dyslexia.²⁵ By these standards, nearly every second grade child in Ethiopia, Ghana, Liberia, and The Gambia would be classified as at high risk for dyslexia.ⁱⁱ

By United States standards, nearly every second grade child in Ethiopia, Ghana, Liberia, and The Gambia would be classified as at high risk for dyslexia



Source:
USA - DIBELS 8th Edition English Learner ORF Percentile Ranks for 2023-24 by end of Grade 3
Liberia - EGRA ORF Percentiles for 2023-24 Government School Children in Grade 3 (data from Luminos Liberia RCT)
Benchmark - DIBELS 8th Edition ORF Words Correct Benchmark Goals 2020 for Children at end of Grade 2

Applicability of USA-based Reading Difficulty Risk Benchmarks to a LMIC context

Given the difficulty in identifying children with dyslexia in low-learning contexts, data on school enrollment, attendance, and academic outcomes for children with dyslexia in LMICs is scarce.²⁶ One literature review focusing on children ages six to thirteen (grades one through six) from sixteen countries, including six LMICs, estimated that the pooled prevalence of dyslexia was 7.1%.²⁷ At the country level, a study of 126 children aged eight to eleven in Ethiopia (half of whom had dyslexia) found that dyslexia was associated with higher levels of anxiety and lower levels of support-seeking coping strategies.²⁸

ⁱⁱ The benchmark used in the USA refers to CWPM in English. In Ghana and Ethiopia, the CWPM scores given are in non-English languages which would likely have slightly different benchmarks.

Inclusive Education Policy

Global inclusive education policies affirm that all children—regardless of ability, background, or circumstance—have the right to access and thrive in quality, mainstream education systems.²⁹⁻³¹ These frameworks advocate for a shift away from segregated schooling models toward inclusive systems that welcome and support every learner. Across LMICs, regional frameworks and national education policies echo these global commitments, placing inclusion and equity at the center of the continent’s education agenda.³²⁻³⁸ These policies tend to focus on two key areas: (i) removing barriers to access mainstream education and (ii) targeted instruction for learners who are struggling. While it is encouraging to see political commitment to inclusive education, these policies overlook a critical reality: most mainstream schools in LMICs do not deliver effective instruction.



Note 1: The key to avoiding a “wait to fail” approach is effective pedagogy from the beginning

We advocate for the use of *effective* pedagogy and inclusive approaches from the outset, ensuring all learners have a better chance to succeed. Remediation and targeted support should follow as needed. Our approach does *not* recommend continuing ineffective instruction and offering remediation only after children fall behind—an approach which has been widely termed the “wait to fail” model.

The Luminos Learning Differences Approach

Evidence shows that the approaches proven to work for children with dyslexia are the same approaches that benefit all children learning to read—comprehensive literacy approaches incorporating explicit phonics instruction.³⁹ Even in the United States, the push for evidence-based reading instruction (i.e., incorporating phonics) which has led to large statewide gains in early reading for *all* children was driven by the learning-differences community, who demanded teaching aligned with the science of reading.^{40,41} For example, the Literacy-Based Promotion Act signed into effect in Mississippi in 2013 was inspired in part by Mississippi Governor Phil Bryant’s own struggle with dyslexia and catalyzed a statewide shift toward inclusion of phonics-based instruction.^{42,43} When adjusted for socioeconomic and demographic factors, Mississippi’s fourth-grade reading results are now the best in the nation.⁴⁴ Children who are lagging do not generally need a *different* prescription; rather, they need a more intensive dose of the same prescription—effective instruction.⁴⁵

In this paper, we build upon the existing discourse on inclusive education in international development and argue that effective literacy instruction must be integrated as a critical first step, alongside the inclusive practices that are often highlighted in global frameworks (see **Note 1**). While implementing effective instruction in low-income and low-learning settings may appear daunting, emerging evidence demonstrates that it can be achieved in cost-effective and scalable ways.^{46,47} Only once this foundation is established can education systems begin to reliably identify and provide targeted support to learners who are falling behind.

The three-step **Luminos Learning Differences Approach** is presented in the chapters that follow. With generous support from the Oak Foundation, we have commissioned research, gathered data, and iteratively refined our approach to maximize literacy outcomes for children with learning differences such as dyslexia in four African countries: Ethiopia, Ghana, Liberia, and The Gambia. We offer this paper as a practical contribution to efforts to ensure foundational learning programs in low-income and low-learning contexts are inclusive.

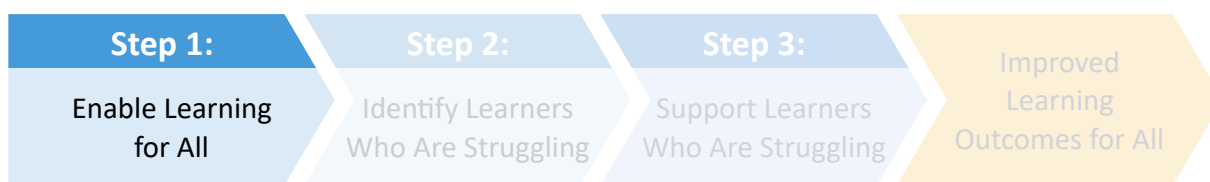


The Luminos Learning Differences Approach

To illustrate the approach, you will find the following embedded across the paper:

- **Case Studies:** illustrative stories drawn from the Luminos program.
- **Notes:** important notes or distinctions, or deep dives into specific areas of Luminos’ work.
- **Luminos Method References:** links to elements of the Luminos Method, offering a more detailed explanation of the approach.

STEP 1: ENABLE LEARNING FOR ALL



The Luminos Learning Differences Approach

This first section on “Step 1” is the most extensive part of this paper—and intentionally so. Today, millions of children around the world are denied the opportunity to learn. By focusing on the best and most scalable ways to support learners who struggle to learn how to read, we can improve learning outcomes for all children.

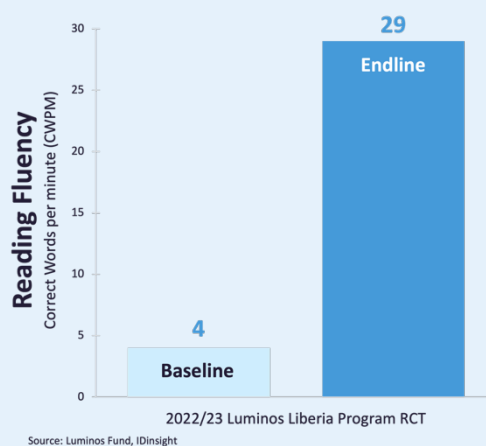
1.1: Effective Instruction

Teaching literacy through comprehensive reading instruction, including explicit phonics-based approaches, supports all children learning to read.



Case Study 1: Remarkable learning gains using phonics-based approaches in Liberia

A 2023 randomized controlled trial (RCT) of the Luminos accelerated learning program in Liberia found transformative learning gains for children who completed our phonics-based curriculum.^{48,49} Conducted independently by IDInsight, the RCT revealed that Luminos children read four times more correct words per minute (CWPM) by the end of the one-year program compared to the control group. Specifically, in the 2022–23 school year, Luminos children progressed from reading an average of four CWPM at the start of the program to twenty-nine CWPM by the end of the program. This remarkable increase is twenty-one CWPM more than their peers in the control group. Furthermore, the learning that Luminos children achieve in just one school year is 90% of what the average Liberian learns over their entire school career. No other externally evaluated program in Liberia has come close to delivering this level of impact, and comparison with data from a range of programs showed that the Luminos program is one of only three programs ever evaluated to achieve both transformational levels of learning and high cost-effectiveness.⁵⁰



Literacy Through Comprehensive Instruction, Including Phonics

Research shows that comprehensive reading instruction which includes a strong focus on phonics is the most effective way to teach all children to read—and it is particularly important for children with learning differences such as dyslexia.⁵¹ Phonics involves clearly teaching children the relationships between sounds and letters, enabling them to decode unfamiliar words rather than relying on knowledge of previously learned words (memorization). Phonics instruction is foundational to strong progress in both reading and writing and should be an essential component of any literacy program.

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Since 2016, Luminos has enabled transformative gains in literacy skills for out-of-school children in Ethiopia, Ghana, Liberia, and The Gambia through our accelerated learning programs (see [Case Study 1](#)). Our success lies in a comprehensive approach to literacy, including phonics instruction, that is carefully tailored to African

settings (see **Note 2**). Teachers systematically teach letter-sound relationships in a logical sequence, explicitly explain the rules of language, and model essential reading skills. Phonics instruction is one part of a comprehensive approach to address the five components of reading—phonological awareness, phonics, fluency, vocabulary, and comprehension—along with oral language development.



More information on Luminos' approach to phonics instruction can be found in the [Luminos Method element: Phonics for First-Generation Readers](#).



Note 2: Phonics-based approaches in African languages

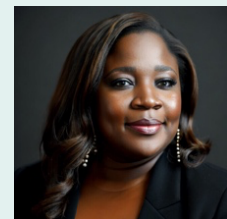
Explicit, phonics-based literacy approaches are the best way to support children with learning differences, such as dyslexia, who are learning to decode in English—and are likely even more essential when teaching in languages with more regular letter-sound relationships (also known as transparent or shallow orthography), as is the case for most African languages.⁵² In these languages, there are fewer obvious differences between the overall 'shape' of words. This is particularly the case for agglutinative languagesⁱⁱⁱ, which can convey, in one word, information that would be contained in an entire sentence in a non-agglutinative language.⁵³ As a result, whole-word approaches, which are already problematic for children learning in English, are even more detrimental for children learning in most African languages.

It is critical to implement instruction which includes phonics-based approaches tailored to African languages. One challenge is that some languages have limited written text available, making it difficult to analyze and determine an appropriate sequence for teaching letters. In such cases, careful collaboration with language experts is required. Once the appropriate sequence is determined, texts must be developed which align with the progression of letters and sounds introduced – this is referred to as 'decodable text'.

In Ethiopia, some languages, such as Amharic and Tigrinya, are written with symbols that represent an entire syllable and thus are taught at a syllable level. In Luminos classrooms, we have discovered that Ethiopian teachers often instinctively teach other languages at a syllable level, even when teaching a language which is written in Latin script. This approach appears to allow learners to achieve rapid progress in decoding. This practice aligns with emerging research suggesting that teaching at a syllable level may be more effective for a range of African languages written in the Latin script.⁵⁴

This finding underscores a broader truth observed across Luminos classrooms: effective programs must bring together global reading science with the wealth of innovation and pedagogical expertise emerging from the African continent. Meaningful solutions in African contexts must be developed by—and with—African educators and researchers, who bring this knowledge to life in their classrooms.

"Transforming education for children with learning differences, such as dyslexia, in Africa requires a systemwide shift. With the right support, teachers can become the greatest drivers of inclusion in a way that not only benefits children with dyslexia but also raises the quality of learning for every child. Our goal must be to build classrooms where every learner, regardless of ability, is seen, supported, and empowered to thrive."



Rosalin Abigail Kyere-Nartey, Founder & Executive Director, Africa Dyslexia Organization

Structured Pedagogy and Gradual Release of Responsibility

In low-income and low-learning contexts, even trained teachers often lack exposure to effective pedagogical approaches. As a result, they tend to propagate the same ineffective techniques they experienced as learners, including reliance on rote memorization and choral recitation. Luminos, along with many other organizations, has found that well-designed structured pedagogy programs that provide daily lesson plans, practical training

ⁱⁱⁱ Agglutinative languages are languages in which words are formed by adding multiple suffixes or prefixes to a root, with each part carrying a single, clear grammatical meaning.

and coaching, and ongoing support can be useful to help teachers deliver more interactive and effective instruction.

Our structured pedagogy materials support a gradual release of responsibility model.^{iv} Teachers begin by delivering explicit instruction to introduce new content, then progressively guide learners toward greater independence.

Explicit instruction involves clear, purposeful teaching of new knowledge or procedures. It is grounded in the understanding that children—and adults—learn best when new material is directly taught, rather than left to be discovered independently. Explicit instruction is especially important for children with learning differences such as dyslexia, who struggle to read words fluently and spell accurately. These children benefit from early, explicit, and repeated exposure to language and text to support the development of the neural systems needed for reading. It is important to note that explicit instruction is *not* the same as rote learning. Rather, it is the first step for introducing new content, which must then be reinforced through opportunities that allow learners to gradually absorb and apply it.⁵⁵

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In practice, explicit instruction can be considered as the “I do” aspect of the Luminos model’s approach to teaching. After this, learners should be guided through “we do” and, subsequently, “you do” activities (see figure below). Including these phases in teacher guides—and dedicating substantial time to training and mentoring teachers in their use—is critical.



The Luminos “I do, we do, you do” Approach

Most teachers in low-learning contexts have never experienced the more interactive style of teaching required for “we do” and “you do” activities. It can feel uncomfortable to them, and they often revert to the lecture-style teaching which they are used to.⁵⁶ It is critical to provide quality training on effective instructional practices and to build in ongoing coaching and support to help teachers shift to a more effective way of teaching. We have seen that over time most teachers start to embrace these approaches once they experience how much more engaged learners are and witness the dramatic improvements in learning outcomes.

Luminos’ “we do” and “you do” activities not only reinforce core content, but also help build key skills, such as collaboration, leadership, critical thinking, creativity, and communication.



More information on Luminos’ approach to building learner confidence, identity, and self-belief can be found in the [Luminos Method element: Identity & Self-Belief](#).

^{iv} Luminos’ teaching and learning materials are created in-house by pedagogy experts, local language experts, and training experts. Our global Teaching & Learning team writes and updates thousands of pages of learning materials each year, creating material that is grounded in the latest science of reading and local expertise—and iterating based on real-time data from the field.

1.2: Inclusive Approaches

We recommend that effective instruction be introduced in a manner that is as inclusive as possible to ensure that all children, including those with learning differences, are able to learn and thrive.

Joyful Learning

Children everywhere learn best when they are happy.⁵⁷ Yet children who join the Luminos accelerated education program often come with negative experiences from prior schooling—experiences that are far from joyful. This is especially damaging for children with learning differences who face additional barriers in classrooms that are not supportive of their learning needs. Children with visible learning differences are also at higher risk of abuse, violence, and low self-esteem, at home and in school.⁵⁸

Creating a safe, inclusive and joyful environment where children feel comfortable and enjoy learning is central to helping all children succeed

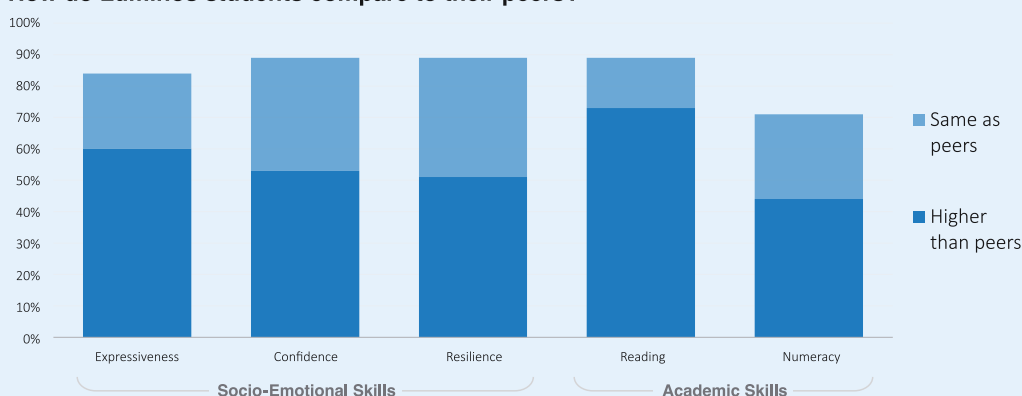
Creating a safe, inclusive and joyful environment where children feel comfortable and enjoy the learning process is central to helping all children succeed (see [Case Study 2](#)). When children do not feel safe and joyful at school, they are less likely to attend school regularly and succeed academically.⁵⁹⁻⁶³ By creating engaging and meaningful lessons, children's perception of education is much more likely to be positive, resulting in better learning outcomes and equipping children with a love of learning that continues to benefit them throughout their lives.



Case Study 2: Joyful learning builds both socio-emotional and academic skills

By using joyful and engaging pedagogy, Luminos ensures that learners develop both academic and socio-emotional skills. An evaluation conducted by IDinsight, which followed learners one year after completing the Luminos program in Liberia, found that Luminos graduates outperformed their peers in both areas. Government teachers reported that Luminos graduates were more confident, more motivated, and stronger readers than classmates who had not participated in the program. These findings reflect a core principle of our approach: foundational learning and socio-emotional development are not at odds—they reinforce one another. When children master key foundational learning skills and see themselves as capable learners, it builds both joy and self-belief.

How do Luminos students compare to their peers?



Source: IDinsight 2023-24 RCT

Teachers' perceptions of Luminos graduates compared to children who had completed two to three years of mainstream education from IDinsight evaluation of the Luminos Liberia program.



More information on Luminos' approach to building joyful classrooms can be found in the [Luminos Method element: Joyful Learning](#).

Commitment to Learning for All

Our early work with learners who were struggling revealed a troubling bias: many teachers or community members believed that these children were incapable of learning.⁶⁴ This belief is false. With effective pedagogy, Luminos has consistently demonstrated that learners who struggle *can* learn—and ultimately thrive. This evidence-based success has been instrumental in shifting mindsets among our teams, partners, and teachers. The conviction that all children are capable of achieving great things is embedded in Luminos' culture and informs every aspect of our education program (see [Case Study 3](#)).

Luminos adopts a collaborative approach to building commitment to learning for all, engaging children, families, teachers, education leaders, governments, and researchers to foster a shared understanding that all children are capable of learning with the right support. We work closely with parents, encouraging them to take ownership of their children's learning. While many of the parents of children in Luminos programs are unable to read themselves, we emphasize the value of everyday oral language activities, such as singing songs and telling stories, in supporting literacy development.



Case Study 3: Promoting socio-emotional skills and reducing stigma with classroom responsibilities

In Luminos classrooms in Ethiopia, every learner has a classroom responsibility. Upon entering the classroom, visitors are greeted by a *Classroom Ambassador*, a learner entrusted with welcoming visitors. Inside, learners wear hats or badges denoting their specific roles—such as *Attendance Taker*, *Line Leader*, *Weatherperson*, or *News Anchor*. Others take on roles tied to different learning corners, like *Banker* or *Shopkeeper*—frequent features of Luminos numeracy lessons. **Importantly, no child is ever placed in a role that makes them uncomfortable.** If a learner prefers not to take on a prominent task, they are encouraged to choose a lighter responsibility that suits their comfort level and readiness.

This classroom setup plays a powerful role in building learners' confidence, fostering ownership in learning, and helping each child recognize their unique value within the classroom. Teachers, supervisors, staff, and even observers have noted that, over time, learners who may have initially struggled to engage, including those with learning differences, begin to see themselves as active participants in the learning process. An external evaluation of the Luminos program in Tigray, Ethiopia found that learners in our program had improved socio-emotional skills across self-awareness, self-management, social awareness, communication, relationship-building, and decision-making, as well as increased enthusiasm for learning.⁶⁵



"Building socio-emotional skills and fostering a joyful learning environment is important for all children but is especially important for children with learning differences."

Bethiel Girma Holton, Program Officer, Oak Foundation

Infrastructure

Infrastructure and classroom environments can significantly influence children's ability to learn. For instance, large, visible blackboards and minimal external disruptions support more effective instruction. That said, inclusive approaches need to be informed by the realities of the context. For example, in settings where classes take place outdoors or in makeshift learning spaces, it is not practical to expect learning to occur without any extraneous noise or distraction. Nonetheless, there are a range of strategies that can be implemented to make education as inclusive as possible, even in settings with limited resources.

While budgets generally do not allow for state-of-the-art accommodations equipment, there are many things that can be done even in low-income settings. We recommend maximizing the use of available resources to create safe and inclusive learning environments. For example, we have seen communities collaborate to secure learning spaces in a local house of worship for children who were previously learning outdoors under a tree.

Luminos' teachers are also trained to be mindful of varying needs and to make practical accommodations whenever possible. This may include seating children with visual impairments closer to the blackboard, and children with auditory challenges nearer to the teacher.

1.3: Policy Recommendations

Implementing effective and inclusive instruction is a critical first step to ensuring all children can learn, particularly in low-learning contexts. Based on our experience, we recommend the following actions:

- **Promote effective instruction** by using phonics-based approaches to teach literacy and structured pedagogy to support teachers gradually releasing responsibility to learners.
- **Foster inclusive learning environments** by prioritizing joyful learning and child safeguarding, collaborating with all stakeholders to reinforce the belief that every child is capable of learning, and making the best use of available resources to improve inclusion in the classroom.

STEP 2: IDENTIFY LEARNERS WHO ARE STRUGGLING



The Luminos Learning Differences Approach

Once effective and inclusive instruction is in place, children’s learning should begin to improve. As these learning gains emerge, it becomes easier to identify learners who continue to struggle and will need additional support, including those with learning differences such as dyslexia.

2.1: Measuring Literacy

The most direct method for assessing a child’s reading ability is to show them written text and evaluate if they can read it accurately and independently. For instance, a minister for education in one of the Luminos countries of operation is known for stopping children in the street and asking them to read text from a book to assess their literacy levels. This can be a powerful way to get a quick indication of literacy levels, however there are risks to using this approach in isolation.

It is important to check early and often that pre-literacy skills are being systematically built so that learners can embark on their journey toward literacy

Firstly, in cultures where rote memorization remains a key feature of the schooling system, it can be difficult to know if a child is reading independently or simply reciting words from memory. For example, in Luminos’ Ghana program, children with no measurable word-reading ability can confidently recite entire stories from textbooks upon seeing the corresponding illustration. For this reason, it is important to ensure that texts used for assessment are not familiar to learners. Secondly, relying on passage reading does not allow for an accurate

assessment of those children who are not yet able to decode and read words and sentences. Learners need to build a range of pre-literacy skills before they can begin to read. Recent research demonstrates that the global learning crisis has deep roots; the deficits in reading levels are a direct result of very low outcomes on a range of pre-literacy skills.⁶⁶ Thus, it is important to check early and often that these skills are being systematically built so that learners can embark on their journey toward literacy.

One of the best tools for measuring pre-literacy and early literacy skills in LMICs is the Early Grade Reading Assessment (EGRA) tool. This tool has been adapted into many languages and is used to check literacy levels across the world. Luminos commissions independent EGRA evaluations in each of our country programs yearly, collating robust data on how well children are learning. In addition, we develop in-house Rapid Assessment Instruments that test similar skills to EGRA but are simpler to administer, allowing for ongoing monitoring (see [Case Study 4](#)). The purpose of these rapid assessments is not to gather data for data’s sake, but to empower teachers with the insight necessary to see every child as an individual.

We also develop curriculum-linked assessments that teachers and supervisors use to assess how well learners have grasped the specific content covered at various points in the program. For example, these tests would only check knowledge of letter identification for the subset of letters that have already been introduced. This enables teachers to better monitor learning—learners should be able to score highly on these tests given that they only measure what has already been taught. Low performance may signal a problem with instruction and prompt intervention. Together, these tools empower teachers to support children who are struggling in real time.



Case Study 4: Rapid Assessment Instruments to assess literacy in Sidaamu Afoo

Words are read out loud and learners asked to identify beginning sound	Phonemic awareness <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="padding: 2px 10px;">anera</td> <td style="padding: 2px 10px;">uddano</td> <td style="padding: 2px 10px;">rosaano</td> <td style="padding: 2px 10px;">co'icha</td> <td style="padding: 2px 10px;">dhodhooaha</td> </tr> </table>	anera	uddano	rosaano	co'icha	dhodhooaha
anera	uddano	rosaano	co'icha	dhodhooaha		
Learners are asked to read individual letters	Letter identification <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="padding: 2px 10px;">A</td> <td style="padding: 2px 10px;">u</td> <td style="padding: 2px 10px;">E</td> <td style="padding: 2px 10px;">i</td> <td style="padding: 2px 10px;">O</td> </tr> </table>	A	u	E	i	O
A	u	E	i	O		
Learners are asked to blend letters into syllables and words	Blending <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="padding: 2px 10px;">uwo</td> <td style="padding: 2px 10px;">disha</td> <td style="padding: 2px 10px;">wadogo</td> <td style="padding: 2px 10px;">raa'raba</td> <td style="padding: 2px 10px;">norogguhoo</td> </tr> </table>	uwo	disha	wadogo	raa'raba	norogguhoo
uwo	disha	wadogo	raa'raba	norogguhoo		
Learners are asked to recognise and read familiar words	Familiar words <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="padding: 2px 10px;">ado</td> <td style="padding: 2px 10px;">ooso</td> <td style="padding: 2px 10px;">gerecho</td> <td style="padding: 2px 10px;">jajjabba</td> <td style="padding: 2px 10px;">mashalaqqe</td> </tr> </table>	ado	ooso	gerecho	jajjabba	mashalaqqe
ado	ooso	gerecho	jajjabba	mashalaqqe		
Learners are asked to read passage and then answer questions to check understanding	Passage reading <p style="font-size: 0.8em; margin: 0;">Danguri nna Bunkuri Leemlichu kaameela godo'la baxxanno. Duucha woyte kaameelinsa moola baattora jawaate haranno daafira baxisannoho. Mitto barra xeena gane heereenna Bunkuri Kaameelcho godo'lanni maranno woyte sabbu amadisi. Danguri badheenni gantohu haranni daanno woyte jaalisi Kaameelcho sabbaho itante noota lai. Dangurino badheeni hige xiiwe fushshisi. Kaameelano wayinni seekite hayishshitu. Bunkurino maala 'le Dangura galatisi. Hakkiinni minira higgsa geeshsha hagidhitanni godo'lensawa higgsa.</p>					

Luminos' Rapid Assessment Instruments are developed to test a range of pre-literacy and literacy skills. They are designed to be easy to administer with minimal training and, unlike EGRAs, can be implemented by a range of staff and supervisors to continually monitor learning progress. The example here is a simplified excerpt from Luminos' Rapid Assessment Instrument from the Sidama region of Ethiopia, which tests skills in the Sidaamu Afoo language.

2.2: Which Children Struggle to Learn?

Globally, the single greatest predictor of low literacy is the country in which a child is born.⁶⁷ Tragically, most children in LMICs do not receive the effective instruction they need to learn to read. While variations in literacy levels between groups in these countries exist, even the most advantaged children achieve significantly lower outcomes than the most disadvantaged children from high-income countries.⁶⁸

Children with learning differences are often disadvantaged when they attend school or are excluded from schooling altogether, and therefore have even lower literacy levels.⁶⁹ Other child-level factors associated with low learning include poverty and rural location.⁷⁰ Furthermore, in many LMICs, children are learning in a language they do not speak at home, often leading to low literacy outcomes.⁷¹ In some cases, this may be a post-colonial language (usually English, French, or Portuguese), which may not be widely spoken in their community. Additionally, there are contexts where children are taught in a particular African language, though a large proportion of them speak a different mother tongue at home. Finally, as discussed in the introduction, evidence suggests that in every classroom there will be some children with learning differences such as dyslexia.

Children in Luminos classrooms are generally from poor and rural backgrounds. For this research, we analyzed whether other characteristics were associated with low learning amongst some learners in our programs.

This analysis found that despite the program's overall effectiveness, there are subtle variations in the quality of instruction. We conducted a focused analysis in our Ghana country program to compare characteristics between children who are struggling and those who are not. A substantial portion (40%) of the difference between groups was attributable to differences in classroom instruction.⁷² This shows the importance of investing in strong teacher training, supportive supervision, and high-quality learning materials. It also affirms our approach of monitoring instruction quality closely and providing targeted coaching for teachers needing additional support.

In two of the three country programs examined, we found that younger children were more likely to have low learning. In our Ghana program, we also found that low learning was associated with the inability to speak Asante Twi, the language of instruction in the region where we operate. Notably, there was no association

Globally, the single greatest predictor of low literacy is the country in which a child is born

between having a visible disability and struggling to learn. We believe this reflects success in fostering a highly inclusive culture among our teachers. Children with disabilities are effectively included in our classes in all countries, and teachers are trained to ensure they do not encounter barriers to learning.

2.3: Monitoring and Real-Time Data

Great education happens when teachers recognize the unique learning capabilities of each learner in their classroom. In this process, collecting real-time data on learning outcomes is essential. It enables teachers to see each child as an individual, monitor whether learning is happening, identify what is working, and make timely adjustments to instruction accordingly.

Luminos uses a robust system of monitoring and real-time data collection to identify and support learners who are struggling to read.

Teachers play a central role in assessing learning at the classroom level. They maintain detailed records of learner progress, monitor participation in activities and workbook completion, and conduct weekly assessments to measure learning. Daily “exit tickets” help assess learner understanding at the end of each session, allowing teachers to quickly identify those in need of additional support. Based on these insights, our teachers can target instruction to meet learners’ needs.

Supervisors also conduct weekly classroom visits, recording observations and learning assessment data in real time. This data is promptly shared with program staff and partners and is closely reviewed to inform program-wide improvements. This system allows for timely adjustments at both the classroom and program levels, ensuring that interventions remain targeted and effective.

In addition to daily and weekly data, Luminos commissions annual external evaluations using the EGRA tool at baseline, midline, and endline to provide a rigorous measure of learning outcomes. All this information—real-time classroom data, supervisor evaluations, and external evaluations—is integrated into a custom-built data dashboard. This comprehensive system supports continuous improvement through rapid feedback loops and evidence-based decision-making, helping ensure that every child has the opportunity to learn and thrive.



More information on Luminos’ approach to real-time data can be found in the [Luminos Method element: Real-Time Data](#).

2.4: Screening for Children at Risk of Reading Difficulties such as Dyslexia

Some children, including those with dyslexia, require additional support to master literacy. In order to target early intervention, we explored diagnostic tools that could be used early in the school year to predict which learners struggle to grasp key literacy concepts, even in the context of a highly effective program.



Case Study 5: Testing international dyslexia screeners in low-learning contexts

In 2023, Luminos piloted two international screening tools in Liberia to assess and help identify children at risk of early reading difficulties: the NeuroLearning dyslexia screener and the LEXplore Analytics literacy screening tool. Each tool offered a unique lens on decoding and phonological skills. Strikingly, both tools flagged almost all children in the Luminos Liberia program as likely dyslexic. We expect that similar findings would emerge for most early-grade or out-of-school children in LMICs. We do not believe that most of these children have dyslexia. Rather, these children are demonstrating extremely low levels of literacy due to a lack of exposure to effective, evidence-based literacy instruction. In contexts such as these, global dyslexia screening tools are unlikely to give helpful results, and the first and most urgent step to support all learners is ensuring that adequate instruction is in place.

“In LMICs, accurately identifying children with learning differences can be particularly challenging. Misdiagnosis or false identification can be just as harmful as a lack of diagnosis. In Ghana, we have repeatedly cautioned against misidentifying children as having learning differences when, in reality, their low learning outcomes may be due to poor instruction rather than an underlying learning difference.”



Dr. Samuel Hayford, Professor of Special Education, University of Education Winneba, Ghana

We began by testing international dyslexia screening tools within the Luminos Liberia program. As discussed in [Case Study 5](#), these tools proved less useful in low-learning contexts where almost all children have low literacy levels, often due to ineffective instruction.

Subsequently, we conducted research in Ghana, a similar low-learning context (see [Case Study 6](#)).

All tools were successful in identifying children who were struggling at baseline and had excellent recall, meaning that these tools identified at least 80% of children who did in-fact continue to struggle throughout the program. However, the precision of the predictions was very low. Indeed, like the international dyslexia tools, some of the tools flagged almost the entire class as likely to struggle. Yet, by endline, only a minority of the children that were predicted to be at risk of low learning continued to be classified as such.

These findings do not suggest a failure of the tools themselves to identify reading risk: the screening tests gave accurate data on learners’ pre-literacy and literacy skills at baseline. Rather, they did not accurately predict learners who would continue to struggle by endline. This is because screening tools by design identify children at risk of reading failure *at the time of testing*; however, in programs that introduce effective instruction—such as Luminos’—the risk identified at the start can be mitigated, making these tools less predictive in such settings. The Luminos program regularly monitors learning progress using real-time data to provide proactive intervention for children who need further support so that all children are given the chance to learn including those with particularly low scores at baseline.

In high-resource settings, early screening is possible since most children have some pre-literacy skills at an early age and therefore it is possible to identify those who lag behind. Screening is important in these settings because it unlocks more resources and helps children understand their own learning journeys. In low-income settings, however, developing a screening tool is far more difficult since almost all children lack pre-literacy skills at baseline. Furthermore, additional resources to support those with learning differences are rarely available. Therefore, we recommend that in low-learning contexts the priority should be improving overall instructional quality, then using simple tools to monitor learning progress over time rather than attempting to develop a tool which can predict which children are at high risk of dyslexia.



Case Study 6: Potential reading-difficulty screening tools in Ghana

Luminos tested three types of screening tools:



Twi screening tool

1. The “Twi screening tool,” which we developed in-house, tested whether children could learn letter sounds when given basic instruction. The purpose of this test was to try to identify children who struggled to learn even when given relevant instruction.



Pre-Literacy Skill Deficit Tests

2. Testing for deficits in two pre-literacy skills:
 - Phonemic awareness, which is the ability to hear, identify, and manipulate the individual sounds (or “phonemes”) in spoken words.
 - Rapid Automatized Naming (RAN) is a measure of how quickly and easily a person can name a sequence of very familiar visual items (like colors or objects) aloud.

Research indicates that children with a single deficit—in either phonemic awareness or RAN—may have mild to moderate reading difficulties, whereas children with a double deficit often show much more severe impairments.^{73,74}



Simple Pre-Literacy Skills Tests

3. Simple tests of pre-literacy skills such as the ability to name letters.

2.5: Policy Recommendations

With effective and inclusive instruction in place, learning outcomes must be closely monitored to identify children who need additional targeted support. Based on our research and experience, we recommend the following actions:

- **Monitor learning outcomes in real time** to identify children who are struggling in a timely manner and determine how best to support them to grasp the concepts they find challenging. Real-time data is easy to use, provides actionable insights, and also circumvents the risks of waiting too long to intervene or failing to identify learners who are struggling. Teacher-led assessment is an effective way to collect real-time data. Empowering teachers to accurately and frequently assess students can equip them to identify children who are struggling and provide relevant support.
- **Be cautious with screening or diagnostic tools** given that low learning levels are widespread in most LMICs. Low-learning contexts can result in screening or diagnostic outcomes that are quite imprecise.

STEP 3: SUPPORTING LEARNERS WHO ARE STRUGGLING



The Luminos Learning Differences Approach

Learners that are struggling to keep up—even after effective and inclusive instruction is implemented—are likely to include those with learning differences. Supporting these learners requires both whole-class approaches and targeted interventions.

3.1: Whole-Class Approaches

When considering how to help learners who are struggling to keep up, the focus is often on targeted or individualized support. However, in low-income settings with large class sizes, limited instructional time, and inadequate materials, providing individualized support may not be realistic. Thus, incorporating supportive strategies into whole-class teaching is particularly crucial. Whole-class approaches are especially valuable when all children are lagging behind grade-level expectations and therefore need maximum access to instructional time. Whole-class approaches can also provide teachers with additional insight into which learners need further targeted support.

Where individualized support is unrealistic, incorporating supportive strategies into whole-class teaching is particularly crucial

Classroom Instruction

Instructional materials are a key tool used to provide additional support to learners who are struggling. We design our materials with careful attention to the scope and sequence, and built-in reviews to ensure learners who are struggling remain engaged and do not fall behind. For instance, before a new letter sound is introduced each day, all previously taught sounds are reviewed, and learning is formatively assessed at the end of each day with an “exit ticket” assessment. Dedicated review days are held at the end of each week, and entire review weeks are interspersed throughout the program.



Note 3: How much should instruction be tailored to different children?

Some guidelines for inclusive education suggest that teachers in LMICs should be adapting their teaching style to provide different instruction to each learner. In an environment with large class sizes, and insufficient teachers and teacher training, it is difficult to ask teachers to teach each child in a “tailored” manner. Expecting them to do so can also feel demoralizing to teachers who are already overburdened.

Furthermore, the evidence suggests that providing qualitatively different approaches to instruction tailored to each learner is not particularly effective. Learning style theories (such as the visual/auditory/kinaesthetic model or the Honey and Mumford model) have been disproven by evidence—different “styles” are not reliable or valid constructs and, most importantly, teaching someone according to their “learning style” does not change how well they learn.^{75,76} Children who are struggling to learn to read do not generally need *different* instruction tailored to a particular learning style, rather, they need *more* of effective instruction that is targeted to their current learning level.⁷⁷ For example, children who are receiving high-quality, evidence-aligned phonics instruction but who are lagging behind in their ability to identify letter sounds, do not need to be taught in a fundamentally different way. Instead, they need to be given additional instruction and practice time focused on letter sounds so they can master this skill before moving on to learning more advanced skills such as blending. This does not mean that all teaching should be monotonous. Indeed, all children benefit from multi-modal approaches which reinforce learning goals in different ways, and ensure teaching is engaging and effective.

Pacing of content is intentional and careful to accommodate different rates of learning. For example, Luminos builds progressive practice exercises into our learner workbooks to allow learners to practice at their own pace. While learners are completing these exercises, teachers are encouraged to walk around the class, observe learning, and provide additional support to learners who are struggling. This approach ensures that learners who are keeping up with the curriculum can advance to more challenging tasks, while those who are struggling are routinely given targeted support by the teacher.

Multi-modal approaches help to triangulate and reinforce learning. Using a variety of methods, including games, songs, and activities, keeps instruction interactive and learners engaged longer. This is particularly important for children with learning differences who are significantly more likely to have attention difficulties.⁷⁸ Multi-modal approaches also reinforce learning goals through intentional redundancy across formats. With these approaches, teachers can ensure key ideas are reinforced through multiple representations and repeated exposure. See **Note 3** for further information on how multi-modal learning relates to tailored instruction approaches.

Formative assessment is used throughout our program to both check for understanding and reinforce concepts. At the end of each day of instruction, Luminos materials guide teachers to conduct “exit ticket” activities. For example, a teacher might show each child a decodable word to read. This approach provides extra practice to each child but is also a way for teachers to systematically check that every child is mastering core skills at the end of the school day. Teachers can then pay particular attention to children who they recognize are struggling and provide support through targeted whole-class approaches or small groups.



Case Study 7: Mixed-ability grouping in Luminos Ethiopia

All Luminos programs incorporate weekly assessments to assess learning of concepts taught during the week. Based on these results, teachers form mixed-ability groups, intentionally combining learners of different ability levels in activity groups.

Teachers in Luminos’ Ethiopia program create five activity groups each week, assigning each group to a different activity. Groups are comprised of learners of different skill levels, and activities are designed to foster peer learning. Each group takes turns at different activities: drama, music, slogans, and so on. In groups, learners practice different learning goals using these joyful activities.

For example, learners are given a short decodable sentence or text. Children must work in their mixed-ability groups to read, understand, and interpret the text, and then illustrate their learning through either a short skit (drama group), a song (music group), or a chant (slogan group).

After these group sessions, all learners come together for a whole-class review using the “I do, we do, you do” model. This structured approach allows the teacher to model the skill, guide learners through practice, and then assess independent application. The combination of creative group work and focused review helps reinforce learning, build confidence, and ensure that all learners progress together. The intentional grouping of learners with different ability levels truly fosters inclusion and supports peer learning.



"Children with learning differences in Africa need inclusion not as a segregated or specialized track, but as the natural outcome of high-quality, structured pedagogy that is beneficial for all learners."

Dr. Abeyayehu Messele Mekonnen, Founder and Managing Director, FANA Ethiopia

Peer Learning

Mixed-ability seating is one effective strategy to help children who are struggling (see **Case Study 7**). While grouping learners of similar ability (e.g., as in the Teaching at the Right Level approach) can be very effective in

While grouping learners of similar ability can be very effective in contexts where additional instructors are available to provide targeted instruction, it can exacerbate inequality in single-teacher classrooms

contexts where additional instructors are available to provide targeted instruction,⁷⁹ it can exacerbate inequality in single-teacher classrooms.⁸⁰⁻⁸² In such cases, seating learners in mixed ability groups enables learners who are struggling to benefit from peer support.

A **classroom culture** that recognizes the ability of all children to learn and fosters collective and collaborative ownership of the learning journey is especially important for learners who are struggling to keep up, as they may be more vulnerable to low self-esteem or even abuse.⁸³ A culture that encourages peer learning through group activities boosts confidence and crucial socio-emotional skills.

Peers and even family members can also be encouraged to support learning beyond the classroom setting. It is important to note that family members can support literacy learning even when they themselves are not literate; recent research shows that parents can use songs, stories, games and cultural events to help build oral language which is a critical component of literacy.⁸⁴

3.2: Targeted Remediation

The effective and inclusive instruction approach that Luminos implements has transformative impacts on learning, backed by rigorous evidence. Despite this impact, a small number of learners struggle to master content the first time when receiving whole-class instruction. Learners who struggle to keep up do not necessarily need a different type of instruction, but rather a larger dose of effective instruction. One way to provide additional instruction to children who are struggling is through targeted remediation classes (see [Case Study 8](#)).

In Luminos' accelerated learning programs, remediation classes are provided to learners who are struggling within existing program schedules. During remediation sessions, learners who have already mastered the material being covered use the time to practice through individual activities, or by serving as mentors to learners needing extra support. In some of our country programs, these remediation classes take place within the typical learning day at the end of each week, while in other programs these are additional classes outside of regular programming.

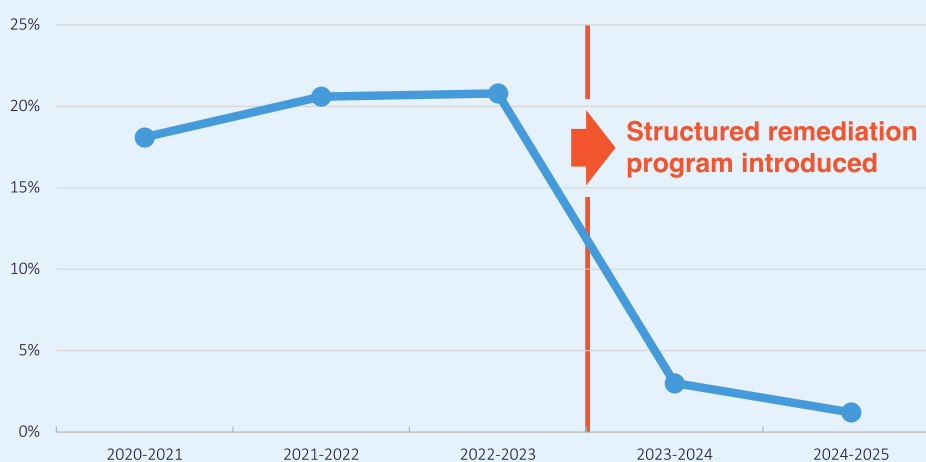
Learners who struggle to keep up do not necessarily need a different type of instruction, but rather a larger dose of effective instruction



Case Study 8: Targeted support through structured remediation

Once Luminos' structured pedagogy programs are established and are providing effective instruction to most learners, we can start identifying those who are still struggling and offering them extra support. For example, in 2023, the Luminos Liberia program developed a new structured remediation program spanning six months to provide additional support to those learners who were consistently struggling. This model begins with a review of basic letters and blending, gradually working up to more advanced topics as learners progress through the learning cycle. Remediation classes in our Liberia program take place twice a week during the last hour of the school day. We find that the most effective way to ensure attendance is to keep the same group of learners in the remediation group throughout the year, and to keep class sizes for the remediation group small (at around seven learners per teacher).

Percentage of Luminos Liberia students who struggled to learn to read



As shown in the graph, the introduction of the structured remediation program was associated with a dramatic drop in the proportion of learners who struggled with learning to read.

These targeted support activities marry children's need for further support with the need to balance the limited resources available in such settings. We have found that group-based remedial support, either through a dedicated curriculum or through teacher discretion and self-assessment, are effective methods to support all learners, including those with learning differences.

3.3: Policy Recommendations

Once effective pedagogy and inclusive approaches are in place, we recommend closely monitoring learning outcomes to take note of children who are still struggling to learn. Providing additional support to these learners helps ensure they reach their full learning potential. We recommend providing targeted support in two ways.

1. In low-income and low-learning contexts, **integrating supportive approaches into whole-class teaching** to help to learners who are struggling must be the top priority. These approaches should be designed to ensure learners who are struggling are not left behind by the curriculum.
2. **Routine group remediation**, informed by formative assessment, should be incorporated to provide additional targeted support to learners who continue to struggle to keep up.

CONCLUSION

This paper calls on educators, policymakers, and funders alike to ensure that every child, particularly those with learning differences, receives the instruction and support they need to turn the central promise of education—the chance to learn—into reality.

Supporting children in low-learning contexts cannot follow the same approach used in high-learning environments; it must be fundamentally different. In most low- and middle-income countries, the absence of effective education systems means that learning itself is at risk. The first and most urgent step is ensuring all children receive effective and inclusive instruction.

The Luminos Learning Differences approach offers a realistic framework designed to meet the complex realities of low- and middle-income countries, and support learning for all.



The Luminos Learning Differences Approach

In Step 1, we argue that implementing effective and inclusive instruction is a critical first step to ensuring all children can learn, particularly in low-learning contexts. We recommend that governments, policymakers, and educators **promote effective instruction** which incorporates phonics-based approaches and structured pedagogy to support teachers to gradually release responsibility to learners—all while **fostering inclusive learning environments** through joyful learning, reinforcing the belief that every child is capable of learning, and making the best use of available resources.

In Step 2, we show how closely monitoring learning outcomes and collecting data in real time can help identify children who need additional targeted support. We recommend that governments, policymakers, and educators **monitor learning outcomes in real time** to identify children who are struggling—and to **be cautious with screening or diagnosis tools** that are not tailored to the context.

In Step 3, we advocate for the provision of additional support to learners who are struggling to ensure they can reach their full learning potential. We recommend providing targeted support in two ways: **integrating approaches into whole-class teaching**, which provide support to learners who are struggling; and **routine group remediation** to provide targeted support to learners who are struggling to keep up.

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