

A call to Action: Designing from the 'Furthest-Behind-First' Lens
Panel G42
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Abstract

Despite years of schooling, learners progress and even exit primary schools without foundational reading and math skills, limiting their participation in learning. In Kenya, the Uwezo report (2015) found that on average, only 30 out of 100 grade 3 learners could do grade 2 work. Such learners are more likely to record irregular attendance or even drop out of school. However, evidence from level-based interventions shows that it is possible to equip a significant proportion of such learners with foundational skills within a relatively short time. 7 Kenyan organizations inspired by the Teaching at the Right Level (TaRL) approach by Pratham in India, initiated interventions across 9 counties to address the gaps in foundational literacy and numeracy skills amongst learners in grades 3 to 5. The approach emphasizes a focus on individual learning levels, and basing instruction on these to enhance learning. Irrespective of age or grade, learners of similar learning levels are grouped together and engaged in interactive learning activities thus supported to acquire foundational skills.

Since 2018, the 7 organizations, affiliated to the Regional Educational Learning Initiative (RELI) in Kenya, have come together to implement 7 programs in 9 counties targeting learners furthest behind in grades 3 to 5. Through the programs, those lagging behind are identified and supported to accelerate acquisition of the basic skills. Evidence gathered throughout implementation shows that within 30 days, more than half of learners targeted acquire the desired skills. However, one must pay attention to the competencies learners come to school with, avail appropriate learning resources and engage teachers reskilled on level-based instruction. This paper provides a synthesis of findings from across these programs.

Key words

Foundational skills, level-based instruction, literacy and numeracy

Introduction

Education is critical to ensuring that no one is left behind and according to the Sustainable Development Goal (SDG) 4 - Education 2030 [Steering Committee](#) investment in education is seen as crucial in the ability for countries to reach all SDG's. The cost of inaction to ensure inclusive and equitable quality education and provide lifelong learning opportunities is seen to, by far, exceed the cost of action. For societies, education contributes to faster innovation and growth, better functioning institutions, increased intergenerational social mobility, higher levels of social trust and reduced levels of [conflict](#).

Quality education enables people to make informed judgements about issues that concern them and engage constructively in national and local political debates. Findings from around the world have found that when marginalized groups feel they have no means to voice their concerns, they could resort to conflict. The likelihood of conflict has been found to double in countries with high levels of inequality in [education](#). In nomadic communities in Kenya, increased education levels have been found to facilitate

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opportunities for mobilizing and empowering local communities through awareness creation and destigmatisation.

The [World Bank](#) notes that if children fail to learn to read by the age of 10, their gateway to learning in future is shut. They may never recover. This gap inhibits them from achieving their career aspirations as well as optimally contributing to the economy. Learners without foundational skills fall within the category of those furthest behind and remain at risk of never catching up even in their later years of life. Such learners become at risk of reduced living standards, low literacy and ultimately becoming marginalized from the wider society.

[UNESCO](#) estimates that 617 million children and adolescents are missing out on foundational skills though they continue to attend school. Evidence on literacy and numeracy levels in Kenya has found that [learning outcomes](#) are low and extremely inequitably distributed across geographical areas, socio-economic strata and types of [schools](#). This is despite the fact that research has shown the importance of education, highlighting that for individuals and for families, education leads to higher productivity and earnings, poverty reduction, higher rates of employment, better health outcomes and increased civic [engagement](#). However, schooling has been found not to equal learning.

A Review of the Literature

The Challenge of Education Quality

In efforts to meet the goals of the education for all agenda, many countries have made significant gains in ensuring increased access to education for both boys and girls. In fact, according to the 2018 World Development Report, the average low income county enrolls students at almost the same rate as the average high income [county](#). However, despite these achievements, learning levels have been found to still be stagnating in many developing [countries](#). Large numbers of learners in many countries complete several years of education while remaining completely illiterate (Graham & Kelly, 2019). According to UNESCO ([2014](#)), approximately 250 million primary school aged children out of a total of 650 million are failing to achieve basic reading skills. In addition, despite the rise in enrollment rates, grade illiteracy has been found to be the most widespread in developing countries. For instance, in Uganda a 2015 study found that only 40% of grade 5 learners could read a grade two level text in local [languages](#). In other developing countries such as India, Malawi, Nicaragua and Zambia, the 2016 Annual Status on Education Report (ASER) found that only about half of all grade 5 learners are able to read a grade 2 [text](#). In Kenya, a study conducted by Uwezo highlighted that 25 out of 100 rural children in grade 3 compared to 41 out of 100 class 3 children in urban areas, can do class 2 [work](#).

Despite these findings, many discussions focusing on exclusion in education focus on access, even though research has shown that being left behind with regards to learning while in schools is also another important part of exclusion. Evidence has shown that an increasing number of children get left behind or excluded as their cohort moves through the school system. If a child does not get foundational skills at the right time during their primary schooling years, they are more unlikely to complete primary school in a meaningful way that will allow them to successfully move through to the secondary stage or access opportunities for work or further education [later](#). A variety of challenges contribute to the growing

number of students who are left behind in early years of schooling, including school level challenges, socio economic factors and policy level barriers.

At the national level, school curriculums have been found to increase the numbers of learners who are left behind. If the school curriculum covers too much, goes too fast and is too hard compared to the initial skill of the students and the ability of the schools to teach, this can lead to an increased number of students being left behind early and never catching up. Pritchett and Beatty (2012), highlight that if children do not get reading and writing skills early, then textually based teaching in higher grades becomes difficult. In addition, if these children do not get simple math skills at foundational levels, then more sophisticated operations become impossible. Furthermore, if children do not acquire basic reasoning skills then creativity and critical analysis in later stages of schooling become difficult. The authors argue that the result of the curriculum moving on is that learners can enter and leave grade 3 without being able to read or to do addition (Pritchett & Beatty, 2012).

At the school level, school systems in many developing countries fail to address the changing needs of students and many national curricula target only the top students and are unable to provide support for the majority of children that fall behind. Additionally, school level factors contribute to the lack of support for students needing support including school level organisation by age and grade with children progressing into the next grade despite learning levels and the lack of school level support for learners who fall [behind](#). In Kenya for example, the Government has an all pass system policy. This has meant that for primary school children in public schools who have attended school regularly, they are automatically promoted to the next stage despite their learning levels. As a result, the number of children that need additional support to remain at grade level grows as students move through primary school. Without any intervention, these learners remain behind and never really catch up (Pritchett & Beatty, 2012).

Effects of COVID-19 on Education

The current health crisis has gone to further exacerbate the already deeply rooted learning crisis and has impacted education systems globally. As a result of COVID-19, more than 180 countries have closed their schools affecting 1.6 billion [students](#). It is estimated that as a result of school closures, learners will lose more than 0.6 years of schooling which will then bring down the effective years of basic schooling that children achieve during their entire schooling years from 7.9 years to 7.3 [years](#). Learning losses of up to 3 months have been found to potentially lead to long term learning losses with current grade 3 students potentially losing a full year or more of schooling by the time they reach grade 10 (Pershad, Comba & Bergmann, 2020). Numerous home based inequalities among different groups in countries will further worsen the effects of COVID-19 on learning achievement. For the poorest children, limited access to technology, electricity, child centered reading materials at home and limited parental support will make learning even more varied during the pandemic. The pandemic has deepened the existing inequalities across countries, within schools and classrooms and has resulted in even more varied student learning (Pershad, Comba & Bergmann, 2020).

Why do We Need to Support Learners that are the Furthest Left Behind?

According to the [World Bank](#), it is critical to raise awareness of the challenges faced by learners that are left behind and to address the issue. Foundational skills such as basic numeracy and literacy skills have been found to be important drivers of the benefits that can be achieved through education. The level of skills (competencies) in a society predicts economic growth better than schooling does. Learning has been found to contribute to intergenerational social mobility in a society as children with better schools in a community have higher earnings and higher rates of learning have been found to be one of the reasons. Simple foundational skills have been found to explain earnings even after controlling for the number of schooling years in both OECD and emerging economies. In developing countries, the association between female primary schooling and reduced child mortality is higher when schooling leads to more learning. It has also been found that where individuals are only trained to do one specific task, the increase in technological changes and automation can lead individuals to unemployment. This emphasizes the need to focus on building learner competencies rather than on building content knowledge.

By ensuring that learners that are furthest left behind are reached with not only increased access to education but quality as well, the individual and societal benefits of education can be realized. With weak foundational skills in early grades, it becomes difficult for children to progress in later years and in fact may lead to high dropout rates. Brown (2010, cited in Davidson & Hobbs, 2013), found that poor quality education in regards to access to schools and learning in schools, can be linked to annual dropout rates in early grades of approximately 10 million children in Sub-Saharan Africa. Children were found to drop out after the early grades due to their inability to master the basic literacy and numeracy skills needed to progress to higher levels (World Bank, 2017). It is crucial to ensure that learners remain in school and that dropout rates are low as each additional year of schooling has been found to increase an individual's earning by 8-10% (World Bank, 2017).

Finally, it has been found that increasing literacy through education systems reforms strengthens the capacity of countries to then take on and manage more complex education [reforms](#). If countries are able to increase literacy levels, the public will be more supportive of reforms, education systems will improve service delivery and children will have the tools to learn in every area of [knowledge](#).

How to Improve Learning for those Furthest Left Behind

Today, classrooms are filled with academically diverse students. Although students may be in the same class based on age, many of those students are diverse with regards to their levels of advancement, learners whose first language is not English, students that underachieve for a variety of reasons, learners from diverse cultures and economic backgrounds, students with different modes of learning and students with varying interests and motivation levels. Achieving equality of learning opportunities in such classrooms becomes possible only when learners receive instruction that is tailored to their various readiness levels, interests and learning [preferences](#).

Evidence shows that simple changes to pedagogy can result in improvements in learning levels. For instance, early grade interventions which focus on targeting teaching to the current learning levels of students for example remedial education, computer assisted learning and tracking, have resulted in large

effects on learning [levels](#). Results from 13 randomized evaluations in Chile, India, Kenya and the United States have found that tailoring instruction to students' learning levels can overcome learning challenges and increase test [scores](#). Therefore, programs that align teaching to students current learning levels are among the most effective and cost-effective ways to improve [learning](#).

Additionally, Early Grade Interventions (EGI) can be a possible way to reach students that are furthest left behind and struggle with illiteracy in early primary school years. Early Grade Interventions can be defined as programs that aim to strengthen core reading and numeracy skills in early grades (1-5) by training teachers to teach using simplified instruction and evidence based curriculum as well as employing a combination of complementary approaches (Graham & Kelly, 2019). Early Grade Interventions, such as Teaching at the Right Level approaches, have been found to work best as holistic approaches that reorient education systems towards focusing on learning outcomes and especially at foundational [learning](#). A report by RTI International on their early grade literacy programs supports the holistic approach that should be incorporated by early grade interventions including ensuring that programs are context specific, surrounding learners with a degree of instruction and practice and the engagement of teachers, school level staff and ministry staff at all levels, parents and community leaders (Bulat, Dubeck, Green, Harden, Henny, Mattos, Pflapsen, Robledo, Sitabkhan & RTI International, 2017).

Methodology

Partner organizations from the Regional Educational Learning Initiative (RELI) and affiliated to the Learner Centered Thematic Group (LCT) adapted the Teaching at the Right Level (TaRL) approach across 9 counties in Kenya. The approach emphasizes that, i) learners are assessed to determine learning levels, ii) grouped as per their learning levels (irrespective of age or grade), iii) involved in level-appropriate activities and materials, to hasten acquisition of foundational literacy and numeracy skills and iv) parental involvement is sought and nurtured.

In Kenya, the approach is designed for learning in grades 3-5 who are behind the expected level of achievement as determined through the Uwezo literacy and numeracy assessment tools (and later [ICAN](#)). The assessment items on these tools are pegged on grade 2 level curriculum expectations. The literacy tool places a learner at either beginner, word, paragraph or story levels, whereas the numeracy assessment tool determines learner competency in the four operations (addition, subtraction, multiplication and division). Learners are thereafter grouped by their actual rather than expected learning level and they are frequently [assessed](#).

At the school level, individual learners reading below the story level are enrolled for the remedial and grouped as per their levels during instruction. The program is then delivered in 30 to 50 day camps. The intended impact is to increase the proportion of learners who can read with understanding and reason with numbers. Learning camps are held for 10 consecutive days, for 1 hour daily in literacy and numeracy. After 10 days, the learners are re-assessed and new learning levels used to inform grouping during subsequent camps.

To deliver level-based instruction, teacher assistants are reskilled on levelled instruction in literacy and numeracy, through trainings. At the classroom level, a set of instructional materials and activities have been packaged to engage learners in fun and interactive ways, to promote learning. Within only 30 days, half of those involved attain the basic skills.

Findings

Analysis of Results Across 7 Level-based Interventions in Kenya

An exploration of the findings has shown that it is possible to significantly increase the ability of learners to read, thus expanding their access to and participation in learning. This section details key findings from across the 7 level based interventions in Kenya.

Within 30 Days, it is Possible to Significantly Increase the Number of Children with Foundational Skills.

We have found that in spite of large input investments in education, there is little improvement in reading and numeracy skills among learners in some of the most remote counties in Kenya. Comparing learning levels in 3 counties, Bungoma, Turkana and Tana River, there were fewer learners, 46% in grades 3 to 5 who could read a grade level text in Kiswahili in 2018, compared to 51% in [2015](#).

While implementing level-based programs, we have found that irrespective of geographic location, children furthest behind can within [30 days of intervention](#), significantly increase their ability to read and reason with numbers. Pastoralist children in Kenya for example, are among some of the furthest left behind, posting low learning outcomes in national surveys such as the Uwezo assessment. In Kajiado county, a level-based program by Dupoto e Maa resulted in 2 out of 3 children reading within 30 days. Through the 7 programs, 24, 000 learners have been supported across 213 schools in 12 counties.

Focus on Competencies, not Content

Still, we have found that learners benefit from teaching methods that are tailored to their individual learning needs and that it is important to pay attention to the language competencies that learners come to school with. Very often learners attend school with language skills that are rarely tapped into to build the foundation that they require for learning. To promote a smooth transition from home to school we ought to tap onto language skills learners are endowed with from home and using these as a base for learning. One way that we have found has worked in facilitating such a transition, is the use of teacher assistants with local language [competencies](#).

Besides language, when learners are attended to their individual levels, even learners who were 3 years behind in terms of their foundational skills, acquired competencies in only 30 days. Starting from where the child is gives them confidence and challenges them to learn more. Shift from 'teaching the curriculum' to emphasis on learning for children at their level and pace. At the foundational level, children will learn best from where they are rather than where they ought to be.

Assessment for Learning

We also found that it is important to strengthen assessment to inform learning. If equipped with the right tools, our programs highlighted that teachers have the ability to determine where each learner is on the scale of acquiring foundational literacy and numeracy skills and to then plan for individual learning [needs](#).

Therefore, to inform intervention or establish learning needs, the program equipped teachers with simple assessment tools, the Uwezo literacy and numeracy tools. These tools are simple to use and give immediate feedback about the level of learning for individual children. The assessment was one-on-one,

allowing teachers to observe and internalize the struggles learners went through as they tackled the tasks. This insight informed their planning and delivery of [sessions](#).

Retooling teachers

Ongoing reskilling, especially on foundational competencies is essential for all teachers, coupled with support from experienced mentors. This offers continued opportunity for growth, translating to richer classroom experiences. Teacher assistants engaged were retooled on assessments, level-based instruction and progress tracking.

Conclusion

Building foundational skills in literacy and numeracy for learners that are the farthest left behind, has been found to be an important aspect of learning that not only reduces the drop-out rates of students but that also determines the future earnings of individuals, the household income and development of families as well as the economic and political capacity of nations.

Through our programs, we have made commendable strides with regards to access, but the quality of learning remains low, with a significantly high number of learners, as early as grade 3, lagging behind in the foundations essential for learning. Evidence from these level-based programs demonstrates that if, i) teachers are equipped with simple assessment tools which inform them of the individual learning levels; ii) they are reskilled on delivery of level-appropriate instruction, then, iii) within only 30 days, the proportion of learners without foundational skills in classrooms will reduce significantly. Evidence-based decision making in the classroom leads to learning experiences relevant for all learners, which ultimately results in improved learning outcomes.

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