



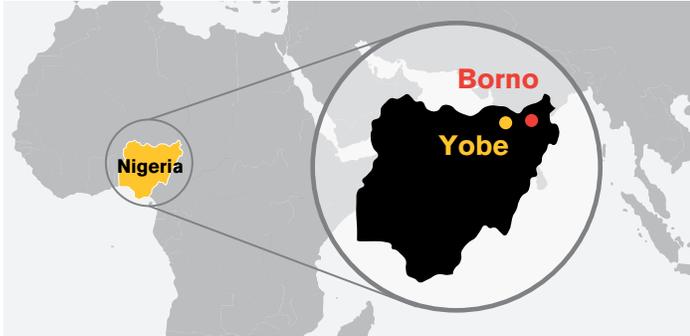
RESEARCH BRIEF

Meeting the Academic and Social-Emotional Needs of Nigeria's Out-of-School Children

What works and what doesn't for an accelerated learning program

BACKGROUND

Guaranteeing the right to “an inclusive and equitable quality education at all levels” by 2030 is an objective enshrined in Sustainable Development Goal 4 (UNESCO, 2015, p. 29).¹ However, only 18% of fragile states are on track to meet this goal (Samman et al., 2018).² The progress is particularly slow in Nigeria. More school-aged children are out-of-school (OOS) in Nigeria than any other country in the world. Nationwide, more than 10.5 million children and youth are OOS. In states such as Yobe and Borno, which provide shelter to the majority of displaced persons, 75% of all children are OOS (OCHA, 2017).³



Since 2009, the Boko Haram insurgency has crippled Nigeria. An estimated 1.9 million people have been displaced and the country’s already fragile education system has been devastated: 1,200 schools have been destroyed and 1,700 have closed. More than 600 teachers have been killed and about 19,000 have been displaced (OCHA, 2017). Furthermore, even when children are in school, poor quality as exhibited by overcrowded classrooms, poor infrastructure, lack of teaching and learning materials, shortage of qualified teachers and low quality of instruction, coupled with children’s traumatic experiences stemming from conflict, poverty and displacement negatively impact their ability to learn. While the complexity of the educational challenges in Nigeria require manifold interventions, our research shows there is great promise in the ability of safe, accessible non-formal learning spaces with supportive instructors to help children learn and thrive.

In Nigeria:



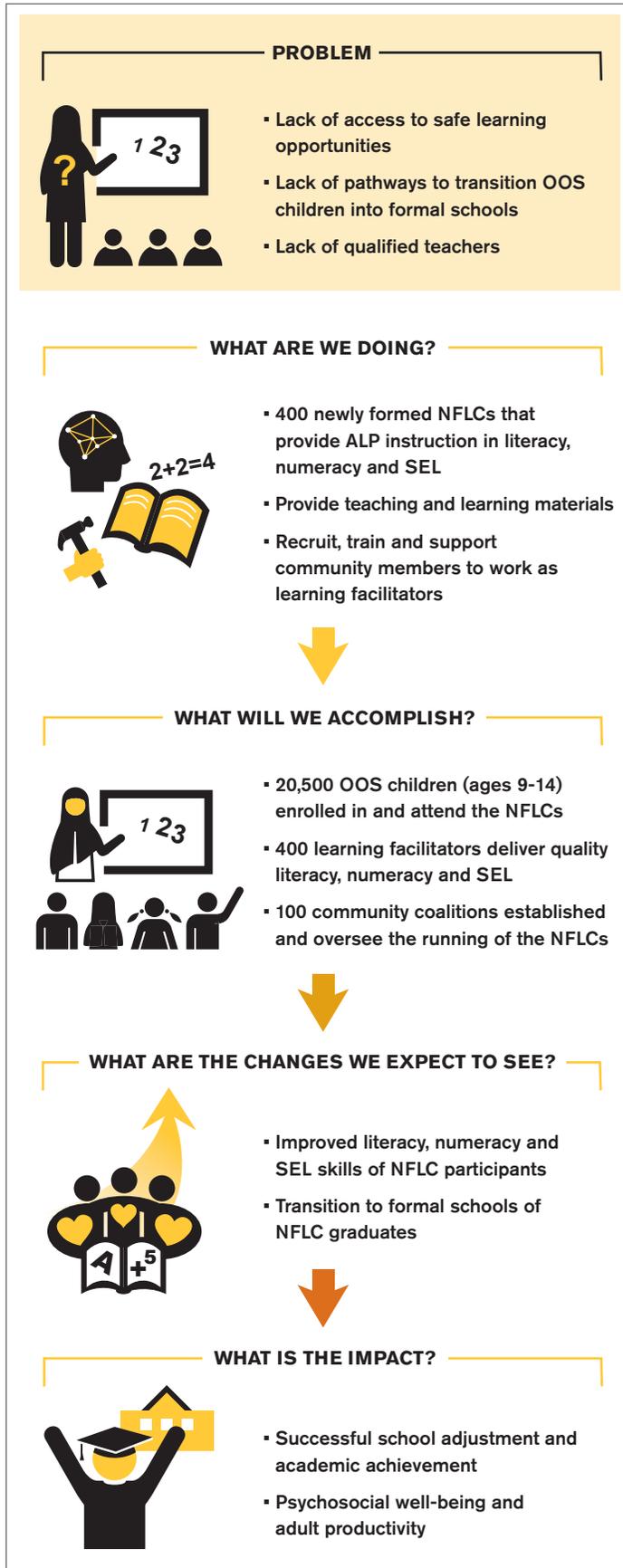
DFID EDUCATION IN EMERGENCIES NON FORMAL LEARNING CENTRES PROJECT

The UK Department for International Development (DFID)-funded Education in Emergencies (EiE) Nonformal Learning Centers project (NFLC) project supports the literacy, numeracy and social-emotional skills of nine to 14-year-old children in Yobe and Borno who have been out of school for more than two years or have never attended school. The International Rescue Committee (IRC) and Creative Associates International have worked to provide these OOS children with an accelerated learning program (ALP) at community-based NFLCs. **ALPs are flexible, age-appropriate programmes which run in an accelerated timeframe, with the aim of providing access to education for disadvantaged, over-age, and OOS children and youth** (Boisvert et al., 2017, p. 7).⁴ In NFLCs administered by DFID EiE, children receive an ALP where they attend three hour sessions per day, three times per week during nine months, to learn the basic literacy, numeracy and social-emotional skills they need to successfully transition into formal schools. Given a shortage of certified teachers in Northeast Nigeria, the project recruits community members to work as learning facilitators (LFs) and equips them with content knowledge and the pedagogical skills to teach foundational literacy, numeracy and social-emotional skills. The professional development opportunities for LFs provided by the program include face-to-face trainings, on-going peer support in the form of monthly Teaching Learning Circles (TLC) and on-site coaching visits to improve by qualified teacher supervisors from local ministries of education. NFLCs fill a crucial gap and account for some of the immediate, pressing needs of school-aged children growing up in crisis and conflict settings and helps prepare them for entry or re-entry into the formal school system.



PHOTO: KELLIE RYAN/IRC

Figure 1. Theory of Change for DFID EiE NFLC



RESEARCH, EVALUATION AND LEARNING: RESEARCH QUESTIONS, DESIGN AND INSTRUMENTS

In order to learn what works, for whom, under what conditions and at what cost for Nigerian OOS children to learn in NFLCs and transition to the formal school system, the IRC conducted a mixed-methods, longitudinal randomized controlled trial with two treatment arms (receiving basic ALP, or ALP+Coaching) and one wait control group. Children assigned to basic ALP program receive teaching and learning materials, face-to-face trainings and TLC, among other supports. In addition to all the supports provided by the basic ALP, children and LFs in the ALP+Coaching program benefit from on-site coaching visits (see table 1).

Table 1. Treatment Contrast between Basic ALP, ALP+Coaching and Control group

Activities	Control	Basic ALP	ALP+ Coaching
5 days face to face training for trainers	-	✓	✓
4 days face to face facilitator training + 2 days refresher	-	✓	✓
Monthly 3 hour coach interactions (pre, during & post lesson observation)	-	-	✓
5 days face to face training + 3 days refresher	-	-	✓
Teaching learning circles, 2 hours per month	-	✓	✓
1 day community coalition training + 1 day refresher	-	✓	✓
Civic society organization face to face training	-	✓	✓
Learning materials (e.g., notebooks, bags, pens, erasers)	-	✓	✓
Materials for learning facilitator (e.g., lesson plans)	-	✓	✓
Center equipment (e.g., teaching aids, books & blackboard)	-	✓	✓
Lessons (3 hours per day & 3 times per week for 9 months; 45 mins for literacy, numeracy, SEL & free games, respectively)	-	✓	✓
Stipend for learning facilitators	-	✓	✓
Cost per child	-	£66	£108

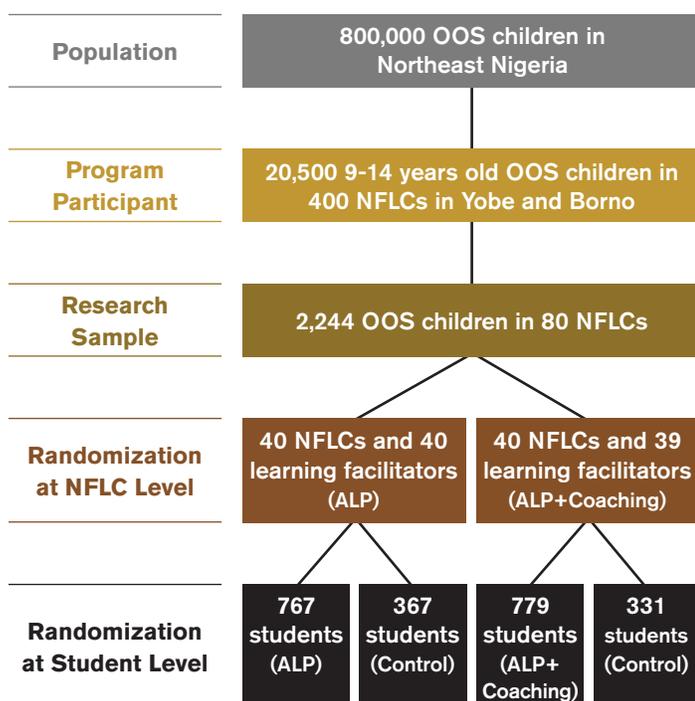
This brief presents the impact evaluation results, with a focus on the following research questions:

1. What is the cost-effectiveness of the basic ALP on OOS children's literacy, numeracy and social-emotional learning (SEL) outcomes?
2. What is the added value and standalone effect of providing on-site coaching to LFs (ALP+Coaching)?
3. What are the experiences of children with the ALP program?
4. What are the experiences of LFs and coaches with the professional development supports they received?
5. How do the effects of ALP vary for different subgroups of children by sex, socio-economic status (SES), home literacy environments, displacement (IDP) and disability status?

> Participants

DFID EiE NFLC project targeted 800,000 OOS children in Northeast Nigeria. Project participants included 20,500 9 to 14-year-old OOS children in 400 communities in Yobe and Borno. The research sample included quantitative and qualitative information. The quantitative sample, which was collected to identify the impact of the program on student learning outcomes, was selected through a two-stage process where we first randomized 80 NFLCs to two treatment conditions (basic ALP and ALP+Coaching), then randomized children to treatment and wait control groups within each NFLC.

Figure 2. Sampling strategy



The qualitative data, which was collected for the purposes of shedding light into the findings of the impact evaluation, included a purposefully selected sample of 79 participants, including 48 children, 15 LFs, eight coaches and eight community members in 15 NFLCs of Yobe and Borno. The sample was purposefully selected to include NFLCs where we observed high, average and low levels of program impact.

> Instruments

Background information questionnaire	This instrument collected children's demographic information, such as sex, SES, IDP and disability status.
Early Grade Reading Assessment (EGRA)	Literacy skills were assessed through five subtasks, including timed letter name identification, timed non-word reading, timed oral reading fluency, listening comprehension and reading comprehension.
Early Grade Mathematics Assessment (EGMA)	Numeracy skills were assessed through eight subtasks including timed number identification, discrimination, missing number, timed addition and subtraction level 1, addition and subtraction level 2, and word problems.
Battery of SEL tools	Social-emotional skills were assessed using a battery of assessments that captured children's hostile attribution bias, emotional dysregulation (anger/sadness), emotional accuracy, depression and orientation toward conflict resolution (aggression/disengagement/problem solving).
Costing tool	Project staff used this tool to track how they spent their time across intervention activities.
Protocols for semi-structured interviews	Separate questionnaires for students, LFs, coaches and community members, with open-ended questions to gather in-depth information about their experiences before, during and after their participation in the program.

> Analytic strategies

<p>Costing study</p>	<p>The IRC's Best Use of Resources team conducted a cost analysis of the NFLC project using an ingredients-based approach, where costs were estimated by center and by child using the following steps: (1) estimating the total cost of core project inputs such as operational costs, supplies and materials, staff time, travel, and office costs, (2) integrating monitoring data to determine cost per center and cost per student and (3) integrating results from the impact evaluation.</p>
<p>Impact evaluation</p>	<p>The IRC Research Evaluation and Learning Unit analyzed data using multi-level difference in differences statistical methods, which allow for the identification of the baseline to endline changes in students' literacy, numeracy and SEL outcomes that can be causally attributed to the intervention.</p>
<p>Qualitative study</p>	<p>Local research partners from Girl Effect in Nigeria conducted in-depth interviews with the help from Technology Enabled Girl Ambassadors (TEGA), who share an identify with respondents and are therefore well positioned to obtain accurate, authentic and information about the lives and experiences of participants. The data was translated and analyzed using thematic analysis.</p>



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MAIN FINDINGS

What is the cost-effectiveness of ALP on OOS children' literacy, numeracy and social-emotional learning (SEL) outcomes?

At a cost of £66 per child, the basic ALP treatment had a positive impact on learning outcomes.

- **Literacy:** ALP led to statistically significant improvements in 2/5 EGRA subtasks: fluency and reading comprehension.
- **Numeracy:** ALP led to positive and statistically significant effects in 7/8 EGMA subtasks—except subtraction level-2.
- **SEL:** ALP led to a statistically significant reduction in children's orientation toward the use of aggressive conflict resolution strategies, but showed no significant effects on other SEL outcomes.

Findings strongly suggest that the ALP is an effective intervention for improving numeracy and literacy, but less effective to improve SEL outcomes of OOS children. The basic ALP packet has the potential to be a cost-effective intervention. Obtaining data about long-term outcomes and about the cost of alternative interventions to compare against will be necessary to reach more definitive conclusions about cost-effectiveness.

What is the added value and standalone effect of on-site coaching?

Adding coaching to the basic ALP packet costs an additional £42 per child, for a total of £108. **Results from the impact evaluation show that over and above ALP alone, coaching produced some small, negative and statistically significant impacts on literacy and numeracy skills, as well as aggression; the only positive impact was on anger dysregulation.**

- **Literacy:** Coaching led to small, negative and statistically significant effects on children's letter identification skills, but had no significant effect on other literacy outcomes.
- **Numeracy:** Coaching led to small, negative and statistically significant effects on 5/8 EGMA outcomes: missing number, addition levels 1-2 and subtraction levels 1-2.
- **SEL:** Coaching caused a decrease in children's self-reported levels of anger dysregulation, though it increased their orientation toward the use of aggression.

Findings indicate that our coaching model is not a cost-effective intervention to improve the learning outcomes of OOS children in this particular context and setting. As a "treatment plus" intervention, the additional cost to provide coaching would only be cost-effective if the percent change in impact was greater than the percent increase in cost. Coaching's negative impact on learning, in combination with the 64% increase in cost per student, revealed a negative return on investment. Our qualitative data presented below delves into why this intervention did not prove successful.

What were the experiences of children, LFs and coaches with the ALP (basic ALP and ALP+Coaching) program?

- **Motivation to enroll and attend:** Children reported being motivated to attend because they want to learn literacy and numeracy and believe education will bring them better economic prospects and a brighter future. Free and easy enrollment procedures to NFLCs removed previous obstacles to accessing education, and the flexible schedules allowed them to continue supporting economic activities at home. The biscuits, sweets and sachet water provided by civil society organizations were also a key motivation to attend NFLCs.
- **Student-LFs relationships and positive discipline:** LFs have established positive relationships with students through the use of positive discipline. Children reported that their prior impression of teachers were of someone who is responsible for punishing and beating children, and the lack of corporal punishment in NFLCs has contributed to positive student-LF relationships and increased children's confidence in seeking help from LFs when needed.
- **Curriculum:** Numeracy was considered to be easy to teach and to learn and was perceived as the most useful subject. LFs generally found practical instructional aid for numeracy easy to access and use. Literacy was also considered easy and useful, but some LFs struggled teaching Hausa due to low levels of proficiency. Students request that NFLCs include English as a subject in the ALP, because instruction in Nigerian public schools shifts to English in fourth grade of primary school. Students, LFs and coaches reported that SEL is valuable and has improved students' behavior and LFs ability to manage behavior in the classroom. However, they all consistently reported that SEL was the most difficult subject to teach and to learn because it is a new concept in the region. LFs and teachers want to have additional trainings and more teaching and learning materials to support SEL.

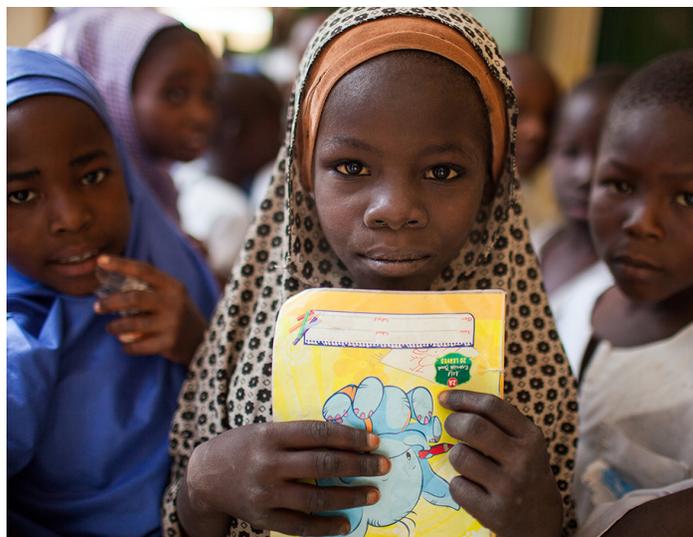


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What were the experiences of learning facilitators and coaches with different professional development supports?

- **Face-to-Face trainings (FtF) and Teaching Learning Circles (TLC):** LFs reported FtF trainings were useful but insufficient to learn all the skills they need to deliver the program. LFs found TLC to be the most helpful professional development support, as it provided them with an on-going opportunity to keep learning and to receive and provide support to and from peers by discussing problems, brainstorming solutions and sharing best practices.
- **Coaching:** Coaches struggled to provide effective support to LFs given the limited training they received, lack of expertise in subject matter areas and workload. LFs reported that coaches established friendly and respectful relationships with them, but did not conduct visits consistently. While some LFs considered coaching useful, others indicated that coaches lacked the experience and competence needed to be effective mentors.

How do the effects of ALP and ALP+Coaching vary for different subgroups of children by sex, SES, IDP and disability status? What are the variety of experiences of children by gender, IDP and disability status, before, during and after the program?

Overall, the NFLC project contributed to reduce equity gaps among children with different backgrounds in various academic and SEL skills.

- **Baseline equity gaps:** At baseline we observed that IDP, physically disabled females from low SES were significantly more disadvantaged in literacy and numeracy outcomes than host community, non-disabled males from higher SES. We identified that 5% of children were experiencing severe depression, especially IDPs (7%) and children with physical disabilities (46%).
- **Post-intervention changes in equity gaps:** The basic ALP had significantly larger effects on the numeracy skills of IDP and children from lower SES than on their counterparts, and contributed to reduce baseline equity gaps. However, the ALP program increased the gaps in children's orientation toward the use of aggressive conflict resolution strategies by giving additional advantages to children from richer home literacy environments over those from weaker home literacy environments. The ALP+Coaching had a significantly larger impact on IDP, low SES children, and those with a physical disability. The intervention helped reduce baseline equity gaps in oral reading fluency by helping children from poor home literacy environments learn more, and also reduced depression levels among children with disabilities.



PHOTO: KELLIE RYAN/IRC

What are the variety of life experiences of OOS children before, during and after the ALP program?

- **Girls** face more difficulties in accessing education opportunities and are more likely to drop out of school than boys because in the face of financial constraints, families prioritize boys' education. They are also likely to drop out of school due to irregular attendance associated to household chores. Girls enjoyed and were able to benefit from the program as much as boys, but the qualitative data suggest that they have experienced more difficulties than boys in enrolling and attending formal school after graduating from the NFLC.
- **Children from poor households:** Most children are engaged in supporting their caregivers' livelihood activity. Children in households facing acute food insecurity and poor livelihood opportunities are heavily involved in coping strategies such as hawking and begging. NFLCs allow poor children to start or continue their education without burdening caregivers with any additional costs. The flexibility of the program allows children to carry on with their daily activities supporting family income or engaging in household activities. Poor children were highly motivated to attend NFLCs due to provision of biscuits twice per week, but also experienced challenges attending due to lack of meals before and during NFLCs hours. After graduating from NFLCs, children from poor households remained OOS working and trying to save money to pay on their own the expenses associated with attending classes in formal schools.
- **Displaced children** have experienced unstable lives, full of uncertainties, violence and fear. Most were displaced by a Boko Haram attack, and are struggling with trauma and loss. IDP children situated their perception of safety in their new community to friendships with other children and access to basic necessities such as food, school and other supports in the community, but some indicated suffering from bullying and abuses from other children in the community. The NFLC has helped IDP children settle into more normal lives. LFs indicated that they were very quiet at the onset of the program but in the course of weeks became participatory and more cheerful. IDP children expressed wanting to live peaceful lives, devoid of violence, and that they enjoy been treated kindly and want to forget the bad experiences they have had.

CONCLUSIONS

- **The basic ALP packet has the potential to be a cost-effective intervention** to improve short-term numeracy and literacy outcomes and reduce orientation toward the use of aggressive conflict resolution strategies but not yet other SEL outcomes. Obtaining data about long-term outcomes and about the cost of alternative interventions to compare against will be necessary to reach more definitive conclusions.
- **Our coaching model is not a cost-effective intervention for achieving educational gains in literacy, numeracy or SEL.** While evidence from stable high and middle income countries suggests that coaching is an effective professional development strategy to improve the quality of teachers' instruction and students' learning outcomes, this evidence did not hold in northeast Nigeria.
- **Girls, children displaced by violence, children from poor households and children with disabilities are at greater disadvantage than their counterparts.** Fortunately, the program appears to be benefiting the most marginalized children, contributing to a reduction in baseline learning and socio-emotional equity gaps.

RECOMMENDATIONS

For donors and policy makers

- Invest in education programs in crisis and conflict contexts designed to achieve outcomes, not simply outputs, and require grantees to monitor progress towards these outcomes.
- Invest in complimentary, quality ALP programs with pathways to the formal system for OOS children in crisis contexts to support learning and transition outcomes.
- Invest in high quality research to better understand what works, for whom, at what cost and under what conditions in conflict and crisis contexts by funding impact evaluations that are coupled with costing data, implementation data from monitoring systems and qualitative data from interviews and focus groups
- Ensure resources for education in crisis contexts are directed to girls and boys equally, and prioritize children displaced by violence, living in poverty and with a physical disability.
- Invest in cost-effective models of professional development to build a workforce of qualified instructors based on the best available evidence from research, such as our basic ALP with face-to-face trainings and TLC. Invest in additional research to determine how to further increase the effect of professional development opportunities for teachers and LFs in conflict and crisis affected settings.

- Allocate funding for school-based mental health programming and research: though the SEL component of our ALP program helped improve children's ability to regulate emotions and decrease orientation toward the use of aggression, the program did not have an impact on depression. Children with disabilities and IDPs would greatly benefit from targeted interventions to help them cope with trauma and alleviate feelings of sadness, anxiety and depression.

For Practitioners

- Recruit LFs using screening tests to assess their reading and writing proficiency in the language of instruction (Hausa, and if needed, English). Consider developing audiovisual supports of proficient models of Hausa reading that LFs can use to support teaching, via tablets, WhatsApp, or low cost technologies. Provide LFs with transportation stipends to improve attendance to TLC.
- Do not continue implementing on-site coaching visits until evidence shows the model is a cost-effective way to promote professional development (PD). Continue the implementation of effective models of PD such as the combination of face-to-face trainings and TLC. Pilot innovative ways to improve teachers' capacity in conflict and crisis contexts. Successful coaching models in EiE contexts may require intensive training and on-going opportunities of professional development for coaches—such as peer-support and regular coaching learning circles—as well as the establishment of effective systems to monitor coaches' visits and the quality of their work.
- Design and contextualize SEL coaching, teaching, and learning materials through a rigorous process of testing and prototyping to ensure that concepts, activities, and materials are easily understood and culturally relevant.
- Add English as a subject matter to the ALP to ensure that learners can more easily transition and succeed in formal schools, where language of instruction is English beginning in 4th grade.
- Consider adding school feeding to the ALP to increase attendance and learning.



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NEXT STEPS

In the fall 2019, we will conduct several follow-up analyses to identify:

- **The teacher, school and implementation characteristics that are associated with students' learning outcomes:** We will couple impact data from our research study and implementation data from our monitoring systems—including attendance, quality of coaching visits—to understand the factors associated to students' performance and the degree to which variations in the quality and fidelity of implementation affect students' learning outcomes.
- **The effect of NFLC on students' transition to formal school and long term learning outcomes:** We will collect a third wave of data to assess impact on enrolment and attendance to formal schools and to identify whether the effect of the program on learning and SEL outcomes faded out, remained the same or increased one year after they graduated from the NFLC program.

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ENDNOTES

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