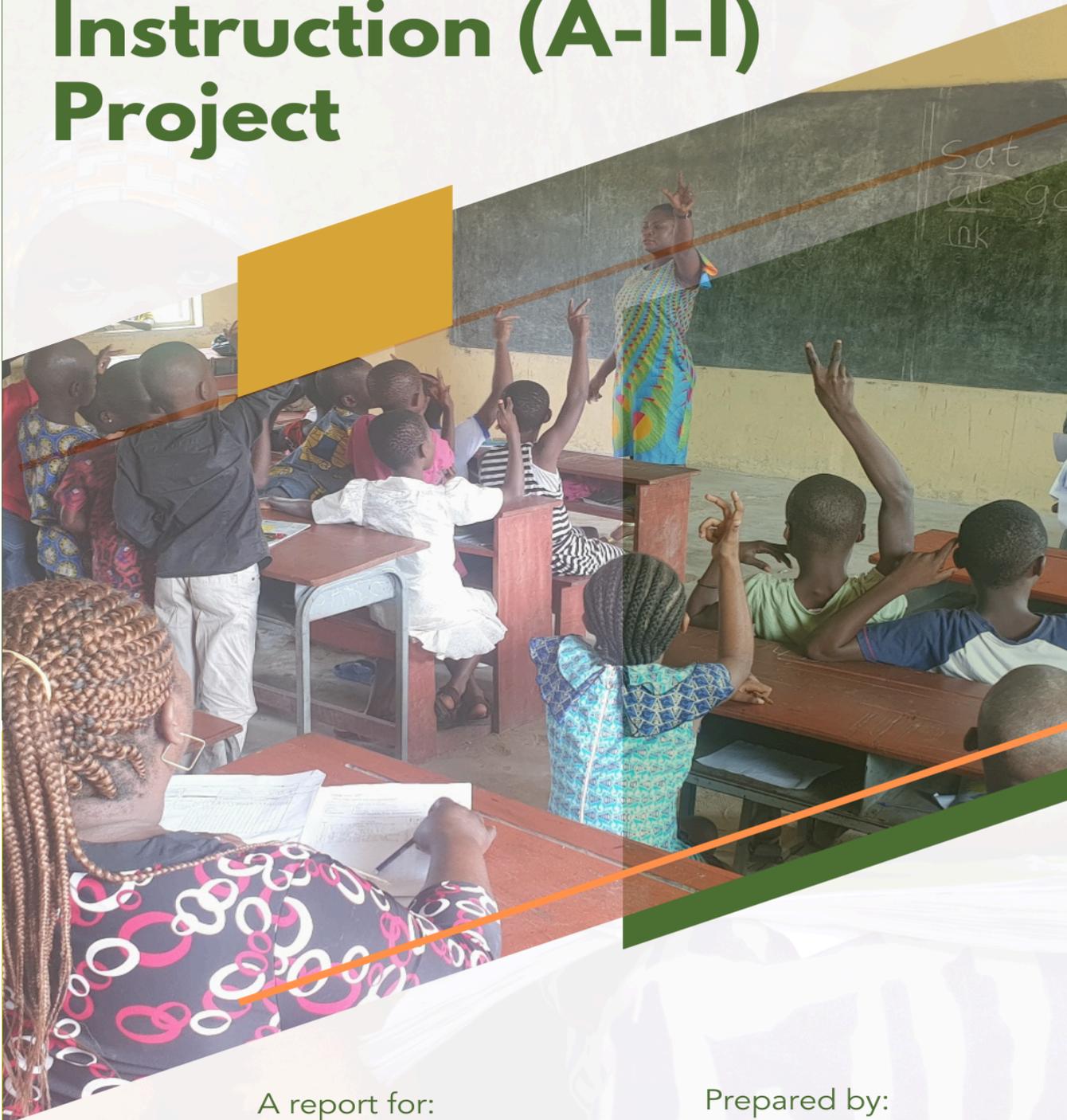


Interim Report The TEP Assessment- Informed- Instruction (A-I-I) Project



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A report for:
The Bill and Melinda
Gates Foundation

Prepared by:
TEP LEARNigeria Initiative

1. The A-I-I approach

Assessment-Informed-Instruction is designed primarily to enhance teacher capacity in formative assessments, to support teachers in creating behavioural change in their pattern of teaching and peer learning. It seeks to leverage best practices suitable for building competence in learners and the way subjects are planned, taught, and assessed for better results.

This pilot study, implemented in Oyo state in South-west Nigeria, is funded by the BMGF's Global Education Team. It is focused on improving foundational literacy and numeracy (FLN) outcomes in sub-Saharan Africa (SSA) by exploring methods in the science of teaching and learning in early grades of primary school. It focuses on developing deeper pedagogical insights and knowledge, encoded in knowledge products that are contextually accurate and globally relevant, for improvements in teaching and learning of foundational literacy and numeracy (FLN). The A-I-I project is therefore designed to:

- Establish a research-based rationale for assessment-informed instruction as an effective pedagogical method for improving teaching and learning.
- Explore and examine the limitations of traditional classroom instruction as well as the role (i.e., the utility) of formative assessments in improving teaching and learning.
- Explore how A-I-I can be used to enhance teaching and learning by strengthening pedagogical methods such as differentiation, and by teaching from the child's competency level.

2. A-I-I: The journey so far

Oyo State was purposely selected for this study for three reasons: 1) It has the highest share of children out-of-school among the six southwestern states in Nigeria, suggesting that there are systemic issues that preclude children from accessing education and learning opportunities, 2) Its participation in the World-Bank funded Basic Education Service Delivery for All (BESDA) program, and Transforming Education Systems at State (TESS) level project, which is an indication of the desire for system strengthening and openness to public-private partnerships, and 3) It is home to our partner university; the University of Ibadan (UI) Institute of Education, which is one of Nigeria's foremost educational training institutions. We partnered with UI to train and deploy its postgraduate students as project monitors, deepening their understanding of effective approaches for formative assessment.

The pilot project is being conducted in two local government areas (Ibadan South-West and Lagelu LGAs), representing urban and rural geographical areas, respectively. In this study, three schools were selected from each LGA to participate in the student assessment and implementation of the project. Below is a breakdown of the participant selection for the A-I-I pilot project:

- a. Two Local Government Areas in Oyo State, Nigeria
- a. Six schools from the two LGAs (three schools were selected from each LGA)
- b. Thirty-six teachers for the teacher training and in-school implementation of the A-I-I model (six teachers, including a head teacher and assistant head teacher)
- c. Nine hundred students selected for assessment and monitoring during implementation (twenty-five students each from primary two, three, four and five)



3. Progress summary

As we progress through the journey of pedagogical reform and transformation in learning engagements, TEP Centre has completed the following output-level results on the A-I-I project:

- Teacher survey of pedagogical capacity and relevance to the A-I-I methodology:** The purpose of this survey was to gather empirical evidence on the current practice and teaching processes of teachers in the classroom. How students are engaged during learning, the methods of assessing learning competence, and teachers' perception of how assessments are used to determine lesson plans for better learning outcomes. For this survey, a cluster-random sampling technique was used to select a sample of 100 teachers from the population of 613,595 public primary school teachers (according to the 2018 Annual Schools Census) across the six geo-political zones in Nigeria for fair representation, i.e. 8 teachers each from two states in each zone, and an additional 4 teachers in Oyo state, being the implementation state.
- Learner assessment:** Using the LEARNigeria FLN assessment tool, a baseline assessment has been carried out on the selected learners to determine their FLN level. This assessment is benchmarked at primary two content knowledge requirements of the Nigerian curriculum and provides data on the foundational literacy and numeracy levels of learners regardless of their class and age. An analysis of the assessment reveals that in literacy, 6.7% of the students are at the beginner level, 34.8% are at the letter identification level, 13.4% are at the word level, 15% of students are at the paragraph level, and 30% of the learners assessed are at the story level. In numeracy, the assessment results reveal that 24% of learners assessed are at one-digit recognition level, 17% and 23% of students are at two and three-digit levels, respectively. In basic operations, 13% of students are at the addition level, 10% are at the subtraction level, while 8% and 5% of students are at the multiplication and division level, respectively.

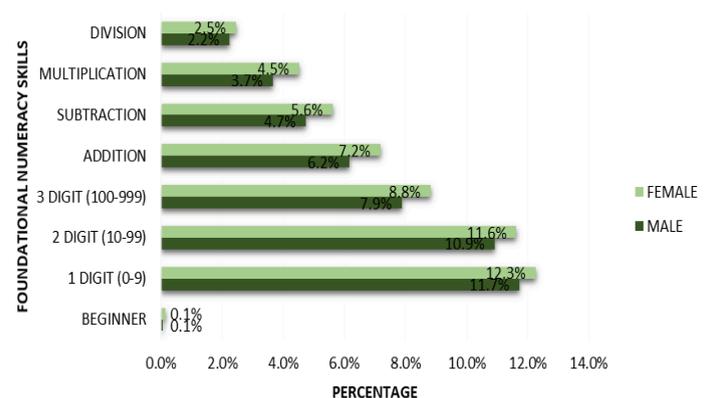
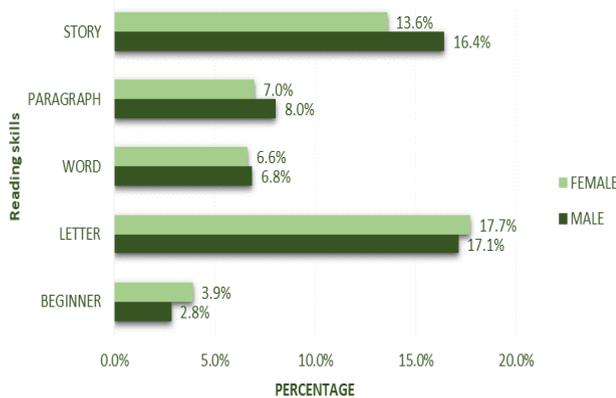


Chart 1: Baseline literacy assessment of learners in primary 2, 3, 4 and 5

Chart 2: Baseline numeracy assessment of learners in primary 2, 3, 4 and 5

- Teacher development programme module:** To facilitate behavioural change in teaching practice and student engagement in the classroom, a comprehensive teacher training module was developed to provide teachers with strategies for better (whole) class engagement and lesson development. This module contains processes for student data collection (formative assessments), analysis and utilisation

that are designed to optimise teacher capacity to create lesson plans specific to the level of learners in the classroom. It also provides teachers with techniques that lead to engaging and participatory learning experiences. These modules, techniques, instructional guides and templates are easy to apply, easy to use and cost-effective/cost-saving.



Image 1: Enumerator carrying out literacy assessment, using the LEARNigeria tool on the surveyCTO mobile app

- **Teacher training and peer-to-peer engagement:** The teachers selected for the A-I-I pilot action study in Oyo state were trained on specific approaches to leveraging assessments in their teaching practices as a crucial element that helps with the design of classroom instructions.

In addition to this, the training covered guidelines for incorporating peer-to-peer engagement by facilitating interaction with other teachers to review and improve their teaching practice. This approach gives the teachers a platform to communicate with each other, share best practices and provide professional support in pedagogy. In these peer-to-peer engagements, teachers focus on improving their teaching strategies, engaging with school management for support, professional council and capacity development. Setting up and maintaining this structure will help teachers become more motivated to improve their pedagogical processes and strengthen learner outcomes.

- **Monitoring, Evaluation, Analysis and Learning:** Throughout the lifecycle of this project, classroom implementation was monitored, evaluated and analysed to provide immediate feedback to teachers and support their implementation journey. The analyses and report drawn from responses to the customised observation tools designed for the project provide key insights into the limitations, challenges and required participation of teachers implementing the A-I-I model in school.

This learning exercise is a key determinant of the success of the study.

- **Partnership:** In the course of the A-I-I project, our partnership with the prestigious University of Ibadan was strengthened. Research and postgraduate study students were onboarded on the project as monitors and trained to understudy and report

Challenges
...insufficient resources to create instructional aids for each learner, and teacher performance in the selected school due to teacher transfer...

the changing behaviour of teachers and their engagement with students in the classroom.



Image 2: Enumerator carrying out numeracy assessment, using the LEARNigeria tool on the surveyCTO mobile app

4. Emerging insights

Three key insights learned from the implementation of the A-I-I project in the classroom are,

- a. With the properly curated training and templates as instructional guides, teachers are able to engage in purposeful behavioural commitments in their instruction planning and classroom engagements by sharing strategies and resources, and seeking support from their peers whenever needed.
- b. Learners are more engaged in the classroom, and they actively participate in the learning process with the help of the learning aid materials that are provided. These materials include cut-out cardboards, paper reading journals, learning games with straws and bottle tops.
- c. Teachers are better equipped to teach foundational skills when they understand the learning capacity of their learners through regular assessment and class participation.

5. Conclusion - Close-out plans for the A-I-I pilot project in Oyo state

As this phase of the project ends in July 2023, an endline assessment will be conducted and analysed with the baseline assessment results to gauge the improvement of learners across all assessed levels. The report from the endline assessment will be ready for submission on the 12th of July 2023, while the final report for the A-I-I project will be submitted on the 21st of July 2023.

...Learners who have shown significant improvement in their learning will be measured by how much further they have moved across learning levels at endline. For example, learners who have gone from identifying letters to being able to read a paragraph, or learners who have progressed from 2-digit number identification to doing simple addition...

Teachers who were trained on the A-I-I model will be formally recognised, and those whose learners show significant improvement in their learning outcome, by moving at least two levels further in the assessment, will be inducted into a teacher professional capacity network that will provide continuous support as they strengthen their pedagogical capacity and enhance their advocacy for improved FLN outcomes.

Even as the pilot study ends, teacher engagement and professional development remain a continuous process. TEP LEARNigeria Initiative is developing two knowledge pieces on the practice and implementation of the A-I-I approach in Nigeria, and how it holds promise for improving pedagogy in early grades.



6. Appendix

LEARNigeria Basic Assessment Tool Sample

LN English Test Sample for Basic level

LEARNigeria®

PARAGRAPH 1

My name is Musa Ado. I live in a town. I go to school every day. The school is very big.

PARAGRAPH 2

Amina is a good girl. She cleans her room daily. She also likes to read. She goes to school early

- Give Paragraph to children who have successfully read at least **FOUR** words correctly
- Let the child choose any of the two paragraphs and read.
- TWO** errors are allowed. Error types include skipping words, failure to read as a string of words making a sentence
- If the child can read fluently as whole sentences, not as a string of words and without stopping often, then ask the child to read the story. If not, then mark the child at **word level**

SAMPLE 1



STORY

My friends call me *Fishy*. I like to eat fish every day. I have a fishing rod. I use it to catch fish. Every day I go to River Niger. I always take my catch home. Yesterday I fried some of the fish. I dried the rest.

In school, I listen to my teacher. He says fish is rich in protein. Protein is good for my body. All my friends now like fish very much.

Q1. What does *Fishy* use to catch fish?
Q2. Why is fishy called fishy?

- Give Story to children who have successfully read the paragraph.
- THREE** errors are allowed. Error types include skipping words, failure to read as a string of words making a sentence
- If the child can read with ease, does not stop frequently or does not read a sentence as a string of words, then mark the child at **story** and ask the comprehension questions. If not then mark the child at **paragraph level**

LN Numeracy Test Sample for Basic level

LEARNigeria®

LEVEL 4 Addition

61	34	43
+27	+20	+33
11	21	
+11	+ 12	

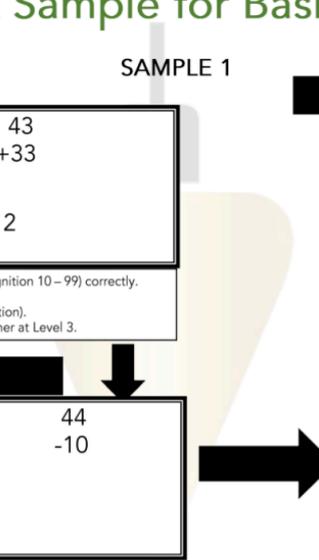
- Give these to the child who has done Level 3 (Number recognition 10–99) correctly.
- For each operation section, let the child attempt **ALL**.
- At least **THREE** must be correct to move to Level 5 (Subtraction).
- If the child does **not** do at least **THREE** correctly, mark him/her at Level 3.

LEVEL 5 Subtraction

64	79	44
-32	-51	-10
68	57	
-23	- 47	

- Give these to the child who has done Level 4 (Addition) correctly.
- For each operation section, let the child attempt **ALL**.
- At least **THREE** must be correct to move to Level 6 (Multiplication).
- If the child does **not** do at least **THREE** correctly, mark him/her at Level 4.

SAMPLE 1



LEVEL 6 Multiplication

2 x 5 =
7 x 7 =
8 x 2 =
6 x 8 =
4 x 9 =

- Give these to the child who has done Level 5 (Subtraction) correctly.
- For each operation section, let the child attempt **ALL**.
- At least **THREE** must be correct to be marked at Level 6.
- If the child does **not** do at least **THREE** correctly, mark him/her at Level 5.



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