KIAT Guru
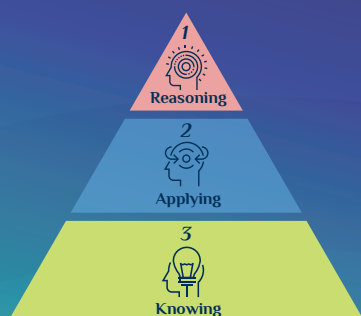
Student Learning Assessment:
A Tool to Measure Primary Student Learning Outcomes in Indonesia's Remote Areas

Figure 1.
Content and Cognitive Domains Measured in SLA Reading and Math Test

READING
Letter, Word, and Sentence Recognition
Focus on and retrieve explicitly stated information
Make straightforward inferences
Interpret and integrate ideas and information
Examine and evaluate content, language, and textual elements

MATH
Numbers
Geometry & Measurement
Data & Statistics

1 **Reasoning**

2 **Applying**

3 **Knowing**

HIGHER- ORDER THINKING
LOWER- ORDER THINKING

What is Student Learning Assessment (SLA)?

SLA is a tool that measures primary grade 1-6 reading and mathematics competencies in Bahasa Indonesia. The tool was developed to evaluate the impact of KIAT Guru program, which aims to improve teacher performance and accountability in Indonesia's remote schools. SLA was designed based on both Indonesia's 2006 national curriculum and international framework, namely the Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS). These include a wide range of content and cognitive domains in reading and math topics. Test items are designed to measure student's knowledge of reading or math concepts, student's ability to apply this knowledge to a certain context, or student's reasoning to critically consider solutions to a novel problem.

How can SLA be used?

SLA is appropriate and contextualized for measuring primary school student's ability in remote areas of Indonesia's lagging regions. Hence, SLA is limited in its use beyond remote areas where student's ability tend to be more advanced and the gap between lower and higher performer is narrow. It is also inappropriate to assess out-of-school children who are not receiving curriculum-standard lessons.

SLA scores can be compared across grades and time. Test booklets are available in two packages to measure baseline and end line learning outcomes. Test booklets for grade 3 through 6 are developed in two alternate versions, both having similar number and content of test items, however varied in their ordering.

Each test booklet and/ or package can be used independently within a school setting (e.g. grade 4 test booklet from end line only is used), or in combination with other test booklets from the same and/ or different package (e.g. grade 1 through 6 test booklets from baseline package are used).

Table 1. SLA Test Booklets for Baseline and End line Packages

GRADE	READING		MATH	
	BASELINE/PACKAGE 1	**END LINE/PACKAGE 2**	**BASELINE/PACKAGE 1**	**END LINE/PACKAGE 2**
1	1 Version	1 Version	1 Version	1 Version
2	1 Version	1 Version	1 Version	1 Version
3	2 Versions: A & B	2 Versions: A & B	2 Versions: A & B	2 Versions: A & B
4	2 Versions: A & B	2 Versions: A & B	2 Versions: A & B	2 Versions: A & B
5	2 Versions: A & B	2 Versions: A & B	2 Versions: A & B	2 Versions: A & B
6		2 Versions: A & B		2 Versions: A & B

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How is SLA implemented?

The SLA is implemented in two ways: (a) oral and individual tests for grades 1 and 2 students, and (b) classical and group tests for grades 3 through 6 students. All test items are written in multiple-choice formats to optimize efficiency and objectivity in test administration and scoring.

ORAL & INDIVIDUAL for grade *1 and 2* students
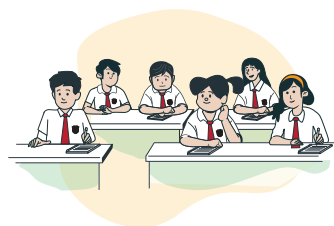
CLASSICAL & GROUP for grade *3 through 6* students

How is SLA scored?

Student performance is scored by the percentage of items answered correctly. These scores can be further classified to their grade-level standard equivalent based on the Indonesia's 2006 national curriculum standard.

Table 2. Reading Test Score and Grade-Level Competency Equivalence

Test	SCORE RANGE FOR COMPETENCY LEVEL						
	Illiteracy	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
Grade 1	<30%	>85%					
Grade 2	<13%	45-95%	>95%				
Grade 3		5-40%	40-87%	>87%			
Grade 4			15-60%	60-94%	>94%		
Grade 5				10-42%	42-82.5%	>82,5%	
Grade 6					17-56.5%	56,6-91%	>91%

Table 3. Math Test Score and Grade-Level Competency Equivalence

Test	SCORE RANGE FOR COMPETENCY LEVEL						
	Innumeracy	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
Grade 1	<20%	>70%					
Grade 2	<10%	40-86.7%	>86.7%				
Grade 3		7-50%	>50%				
Grade 4			7-40%	40-90%	>90%		
Grade 5				20-50%	>50%		
Grade 6					10-53%	54-93%	>93%

Illiteracy/Innumeracy	Below Level	At/ Above Level

Where has SLA been used?

The tool has been piloted and tested to 64,565 students in 324 remote primary schools across East and West Java, Special Region of Yogyakarta, West Kalimantan, South Sulawesi, East Nusa Tenggara, Papua and West Papua. Psychometric quality of the test items were measured using 2 Parameter Logistic (2-PL) Item Response Theory and Rasch Model. The SLA is fitted to the ability of students in remote areas of Indonesia's disadvantaged regions, which falls on the lower spectrum of ability range and is even behind students in remote areas of advantaged regions.