STAR Guidance

(School-based Test About Reading)

A guide to STAR tool preparation and contextualization

February 2017

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Abbreviations

CWD	Children with a disability
EdLS	Education & Life Skills
EGRA	Early Grade Reading Assessment
FLAT	Functional Literacy Assessment Test
GC	Global Centre
MUW	Most Used Words
MVC	Most Vulnerable Children
NO	National Office
STAR	School-based Test About Reading
WV	World Vision

Foreword

A good quality basic education system should provide children with the reading skills necessary for learning in the home, school, and community. Yet in many countries, students enrolled in school for as many as six years are unable to read and understand a simple text. Children who cannot read with ease and understand what they are reading by the time they are in third grade are less likely to transition from 'learning to read' to 'reading to learn' core subjects in fourth grade and beyond. This places them at risk of dropping out of primary education and lessens their potential to function as productive and effective members of society.

The School-based Test About Reading (STAR) focuses on five critical components of reading, including phonemic awareness, phonics, fluency, vocabulary, and comprehension, and the field guide is meant to assist NO staff and field offices in using these results to develop early literacy interventions. It contains the procedures, protocols, and tools required to plan a literacy assessment, including analysis and reporting of STAR results.

Although assessing early reading skills is complicated, this guidance aims to facilitate the process.

Evidence from sound research is the basis for this manual drawing from three main sources:
1. Save the Children, Literacy Boost Toolkit, 2012.
2. World Vision International, Functional Literacy Assessment Tool, 2015.
3. USAID/RTI/World Bank, Early Grade Reading Assessment Toolkit, 2016.

Introduction

What is the STAR tool?

The World Vision (WV) STAR (School-based Test About Reading) provides critical information about children's foundational reading ability. **STAR replaces FLAT as the recommended tool for assessing reading.** It measures reading skills for Grade 3 students who are the focus of WV's literacy programming.

The objective of the tool is to assist National Office (NO) staff in understanding children's reading skills in order to inform local education programming.

Results from STAR are used to report on the Child Well-being Objective: 'Increase in primary school children who can read' (see Appendix D).

Components of the assessment include:
1. Letter knowledge
2. Most used words
3. Decodable words
4. Story reading
5. Reading Comprehension

What does STAR measure?

This tool is designed to measure students' progress in reading as the result of a specific literacy programme. It should be used with Grade 3 students enrolled in and attending a structured learning environment[1] to measure a level of minimum proficiency in reading comprehension. All reporting of scores should mention the grade assessed for reference (e.g. 'Only 2% of children in Grade 3 could read a Grade 3 passage with comprehension').

Included within the tool are background questions to be asked of the students. These questions take into account issues of (in)equity that may be present (for example, sex, home literacy environment). This information will assist the NO in highlighting the needs of the most vulnerable children (MVC). These results, when complemented by school environment data collected during a school environment survey (see Appendix C for School Environment Survey template), help the NO target interventions accordingly.

Definition of 'minimum proficiency'

'Minimum proficiency in reading comprehension' refers to the achievement of *grade level appropriate* reading skills. The STAR assessment is intended for use with Grade 3 level students or children at the end of Grade 2. Where a measure of reading comprehension is needed for students in upper primary grades, it is strongly recommended secondary data be used. Many countries conduct exams at the end of primary school, so where available, reading/language arts results should be used to report on minimum proficiency at end of primary school.

Assessments at the end of primary school should only be conducted if WV education programming is directly targeted at that grade level. In this situation, **do not** use STAR or FLAT. Neither STAR nor FLAT assessments are designed to measure minimum proficiency (grade-appropriate) literacy skills for students at the end of primary school. NOs that choose to measure students at the end of primary school should work with the local Ministry of Education to develop a grade-appropriate tool. Any NO that develops a 6 tool with the Ministry of Education should contact the GC EdLS team for support in validating that tool.

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[1] Structured learning environment includes formal and non-formal schools.

When to use STAR?

- **According to programme cycle:** Use STAR as part of a Technical Programme (TP) baseline, and again at evaluation, to assess reading levels of children in Grade 3. It can also be used in the middle of a programme (e.g. mid-term evaluation) to judge progress.
- **According to school cycle**: Working with partners, including school leaders and Ministry of Education officials, establish the most appropriate time in the school cycle to administer the tool. Avoid school holidays and exam periods.
- **At the same time:** To account for children progressing through the curriculum and breaks in learning due to school holidays, it is essential that the baseline/evaluation assessment(s) take place during the same month in subsequent years.

Who should be assessed using STAR?

With WV's strategic shift to focus on quality of teaching and learning in education programming, it is essential that NOs prioritize collaboration with Ministries of Education and work in specific structured learning environments. This requires that monitoring and evaluation of learning outcomes be done in these same structured learning environments. As a result, sampling MUST be done at the school level in order to directly link STAR results to programming results.

Use the sampling calculator included in the LEAP 3 Baseline Field Manual to determine the number of schools needed to reach the minimum sample size per group. In each school, randomly select 20 Grade 3 students, *regardless of age,* choosing an equal number of boys and girls. The goal is to assess children who have received at least two full years of primary education. If fewer than 10 students of one sex are present at school on the day of assessment, a larger number of the other sex should be assessed to reach the minimum sample size of 20. If fewer than 20 students are present in Grade 3 on the day of assessment, assess all students in Grade 3.

Children with a disability can be included in the sample. Check with the classroom teacher whether any CWD are in the sample and clarify the type of impairment. All children must agree to being assessed. If a CWD has a cognitive impairment that prevents them agreeing to being tested, they must not be included in the sample. All test materials from which the children read should be printed in point size 18 -24. This size meets recommendations for printed materials for those with a visual impairment. Refer to Appendix G Disability Inclusion for further information.

Please also refer to the Ethics Quick Reference Guide for further information to be considered when surveying children.
https://www.wvcentral.org/community/pe/Key%20Documents/Ethics_Quick_Reference_Guide_31Oct2016.docx

How does STAR compare to other assessments?

STAR includes many of the same sub-test components as FLAT, minus a local reading material passage and simple paragraph introductory test item. STAR starts by assessing letter knowledge, then moves to assess higher reading skills. It also has included sub-test components that are different than FLAT. In line with current industry recommendation, there is an additional 'decodable words' sub-test. STAR requires all assessment components be developed at a Grade 3 level (compared to FLAT that requires sub-tests be developed at Grade 2 to 4 levels). STAR is a scaled-back Literacy Boost assessment which is itself a scaled back Early Grade Reading Assessment (EGRA); so these tests are nearly identical. A brief outline of the differences is included in the table below. A fuller outline of the differences between assessment tools is included at Appendix A.

Test Component	STAR	Literacy Boost	FLAT	EGRA
Listening Comprehension				✓
Letter Identification	✓	✓	✓	✓
Phonological Awareness				✓
Most Used Words	✓	✓	✓	✓
Decodable Words	✓	✓		✓
Paragraphs			✓	✓
Story	✓	✓	✓	✓
Fluency		✓		✓
Reading Comprehension Questions	✓	✓	✓	✓
Local Reading Material		✓		

Where to conduct STAR?

STAR should be conducted within or near to schools in an empty classroom(s), teachers' room(s), or other space where children and enumerators (those conducting the assessment with students) will not be disturbed. If this is unavailable, use outdoor space away from other classrooms. No matter the space chosen, ensure there is sufficient space between each pair of enumerator/student to prevent disturbances.

The enumerators can set up chairs or assessment stations, spaced out from each other to eliminate distractions, and simultaneously run the test for several children. You can run the test simultaneously for as many children as there are enumerators. If chairs and desks are not available, any quiet space away from potential distractions is acceptable.

Photo courtesy of Billi Shaner | Literacy Assessment in WV

It is best in every instance of using outdoor space to find a shaded area. It is absolutely necessary to find a shaded area to administer STAR when using tablets to collect data because direct sunlight for an extended period of time may damage the device.

Preparing and using the tool

Overview of Assessment Components

STAR includes five sub-tests that assess five components of literacy.

Component	Reading Skill	Skill demonstrated by:
Letter Identification	Alphabet knowledge	Providing name and/or sound of letters
Most Used Words	Word recognition	Reading words drawn from a list of common words used in Grade 3 textbook
Decodable Words	Decoding	Stating letter sounds by reading nonsense words
Story Reading	Oral reading ability	Reading a Grade 3 text with accuracy and at a reasonable rate of speed[2]
Reading Comprehension	Reading comprehension	Responding correctly to fact retrieval questions about the story read

Language of Assessment

Determine the language to be used to assess children's reading ability from information collected in the school environment survey on language of instruction, as well as secondary data on home language. If a school environment survey has not been completed, the language must be determined before adaptation of the tool. If assessing assess both home language and language of instruction then all the following steps on adaptation and contextualization must be repeated twice, once for the home language test and once for the language of instruction, and scores must be reported separately for each language. Use the diagram below to assist in determining the language of assessment.

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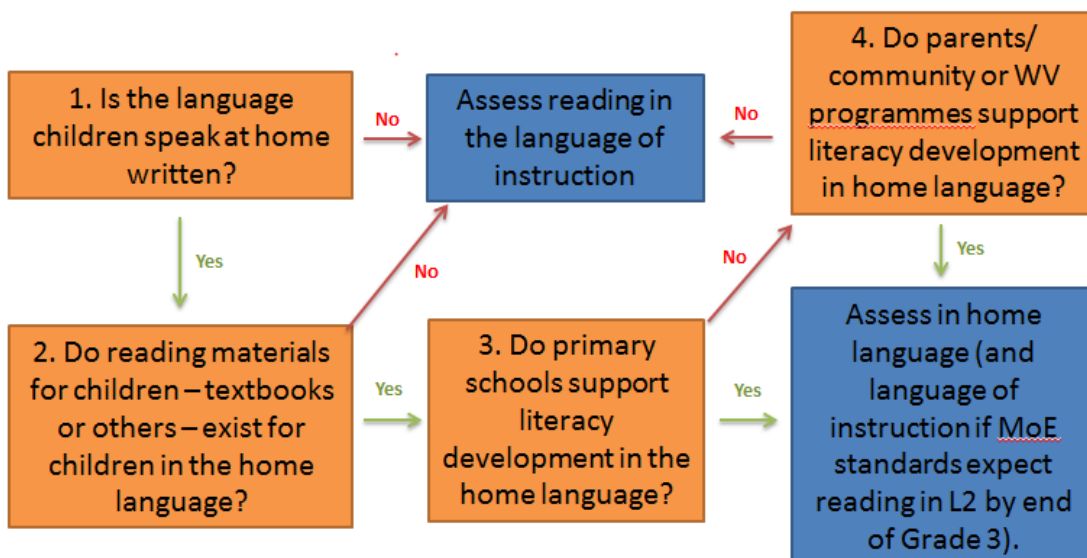
[2] 'Reasonable' speed can vary between languages. Check with the Ministry of Education for advice on the words per minute that are appropriate in your context.

STAR Components

Background Questions

It is important to collect background information on the children surveyed in order to look at trends that relate to reading and the impact of issues of equity on the acquisition of skills. Questions about student's sex, age, language spoken in the home, and home literacy environment are included. There are also questions about teacher practices in the classroom and student engagement in community action activities. The inclusion of student background information and data related to school and programme effectiveness provides a fuller picture for understanding student reading scores. It also allows for analysis according to different marginalized populations to ensure those who are not succeeding can be targeted accordingly. It is mandatory, not optional, to collect this information.

For those programmes that have conducted an [education Caregiver Survey](), data from the results of the survey can also be used to inform the programme design, and to provide a fuller picture of the reasons behind the baseline results. Be sure to check whether an education caregiver survey was conducted, and make use of the information it provides.

How to assess this component

Sample questions are provided in the example assessment in Appendices A and B. These questions should always be asked in the child's home language to ensure full understanding by the students. There are no correct or wrong answers for these questions, and students should always be given the opportunity to give no answer or state they don't know the answer.

Sub-test Development

In the example assessment in Appendices A and B, components of questions that should be adjusted according to context are highlighted in yellow. Where certain questions are irrelevant to the context, they may be removed, but the number of questions removed should be limited. Questions related to basic student characteristics, home learning environment, and engagement in community activities should always be included. These questions provide crucial information for NOs about programming and existing gaps in equity that WV programming can address.

Letter Identification

Letter knowledge includes knowing how letters connect to names or sounds and how they combine to form words. As such, this is a critical beginning skill children must acquire to become readers. For alphabets of 30 letters or less, all letters should be included in the STAR assessment. In the interest of time during testing, for alphabets of more than 30 letters, NO staff should consult with Ministry of Education officials and/or head teachers to select up to 30 letters that are most common in words children in Grade 3 should be able to read.

How to assess this component

Students may respond to this sub-test in one of three ways:

1. Give the name of the letter
2. Identify the sound the letter makes
3. Identify a word that starts with the letter

Before beginning this sub-test, students should be presented with these response options through use of an example (see the tool example in Appendices A & B and/or enumerator training guidance for more information).

Students should be asked to read the letters in order (left to right). Ask students to point to the letters as they read. If the student initially mispronounces the letter but corrects him/herself before continuing, the letter should be marked correct.

If the student struggles to name the letters in order (5 seconds of silence is a good indicator), ask the student if s/he can read any of the letters. If they still struggle, thank the student for trying and move on to the next sub-test.

Sub-test Development

In contexts where more than one language is spoken, consult the following diagram to determine which alphabet should be used:

1. Is the language children speak at home written?	→ **No** → **Use the alphabet of the language of instruction**	**Combine all the letters from both alphabets on the letters assessment.**
↓ **Yes**	**Yes** ↗	**Yes** ↗
2. Does the home language share 100% of letters with the language of instruction?	→ **No** → **3. Are there common letters?** → **No** →	**Assess in home language alphabet, then language of instruction alphabet**
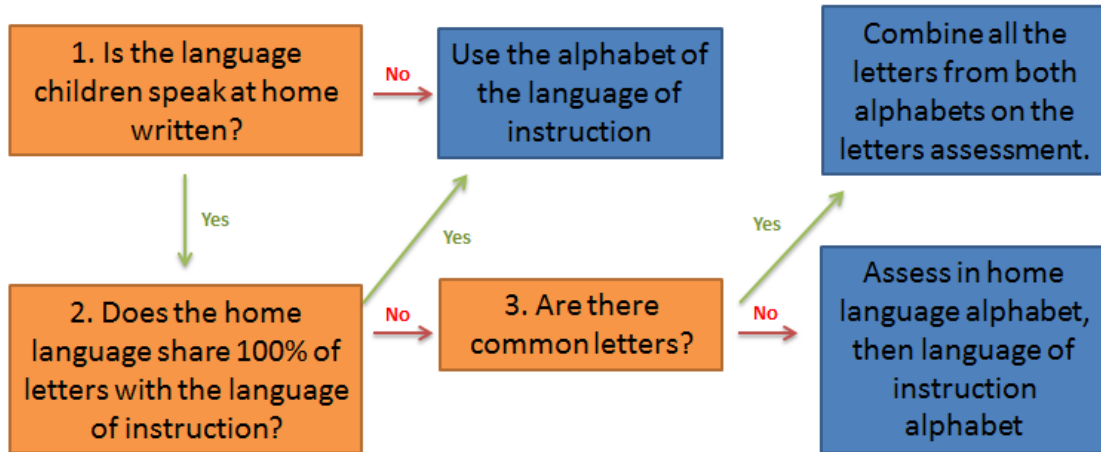
Once the alphabet is determined, prepare the test using the following rules:

1. List all letters in **lowercase**.

2. Use the font of the school textbook. We recommend this because many lowercase letters (for example: a, g, y) in certain fonts may look different from what children are used to reading. This could result in lower scores.

3. Letters should be placed in a matrix **not** in alphabetical order. Print a hard copy of the matrix from which the student will read (this applies both to electronic and paper assessments).

Example test: Latin script

c	g	f	q
d	a	r	e
m	l	n	b
j	i	h	o
s	p	t	v
z	u	w	k
x	y		

क	ट	ढ	आ	च
झ	अ	य	ब	घ
ण	ड	ओ	र	म
त	प	भ	ञ	ध
ख	औ	ग	ठ	द
ष	थ	इ	अः	अं
छ	ङ	न	ज	ल
उ	त्र	ई	श	फ
स	ऐ	ह	ऊ	क्ष
ज्ञ	ए	ऋ	व	

Most Used Words

The ability to read familiar words out of context is a critical beginning reading skill. Reading individual words in this way is a measure of word recognition that prevents students from being able to guess each following word due to context of a passage. For this assessment, choose 10 Grade 3 words.

How to assess this component

Give students an unlimited amount of time to read the words. Students should be asked to read the words in order, left to right. Ask students to point to the words as they read.

If the student initially mispronounces the word but corrects him/herself before moving on, the word should be marked correct. See page 12 for more scoring rules.

If the student struggles to name any words for an extended period of time (5 seconds of silence is a good indicator), read the word for the child and ask the child to read the next word. If the student is unable to read at least one of the first two words, ask the student if s/he can read any words. If they still struggle, thank the student and move on to the next subtest.

Sub-test Development

Consult with the Ministry of Education or Early Grade Reading Assessment (EGRA) for an existing list of common words for Grade 3. If these are unavailable or do not exist, use the following process:

1. Open Grade 3 Language Arts Textbook to page 1
2. Write the first word of the text on a notepad, then the second word, third word, etc.
3. When a word repeats, put a tally mark next to it (see image at right)
4. Do not include textbook instructions.
5. Do not include one letter words such as 'I' or 'a'

Sample tally table

Word	Tallies	Total
The	₩₩ ₩₩ ₩₩ ₩₩ ₩₩ ₩₩-IIII	35
My	₩₩ ₩₩ ₩₩-IIII	19
Name	₩₩ ₩₩ II	12
Is	₩₩-III	8
John	I	1
Country	₩₩-III	8
United	II	2
States	₩₩	5

From this list, identify the **10 most common words**, dropping any words that are similar (e.g. my/mine). Words can be one, two or more syllables. Place these words in a matrix and print a hard copy from which students will read (this applies to electronic and paper assessments).

Example test: SiSwati

babe	**bala**	**lala**	**sisu**
malume	**sukuma**	**bukela**	**buta**
gijima	**imali**	**imoto**	**lalela**
luma	**funa**	**fika**	**sitolo**
kama	**zuba**	**cela**	**licici**

Decodable Words

In addition to being able to read familiar words out of context, it is equally important that students are able to decode words that are unfamiliar. Without this skill, children may only be able to read words they have memorized, a tactic that will prevent them from continuing to learn vocabulary as it becomes increasingly complex in upper grades. Literacy assessments that lack a decoding component may not capture a student's inability to read unfamiliar words.

How to assess this component

Students should be given an unlimited amount of time to read the words. Students should be asked to read the words in order, left to right. They should be asked to point to the words as they.

If the student initially mispronounces the word but corrects him/herself before moving on, the word should be marked correct (see scoring rules outlined on page 12).

Should the student struggle to name any words for an extended period of time (5 seconds of silence is a good indicator of this), read the word for the child and ask the student to read the next word. If the student is unable to read at least one of the first two words, ask the student if s/he can read any of the words on the test. If the student still struggles, thank the student and move on to the next subtest.

Sub-test Development

Adapt the Most Used Words list to create decodable words:

1. Look at the **patterns** of the selected Most Used Words and classify accordingly. In English, this would look like the following:

Word Patterns	Example Words
Consonant (C) – Vowel (V) – Consonant (C)	Dog, Hat, Pot, Bud, For
Blended C-C-V-C or C-V-C-C	Flat, Pot, Stop or Sing, Bird
Long vowel sounds constructed with C-V-V-C	Coat, Soup, Rail, Neat, Boil
Long vowel sounds constructed as C-V-C-e	Take, Bike, Nice, Rude, Pale

2. Divide 10 by the number of word patterns identified
    A. Using the above example, 4 patterns were identified, so 10/4 = 2.5 words per pattern list
        ▪ In this scenario, use your best judgment to determine which pattern(s) will have 2 words and which pattern(s) will have 3, but no pattern should have less than 2 examples included

3. Change one letter in the word so that there is **no longer any meaning** in the language of assessment
    A. Dog ⟶ Pog

Place these words in a matrix and print a hard copy from which students will read (this applies to electronic and paper assessments). Before beginning this sub-test, provide the student with 2 practice words that will be unscored to ensure s/he understands the task.

In the example below, the first table is a matrix of decodable words, which is what should be included in the sub-test.

The second table is a matrix of the most used words from which the decodable words were adapted, placed in a matrix in the same order as the corresponding decodable words. The second table is NOT part of this sub-test but is included to better explain how the words are created:

Decodable Words

pog	lother	rike	woat
neacher	zail	dat	nable
duffalo	bude		

Most Used Words

| dog	mother	bike	coat
teacher	rail	cat	table
buffalo	rude		

Story Reading

Oral reading fluency is a measure of advanced reading skills as it connects the processes required to successfully identify letters, most used words, and decodable words in order to test reading competency. It is likely that failure to successfully complete this sub-test points to a student's difficulty in completing the previous three tasks addressing basic reading skills as well.

How to assess this component

Give students an unlimited amount of time to read the story. If they are unable to read at least 5 words correctly in the first 30 seconds, ask the student to stop. This is a clear indication that the student is struggling, and s/he does not need to continue trying to read the passage. At this time, the enumerator can read the story to the child. If the student initially mispronounces a word but corrects him/herself before moving on, the word should be marked correct (see scoring rules outlined in the assessment for directions on changing marked answers).

Sub-test Development

Similar to the letter identification sub-test, in contexts where more than one language is spoken, consult the following diagram to determine which alphabet should be used:
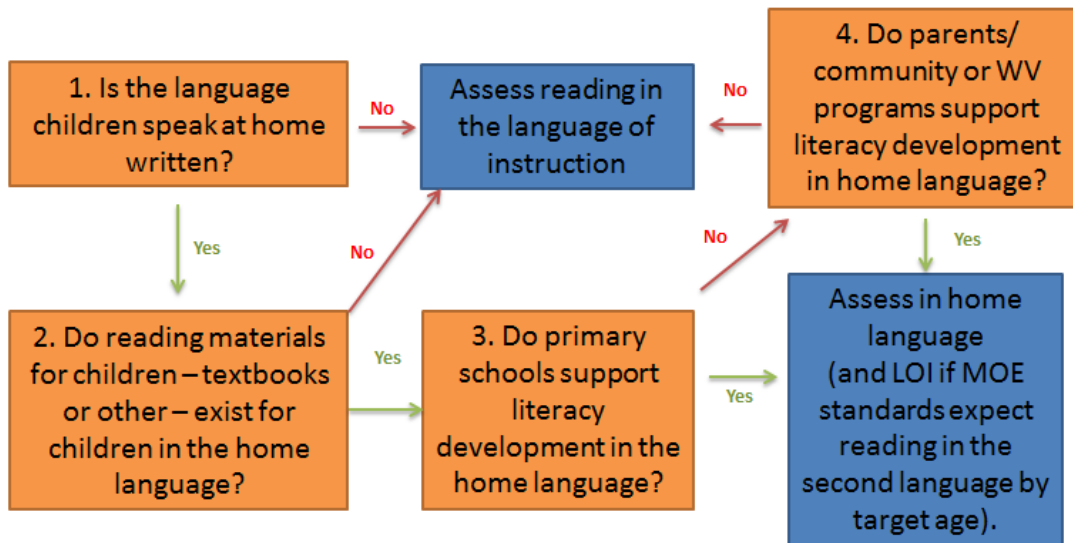
Selection or creation of an appropriate Grade 3 level passage is critical to the accurate analysis of students' abilities. The best method for selection is to **use a passage from the curriculum children have not seen before**. If children are familiar with the passage, this will skew results as children are likely to have memorized some or all the story. If a passage from the curriculum children have not seen before is not available, WV staff, in partnership with the Ministry of Education, should create a passage based on words and sentence structure used in the Grade 3 textbooks.

For subsequent assessments, do not use the same stories. The easiest way to do this is to change story subjects, verbs, adjectives, and objects within the baseline story. This ensures a sentence structure that is appropriate for Grade 3 and at a similar level of difficulty as the baseline passage while altering the context so that students are not able to read and respond to questions according to memory.

Characteristics of a Reading Passage
A good reading passage (reference the Plot Diagram below)
- Uses Grade 3 level vocabulary and sentence structure that is familiar
- Is approximately 120 words in length (+/- 10 words is the maximum variation)
- Has a clear beginning (1), where the character(s) are introduced
- Has a clear middle portion (2), where the character(s) are presented with a problem or obstacle to overcome (3)
- Has a clear conclusion, where the problem is solved or the obstacle is overcome (4 & 5)

Plot Diagram

3) Culmination of Action
- What is the turning point of the story?
- This is the most exciting part of the story

2) Rising Action
- What events happen after the introduction and before the culmination of the action?
- A problem may be introduced

4) Falling Action
- What happens immediately after the culmination of action?

1) Introduction/Beginning
- Who are the main characters?
- What is the setting in the beginning of the story?

5) Resolution/Conclusion
- What happens at the very end of the story?
- Any problems presented should be resolved.

Poor Passage
- Is a description of a holiday, event, or festival
- Discusses a topic that students may be very familiar with from daily life
- Contains extraneous details that have little/nothing to do with the character development or plot of the story

Rules for Scoring a Reading Passage
1. Correctly read words are pronounced correctly. A word must be read correctly given the context of the sentence. For example:
    a. The word "read" must be pronounced with a long "e" sound, as in "r**ee**d", when presented in the context of: "He will read the book." Not as "He will red the book."
    b. The word "lead" must be pronounced with a short "e" sound, as in "l**e**d", when presented in the context of: "She picked up the lead pipe." Not as "She picked up a leed pipe."

2. Self-corrected words are counted as correct. Words misread initially but corrected within 3 seconds are counted as correctly read. For example:
    a. The text says: "The river was cold." [4 words possible]
    b. The student says: "The river was could...(2 seconds)...cold." [4 correctly read words]

3. Dialect. Variations in pronunciation that are explainable by local language norms are not errors. Review each word of the text with the team to identify common pronunciations in the dialect(s) of the content in which you will assess students.

4. Mispronounced or substituted words are counted as incorrect. For example:
    a. The text says: "*Yaw wanted a new hat.*" [5 words possible]
    b. The student says: "*Yaw want a new hat.*" [4 correctly read words]

5. Omitted words are counted as errors. For example:
    a. The text says: "*Maria climbed the tall tree.*" [5 words possible]
    b. The student says: "*Maria climbed the tree.*" [4 correctly read words]

6. Hesitations: When a pupil hesitates or fails to correctly pronounce a word within 5 seconds, the pupil is told the word and an error is scored. For example:
    a. The text says: "*Sophal saw an elephant.*" [4 words possible]
    b. The student says: "*Sophal saw an ...(5 seconds)*" or "*Sophal saw an ell-ee...(5 seconds)*" At this point the enumerator says, "elephant" [3 correctly read words]

7. Reversals: When a pupil transposes two or more words, those words not read in the correct order are errors. For example:
    a. The text says: "*Parash ran quickly.*" [3 words possible]
    b. The student says: "*Parash quickly ran.*" [1 correctly read word]

8. Numbers written as numerals are counted as words and must be read correctly within the context of the passage. For example:
    a. The text says: "*Pierre had 13 balls.*" [4 words possible]
    b. The student says: "*Pierre had thirteen balls.*" [4 correctly read words]
    c. The student says: "*Pierre had one three balls.*" [3 correctly read words]

9. Abbreviations are counted as words, and must be read correctly within the context of the sentence. For example:
    a. The text says: "*Mr. Poku went to the farm.*" [6 words possible]
    b. The student says: "*Mister Poku went to the farm.*" [6 correctly read words]

Example test

Since an appropriate example test cannot be provided for all contexts in which WV works, please refer to local curriculum, or a national test for passage examples, and/or existing EGRA you're your country. Ensuring the story is a Grade 3 level text. Do NOT use a text the students are familiar with from class or that they have heard read aloud because the goal is to measure the students' reading comprehension, not their memorisation of text.

Reading Comprehension

As a response to the story, it is important to assess students on their ability to retain and recall the information they have read. An inability to comprehend and convey this understanding of a grade-appropriate passage suggests the student may also struggle to decode or read fluently.

How to assess this component

To determine readers with comprehension and reporting on Child Wellbeing Outcomes, students should be asked a series of 5 literal comprehension questions. Literal questions are linked directly to the story and can be answered without needing to infer any information about the story. If the student has been labeled a 'reader' by the enumerator and is able to answer at least 4 of the 5 literal comprehension questions correctly, s/he is considered a reader with comprehension.

Example test

The questions in the table below are examples of literal comprehension questions for the following statement. This passage should NOT be directly translated for the reading comprehension sub-test; it is included here only to clarify the meaning of literal comprehension questions.

It was her father's birthday so Mary and her sister went to the shops. They went to get a present for their father. Each shop had different presents. They did not know what to get him. Their father only liked things that were the colour blue. They looked at hats but did not find a blue one. They saw a pair of socks, but these were black and white. They only saw green shirts. Then, Mary said, 'I know what father would like'. Mary and her sister went to the bakery and bought their father a blue cake. It was a nice cake. They both liked it very much. The next day, Mary and her sister gave their father his present. He liked it very much!

Literal Comprehension Question	Answer
Where did Mary and her sister go?	Shops
What were Mary and her sister shopping for?	A gift for their father
What colour does their father like?	Blue

Non-readers

Any students marked as "non-readers" by the enumerator ARE NOT included in any reading comprehension data. Enumerators are instructed to read the story to the student if s/he struggles to read, however in this case the enumerator should not ask the comprehension questions. Since these students are unable to read the passage alone, they cannot be included with the students who are readers.

Adaptation for Students in Grades 4-6

As discussed previously, STAR should NOT be adapted for students in older primary grades. Where a measure of reading comprehension is needed for students in upper primary grades, it is strongly recommended secondary data be used. Many countries conduct exams at the end of primary school, so where available, reading/language arts results should be used to report on minimum proficiency for end of primary school. It can also be used in non-formal education programmes that focus on literacy.

Assessments at the end of primary school should only be conducted if WV education programming is targeted at that grade level. In this situation, do not use STAR or FLAT. Neither STAR nor FLAT assessments are designed to measure minimum proficiency (grade-appropriate) literacy skills for students at the end of primary school. NOs that choose to measure students at the end of primary school should work with the local Ministry of Education to develop a grade-appropriate tool. Any NO that develops a Grade 6 tool with the Ministry of Education should contact the GC EdLS team for support in validating that tool.

Data Collection

Sampling

Reading assessments should be carried out in the place where the reading programme is conducted. For most WV programmes, this means STAR is administered in schools. The sampling frame for STAR is outlined in School-based Sampling Guidance.

Enumerators

It is recommended that enumerators are hired externally. They should NOT be staff from World Vision, or from the school or Ministry/Department of Education.

Enumerators will need training on how to administer STAR and have time to practice working with the tool. They also need to receive training on the best way to work with children, so that the children feel comfortable during the assessment. Child Protection training also needs to be covered.

The number of enumerators to hire and train will depend on the number of schools to be visited and the time frame for completing the assessment. Ideally, enumerators should have the following competencies/skills:

1. Read/Speak language of assessment, including an understanding of dialects and accents
2. Experience working with children
3. Able to agree with WVI's child protection policy
4. Unbiased - meaning they are separate from programming (not Reading Club facilitators, etc.)
5. Somewhat familiar with technology and handheld tablets

For each team of enumerators, choose a team leader (could be one of the enumerators or WV staff member). The team leader will coordinate the randomization and selection of students, as well as circulate among enumerators during the assessment to ensure consistency of data collection and address any problems.

Additionally, a designated WV staff member should be assigned to act as supervisor of the data collection process. Their responsibilities include coordinating with enumerators to ensure quality data collection, communicating with school heads to keep a positive relationship throughout the process, and securely storing and charging tablets used for electronic data collection. The selection of these individuals and descriptions of their roles should be outlined in the NO baseline design document. Team leaders and the designated WV staff member supervisor should meet daily to debrief each day's activities, make any adjustments to the plan as required, and if conducting an electronic assessment, upload assessment data to the cloud.

Based on experience of conducting literacy assessments in several countries, it is suggested that teams of 4 - 5 enumerators are needed to complete an assessment of 20 students during a half-day school session. It is recommended that the NO select 20-25 enumerators for every 2-3 APs assessed. This ensures that the data collection in completed in a timely fashion while not overburdening staff with assessing too many participants in one session.

Role of the Team Leader

Each team of enumerators needs to have a team leader. A team leader's primary role is to:

1. Ensure each enumerator has all the materials s/he needs and a unique enumerator number to mark on each completed assessment sheet. If using Tangerine, each enumerator will create a personal login which will automatically be recorded so an enumerator number is not needed.

2. Arrive on time and fully prepared at the structured learning environments the day of the assessment. Introduce the team to the school principal.

3. Oversee student selection and assignment of unique student codes.

4. Ensure the validity of data collection by observing enumerators conducting the assessment. If using paper assessments, scan completed documents to be sure no items have been inadvertently omitted.

5. Be on call to help solve problems the enumerators face, such as providing spare copies of the tools when needed.

6. Know where each enumerator is at all times so that enumerators do not interview the same children.

7. Maintain a log that shows all of the children contacted during the survey, their unique student codes, and whether or not an interview was completed successfully. The necessary forms will be provided by national office staff.

8. If using paper assessments, gather completed assessments and place them in sealed envelopes at the end of the day, marked with the structured learning environment name, date, and which team was responsible.

   a. If using Tangerine, upload the assessment results to the cloud once a Wi-Fi signal is available (this task may be completed by WV staff, but it should be done at the end of every day).

9. Stay in touch with the WV DME staff to provide feedback and share any issues that arose during the assessment.

10. Facilitate a review meeting with the enumerator team after completing the assessment process at each school.

Data Collection Materials

For both electronic and paper assessments, WV staff should work with team leaders to make sure the following materials are available the morning of the assessment:

   a. Team record sheet (see Appendix E) – the team leader uses this document to identify/sample the students in each school (one sheet needed per school)
   b. Laminated set of child instruments (letter matrix, MUW matrix, decodable words matrix, and story); one set for each enumerator as the same forms will be used for each student

For paper assessments, clipboards, pencils, and erasers should be given to each enumerator to assist in recording student results. For electronic assessments, the NO should confirm all tablets are fully charged the night before each assessment.

Team Leader Responsibilities on Day of Assessment

Upon arrival at the structured learning environment, the team leader:

1. Greets the principal or equivalent and introduces the team.

2. Re-explains the purpose and objectives of the assessment and thanks the principal for participating in the STAR assessment process.

3. Reminds the principal that students will not be identified by name in the data collection process but that the overall findings will be shared back with the structured learning environment.

4. Requests a quiet space (indoors or outdoors) for the assessment.

5. Asks the enumerators to prepare the assessment stations.

6. Identifies which classrooms the appropriate children will be found in (Grade 3) and the children selected for assessment.

7. Explains the purpose of the assessment to the children, stressing that it is NOT a test, and put the children at ease by playing an icebreaker game while they wait for their turn.

8. Allocate children to enumerators and ensure children return safely to their classroom after the assessment.

Tips for improving data quality through supervision
(refer to the *Enumerator Training Guide* for quality check examples)

1. Quality checking needs to happen in the field at the time – not after the assessment is completed.

2. Check a sample of surveys from each enumerator to confirm fields are filled correctly and the surveys are completed according to protocols.

3. Quality checking should be intentional and at random at each level.

4. If data entry is done concurrently with data collection (i.e. data entry the evening of the assessment), common mistakes or misunderstandings by respondents/enumerators or issues with a particular enumerator can be addressed before completion of the full assessment.

5. When using paper-based assessments, most of these tasks can be completed in the. When using Tangerine, a WV M&E staff member should review the data collected each day to ensure enumerators are accurately recording the information.

Data Preparation

A brief introduction on data entry and data cleaning is provided here. The Data Analysis Guidance (see Appendix D) should be consulted for specific instructions on analysing and interpreting STAR results. Expanded guidance for data analysis (in production) will include instructions for analysis in Excel and SPSS.

Data Entry

When using **Tangerine** software for collecting data in the field, *additional data entry is not required*. Instead, on the home screen of the assessment, click on (1) the orange drop down arrow, followed by (2) the image of a line graph. Once the new page appears, click on (3) CSV (beta) to download   a .csv file of the data. This file can be opened in Excel to do any additional data cleaning and basic analysis.

If **paper assessments** are used, additional time must be devoted to data entry into Excel after data collection has finished. A suggested process for completing this activity is included below:

General Tips on Data Entry

1. Hire an experienced data entry person or team

2. Prepare a data entry template

3. Provide training on the use of the database, the tools, and the data entry template

4. Begin data entry as soon as the first day of data collection is complete

5. Using a small, dedicated team of data entry clerks will result in fewer errors

6. Where feasible, practice double entry (duplicate) and check for any differences (errors)

7. A Data Entry Supervisor or the Survey Coordinator should carry out two steps for checking the accuracy of data that has been entered into the database. These must be done before the analysis programmes are run and the final summary statistics produced:

   a. Check the first 10 records entered
   b. Check at random 10% of all records

Data Checks and Inter-rater Reliability

As mentioned in the previous section, some basic data checks should be done throughout the assessment period to ensure accurate data collection. After data cleaning, use the enumerator codes to check if a particular team or enumerator has made consistent mistakes, and follow up with coaching for the responsible team leader. To strengthen the quality of the data we collect, an inter-rater reliability check should be run Refer to Appendix F for guidance on Inter-rater Reliability.

Data Cleaning

Before conducting the final analysis, the dataset must be fully cleaned, but there is no one way to do this. The best way to learn this process is by doing, but the initial steps for a basic cleaning throughout the assessment or the final cleaning for analysis include:

1. Search for duplicate records – same record (child) entered twice
   a. One benefit to electronic data collection is the time and date of assessment will be automatically recorded. When duplicate records are found, use this information to confirm the corresponding assessments were conducted at a logical time (enumerators will sometimes practice outside of normal data collection hours, and it will be obvious which record(s) should be deleted).
   b. When paper assessments are used, consult with data entry clerks and original assessments to determine which record(s) should be deleted.

2. Search for missing records and fields – one record not entered at all
   a. When using Tangerine electronic data collection, '999' is typically used to signify a missing field. Be sure to change these fields to empty cells in Excel.
   b. For paper assessments, check the original documentation to determine if missing records and/or fields are the result of a data collection or data entry problem.
   c. If a significant amount of data is missing for one child (e.g. not all sub-tests were completed or even started), remove student record from the database.
   d. In SPSS, run 'descriptive statistics' of the sub-tests to check for outliers or other nonsensical data.

3. Check for coding errors in the reader/non-reader variable
   a. To be considered a reader, the student should be able to read at least 5 words of the story correctly in 30 seconds. Tangerine records the number of the word selected at 30 seconds in the "item_at_time" variable (the fifth word in the passage is recorded as 5). If this number is not at least 5, or if the selection is greater than 5 but there aren't at least 5 words marked correct (e.g. '8' is the 'item_at_time' but only words 2, 4, 6, and 7 are marked correct), the "reader" variable should be marked as 'no.' Enumerators occasionally struggle with this concept, so it is important to ensure this is recorded correctly; if not, correct the 'reader' variable.

Sharing Assessment Results

In order to continuously improve the impact of WV reading programmes, it is important not only to have data but also to share and discuss the findings widely with different stakeholders, and reflect with partners on any implications of the findings for amendments to project or programme plans.

Who to share results with?
- National and district government and education stakeholders
- Principals and teachers
- Parents and community members
- International/local education related NGOs, donors, and public/private partners
- WV NO, Regional and Support Offices, and the Global Centre

How to disseminate information?
Depending on the particular stakeholder, the data is presented using multiple and appropriate communication strategies. For all forms of reporting, regardless of age assessed, any reporting of scores should include the grade assessed for reference.

World Vision staff and partners, Ministry of Education, donors:
- A brief fact sheet outlining key findings
- A formal written report describing the tool, the process, the findings, conclusions, and recommendations
- A presentation of the main findings and facilitated feedback session
- Recommendations for any amendments to the programme or project design, based on the findings

Structured learning environments (schools):
- A brief fact sheet outlining key findings
- A presentation of the main findings and facilitated feedback session

Community members and children:
- Visuals with large images and few words
- A presentation of main findings and facilitated feedback discussion

Information about STAR results are best presented back to community, and programme staff together with other baseline findings, rather than as a separate individual event. This respects people's time and other commitments and provides information broadly of interest to the whole group.

Appendix A: Electronic Assessment

Anything <mark>highlighted in yellow</mark> should be adjusted for the context.

Instructions

This packet will allow you to record the background information and assess the literacy skills of children. Please pay careful attention to the instructions, and read all questions to children exactly as they appear.
Italic types are instructions to you, as the enumerator.

Regular typeface identifies questions you should read to the child.
Items that are <mark>highlighted</mark> require contextualization / adaptation.

Before beginning any assessment, it is important to establish a <u>relaxed and playful rapport</u> with the child. Ask him/her a few questions about subjects of interest to them. As much as possible, help the child see the assessment as a game rather than a serious test.

Throughout the assessment, offer <u>neutral encouragement</u> to the child. Give encouragement in between questions and test sections, rather than in the middle of questions or test sections. Do not give hints to questions or make facial expressions while the child is completing tasks.

Part 1: Identifying Information

Complete as much as possible prior to beginning assessment.	
Name of Assessor:	Date:
Start time:	End time:
Pupil Name:	Pupil Code:
School Name:	Sex: _____ Male _____ Female
Village/Community where the pupil lives:	Name of Parent/Caretaker:

Part 2: Introduction

Hello, my name is _____. I work with World Vision.

• We are here to learn about how students learn to read. We are also interested in knowing more about your school and your family. For these reasons, we are hoping that you can help us.
• I am going to ask you some questions and ask you to read a story out loud.
• Using this tablet I am going to measure how much time it takes you to read the story. When you start to read, I want you to read without stopping the best that you can.
• This has nothing to do with your grades in school so please do not worry.
• I am going to write down your first and last name, but no one will know what you told me. The information will stay between us.
• If you don't want to participate, you don't have to and can go back to class without any punishment. But we would really like you to help us.
• Are you ready to start?

Does the child consent?
_____Yes
_____No → *walk child back to class*

Part 3: Pupil Background Information

Read each question <u>exactly as it is written.</u> If the child seems not to understand, you may rephrase the question slightly to help them understand.

1.	How old are you?	#	*Years; 99 = Don't know/No Response*
2.	Did you repeat Grade 1?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
3.	Did you repeat Grade 2?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
4.	Did you attend ECD before Grade 1?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
5.	What language do you speak at home?	___ Option 1 [1] ___ Option 2 [2] ___ Option 3 [3] ___ Other [77]: _____ ___ No Answer/Doesn't know [99]	

Part 4: Pupil Background Information

Read each question <u>exactly as it is written.</u> If the child seems not to understand, you may rephrase the question slightly to help them understand.

6.	Do you have any of the following books at home?	Select all that apply (Yes/No for each): ___ Textbooks ___ Religious Books ___ Magazines ___ Newspapers ___ Storybooks ___ Coloring Books ___ Comics ___ Health Passport ___ None of the above ___ No Response / Don't know	
7.	Over the past week, have you seen anyone in your home reading?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
8.	Over the past week, has a family member helped you to do your homework?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
9.	Over the past week, has a family member read to you?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
10.	Over the past week, has a family member told you a story?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	

Part 5: Teacher Practices

Read each question exactly as it is written. If the child seems not to understand, you may rephrase the question slightly to help them understand.

11.	Over the past week, did your teacher read to you?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
12.	Over the past week, did your teacher ask you questions about what you read?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
13.	Over the past week, did you read with a classmate in school?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
14.	Over the past week, did you read quietly all by yourself without help at school?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
15.	Over the past week, did you learn songs or games in class?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
16.	Over the past week, did your teacher teach you the sounds of letters and words?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	

Part 6: After-School Reading Activity Participation

Read each question exactly as it is written. If the child seems not to understand, you may rephrase the question slightly to help them understand.

| 17. | Do you attend after-school reading activities, like Reading Camps? | ___ Yes [1]
 ___ No [0]
 ___ No Answer/Doesn't know [99] | *No -> Skip to Next Section* |
| | 17a. If yes, did you attend last week? | ___ Yes [1]
 ___ No [0]
 ___ No Answer/Doesn't know [99] | |

Part 7: Lowercase Letters

Give the child the list of letters and say to the child:

SAY: Now we will look at some letters. Can you point to each letter and tell me what it is?
- *If the pupil hesitates, ask:* What is the name of this letter? Or can you tell me the sound it makes? Or a word that begins with this letter?
- *If the pupil hesitates again, say:* Ok, you don't have to go in order, but can you tell me if you know any of these letters?
- *If the pupil still hesitates for 10 seconds, thank him/her for trying his/her best and move to the next Most Used Words Section.*

Scoring: Do not mark correct letters. Instead, tap the letters that are incorrect. The answer is considered correct if the student does any of the following:
- *States the letter name in the home language or language of instruction*
- *Makes any sound that is acceptable for that letter in the home language or language of instruction*
- *Gives a response which says "It begins like…" giving a word for which the letter is the initial letter.*

w	m	g	y	c
f	h	o	j	v
t	z	p	s	l
e	i	a	u	b
r	n	k	d	

Part 8: Most Used Words

Give the pupil the laminated copy of the "Most Used Words" list.

SAY: *These are words from your school textbook. Can you point to each word and read it for me?)*

- **If the pupil hesitates or fails to correctly pronounce a word within 5 seconds, the pupil is told the word and an error is scored.**
- **If the pupil hesitates to identify both of the first 2 words, ask**: *(Do you know any of these words? Please tell me any words you know.)*
- **If, after 10 seconds, the child has not identified at least one word, thank him/her for trying his/her best and move to the next section.**

Scoring: Tap the words that are incorrect.

A child receives credit for reading the words correctly regardless of the order in which the words are read. If a child reads the words out of order, then remember to bring his/her attention to the ones they might have skipped.

mu	ko	ni
aho	iyo	kwa
turi	umwe	afite
umuntu		

Part 9: Decodable Words

Give the pupil the laminated copy of the "Decodable Words" list.

SAY: *These are created words. Can you point to each word and read it for me?*

- **If the pupil hesitates or fails to correctly pronounce a word within 5 seconds, the pupil is told the word and an error is scored.**
- **If the pupil hesitates to identify both of the first 2 words, ask**: *(Do you know any of these words? Please tell me any words you know.)*
- **If, after 10 seconds, the child has not identified at least one word, thank him/her for trying his/her best and move to the next section.**

Scoring: Tap the words that are incorrect.

A child receives credit for reading the words correctly regardless of the order in which the words are read. If a child reads the words out of order, then remember to bring his/her attention to the ones they might have skipped.

Practice:

      Practice Word 1_____   **Practice Word 2_____**

mu	ko	ni
aho	iyo	kwa
turi	umwe	afite
umuntu		

Part 10: Reading Passage Instructions

1) *Give the pupil the selected passage. Shield the tablet so the pupil cannot see what you record.*

2) **SAY:** Now we're going to read a story When I say 'begin', start reading from the first word of the title *(point to the title)* and then continue. Try to read every word. If you see a word you don't know, I will read it for you. Try to read as much as you can. Do you understand the instructions?

3) **SAY:** Ok, begin. *When the pupil begins to read the first word, click the 'Start' button on the tablet.*

4) *As the pupil reads, follow on your tablet and tap each incorrect word. <u>Do not mark correct words.</u>*

5) *If a pupil hesitates or fails to correctly pronounce a word within 5 seconds, the pupil is told the word and an error is scored.*

6) *If the pupil stops reading before the end of the passage, tell the pupil to keep reading. Show the pupil where he/she stopped, if necessary.*

7) *When the tablet timer reaches 30 seconds, a box will appear on the tablet screen that asks you to select the word being read at the time. Click on the word the pupil is reading at that moment. If the student has not read at least 5 words correctly by this time, stop them and say:* **Thank you.** *If the student has read at least 5 words correctly, let the child continue reading.*

8) *When the pupil has finished the last sentence of the passage, say:* **Thank you.**

> **<u>NONREADERS:</u>** *If the pupil reads less than five words in the first 30 seconds, stop them and say***:** Thank you.
>
> a) *Check the box that says "Nonreader" and take the child back to his/her class.*

A Present for Father
It was her father's birthday so Mary and her sister went to the shops. They went to get a present for their father. Each shop had different presents. They did not know what to get him. Their father only liked things that were the colour blue. They looked at hats but did not find a blue one. They saw a pair of socks, but these were black and white. They only saw green shirts. Then, Mary said, 'I know what father would like'. Mary and her sister went to the bakery and bought their father a blue cake. It was a nice cake. They both liked it very much. The next day, Mary and her sister gave their father his present. He liked it very much!

Part 11: Reader or Non-Reader

Answer the following questions based on the child's performance on the reading sub-test.

18.	Number of words correct in one minute	☐☐	*This can be calculated by M&E staff based on data collected*
19.	Was the child a reader or a non-reader?	____ Reader [1] ____ Non-Reader [0]	*Non-reader: read less than five words correctly in 30 seconds*

Part 12: Comprehension Questions:

SAY: Now I am going to ask you some questions about what you read/heard.

DO: *Ask the comprehension questions <u>only to readers</u>. Say: You may look back in the story for the answers.*

Scoring: Tap "Correct" if the student provides the recommended answer. Otherwise, mark "Incorrect"

Example Comprehension Sub-Test:

20.	Where did Mary and her sister go?	____ Correct [1] ____ Incorrect [0]	*Correct: Shops*
21.	What were Mary and her sister shopping for?	____ Correct [1] ____ Incorrect [0]	*Correct: Present for their father*
22.	What did Mary and her sister see in the shops?	____ Correct [1] ____ Incorrect [0]	*Correct: any of – different presents, hats, socks, shirts, cake*
23.	What colour does their father like?	____ Correct [1] ____ Incorrect [0]	*Correct: blue*
24.	What did Mary and her sister buy for their father's present?	____ Correct [1] ____ Incorrect [0]	*Correct: A cake*

Appendix B: Paper Assessment

Anything <mark>highlighted in yellow</mark> should be adjusted for the context.

Instructions

This packet will allow you to record the background information and assess the literacy skills of children. Please pay careful attention to the instructions, and read all questions to children exactly as they appear.
Italic types are instructions to you, as the enumerator.

Regular typeface identifies questions you should read to the child.
Items that are <mark>highlighted</mark> require contextualization / adaptation.

Before beginning any assessment, it is important to establish a <u>relaxed and playful rapport</u> with the child. Ask him/her a few questions about subjects of interest to them. As much as possible, help the child see the assessment as a game rather than a serious test.

Throughout the assessment, offer <u>neutral encouragement</u> to the child. Give encouragement in between questions and test sections, rather than in the middle of questions or test sections. Do not give hints to questions or make facial expressions while the child is completing tasks.

Part 1: Identifying Information

Complete as much as possible prior to beginning assessment.	
Name of Assessor:	Date:
Start time:	End time:
Pupil Name:	Pupil Code:
School Name:	Sex: _____ Male _____ Female
Village/Community where the pupil lives:	Name of Parent/Caretaker:

Part 2: Introduction

Hello, my name is _____. I work with World Vision.

• We are here to learn about how students learn to read. We are also interested in knowing more about your school and your family. For these reasons, we are hoping that you can help us.
• I am going to ask you some questions and ask you to read a story out loud.
• Using this watch I am going to measure how much time it takes you to read the story. When you start to read, I want you to read without stopping the best that you can.
• This has nothing to do with your grades in school so please do not worry.
• I am going to write down your first and last name, but no one will know what you told me. The information will stay between us.
• If you don't want to participate, you don't have to and can go back to class without any punishment. But we would really like you to help us.
• Are you ready to start?

Does the child consent?
 _____Yes
 _____No → *walk child back to class*

Part 3: Pupil Background Information

Read each question <u>exactly as it is written.</u> If the child seems not to understand, you may rephrase the question slightly to help them understand.

1.	How old are you?	☐ #	*Years;* *99 = Don't know/No* *Response*
2.	Did you repeat Grade 1?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
3.	Did you repeat Grade 2?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
4.	Did you attend ECD before Grade 1?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
5.	What language do you speak at home?	___ Option 1 [1] ___ Option 2 [2] ___ Option 3 [3] ___ Other [77]: _____ ___ No Answer/Doesn't know [99]	

Part 4: Pupil Background Information

Read each question <u>exactly as it is written.</u> If the child seems not to understand, you may rephrase the question slightly to help them understand.

6.	Do you have any of the following books at home?	Select all that apply (Yes/No for each): ___ Textbooks ___ Religious Books ___ Magazines ___ Newspapers ___ Storybooks ___ Coloring Books ___ Comics ___ Health Passport ___ None of the above ___ No Response / Don't know	
7.	Over the past week, have you seen anyone in your home reading?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
8.	Over the past week, has a family member helped you to do your homework?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
9.	Over the past week, has a family member read to you?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
10.	Over the past week, has a family member told you a story?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	

Part 5: Teacher Practices

Read each question <u>exactly as it is written.</u> If the child seems not to understand, you may rephrase the question slightly to help them understand.

11.	Over the past week, did your teacher read to you?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
12.	Over the past week, did your teacher ask you questions about what you read?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
13.	Over the past week, did you read with a classmate in school?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
14.	Over the past week, did you read quietly all by yourself without help at school?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
15.	Over the past week, did you learn songs or games in class?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	
16.	Over the past week, did your teacher teach you the sounds of letters and words?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	

Part 6: After-School Reading Activity Participation

Read each question <u>exactly as it is written.</u> If the child seems not to understand, you may rephrase the question slightly to help them understand.

17.	Do you attend after-school reading activities, like Reading Camps?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	*No -> Skip to Next Section*
	17a. If yes, did you attend last week?	___ Yes [1] ___ No [0] ___ No Answer/Doesn't know [99]	

Part 7: Lowercase Letters

Give the child the list of letters and say to the child:

SAY: Now we will look at some letters. Can you point to each letter and tell me what it is?
  ▪ *If the pupil hesitates, ask:* What is the name of this letter? Or can you tell me the sound it makes? Or a word that begins with this letter?
  ▪ *If the pupil hesitates again, say:* Ok, you don't have to go in order, but can you tell me if you know any of these letters?
  ▪ *If the pupil still hesitates for 10 seconds, thank him/her for trying his/her best and move to the next Most Used Words Section.*

Scoring: <u>Do not mark correct letters.</u> Put a slash (/) through incorrect letters. The answer is considered correct if the student does any of the following:
  ▪ *States the letter name in the home language or language of instruction*
  ▪ *Makes any sound that is acceptable for that letter in the home language or language of instruction*
  ▪ *Gives a response which says "It begins like…" giving a word for which the letter is the initial letter.*

W	m	g	y	c
F	h	o	j	v
T	z	p	s	l
E	i	a	u	b
R	n	k	d	

Part 8: Most Used Words

Give the pupil the laminated copy of the "Most Used Words" list.

SAY: *These are words from your school textbook. Can you point to each word and read it for me?)*

- **If the pupil hesitates or fails to correctly pronounce a word within 5 seconds, the pupil is told the word and an error is scored.**
- **If the pupil hesitates to identify both of the first 2 words, ask***: (Do you know any of these words? Please tell me any words you know.)*
- **If, after 10 seconds, the child has not identified at least one word, thank him/her for trying his/her best and move to the next section.**

Scoring: Put a slash (/) through incorrect words.
A child receives credit for reading the words correctly regardless of the order in which the words are read. If a child reads the words out of order, then remember to bring his/her attention to the ones they might have skipped.

mu	ko	ni
aho	iyo	kwa
turi	umwe	afite
umuntu		

Part 9: Decodable Words

Give the pupil the laminated copy of the "Decodable Words" list.

SAY: *These are created words. Can you point to each word and read it for me?*

- **If the pupil hesitates or fails to correctly pronounce a word within 5 seconds, the pupil is told the word and an error is scored.**
- **If the pupil hesitates to identify both of the first 2 words, ask***: (Do you know any of these words? Please tell me any words you know.)*
- **If, after 10 seconds, the child has not identified at least one word, thank him/her for trying his/her best and move to the next section.**

Scoring: Put a slash (/) through incorrect words.
A child receives credit for reading the words correctly regardless of the order in which the words are

read. If a child reads the words out of order, then remember to bring his/her attention to the ones they might have skipped.

Practice:

Practice Word 1_____   Practice Word 2_____

mu	**ko**	**ni**
aho	**iyo**	**kwa**
turi	**umwe**	**afite**
umuntu		

Part 10: Reading Passage Instructions

1) *Give the pupil the selected passage. Place your paper on a clipboard in front of you, and shield it so the pupil cannot see what you record.*

2) **SAY:** Now we're going to read a story When I say 'begin', start reading from the first word of the title *(point to the title)* and then continue. Try to read every word. If you see a word you don't know, I will read it for you. Try to read as much as you can. Do you understand the instructions?

3) **SAY:** Ok, begin. *When the pupil begins to read the first word, start the cell phone timer.*

4) *As the pupil reads, follow on your paper and mark each incorrect word with a slash (/). Do not mark correct words.*

5) *If a pupil hesitates or fails to correctly pronounce a word within 5 seconds, the pupil is told the word and an error is scored.*

6) *If the pupil stops reading before the end of the passage, tell the pupil to keep reading. Show the pupil where he/she stopped, if necessary.*

7) *Keep an eye on the cell phone timer, and when the time reaches 30 seconds put a bracket (]) after the word that the pupil is reading. If the student has not read at least 5 words correctly by this time, stop them and say:* **Thank you.** *If the student has read at least 5 words correctly, let the child continue reading.*

8) *When the pupil has finished the last sentence of the passage, say: (Thank you.)*

> **NONREADERS:** *If the pupil reads less than five words in the first 30 seconds, stop them and say***:** Thank you.
>
> a) *Check the box that says "Nonreader" and take the child back to his/her class.*

Part 11: Reader or Non-Reader

Answer the following questions based on the child's performance on the reading sub-test.

18.	Was the child a reader or a non-reader?	____ Reader [1] ____ Non-Reader [0]	*Non-reader: read less than five words correctly in 30 seconds*

Part 12: Comprehension Questions:

SAY: Now I am going to ask you some questions about what you read/heard.

DO: *Ask the comprehension questions only to readers. Say: You may look back in the story for the answers.*

Scoring: Give one point (1) for each correct answer. For the first question, give one point if the student gave at least three of the four details. For the last question, give one point if the pupil used information from the text to justify their opinion.

19.	Where did Mary and her sister go?	____ Correct [1] ____ Incorrect [0]	*Correct: Shops*
20.	What were Mary and her sister shopping for?	____ Correct [1] ____ Incorrect [0]	*Correct: Present for their father*
21.	What did Mary and her sister see in the shops?	____ Correct [1] ____ Incorrect [0]	*Correct: any of – different presents, hats, socks, shirts, cake*
22.	What colour does their father like?	____ Correct [1] ____ Incorrect [0]	*Correct: blue*
23.	What did Mary and her sister buy for their father's present?	____ Correct [1] ____ Incorrect [0]	*Correct: A cake*

Appendix C: School Environment Survey

Anything <mark>highlighted in yellow</mark> should be adjusted for the context.

Name of the village: _____

School: _____   **District:** _____

Some of this information might be observable, other information might be available in school records, still others you will need to ask of the school head teacher.

1. Does the school have electricity? _____Yes   _____No

2. Does the school have a water point on school property?   _____Yes   _____No
    2a. If yes, is the water from this source treated before use? _____ Yes   _____No

3. Is there a latrine **available for student use**? _____Yes   ___No
    3a. If yes, does the school have a separate latrine for girls? _____Yes   ___No

4. Is there a handwashing stand at the school? _____ Yes   ___ No
    4a. If yes, does the handwashing stand have Soap?   ___Yes   _____No

5. Does the school have a library?   _____Yes   _____No
    5a. If yes, does the library let students borrow books? ___Yes   ____No

6. Do children have access to a community library (not in the school)?   ___Yes   _____No

7. Official Enrollment

	# Boys Enrolled	# Girls Enrolled	# Teachers
Kindergarten / ECD			
1st Grade			
2nd Grade			
3rd Grade			
4th Grade			
5th Grade			
6th Grade			

8. In the last term, have you received a supervision visit from the Ministry of Education? ___Yes   ___No
    8a. If yes, how many supervision visits have you received from the MoE in the last term?   ____

9. How would you describe the supervision you received from the MoE? (Please answer 9a & 9b)

9a. The supervision and/or feedback contained a judgment about the quality of teachers' and/or my work.　＿＿＿Yes　＿＿＿No　＿＿＿Somewhat

9b. The supervision and/or feedback contained suggestions for improving certain aspects of teachers' and my work.　＿＿＿Yes　＿＿＿No　＿＿＿Somewhat

10. What is official language of instruction for Primary 1-3? (Mark all that are mentioned in conversation)

＿＿＿＿ Language 1

＿＿＿＿ Language 2

＿＿＿＿ Language 3

11. Are any other languages used for instruction?　＿＿＿＿Yes　＿＿＿＿No

11a. If yes, please specify: ＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Appendix D: Data Analysis Guidance

The instructions below include basic guidance for analysing STAR test components. Guidance still in production will include specific instructions for analysing each component in Excel and SPSS.

Letter Identification, Most Used Words, and Decodable Words

For each of these test components, the following calculations can be made:
- Average performance for all students
- Average performance for students by group (AP and Sex, at minimum)
- Span of student scores by group
- Average performance on individual test items (each letter, each word)

Average performance for all students
- This refers to calculating the mean value (average) of all students for each performance measure. This includes the **total score** (total average number of letters, most used words, decodable words), as well as the **average (percentage)** of these scores.
  - Total score = Calculate the sum of scores for all students and average of those scores.
  - Average (percentage) = Calculate individual student percentage score by dividing the total score by the total number of points possible. Use these scores to calculate the percentage correct for the sample, which is the average performance of all students.

Example of Average Performance Calculations

Letter Knowledge	Type of Test	Number in Sample	Score
Total Number of Letters (Out of 25)	*Total Score*	732	16.3
Percent Letters (Out of 25)	*Average (Percentage)*	732	65.2%

Average performance for students by group (AP and Sex, at minimum)
- This refers to calculating the mean value (average) of different groups of students (males vs. females, AP 1 vs. AP 2, etc.). This should only be done if the sample size meets the minimum requirements for number of students per group. Like the average performance for all students, this includes the **total score** (total average number of letters, most used words, decodable words), as well as the **average (percentage)** of these scores, by group. Additionally, use the **p-value** produced to determine if there are significant differences between groups.
  - Total score = Using the total scores calculated in the previous step, calculate the sub-group totals using a t-test. An example of this is calculating scores for boys compared to scores for girls.
  - Average (percentage) = Using the average percentages calculated in the previous step, calculate the sub-group percentages using a t-test.
  - P-value = It is important to use a t-test for these calculations so that significant differences, reported as a p-value, can be assessed. WV considers a p-value of less than 5% significant (the standard calculations are $p<0.05$, $p<0.01$, $p<0.001$).
    - For example, a result of $p<0.05$ means there is less than a 5% probability that the differences between groups occurred by chance, making this a significant difference between groups. These results are especially important at evaluation to determine if the programming had a positive impact of specific sub-groups of students.

Example of Average Performance Calculations by Group

Letter Knowledge	Type of Test	Females Score	Males Score	P-value
Total Number of Letters (Out of 25)	Total Score	19.4	13.7	p<0.001
Percent Letters (Out of 25)	Average (percentage)	77.5%	54.8%	p<0.001

Span of student scores by group
- This refers to the data that can be analyzed through the use of a **histogram**. While average performance is a helpful measure, understanding the spread of total test component scores among all students or students of specific groups is helpful for contextualizing programming.
    - As seen in the graph below, 24% of students could not identify any most used words, yet 21% could identify 90% or more of the most used words. The variance in scores is important to consider, ensuring all students are receiving the level of teaching needed.

Most Used Words Histogram
(Number of Students = 1091)
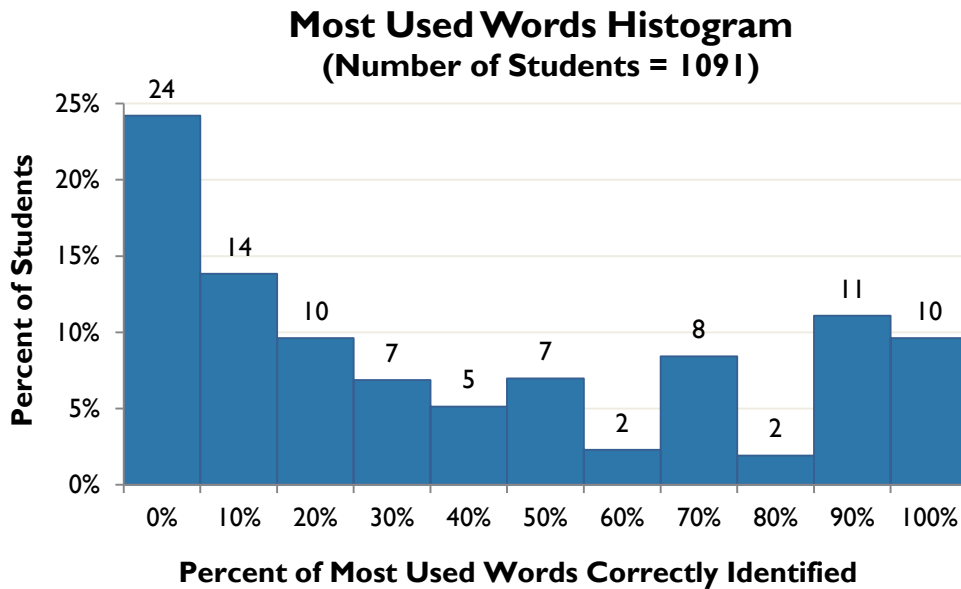
Average performance on individual test items (each letter, each word)
- In addition to looking at the span of overall scores on each measure, it can be very beneficial for programming contextualization to understand how students score on each indicator. For instance, understanding the proportion of students who were able to identify each letter may show that certain groups are struggling to understand vowels or certain consonants. This information can be used to adapt teacher training modules or the creation of teaching and learning materials to ensure those skills are not overlooked.

Example of Average Performance on Individual Test Items

Most Identified Letters

Uppercase		Lowercase	
B	87%	s	78%
A	85%	o	78%
E	82%	c	77%
O	80%	a	75%
S	80%	m	74%
G	80%	u	74%
C	80%	k	73%
D	79%	i	72%
M	76%	e	71%
R	76%	b	70%

Least Identified Letters

Uppercase		Lowercase	
Z	35%	f	37%
F	36%	w	37%
W	36%	g	38%
X	38%	y	39%
Q	42%	x	40%
V	44%	q	41%
I	48%	v	44%
Y	48%	l	47%
P	53%	p	47%
J	61%	j	55%

Comprehension

Like the basic reading test components discussed above, there are a number of results that can be analyzed from the reading comprehension test. These include:

- Average performance on literal comprehension questions
- Percent of students who can read with comprehension (CWB Target indicator)
- Fluency scores (optional)
- Accuracy scores (optional)

Average performance on literal comprehension questions

- This refers to calculating the mean value (average) of student scores on the five comprehension questions for a **total score** and **average (percentage)**. *Scores for readers and non-readers should NOT be combined*. If the student is a reader, s/he receives a 'reading comprehension' score; if the student is not a reader, s/he receives a 'listening comprehension' score. Both scores are calculated the same way. These scores should also be split into the groups listed above (AP and Sex, at minimum, with **p-values** included).
  - Total score = Calculate the sum of literal comprehension questions answered correctly for each comprehension group of students and average of those scores within the two groups.
  - Average (percentage) = Calculate individual student percentage score by dividing the total score by the total number of points possible (5). Use these scores to calculate the percentage correct for each comprehension group, which is the average performance of all students.
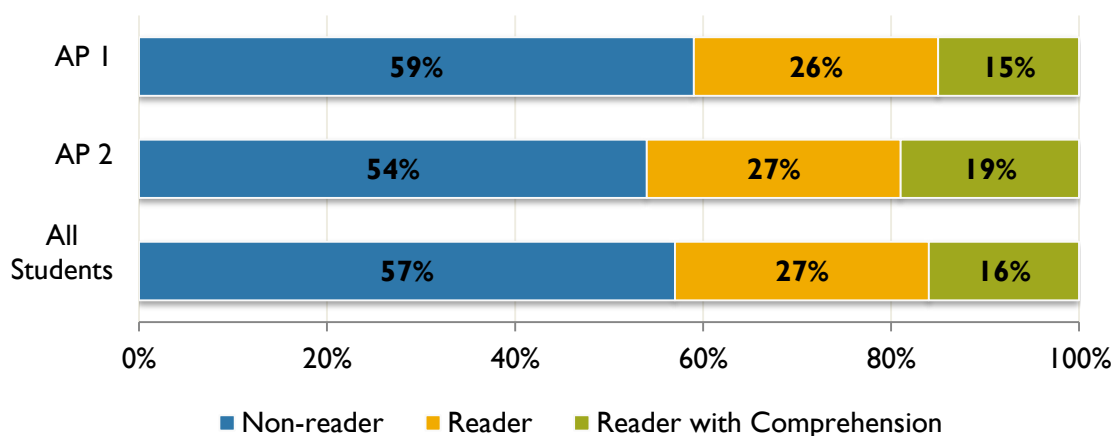
Example of Average Performance on Literal Comprehension Questions

Comprehension	Type of Test	Number in Sample	Overall Score	Females Score	Males Score	P-value
Reading Comprehension						
Total Questions Answered Correctly (Out of 5)	*Total Score*	355	4.0	4.2	3.8	No significant difference
Percent of Questions Answered Correctly (Out of 5)	*Average (percentage)*	355	80.0%	84.0%	76.0%	No significant difference
Listening Comprehension						
Total Questions Answered Correctly (Out of 5)	*Total Score*	376	3.0	2.8	3.2	No significant difference
Percent of Questions Answered Correctly (Out of 5)	*Average (percentage)*	376	60.0%	56.0%	64.0%	No significant difference

Percent of students who can read with comprehension (CWB Outcome indicator)
- Among the students who were identified as 'readers' by the enumerator, the score for the comprehension questions (total out of five) should be used to determine if the student is a **'beginner reader'** or a **'reader with comprehension.'**
    - Beginner reader = Those students who were identified as readers and received a score of three or lower (60% or less) on the comprehension questions (**orange** bar in the graph below).
    - Reader with comprehension = Those students who were identified as readers and received a score of four or higher (80% or better) on the comprehension questions (**green** bar in the graph below).
    - Non-reader = Those students who were identified as non-readers by the enumerator. The comprehension score does not matter for the purposes of creating the graph below; all non-readers are classified in one group (**blue** bar in the graph below).
- These reader 'tiers' can also be calculated according to the groups identified above (the following chart calculates these scores according to AP).

Reader with Comprehension Tiers by AP

	Non-reader	Reader	Reader with Comprehension
AP 1	59%	26%	15%
AP 2	54%	27%	19%
All Students	57%	27%	16%

■ Non-reader ■ Reader ■ Reader with Comprehension

Fluency scores (optional)

- Fluency refers to the rate a student reads the passage (words per minute correct). In calculating fluency, it is important to only take into account the words read *correctly* in a specified amount of time. When using Tangerine, the software records the length of time remaining (in seconds) when the student stops reading the passage. If s/he was identified as a 'reader' by the enumerator, first (1) calculate the total number of words read correctly in the passage. Second (2), subtract the time remaining from the time allowed to read the passage. Third (3), divide the total number of words read correctly (1) by the time used to read the passage (2). Since the time remaining is calculated in seconds, the final step (4) is to multiply the results by 60 to calculate words per minute correct. Similar calculations can be made when using paper assessments using the time data recorded by the enumerator.
    - Example: In reading a passage of 120 words, Student A read 108 words correctly. Student A was given 3000 seconds to read the passage, and when she stopped reading, there were 2820 seconds left.
        - Total number of words read correctly in the passage = 108
        - Time allowed to read the passage – time remaining: 3000 – 2820 = 180
        - Number of words correct/time used to read: 108 / 180 = 0.6
        - Words per second correct * 60: 0.6 * 60 = 36 words per minute (WPM)

Accuracy scores (optional)

- Accuracy refers to the number of words read correctly in a specific passage. Like fluency, this should only be calculated for students identified as 'readers' because students identified as 'non-readers' are not given the opportunity to read the entire passage. To calculate accuracy, divide the total number of words read correctly by the total number of words in the passage.
    - Example: In reading a passage of 120 words, Student A read 108 words correctly. Student A was given 3000 seconds to read the passage, and when she stopped reading, there were 2820 seconds left.
        - Total number of words read correctly/words in passage: 108/120 = 90%

Reporting for Child Wellbeing Outcome

The Child Wellbeing Outcome for Education is a measure of reading comprehension *only*. While the classifications outlined above are important for informing programming, the figure reported for "proportion of students who can read with comprehension" should only include those circled in **red** below. Using the graph below, the NO would report 15% of students from AP 1 are readers with comprehension, 19% of students from AP 2 are readers with comprehension, and 16% of students overall are readers with comprehension. These are the students meeting the Child Wellbeing Outcome.

- Reader with comprehension = Those students who were identified as readers and received a score of 4 or higher (80% or better) on the comprehension questions (**green** bar in the graph below and circled in **red**).

Reader with Comprehension Tiers by AP

AP	Non-reader	Reader	Reader with Comprehension
AP 1	59%	26%	15%
AP 2	54%	27%	19%
All Students	57%	27%	16%
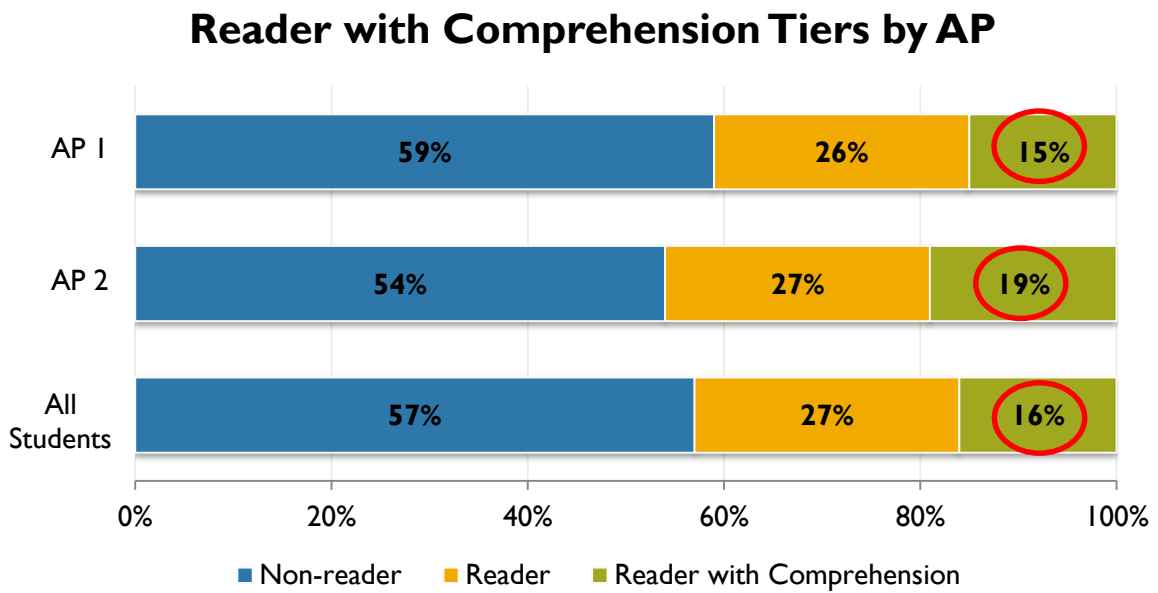
Appendix E: Team Record Sheet

STUDENT SAMPLING SHEET: TEAM LEADER VERSION (kept with the team leader)

SCHOOL CODE: _____   SCHOOL NAME: _____

Student Code	Student Name	Age	Sex	Teacher
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Appendix F: Inter-rater reliability

(From Save the Children's 'Monitoring Reading Assessment in Literacy Break-through Countries, 2014, pp23)

An important part of any data collection process when performing one-on-one assessments is seeing how well enumerators agree with one another. In an ideal world, enumerators would mark every response exactly the same. However, enumerators can disagree about whether to mark an answer correct or incorrect. Hopefully, the piloting and training process should help enumerators to consistently agree with each other. Nonetheless, it is important to continuously measure the rate of agreement between enumerators. This is done according to the following procedure.

Each day, enumerators work in pairs just for the assessment of the first student of the day. Enumerator A calls the first student and brings the student to the office/tree/location of the assessment, where Enumerator B is also waiting. Enumerator B sits in a position from which he/she cannot see what Enumerator A writes. Enumerator A conducts the assessment.

While Enumerator A is conducting the assessment, Enumerator B is listening to what Enumerator A and the student are saying. Enumerator B scores a separate assessment sheet for the same student. During the assessment, Enumerator B never asks any questions. Enumerator B only listens and records. Hence, *two* assessments are recorded for the first student of every team of enumerators at each school. On the assessment format, mark the box: talking or listening enumerator. This redundancy ensures that no confusion will occur as to which enumerator was the main enumerator. Once the assessment of the first student is finished, Enumerator A thanks the student for participating and sends that student back to class. Once the student has left, Enumerator A and B compare how they scored the student and discuss any items that they disagreed on to inform more consistent scoring moving forward.

NO scores should ever be changed, erased, or corrected during this discussion. Please note: These points of disagreement are important to retain, as they will provide information on inter-enumerator (or 'inter-rater') agreement. It is perfectly natural for there to be some disagreement between enumerators. Measuring the amount of disagreement is important in the data analysis process, as it will provide information on how much individual measurement error might affect the reading scores of students. Instructions for calculating the correlation between the listening and talking pairs will be provided separately. This statistic is a measure of reliability useful in reporting reading skills data.

After the joint assessment is completed, Enumerator A and B separate and each call their next student for individual assessment.

Inter-rater Reliability Scenario with Two Assessors

School	Student Sex	Assesses & Records	Listens & Records
School 1	Female	Enumerator A	Enumerator B
School 2	Female	Enumerator B	Enumerator A
School 3	Male	Enumerator A	Enumerator B
School 4	Male	Enumerator B	Enumerator A
School 5	Female	Enumerator A	Enumerator B
School 6	Female	Enumerator B	Enumerator A
School 7	Male	Enumerator A	Enumerator B
School 8	Male	Enumerator B	Enumerator A

Appendix G: Disability Inclusion

Check with the classroom teacher to ascertain the level and type of impairment for any children with disabilities (CWD) who are included in your sample. The teacher should be able to tell you if a child has a learning disability so this can be noted as part of the results.

A child must be able to agree to be assessed. If they are not able, then they should not be included in the assessment.

Adaptation of STAR to accommodate learning disabilities (such as dyslexia and dysphasia) should only be done by qualified professionals. In addition, administering the assessment to children with learning disabilities requires further training of enumerators.

If there are children with disabilities, consider how to make the accommodations listed below to ensure they are included:
- Presentation accommodations (such as large print or magnification devices for children with visual impairments)
- Setting accommodation (such as making the venue is accessible and comfortable for children with physical disabilities. For example, is there a ramp for children on wheelchairs)
- Timing accommodation (such as setting different assessment timing for those with disabilities, meanwhile ensuring it does not change the nature of assessment)

See the child before the disability:
http://www.youtube.com/watch?feature=player_embedded&v=oDepkMqy5PQ

Some of the greatest barriers faced by people with disabilities are others' negative attitudes of them and inaccessible environments. Keep these things in mind when planning surveys and activities.

Instrument Components	Description	Comparison			
		EGRA	STAR	Literacy Boost	FLAT
Letter Identification	Provide name and/or sound of letters, digraphs, and diphthongs	Measures both upper case and lower case;; up to 100 items; 2 different approaches (ask child either sound or letter name, depending on context)	Only lower case; up to 30 items; give child option (s/he can say sound, letter name, or word that starts with the letter)	Only lower case; up to 30 items; give child option (s/he can say sound, letter name, or word that starts with the letter)	Only lower case; 10 letters and child is asked to read 5 of the letters.
Most Used Words	Read words which are randomly ordered and drawn from a list of frequent words	Optional sub-test	10 words tested	20 words tested	10 words tested, child asked to read any 5
Decodable Words	Make letter–sound (grapheme–phoneme correspondences, or GPCs) through the reading of simple nonsense words	50 non-words tested	10 non-words tested	20 non-words tested	Not included
Phonological Awareness	Identify/differentiate the onset/rime sounds of words or the initial or final sounds of words, or segment words into phonemes by having the assessor and then the student read the phonemes aloud	Initial sound identification subtest, in which children are presented with a word orally and asked to isolate and pronounce only the first sound or initial sound discrimination subtest, in which children are presented with three words and asked to pick out the word with a beginning sound that differs from the other two	Not included	Not included	Not included
Listening Comprehension	Respond correctly to different types of questions, including literal and inferential questions about the text the assessor reads to them	Assessor reads a passage (not the reading passage) and asks comprehension questions	Not included	Assessor reads the reading passage if child is unable to read. Then the child answers listening comprehension questions.	Not included
Fluency	Read a text with accuracy, with little effort, and at a sufficient rate	Students only has 60 seconds to read passage	Student has as much time as needed to read the passage; but fluency is calculated similarly (stop rules in place for struggling students)	Student has as much time as needed to read the passage; but fluency is calculated similarly (stop rules in place for struggling students)	Not included
Reading Comprehension	Respond correctly to different types of questions, including literal and inferential questions about the text they have read	Recommends including at least 1 inferential question in sub-test to measure higher level comprehension Child does not hold reading passage while answering comprehension questions	Only includes fact retrieval questions (as this is what is needed to measure our indicator) Child does hold reading passage while answering comprehension questions	Includes fact retrieval questions as well as summary, evaluative, and inferential questions (total of 10 questions).	Included in the story level, child is asked 3 fact retrieval comprehension questions