

# The role of assessment in improved teaching and learning:

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*A workshop report prepared for IIRR on the training of Early Grade Teachers from Pastoralist Education Project supported cluster schools from Marsabit, Moyale, Isiolo and Samburu their program schools.*

**By Women Educational Researchers of Kenya (WERK)**

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## Executive summary

This report has documented the proceedings from a workshop for Early Child Development teachers from IIRR program schools whose theme was ‘The role of assessment for improved teaching and learning.’ When children are allowed to proceed beyond class three without having acquiring the basic skills for reading and numeracy they almost never catch up and keep falling further and further behind, resulting in increased loss of interest in school, poor self-esteem, lack of self confidence and increased risk for behavioral issues. The child becomes increasingly at risk of dropping out of school for every year that passes without any interventions.

For a long time, Kenya has rightly focused on educational access with little or no attention being paid to quality of education. The term quality education is an all encompassing name and chief among them is achievement of learning outcomes. One of the recommendations of the Education Task Force is for the country to shift focus from access to quality of education. This can only be possible if children acquire the basic competences in literacy and numeracy. The only way for teachers to know if this is happening is if they constantly assess the pupils. One of the ways of doing this is by incorporating assessment in teaching and learning and shifting focus from summative assessment to diagnostic and formative (determinant) assessment. To this effect, the Task Force has gone further and suggested that the Kenya National Examination Council be overhauled and even rebranded and name changed to Kenya National Assessment Centre

This workshop was therefore very timely and in line with the radical changes expected in the Kenya Education Sector. If children can master literacy and numeracy skills by the third grade, they are set on a projectile of higher learning outcome

Three forms of assessment, diagnostic, formative (determining) and summative were examined. The Uwezo Assessment Tool is both a diagnostic as well as a formative tool. Participants were trained on using the Tool and a practical to consolidate learning was arranged in Sere Olipi Primary School.

Different activities for teaching literacy from phonics to comprehension and teaching numeracy from count and match to division were discussed at length. These skills are critical for not only diagnosing individual children’s reading and numeracy problems but also planning for effective remedial teaching.

This report is divided into 5 sections: section A, the introductions and preliminaries; section B, workshop proceedings; section C, outcomes; section D, workshop evaluation; section E, observations; section F, conclusion and recommendations

Training notes and slides have been attached as appendices

## Definition of terms

**Diagnostic assessment:** Diagnostic assessment occurs at the beginning of a unit of study. Teachers assess their students' current knowledge of a topic. This provides them with information about the various ability levels in the class. Diagnostic assessment drives teachers' instruction. It tells them what their students already know and what they still need to learn. Lessons can then be tailored to meet the needs of their students. Diagnostic assessment can be done informally, through activities such as oral questioning.

**Formative:** Formative assessment is on-going, occurring throughout a unit of study. It lets teachers know if their students are acquiring the knowledge and skills being taught. If a formative assessment tool demonstrates that many students are struggling with a concept, teachers know that they must revisit the topic and modify the way they have taught it. If a few students are experiencing difficulty with a concept, teachers can offer them additional support.

**Pastoralism:** The finely-honed symbiotic relationship between ecology, domesticated livestock and people in resource-scarce, climatically marginal and highly variable conditions. It represents a complex form of natural resource management and involves a continuous ecology balance between pasture, livestock and people.

**Summative:** Summative assessment occurs at the end of a unit of study. Teachers make final judgments about the levels of achievement their students have attained. This usually results in final grades being assigned. Because it occurs when a unit of study has ended, summative assessment cannot be used to adjust lesson plans and teaching methods. Tests, exams and performance tasks are examples of summative assessment.

## Abbreviations and acronyms

<b>EGRA</b>	Early Grade Reading Assessment
<b>GoK,</b>	Government of Kenya
<b>IIRR</b>	International Institute for Rural Reconstruction
<b>KCPE</b>	Kenya Certificate of Primary Education
<b>KNEC</b>	Kenya National Examination Council
<b>PEP</b>	Pastoral Education Programme
<b>WERK</b>	Women Educational Researchers of Kenya

## **Acknowledgement**

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I am grateful to Women Educational Researchers of Kenya (WERK) for availing freely 2009-2012 Uwezo Assessment Tools for use in IIRR partner schools as both a diagnostic and formative tool and for training the ECD teachers on the same.

I am also grateful to the Headteacher of Sereolipi Primary School, Mr. Fred Papaa Lemeleny for graciously allowing the team to carry out the practical in his school and for all the pupils who were assessed during the practical.

## Section A: Introductions

### Session 1: introductions and preliminaries

The workshop began with participants introducing themselves by saying: their names; where they work and what they do there and one word or object that can best describe them. In total there were 12 ECD teachers, from the IIRR supported cluster schools including four staff from IIRR. The opening remarks were made by Ms. Wattimah from IIRR who welcomed the participants. She reminded them of IIRR 's focus on strengthening quality learning and achievement for all the learners and the importance of the teachers acquiring the required skills and competencies in teaching reading to enable good performance on the part of the learners. She also emphasized that good performance of learners in upper grades is benchmarked on them acquiring the required reading, comprehension and numeracy competencies in early grades, hence the focus that IIRR has placed on early grade reading. The workshop's objective was therefore designed to assist the teachers not only appreciate the importance of teaching reading and comprehension using approved methodologies, but to also introduce them to a diagnostic tool developed by UWEZO, that would help them assess the status and progress of learners in their reading competencies. It would also help the teachers measure their success indicators by assessing the learner performance in the same, and therefore be more creative and innovative in teaching reading. She also informed them that the workshop would end with a one day field practice on the tool in one of the IIRR supported schools. She urged them to be attentive and learn as they were expected to immediately put in practice what they had learnt, and the learners would be assessed to find out if the teachers were using the knowledge they had gained for the benefit of the learners.

### Participants' expectations.

Participants were asked to write down their expectations on VIIP cards which were displayed on the wall of the room. The following were the participants' expectations.

- Be able to assess and improve children's competences in level 1, 2, and 3
- To gain knowledge and skills on how to improve on reading skills
- To improve the capacity of the children
- Learn simple methods of improving children's competences in level 1, 2, and 3
- To learn how to build the capacity of innocent children
- To strengthen our professional skills for better learning
- To learn about UWEZO tools
- To know more about proper pronunciation of words
- Assess a child in reading skills
- Assess a child in numeracy skills
- Gain more knowledge on pre-reading skills
- Attain skills, so as to make a Kenyan child a good future leader
- Learn how to handle pupils with reading problems especially languages (Kiswahili and English)
- How to make a child comfortable in class despite having problems at home
- Be able to assess a child as an individual
- Be able to assist learners to know how to read

- To make learners improve in their learning skills
- To acquire knowledge and skills of teaching and learning and be able to apply them on our learners and improve their learning
- Receive guidelines on reading
- Learn how to teach writing and doing simple arithmetic
- How to develop good relationship with the young ones
- Know how to handle the young pupils in areas of reading
- To gain more knowledge and skills on assessing children on how to read

### **Workshop objectives**

The facilitator then displayed the workshop objectives which were:

- To build our capacity in teaching literacy and numeracy
- To appreciate the role of assessment in teaching and learning
- To learn how to use the Uwezo Assessment Tool to determine children's learning competences
- To learn how to carry out remedial teaching

### **Workshop training approach**

The approach used by the facilitator was mainly group tasks, where participants were first given a task and after their presentation, the facilitator would go through her notes to consolidate learning.

### **Day 1**

After the participants and trainers introductions, opening remarks the facilitator went through the participants expectations highlighting which could be met in this particular workshop and which couldn't be met. This was informed by looking at their expectations against the workshop objectives. However, for ease of reference, the participants expectations which were on flash cards were pinned on the wall as evaluation points for coverage at the end of the workshop

### **Timetable, rules and roles delegation**

In order to meet the workshop objectives the participant's attention was drawn to the program. They were taken through the 3 day program and unanimously agreed to adopt it.

Rules were agreed upon and laid out and. Rules included: responsible use of mobile phones, active participation, respect for each other's opinion and punctuality.

Different roles were assigned to various participants to ensure that the program ran smoothly. Some of the roles included: energizer, time keeper and spiritual leader.



## Section B: Workshop proceedings

### Literacy

The workshop began by defining literacy as the ability to read and write. More often writing as a skill is ignored but a learner needs to know that there is a connection between the written and spoken words if they are to become fluent readers. The dangers of children not reading were highlighted chief among them: the student falling further and further behind, resulting in increased loss of interest in school, poor self-esteem, lack of self confidence and increased risk for behavioral issues. The child becomes increasingly at risk of dropping out of school for every year that passes without any interventions

### Teaching hand writing

Participants were divided into 3 groups and asked to do the following tasks:

- Write the letters b, p, o, g, v, X
- What is the direction of the movement of the hand?
- How do you normally teach writing?

After all the groups had presented, the participants were taken through the training slides highlighting the fact that most letters are made with circles and part circles which are made in an anticlockwise direction begin at the two o'clock position (proceeding to the left), while circles or parts of circles which are made in a clockwise direction begin at the ten o'clock position (proceeding to the right). The other letters are made of straight lines that start at the top. Issue of spacing and height of letters was emphasized.

### Teaching reading

By the end of this session the participants were expected to have improved their skills of teaching literacy. The session began with group tasks. There were 3 tasks and each group was to do a different task. The questions were

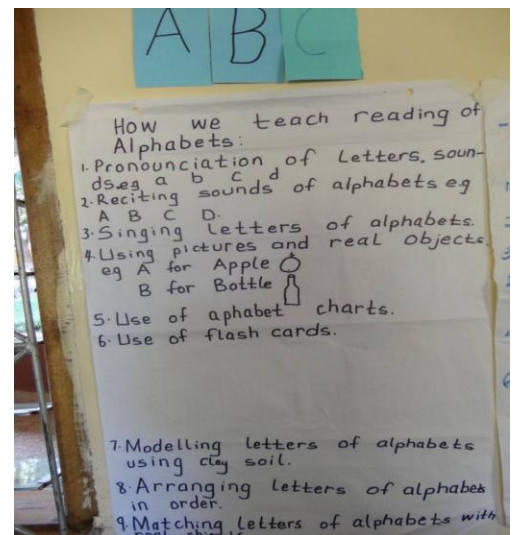
How do you teach reading of the:

1. Alphabet?
2. Words?
3. Comprehension?

Each of the groups presented in plenary. The following is a summary of their presentation.

#### 1. How we teach reading of alphabets

- Pronunciation of letters, sounds eg, a,b,c,d
- Reciting sounds of the alphabets eg, A B C D
- Singing letters of alphabets
- Using pictures and real objects eg, A for Apple, B for Bottle
- Use of alphabet charts
- Use of flash cards
- Modeling letters of alphabets using clay soil
- Arranging letters of the alphabet in order



Flip chart showing teaching reading and alphabet

- Matching letters of the alphabet with real objects

After the group presentation, the facilitator gave a summary that first outlined the general guidelines for teaching reading. These included:

- Setting up an environment that is both relaxing and entertaining..
- Selecting activities that are task based before and after the lesson.
- Setting a routine and following it.
- Creating a system of rewards. Smile, stickers, a drawn smiley face.
- Using read-along songs.
- Reading aloud to the children.
- Using games.
- Practicing conversational English.
- Using a student-centered approach. No lengthy discussions
- Using visual aids.

The general guidelines were then followed by a summary of steps for teaching sounds. A lot of time and emphasis was placed on teaching phonics as they are the foundation of reading. The steps were as follows:

- Check the foundation.
- Make sure the child can recognize all of the letters of the alphabet by using the letter cards as flash cards or on the chalk board.
- Review the letter sounds. Make sure the child knows the sound associated with each consonant and the short sound of each vowel through:
- Writing the capital letter names and the small letter sound together so that the child associates the letter and the sound. Aa, Bb, Cc, Dd
- Actions and Mimicry.
- Teaching the concept of "blending"

## 2. How do you teach reading word?

The following is a summary of the group presentation on how to teach reading words.

- Phonetic sound
- Look and say method
- Using joining words
- Matching the picture with words
- Use of flashcard
- Use of wall chart

The following is a wrap up on activities that can be used to teach reading words.

- Emphasis on decoding words as opposed to memorizing was emphasized.
- Continue reading three-letter words.
- Begin reading four-letter words.
- Read the early reader books together.

- Sight word recognition or look and say is a skill to be emphasized as children must move from phonics to reading the complete word. This must be done if the child is to read fluently.
- Reading with fluency can be achieved by having children practice reading until they can recognize words easily, read with greater speed, accuracy, and expression
- Build vocabulary
- Have guided oral reading opportunities

### 3. How do you teach reading a comprehension?

Reading comprehension and other higher-order reading activities depend on strong word recognition skills. Children who are ready to begin reading words understand that

- (a) Words can be spoken or written;
- (b) Print corresponds to speech;
- (c) Words are composed of individual letters and that these letters correspond to sounds.

In order to demonstrate how to teach reading a comprehension, the group came up with an example of a simple paragraph that was also a short story.

**‘This is a cow. It is a good animal. It gives us milk and meat. It has four legs, two horns and two ears.’**

The following is a summary on group presentation on how to teach comprehension.

- Teacher to introduce the comprehension by explaining the meaning of the text
- Showing learners how to use commas, full stop, question mark in the comprehension
- Teacher to read the comprehension as learners listen
- Learners to read the comprehension after the teacher
- Allow individual learners to read the comprehension as others read after him/her
- Give assistance to those who cannot read
- First explain the new words in the story in the language of the catchment area.
- When reading and there is a difficult word then the teacher should always intervene quickly

To wrap up this presentation the facilitator highlighted the following activities that could help the participants teach reading comprehension comprehensively.

- Storybook reading or listening to others reading aloud
- Learning new words before reading a text
- Print several vocabulary lists and tape them along a wall about 3 feet off the floor on either side of the classroom walls.
- Task restructuring and repeated exposure (such as having the student encounter the same words in various contexts)
- Substituting easy words for more difficult words (this is particularly helpful with low-achieving students or students with limited reading ability)
- Students answering questions after reading a passage.

## **Teaching numeracy**

The session objective was to build the capacity of participants in teaching numeracy. As was the structure of the work shop the groups began by carrying out various tasks of teaching numeracy. The tasks were:

How do you teach:

- Counting and number recognition?
- Addition and multiplication?
- Subtraction and division?

The following are the groups' presentations

### **Counting and number recognition**

- Use objects (sticks, bottle tops, fingers)
- Rote counting
- Look and say using flash cards
- Matching objects and numbers
- Matching symbols and words

### **How to teach addition and multiplication**

#### ***Addition***

- Introduce the sign addition and explain the concept of putting together
- Number recognition use flash cards
- Introduce basic addition concept
- Addition of single digit number + single digit number
- Addition of numbers in horizontal form.

#### ***Multiplication***

- Group objects to form basic multiplication fact.

### **How to teach subtraction and division**

#### ***Subtraction***

- Identify the sign
- Introduce basic subtraction fact as take away

#### ***Division***

- Identify the sign
- Introduce basic division fact as repeated subtraction
- Group objects to form basic division fact.

After group presentations, the facilitator did a wrap up from the teaching notes and slides. The participants were requested not to complicate the teaching of mathematics but as far as possible to use ethno mathematics to teach numeracy. They are to focus on teaching concepts but not force pupils to revise multiplication and division tables. Definitions of the various concepts were also given.

## **Day 2 24<sup>th</sup> January, 2012**

The day began at 8:30a.m. with a word of prayer then followed with recap.

Participants were to say one thing they could remember from the previous day's workshop. The following is a summary of what was learnt

- How to teach the alphabet
- Teaching reading and comprehension
- How to teach subtraction and addition
- How to teach numeracy
- How to teach words
- How to teach addition and multiplication as repeated addition
- Dangers of children not being able to read (lack of self confidence and discipline issues)
- The whole alphabet A-Z is written by either drawing lines, circles or semi circles in a clockwise or anti clock wise manner.
- How one can identify a child who is a non reader.



### **Role of assessment in teaching and reading**

The session objective was to appreciate the role of assessment in teaching and learning. This was an important session as assessment and teaching go hand in hand. Differences between grading and assessments were also highlighted. The various types of assessment were explored: diagnostic, formative (determining) and summative.

The group task was to discuss how they normally identify a child with reading problems. The following is a summary of all the presentations.

- Child not participating in class
- He or she is shy in class especially when asked to read
- He or she is absent minded
- Lack of eye to eye contact.
- Lack of interest in reading and showing boredom
- Not concentrating in class
- Absent in class during reading
- He or she is noisy in class
- Being disruptive in class
- Lack of participation during reading
- He/she cannot pronounce words clearly but mumbles when asked to read
- He/she takes a lot of time without connecting words
- Lacking confidence in reading
- poor in spelling of words
- Unable to participate in group tasks
- Pupils are unable to answer questions after reading a comprehension

- Not pointing to the exact word when reading
- Eager to repeat after others

The facilitator thereafter did a wrap up after the presentations. Lack of fluency and speed while reading was identified as one of the major ways of identifying a child with a reading problem. If they read comprehension as a string of words, then they are unable to comprehend what they are reading as they will have forgotten what they had read. Sounding out words long after the pupil should have learnt how to read is also a problem

### **Uwezo Assessment Tool**

Most of the second day was used training the participants on how to assess children using the Uwezo Assessment Tool. They were taken through the framework for development of the tools so as to understand the logic behind the tool. Role play was used as a way of identifying the kind of mistakes they would expect pupils with various reading and numeracy difficulties to make.

### **Tool for analysis (Appendix vi)**

A simple tool for analysis that goes beyond identifying the level of literacy and numeracy the child is at was developed and presented to the participants.

### **Planning for practical**

Participants were put in pairs: a trained teacher with one who is not trained. This ensured that the weak teachers were paired with one who had higher conceptual skills. Each pair was to assess 5 children: one from each class 1 – 5. The range of the classes would allow for the participants to get pupils at various levels of acquisition of basic skills for reading and numeracy. In total 30 children were assessed and the feedback given to the Headteacher.

### **Day 3 26<sup>th</sup> January, 2012**

#### **Practical at Sereolipi Primary school**

The vehicle left at around 9:00a.m. for Sereolipi Primary School which is about two and a half hours drive. The school is highly organized and pupils learning outcomes are quite high. The pupils to be assessed were selected at random. The assessment took place in the school library. Each group was able to assess 5 children, one from every class; class 1-5. After giving the Headteacher feedback, the team returned at 2:30 and the feedback session began at 3:30pm

### **Feedback from participants**

Participants were able to:

- accurately place pupils at specific levels in literacy and numeracy
- Using the steps of teaching reading from phonics to fluent readers, the participants were able to not only place a child on the Uwezo levels but also diagnose why the child was making the mistakes they were.
- suggest what support each individual child would need if they are to improve

- Overall the pupil's learning competences were very good and the teachers felt challenged to go back to their schools and improve on their pupils competences.

### **Remedial teaching technique**

The overall objective of the workshop was to discuss the role of assessment in teaching and learning. In order for the tool to work for them, participants were taken through how to use the information gathered from assessing pupils to plan for remedial teaching.

Remedial reading is an extremely important class for children who are struggling with reading. Many children especially in early grade classes have some difficulty with reading skills. While most children who receive remedial reading instruction and intervention before the end of third grade are able to catch up with their peers, students who do not receive early intervention often never perform at their appropriate level.

### **Steps in carrying out remedial teaching**

1. Identify the actual problem.

The three most common causes of reading difficulties in children are:

- a. Difficulty with the alphabetic principle,
  - b. Lack of understanding the idea that written words and letters match spoken sounds;
  - c. Challenges with reading comprehension due to lack of reading accurately and fluently.
2. Group your remedial reading students by reading level if possible. They can sit together in class if it is large enough or in a separate room.
  3. Select a technique focused on the skill with which a child is struggling.
  4. Have remedial reading as a pull-out program (children meet after classes), and some have push-in programs (children are put together during the lessons and are paid special attention). Pull-out programs are necessary for some children to succeed in reading.
  5. Plan for the lessons. Prepare adequately for this lesson as with other regular lessons
  6. Expose students to interesting reading materials and have them reading more often.
  7. Guided reading is perfect for teaching remedial reading

## **Section C: Outcomes**

After the group presentations the facilitator would go through the training notes and the accompanying training slides. Group presentations have been captured as part of the workshop report. The participants were exposed to the different forms of assessment. Participants were trained on using Uwezo Assessment Tools as both diagnostic and formative assessments. A practical session to consolidate learning was planned at Sereolipi Primary School. Remedial teaching as part of teaching and learning was also incorporated.

Each participant was given a copy of the 2009-2011 Uwezo Assessment Tools.



## Section D: Workshop evaluation

A simple workshop evaluation tool (Appendix vii) was developed and issued to the participants on the last day of training. The following is a summary of their responses.

1. Participants were asked to rate the workshop and 67% of the participants thought that the workshop was very good while the other 33% thought it was good.
2. Participants were asked to list three things they learnt in order of priority. The following is a summary of the most important things that the participants learnt were:
  - Teaching techniques
  - How to carryout remedial teaching
  - An easy method of assessing pupils
  - Pronunciation of letters
  - How to teach comprehension and answer questions
  - Diagnosing pupils reading mistakes
  - How to teach reading words
  - How to teach numeracy
  - Better methods of teaching the alphabet
  - The difference between assessment and grading
  - A teacher can assess pupils during the lesson
  - Teaching phonics as the first step to teaching reading
  - Role of assessment in teaching and learning
  - How to use the Uwezo Assessment Tools
  - Types of assessments
  - Danger of children not knowing how to read
  - That fluency in reading can be achieved by class two.
  - Pre-reading skills
  - Sharing of ideas among teachers from different backgrounds
  - Identify pupils with learning difficulties
  - Headteachers and the Manager of a school can sit and share ideas as was the case of Sereolipi Primary School
3. Asked whether there was a topic or session which they thought was not important or relevant, all the participants stated that all the topics were important
4. 67% of the participants felt that the number of days for workshop was adequate while 33% felt that they were not.
5. Asked whether they now felt confident enough to assess pupils in their schools, they all answered in the affirmative.
6. In case of a future follow up workshop, participants suggested the following topics to be included:
  - Handling of children with special needs
  - EGRA
  - More work in reading
  - Lesson planning

- More school tours
- How to use Uwezo Assessment Tool in assessing Science and Social studies
- How to assist children from marginalized areas like the deseert
- How to teach the alphabet using sounds
- Material development
- How to help children

## **Section E: Observations**

All the sessions were very interactive. All the participants remained energized throughout and actively participated in the discussions both at group level and at plenary. Presentations at plenary were very good as presenters assumed that they were actually teaching a real class. Methodologies of teaching the various levels were as close to actual teaching and responses by participants were those of pupils in grade one to three. Role play as a methodology was greatly used.

The Team from IIRR was very supportive and would reinforce certain aspects.

The team had basic skills for teaching reading and numeracy. However, the idea of using phonics for teaching the alphabet seemed quite new to some of the participants especially those that are not trained.

## **Section F: Conclusions and recommendations**

One of the recommendations of the Education Task Force is for the country to shift focus from access to quality of education. One of the ways of doing this is by incorporating assessment in teaching and learning and shifting focus from summative assessment to diagnostic and formative (determinant) assessment. To this effect, the Task Force has gone further and suggested that the Kenya National Examination Council be overhauled and even rebranded and name changed to Kenya National Assessment Centre.

This workshop was therefore very timely and in line with the radical changes expected in the Kenya Education Sector. If children can master literacy and numeracy skills by the third grade, they are set on a projectile of higher learning outcome.

The teachers will need support and deliberate follow up if they are to fully integrate assessment as part of teaching. During training, the issue of multi-lingual teaching came up. IIRR could consider incorporating this critical component of teaching and learning in future workshops.

## Appendix i: Training notes.

### Defining literacy

Literacy is the ability to read and write. More often writing as a skill is ignored but a learner needs to know that there is a connection between the written and spoken words.

### Dangers of children not reading

If working with a "*below grade level student*," it is essential to bring their reading level up to par early in their schooling. Every year that passes that this is not done; the student will fall further and further behind, resulting in increased loss of interest in school, poor self-esteem, lack of self confidence and increased risk for behavioral issues

### Teaching handwriting

#### 1. The formation and direction of the letters:

There are arguments for using plain paper with young children attempting to form the letters of the alphabet for the first time; correct pen hold, hand movement and orientation pose a sufficient challenge. Children should be first taught the correct pen hold before they actually taught how to write.

All letters are made with circles, part circles and straight lines. All vertical and all straight lines start at the top. Form the vertical lines of a letter before putting in the horizontal ones (horizontal movements go from left to right). Circles or parts of circles which are made in an anticlockwise direction begin at the two o'clock position (proceeding to the left), while circles or parts of circles which are made in a clockwise direction begin at the ten o'clock position (proceeding to the right).

Note that teaching learners to write their names in capital letters (or whole words not normally produced in upper case letters) is considered damaging to handwriting later on. Most copying tasks should involve mainly lower case letters. Use upper case letters according to the normal rules of capitalization and at no greater frequency.

#### 2. The spacing &/or joins between letters and the space between words:

Appropriate distance between letters and words should be maintained to ensure that the child can identify the start and end of individual words.

#### 3. The height of letters

Tall letters such as 'b', 'f', 'h', 'k' and 'l' should be about twice the height of small letters such as c, e and o. Medium sized letters such as d and t should be in between. Ruled guidelines can be used to indicate the positioning and relative sizes of the letters. These guiding features commonly consist of 'continuous parallel guidelines' defining the optimum height of upper case and tall lower case letters. The space between these continuous guidelines is important. If spaced too far apart this could slow handwriting down and make it unnecessarily untidy, as learners unnaturally stretch their upper case letters to meet the upper guideline. If they are too close together (as found in narrowly ruled exercise books), this may result in cramped handwriting.

### **How to teach reading: General guidelines**

1. **Set up an environment that is both relaxing and entertaining.** Young learners have short attention span, which means that getting hungry or bored can easily draw their attention away from the lesson you are teaching. Additionally, keep in mind that reading and writing English are skills they are just now learning; therefore, change games and activities every five to 10 minutes so that students do not become overwhelmed or bored.

2. **Select activities that are task based.** Task-based learning can take place before the language lesson is discussed; or, teach the language lesson first, and then follow that with the task-based language activity. For example, a task-based activity lesson on learning animals may consist of drawing and/or coloring animals included in the lesson. Then, after each animal is completed, paste each animal to a poster board that resembles the animal's native habitat (forest, water, tree, etc.). Others include: use worksheets that teach youngsters how to trace the alphabet; coloring activities; simple crafts for example, children can cut out body parts and glue them on a doll after you teach them the English words for arms, legs, head and body. The students can then say the words individually to the class, pointing to the arms, legs, head, and body on the doll.

3. **Set a routine and follow it.** Whether you are in a classroom or a home-school setting, children learn best when they know what is expected of them. For example, have a designated study time, such as 10 o'clock every evening. Always study in the same environment, such as the same classroom, or room. Additionally, always start with a review of the previous lesson before beginning any new material.

4. **Set attainable goals for the student to achieve** and explain what those goals are before the lesson begins. For example, a single goal of a lesson may be to accurately recognize and recall the names of five animals in a stack of flashcards to reinforce a lesson learned earlier in the week.

5. **Create a system of rewards.** Smile and tell the students when they are doing a great job. Rewarding students with a sticker, a drawn smiley face, are easy ways to reinforce good study habits. This feedback will encourage children to participate.

6. **Use read-along songs.** Slowly say the words to the song and ask the students to repeat after you. Add the music and sing the words, stopping the song after each verse. Repeat each verse with the music until the children remember the song. Add hand movements to the song. For example, if the children are learning a song about the parts of the body, point to each part of the body as you sing. Direct the children to do the same. This way, the student does not focus on the stress of learning a new language; rather, she becomes involved in learning a new story or song.

7. **Read aloud to the children.** Reading aloud has a host of educational benefits; especially in exposing the learners to correct grammar and helping students increase their vocabulary.

8. **Use games.** Easy games that young children can understand will help them practice their English skills.

9. **Practice conversational English** by having students explain what they did before class or where they traveled on vacation. This allows students to become familiar with accessing vocabulary they are familiar with and gives them an opportunity to use new vocabulary as well. Additionally, read-along books and songs are ways to learn words on site and practice pronunciation.

10. **A student-centered approach** is best when teaching young children English. Lengthy direct instructions, teaching and explaining without students' verbal responses should be avoided because young children easily lose focus. Teachers who work with five-year-olds should be patient and energetic. These teachers make a great impact on their students because many of these children are having their first experiences learning English.

11. **Use visual aids.** Pictures are examples of visual aids that are used to teach young children. For example, show a picture of a boy and say the word. Use repetition until the children say the word. Next, show a picture of a girl and ask the children to say the word. Point to the pictures and wait for the children to identify the pictures on their own.

### **Phonics**

- Phonics knowledge is defined as having an association between a letter and the sound it represents
- Phonics is the study of letters and the sounds they make.
- When your kindergartner learns that the letter B has the sound of /b/ and your second-grader learns that "tion" sounds like /shun/, they are learning phonics."
- Knowing phonics rules is what allows people to sound out (also known as "decode") unfamiliar words, from a five-year-old reading "Sam I am" to an adult trying to decipher the name of his blood pressure medication.
- Phonics is the foundation of reading.
- In phonics instruction, children learn how to differentiate the sounds that single letters or grouped letters make
- You do not have to teach the sounds in order

### **Steps in teaching phonics**

1. **Check the foundation.** Make sure the child can recognize all of the letters of the alphabet by using the letter cards as flash cards or on the chalk board.
2. **Review the letter sounds.** Make sure the child knows the sound associated with each consonant and the short sound of each vowel. This may be done through:
  - a) Writing the capital letter names and the small letter sound together so that the child associates the letter and the sound

- b) **Letter cards** as flash cards to assess and practice this.
  - c) **Actions and Mimicry.** By using body movement and getting children on their feet, you help children to recall the sounds later. Begin with the first set of simplest sounds, which are /s/, /a/ and /t/. Use your whole body to wriggle like a snake as you make the "sss" sound. Cue the children to mimic your sound and movement.
3. **Teach the concept of "blending."** On the chalkboard, write a three-letter word using the short "a" sound (such as mat, jam, had or can). Put a dot under the first letter and have the child say its sound. Do the same with the next two letters. Then start over again at the beginning of the word, having the child say the sound and continue it as you draw a line to the second letter (connecting the dots). Have her say the sound of the second letter next and continue it as you draw a line to the final letter, which she finally sounds. Then have her say all three sounds together. Praise her for reading the word; then, continue reading words with the short "a" sound.

### Reading Words

Reading comprehension and other higher-order reading activities depend on strong word recognition skills. Children who are ready to begin reading words understand that

(a) Words can be spoken or written;

(b) Print corresponds to speech;

(c) Words are composed of individual letters and that these letters correspond to sounds. This can be done by asking a child to respond to the following:

- i. What would be left out if the /k/ sound were taken away from cat? (subtract letter)
- ii. What do you have if you put these sounds together: /s/, /a/, /t/? (add letter)
- iii. What is the first sound in rose?

1. **Continue reading three-letter words.** Progress through the remaining short vowel sounds: e, i, o and u.
2. **Begin reading four-letter words.** Start with consonant blends (pr, bl, st, for example); then, move on to consonant digraphs (two letters that make one sound such as th, ch, wh, ph) and finally to long vowels ("a" with helper "e" at the end, "oa" and so on).
3. **Read the early reader books together.** Have the child read, but be there for support and extra help with longer words.

### Sight word recognition

Teaching phonics and word recognition are essential to teaching beginning reading to children. However "look and say" or sight word recognition is a key skill for developing reading fluency. Beginning readers sound out words and learn to recognize whole words. Reading to your child often will help him or her recognize words more readily.

### Reading with fluency.

Even when children can break spoken words into smaller units (called phonemes) and are able to blend sounds together to form words (phonics), there are at least three other skills that are important to master to be able to extract meaning from written text. Skilled readers, in order to understand what they read, must also:



- read with fluency (practice reading until they can recognize words easily, read with greater speed, accuracy, and expression)
- build vocabulary (learn the meaning of new words, both as they appear in written texts and as a way of better understanding the world in which we live)
- have guided oral reading opportunities (reading out loud while getting guidance and feedback from skilled readers)

### Reading Comprehension

- Vocabulary clearly plays a critical role in understanding what has been read.
- Vocabulary and fluency (also called "word recognition") are the first critical steps toward achieving maximum reading progress and maximum understanding of reading material (also called comprehension). In other words, students must first be able to read the words in sentences and paragraphs both correctly and easily **before** they can be expected to understand the written material.
- Some effective ways of teaching vocabulary are
  - i. storybook reading or listening to others reading aloud
  - ii. learning new words before reading a text
  - iii. Print several vocabulary lists and tape them along a wall about 3 feet off the floor on either side of the classroom walls.
  - iv. task restructuring and repeated exposure (such as having the student encounter the same words in various contexts)
  - v. substituting easy words for more difficult words (this is particularly helpful with low-achieving students or students with limited reading ability)
  - vi. Students answering questions after reading a passage.

### Numeracy

Learning about numbers is a preschooler's first step toward becoming a young mathematician.

Acquiring numeracy is all about counting, number recognition and operations in whole numbers.

1. **Counting** is the ability to recite numbers in order.
  - Many children may be able to identify a 3, but they don't understand what 3 means. A child must not only be able to recognize the number but understand the concept. Counting should be done using objects to help children understand the concept.
2. **Number Recognition** is the ability to visually recognize and name numbers.
3. **Quantity discrimination** is the ability to understand place value or know which number is bigger than the other. Without this understanding children cannot carry out operations with whole numbers (addition, subtraction, multiplication and division)
4. **Operations of whole numbers**
  - a) Addition- putting together
  - b) Subtraction-taking away
  - c) Multiplication- repeated addition
  - d) Division- repeated subtraction.

## **Role of assessment in teaching and learning**

- Assessment and teaching go hand in hand.
- Assessment tools support student learning by ensuring that lessons can be modified as necessary to meet students' needs.
- You cannot teach your students without assessing what they know, and continuing to assess what they have learned in your class.
- It is a common misconception that grading and assessment are one and the same.
- While assessment in schools involves assigning grades, it is more than that for both the teacher and the learner.
- Assessment can take place in form of: standardized multiple-choice tests, true-and-false quizzes, tasks and observation. Self-score and peer-score can be done before submitting the work to the teacher. This places additional responsibility on the student for his own learning and guides him toward mastery.

During assessment the teacher wants to know:

1. What a student knows
2. How s/he compares with the others in the same grade or age.
3. How to assess improvement. Pre and post assessments determine how much knowledge the student possessed before learning and after learning. It is important to remember that a student may fail to achieve a set standard but can still make great strides that demonstrate learning.
4. Setting realistic and individualized academic goals for the student
5. Determine future strategies in both teaching and learning.

## **Types of assessment**

### **1. Diagnostic**

Diagnostic assessment occurs at the beginning of a unit of study. Teachers assess their students' current knowledge of a topic. This provides them with information about the various ability levels in the class. Diagnostic assessment drives teachers' instruction. It tells them what their students already know and what they still need to learn. Lessons can then be tailored to meet the needs of their students. Diagnostic assessment can be done informally, through activities such as oral questioning.

### **2. Formative**

Formative assessment is on-going, occurring throughout a unit of study. It lets teachers know if their students are acquiring the knowledge and skills being taught. If a formative assessment tool demonstrates that many students are struggling with a concept, teachers know that they must revisit the topic and modify the way they have taught it. If a few students are experiencing difficulty with a concept, teachers can offer them additional support.

**NB. Uwezo assessment tool is both a diagnostic and formative tool.**

### 3. Summative

Summative assessment occurs at the end of a unit of study. Teachers make final judgments about the levels of achievement their students have attained. This usually results in final grades being assigned. Because it occurs when a unit of study has ended, summative assessment cannot be used to adjust lesson plans and teaching methods. Tests, exams and performance tasks are examples of summative assessment.

#### How to diagnose children with reading problems

Many people have reading problems, and a lot of them try to hide it. There are ways to watch a student and look at their work to see if they're at risk for developing problems with reading. The following are ways of identifying a child with reading problems.

1. Observe a student in the classroom. If they refuse to take part in reading activities, don't want to read, and dislike books and reading, they may have a reading problem.
2. Reversing words in a passage after the age of 8, skipping, guessing, misreading words, and giving up easily are characteristics of someone with reading problems.
3. Hiding a lack of reading skills by making excuses can be a sign of reading problems.
4. Still sounding out words instead of trying to figure out unfamiliar words by how they're used in a sentence can be a sign of a reading problem.
5. Low self esteem.

#### Remedial teaching technique

Remedial reading is an extremely important class for children who are struggling with reading. Many children especially in early grade classes have some difficulty with reading skills. While most children who receive remedial reading instruction and intervention before the end of third grade are able to catch up to their peers, students who do not receive early intervention often never gain all the appropriate reading skills.

1. Identify the actual problem.

The three most common causes of reading difficulties in children are:

- a. difficulty with the alphabetic principle,
  - b. Lack of understanding the idea that written words and letters match spoken sounds;
  - c. Challenges with reading comprehension due to lack of reading accurately and fluently.
2. Group your remedial reading students by reading level if possible. They can sit together in class or in a separate room.
  3. Select a technique focused on the skill with which a child is struggling.
  4. Have remedial reading as a pull-out program (children meet after classes), and some have push-in programs (children are put together during the lessons and are paid special attention). Pull-out programs are necessary for some children to succeed in reading.
  5. Plan for the lessons
  6. Expose students to interesting reading materials and reading more often.
  7. Guided reading is perfect for teaching remedial reading

## UWEZO 2010 FRAMEWORK FOR DEVELOPING UWEZO ASSESSMENT TOOLS

### 1. ENGLISH ASSESSMENT LEVELS.

The literacy tools are to be designed in such a way that they assess different levels of competences from non readers to the highest level of story level.

#### Level 1. Letter-name stage.

This is the most basic assessment of a child’s reading preparedness. Letter-name knowledge is the predictor of reading development. When one only reads the letters or alphabet, he is at letter level. If the child cannot recognize the alphabet then they are non readers.

#### Level 2. Word level

The second stage of literacy competence is when the child can turn letters into sound and sound into words. This is the level of familiar word identification. The choice of words should be derived from familiar objects meaning that all of them should be nouns. They should also be found in the state recommended textbooks.

#### Level 3. Paragraph level

At this level the child should be able to read short sentences fluently as whole words and without stopping often. If they are unable to, then they should be taken to the word level.

#### Level 4. Story level.

At this level the child is expected to read a short story fluently and with speed.

**Table 1 Framework for developing Uwezo 2010 Assessment Tool for basic English literacy**

Levels of assessment	Skills/competences involved	Guidelines	Grading
A. Letter/ alphabet recognition (Letter level)	Letter name knowledge	<ul style="list-style-type: none"> <li>✓ Each test is to have a total of 10 letters: 2 vowels and 8 consonants.</li> <li>✓ Only small letters are to be included.</li> <li>✓ They are to be arranged at random.</li> <li>✓ a, e and o are considered to be simple vowels while I and u are considered to be difficult.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Ask the child to read any 5 letters</li> <li>✓ If the child can identify 4 out of 5 small letters, that child is graded at letter level.</li> <li>✓ If the child can only recognize three letters or</li> </ul>

		<ul style="list-style-type: none"> <li>✓ Each test is to have two vowels, one from the easy ones and one from the difficult ones.</li> <li>✓ Consonants are divided into three levels of difficulty depending on their usage: easy, b, d, m, n, p, t, c, g, h middle level J, l, w, f, r and difficult s, z, y, q, v, x, k.</li> <li>✓ There should be 4 consonants from the easy level, 2 from middle level, and 2 from the difficult level.</li> <li>✓ Choose the right font so that children do not get confused between letters.</li> </ul>	less, they are to be graded as non readers.
B. Reading simple words (Word level)	Phonemic awareness where the learner connects letters to sound to words.	<ul style="list-style-type: none"> <li>✓ Familiar word reading</li> <li>✓ 10 simple nouns that are found in state recommended text books.</li> <li>✓ Words to have three to five letters.</li> <li>✓ There should be 4 words of 3 letters each, 5 words of four letters each and only one word of five letters.</li> <li>✓ Words to have one to two syllables in order to assess ability to connect the letters to sound.</li> <li>✓ No words with silent letters e.g. knife.</li> <li>✓ No plurals</li> </ul>	<ul style="list-style-type: none"> <li>✓ If a child can read at least four out of five words then this learner is graded at word level.</li> <li>✓ If they can only read three or less words then the child is graded at letter level.</li> <li>✓ At this level the child is allowed to break the word into phonetics as they read the word.</li> </ul>
C. Reading short paragraphs. (Paragraph level)	To assess the child's ability to read fluently.	<ul style="list-style-type: none"> <li>✓ Each paragraph should have four sentences of four to six words.</li> <li>✓ The sentences should be connected to each other to form a paragraph.</li> <li>✓ Each paragraph should have an average of 20 words.</li> <li>✓ Avoid plurals</li> <li>✓ Few 3 syllable words</li> <li>✓ One word with silent letters</li> </ul>	<ul style="list-style-type: none"> <li>✓ If the child can read the sentences fluently as whole words and without stopping often then the child is at paragraph level.</li> <li>✓ If they are hesitant in the reading then they</li> </ul>

		can be introduced.	are taken to try word level
D. Story level	Reading fluently with speed.	<ul style="list-style-type: none"> <li>✓ Each story is to have two simple paragraphs of 6 to 8 sentences each with 5 to 9 familiar words of two to three syllables.</li> <li>✓ Average number of words per paragraph to be 50</li> </ul>	<ul style="list-style-type: none"> <li>✓ If the child can read with ease, speed and the sentences as a long text (does not stop frequently or does not read the sentence as a string of words) then the child is at the story level.</li> <li>✓ Only then can they be asked the questions.</li> <li>✓ If they are hesitant in the reading then they are taken to try paragraph level.</li> </ul>

## 2. STADI ZA USOMAJI WA LUGHA YA KISWAHILI

### Viwango vya kutathmini

#### Kiwango cha kwanza. Utamkaji wa silabi

Hiki ndicho kiwango cha kimsingi cha kumwandaa mtoto kusoma. Katika kiwango hiki, mtoto anatathminiwa kiwango chake cha kutamka silabi sahili na zile changamano. Uwezo wa kusoma na kutamka aina hizi mbili za silabi ndio msingi wa kusoma maneno ya Kiswahili.

#### Kiwango cha pili. kusoma maneno.

Hiki ni kiwango cha pili cha uwezo wa mtoto kusoma. Mtoto hutumia uwezo wa kutamka na kusoma silabi kuunganisha silabi hizo ili yawe maneno. Maneno yanayotathminiwa yanatakiwa yateuliwe kutokana na vitu vilivyo katika mazingira yake. Vinatakiwa kuwa vitu na vifaa anavyochangamana navyo mara kwa mara abayo yamo katika mazingira yake. Maneno haya yanatakiwa pia yawe katika nyenzo zilizopendekezwa na mtaala rasmi.

### **Kiwango cha tatu. Kusoma aya.**

Kiwango hiki kinatathmini uwezo wa mtoto kusoma sentensi kadhaa mfululizo bila ya kukatiza maneno anayosoma. Sentensi zenyewe ziwe fupi na nyepesi. Mtoto anatakiwa kusoma hizi sentansi kwa urahisi (bila ugumu wa matamshi na kasi).

### **Kiwango cha nne. Kusoma taarifa/hadithi**

Hiki ndicho kiwango cha juu katika kutathminiwa. Katika kiwango hiki, mtoto anatahminiwa uwezo wake wa kusoma aya kadhaa mfululizo bila ya kukatiza maneno na kwa urahisi (bila ugumu wa matamishi na kasi).

**Table 2: Stadi za kimsingi katika usomaji wa lugha ya kiswahili**

Kiwango	Stadi	Maelekezo	Kigezo cha kutuzia
A. Silabi	Mtoto aweze kutamka silabi nne kati ya tano.	✓ Nambari ya silabi 10 sahili, k.v. na, be, ko, zu na.	✓ Kwa hiki kiwango, mtoto aweze kutamka silabi nne kati ya tano. ✓ Akiweza kutamka silabi tatu tu au chini ya tatu basi ajaribu kutambua na kutamka herufi.
B. Maneno	Mtoto aweze kusoma maneno	✓ Mtoto aweze kusoma majina manne kati ya matano. ✓ Maneno manane yawe na silabi mbili sahili k.v. taa, kiti ✓ Maneno mawili yawe na silabi moja sahili na moja changamano k.v. choo, panya ✓ Jumla ya herufi ziwe 3-5.	✓ Katika hiki kiwango mtoto aweze kusoma maneno manne kati ya tano kutoka orodha ya maneno 10 ✓ Akisoma maneno matatu au chini basi ajaribu kiwango cha kusoma silabi.
C. Aya	Usomaji wa aya	✓ Mtoto aweze kusoma aya moja kati ya mbili. ✓ Kila aya iwe na sentensi nne ya maneno kati ya tatu na tano. ✓ Silabi zisizidi 4. ✓ Kila aya iwe na neno mmoja yenye	✓ Mtoto aweze kusoma sentensi kadhaa mfululizo bila ya kukatiza maneno anayosoma. ✓ Iwapo mtoto hataweza basi arudishwe kiwango cha maneno.

		changamano pekee ✓ Kila aya iwe na maneno kati 20-24.	
D. Hadithi/ Taarifa	Mwanafunzi asome taarifa fupi.	<ul style="list-style-type: none"> <li>✓ Kila taarifa iwe na aya mbili ya sentensi kati ya tano au sita.</li> <li>✓ Maneno katika kila sentensi yawe kati ya tatu na saba.</li> <li>✓ Kila neno liwe na silabi kati ya mbili na sita.</li> <li>✓ Maneno yasiwe na vitifaa k.v. king'ong'o.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Mtoto aweze kusoma aya kadhaa mfululizo bila ya kukatiza maneno na kwa urahisi (bila ugumu wa matamishi na kasi).</li> <li>✓ Iwapo mwanafunzi hawezi, basi arudishwe kiwango cha aya.</li> </ul>

### 3. NUMERACY ASSESSMENT TOOLS

The numeracy tool shall be constructed in such a way that it assesses the different levels of numeracy skills. Different levels of operations mainly concrete, counting, illustrative and abstract may be used. During the assessment, the methodology shall not be taken into account. No word problems will be included in the assessment as this may distort numeracy skills.

Level 1. Counting

Level 2. Number recognition 10-99

Level 3. Place value up to tens

Level 4. Addition of two digit numbers without carrying

Level 5. Subtraction of two digit numbers without borrowing.

Level 6. Multiplication of numbers up to 5x5

Level 7. Division by numbers up to 5 and not more than 25 without remainders.

#### Bonus test

Part of the assessment will include a bonus test which will be administered to all the children. This will assess the ability of children to recognize their body parts as per the syllabus.

**Table 3 Framework for developing Uwezo 2010 Assessment Tool for basic numeracy.**

Levels of assessment	Skills involved	Guidelines	Grading
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Level 1 <b>Counting from 1-9.</b>	Number recognition	<ul style="list-style-type: none"> <li>✓ The child to count sets of items between 1-9.</li> <li>✓ Sets of items to be 8</li> </ul>	<ul style="list-style-type: none"> <li>✓ If the child can count at least 4 sets of items out of 5 then they are at the level of counting numbers 1-9.</li> </ul>
Level 2 <b>Number recognition from 10-99.</b>	Number recognition	<ul style="list-style-type: none"> <li>✓ The child to recognize 4 out of 5 numbers between 11 - 99.</li> <li>✓ Numbers to be 8</li> </ul>	<ul style="list-style-type: none"> <li>✓ If the child can recognize at least 4 numbers out of 5 then they are at the level of number recognition 10-99.</li> </ul>
Level 3 <b>Place value</b>	Quantity discrimination	<ul style="list-style-type: none"> <li>✓ The child is to identify which number is greater form a pair of double digit numbers.</li> <li>✓ Pairs of numbers to be 8</li> </ul>	<ul style="list-style-type: none"> <li>✓ If the child can identify 4 out of 5 pairs of numbers which is greater.</li> </ul>
Level 4 <b>Addition</b>	Addition up to two digit numbers	<ul style="list-style-type: none"> <li>✓ The child is to add numbers with two digits without carrying.</li> <li>✓ Number of sums to be 8</li> </ul>	<ul style="list-style-type: none"> <li>✓ The child to be able to do 4 out of 5 sums.</li> </ul>
Level 5 <b>Subtraction</b>	Subtraction up to two digit numbers	<ul style="list-style-type: none"> <li>✓ The child is to add numbers with two digits without borrowing.</li> <li>✓ Number of sums to be 8</li> </ul>	<ul style="list-style-type: none"> <li>✓ The child to be able to do 4 out of 5 sums.</li> </ul>
Level 6 <b>Multiplication</b>	Multiplication of whole numbers	<ul style="list-style-type: none"> <li>✓ The child is to multiply numbers up to 5X5.</li> <li>✓ Number of sums to be 8</li> </ul>	<ul style="list-style-type: none"> <li>✓ The child to be able to do 4 out of 5 sums.</li> </ul>
Level 7 <b>Division</b>	Division of whole numbers	<ul style="list-style-type: none"> <li>✓ The child is to divide numbers not exceeding 25 by numbers not exceeding 5 without remainder</li> </ul>	<ul style="list-style-type: none"> <li>✓ The child to be able to do 4 out of 5 sums.</li> <li>✓ The level of difficulty of operation will be from addition, subtraction, multiplication and division.</li> </ul>

Bonus Test	Recognition of body parts	<ul style="list-style-type: none"> <li>✓ The child to name specific body parts</li> <li>✓ Questions can be translated into vernacular</li> </ul>	<ul style="list-style-type: none"> <li>✓ All items in the assessment should be limited to two different items in any one given question</li> <li>✓ The child to answer at least one question in each category</li> </ul>
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**Table 4. Content Analysis for Numeracy Assessment**

LEVELS OF ASSESSMENT	CONTENT	SKILL	MEASURE-MENT	GRADING
Numbers	Ones (1-9) (8 items) Tens (10-99) (8 items)  Total items 16	Count  Read	Understanding  Recall	<ul style="list-style-type: none"> <li>✓ If the child can recognize at least 4 numbers in each category then they are at the level of number recognition</li> </ul>
Quantity discrimination	Recognize and identify place value of tens and ones (8 items)  Total items 8	Place value	Analysis	<ul style="list-style-type: none"> <li>✓ If the child can recognize which number is greater from 4 out 5 pairs of double digit numbers then they are at the level of place value</li> </ul>

Operations of whole numbers	Addition two digits without carrying. (8 items)	Addition	Recall Understanding	✓ The child to be able to do 4 out of 5 sums of each category. ✓ The level of difficulty of operation will be from addition, subtraction, multiplication and division.
	Subtraction of two digits without borrowing (8 items)	Subtraction	Recall Understanding	
	Multiplication not exceeding 25 and number not exceeding 5 (8 items)	Multiplication	Recall and understanding	
	Division up to 25 divide by 5 (8 items)	Division	Recall and understand	
	Total 32 items			

**Table 5. Confirmatory Factor Analysis (CFA) for Numeracy.**

Subject Area	Knowledge Recall	Comprehension Understanding	Analysis application Reasoning and	Total
Counting		8		8
Number recognition	8			8
Place value			8	8
Operation of whole numbers		32		32
Total	8	40	8	56

## Appendix iv: Assessing reading

*It is important to be in the right frame of mind when assessing children. We are not testing the children; we simply want to find out what the children can do comfortably in terms of reading and numeracy.*

- a. When we listen to children read, answers questions or do arithmetic we are not simply waiting to catch mistakes. Appreciate and understand the attempt that the child is making.
- b. Given this objective, it is essential that children are relaxed and not worried about how they are going to perform. As their teacher, have a friendly chat with the child prior to the assessment to create a more relaxed atmosphere.
- c. Assess each child individually away from the other children so as not to create tension for the child.
- d. Keep the other children engaged as assessing all the children may take a while.
- e. **Encourage the child. Be patient. Give the child ample time to read, to solve and to think.**
- f. Our attempt in the Uwezo methodology is to establish the highest level at which the child can do different tasks (reading, numeracy and comprehension) comfortably.
- g. You may need to **take a child through the series of tasks** until you can decide where s/he is really at. Practice and familiarity with a task improves the child's performance.
- h. For example: The child first starts with trying to read the easy paragraph. You find that s/he is reading very slowly and haltingly. Ask her/him to read words from the words list. See if s/he is able to read words easily. If not take her/him to the list of letters. If s/he is able to read letters with ease, bring her/him back to the words. If s/he can read the words comfortably, then bring her/him back to the original paragraph. It is very possible that now s/he can read the paragraph much easier than s/he was doing before. Familiarity and practice have improved her/his performance.

**PARAGRAPH LEVEL (STD 1 LEVEL TEXT) AYA**

Ask the child to read any paragraph. Listen carefully when the child reads.

Start from here.



The child may read slowly.

But as long as s/he is reading the text like s/he is **reading a sentence rather than a string of words**, categorize her/him as a **“para level” child**.

If a child is reading very slowly and stops between words for a long time, if s/he is reading the text like it is one word after another and therefore not reading the text like she is reading a sentence, then she is not a “para level” child. Then you should take the child one level lower and ask her/him to read words.

Once you have decided that this child is a “para” level child, ask the child to read the story.

**WORDS (SET OF WORDS) MANENO**

- Ask the child to read any 5 words from the word list. Let the child choose the words for themselves. If s/he does not choose, then point out the words to her/him.
- If s/he can correctly read at least 4 out of the 5 words with ease, then ask him/her to try to read the easy paragraph again.
- S/he will be marked as a “word level” child if she can correctly read words but is still struggling with the easy paragraph.
- If s/he cannot correctly read at least 4 out of 5 words s/he chooses, then show her/him the list of letters.

**STORY (STD 2 LEVEL TEXT) HADITHI**

If the child reads the story fluently, with ease and speed, mark her/him as a **“story level” child** (or a child who can read Std 2 level text).  
If the child is unable to read the story fluently and stops a lot, mark the child as a para child

**LETTERS (SET OF COMMON LETTERS) SILABI**

- Ask the child to read any 5 letters from the letters list. Let the child choose the letters for themselves. If he/she does not choose, then point out letters to him/her.
- If s/he can correctly recognize at least 4 out of 5 letters with ease, then show her/him the list of words again.
- S/he will be marked as a “letter level” child if s/he can read 4 out of 5 letters but cannot read words.
- If the child cannot recognize even 4 out of 5 common letters from the letters list mark her/him as a ‘nothing’ level child.

**What is a mistake and what is not**

1. As you listen to children read, there may be variations in children’s reading due to local pronunciation or usage. Do not consider this a mistake. Usually if a child is told to read again carefully, s/he will read again and in most situations does not make these mistakes.
2. A child may read the word wrong or skip a word. As with the case above, if told to read again carefully, either s/he reads correctly or s/he continues to make the same mistake.
3. If despite reading the same text several times, the child continues reading a word wrong or not reading it at all, this is treated as a “mistake” and this means that the child is having difficulty in reading that level.
4. In a paragraph, if a child makes 3 or more “mistakes” of this type then s/he cannot be considered a “para” child. Similarly in the reading of a story.

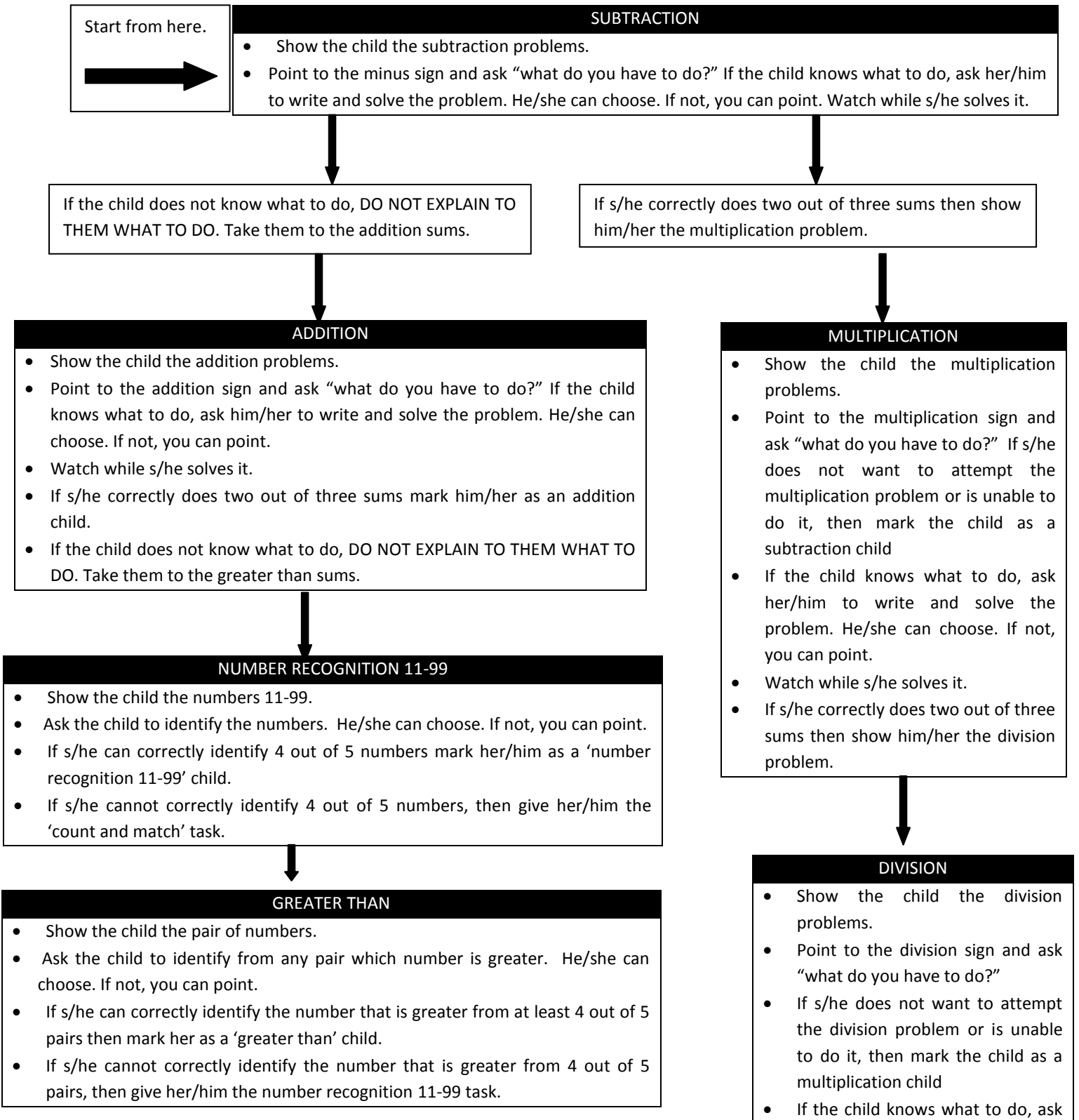
NB: This process is applicable for assessing both English and Kiswahili.

**TESTING OF COMPREHENSION**

**How to assess comprehension**

<b>Child’s comprehension level</b>	<b>How to test and what criteria to use for categorizing children</b>
<b>AFTER FINISHING THE READING TEST, GIVE THE COMPREHENSION TEST ONLY TO THE CHILDREN WHO ARE AT THE STORY LEVEL.</b>	
Story comprehension	<ul style="list-style-type: none"><li>• After listening to the child read the story, read out the question to him/her. Give the child some time to answer the questions. Under the appropriate questions mark the child ‘can do’ or ‘cannot do.’</li><li>• The child should answer both questions</li></ul>

## Appendix v: Teaching numeracy





#### COUNT AND MATCH

- Show the child the balls and numbers 1-9.
- Ask the child to count any of the balls and match them with the corresponding number. He/she can choose. If not, you can point.
- If s/he can correctly count and match 4 out of 5 balls mark her/him as a 'count and match' child.
- If s/he cannot correctly count and match 4 out of 5 sets of balls, then mark them as a 'nothing' child

her/him to write and solve the problem. He/she can choose. If not, you can point.

- Watch while s/he solves it.
- If s/he correctly does two out of three sums then mark the child as a division child.



**Appendix vi: Record of children’s competences in basic literacy and numeracy**

**Class:** \_\_\_\_\_ **Name of assessor:** \_\_\_\_\_ **Date of assessment:** \_\_\_\_\_

Fill in the highest literacy and numeracy level of individual children.

Indicate the areas where the child needs help for improved literacy and numeracy

Name of pupil	Age	English		Kiswahili		Numeracy	
		Highest level	Remedial area	Highest level	Remedial area	Highest level	Remedial area

**Appendix vii: Evaluation form**

**IIRR: USING ASSESSMENT FOR IMPROVED TEACHING AND LEARNING WORKSHOP EVALUATION**

1. How would you rate the workshop

A Very good	B Good	C Fair	D Poor	E Very Poor
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2. Which were the three most important things/topics that you learnt during the workshop?

- a) \_\_\_\_\_  
\_\_\_\_\_
- b) \_\_\_\_\_  
\_\_\_\_\_
- c) \_\_\_\_\_  
\_\_\_\_\_

3. Which was the least useful topic?

\_\_\_\_\_  
\_\_\_\_\_

4. Was the number of days for training adequate? Yes \_\_\_\_\_ No \_\_\_\_\_

5. Do you now feel confident to assess children in your schools? Yes \_\_\_\_\_ No \_\_\_\_\_

6. Which area would you like to see included in future workshop?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Training programme for IIRR Early Grade Teachers workshop

Time	Day 1	Day 2	Day 3
8.30 – 9.00	<i>Registration</i>	<i>Recap</i>	<i>Recap</i>
9.00a.m. – 10.30a.m.	<b>Preliminaries and Introductions</b> <ul style="list-style-type: none"> <li>• Opening remarks</li> <li>• Participants objectives</li> <li>• Workshop Objectives</li> <li>• Adoption of programme</li> <li>• Roles</li> </ul>	<b>Assessment as a tool for improved learning</b> <ul style="list-style-type: none"> <li>• Introduction to assessments</li> <li>• Importance of assessment</li> <li>• Types of assessments</li> </ul>	<b>Practical</b>
<b>10.30 – 11.00</b>	<b>Tea/Coffee Break</b>		
11.00a.m. – 12.00p.m	<b>Literacy and numeracy</b> <ul style="list-style-type: none"> <li>• Defining literacy and numeracy</li> </ul> <b>How to teach handwriting</b>	<b>Uwezo Assessment tools</b> <ul style="list-style-type: none"> <li>• Framework for test development</li> </ul>	<b>Practical</b>
12.00p.m. – 1.00p.m.	<b>How to teach reading</b> <ul style="list-style-type: none"> <li>• General guidelines</li> <li>• Activities for teaching reading</li> <li>• Phonics</li> <li>• Reading words</li> <li>• Sight words</li> <li>• Building vocabulary</li> </ul>	<b>Literacy in English and Kiswahili</b> Role play	<b>Practical</b>
<b>1.00 – 2.00</b>	<b>Lunch Break</b>		
2.00p.m. – 3.00p.m.	<ul style="list-style-type: none"> <li>• Stories and comprehension</li> <li>• Role of speed and fluency</li> <li>• How to diagnose a child with learning problems</li> </ul>	<b>Numeracy</b> Role play	<b>Feedback</b>
3.00p.m. – 4.00p.m.	<b>Teaching numeracy</b> <ul style="list-style-type: none"> <li>• General guidelines</li> <li>• Activities for teaching numeracy</li> <li>• Counting</li> <li>• Number recognition</li> </ul>	<b>Tool for analysis</b>	<b>Remedial teaching</b>
<b>4.00 – 4.30</b>	<b>Tea/coffee Break</b>		
4.30p.m. - 5.00p.m.	<ul style="list-style-type: none"> <li>• Quantity discrimination</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> </ul>	<b>Planning for practical</b>	<b>Workshop evaluation</b>