



THE UNITED REPUBLIC OF TANZANIA  
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY  
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



# ANALYSIS OF PUPILS' PERFORMANCE ON THE ASSESSMENT OF READING, WRITING AND ARITHMETIC SKILLS (3Rs) FOR STANDARD TWO PUPILS 2023

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## TABLE OF CONTENTS

LIST OF TABLES .....	vi
LIST OF CHARTS .....	vii
LIST OF EXTRACTS .....	ix
FOREWORD .....	xi
CHAPTER ONE.....	1
SAMPLE, ASSESSMENT TOOLS AND DATA ANALYSIS .....	1
1.1 Introduction .....	1
1.2 Assessment Sample .....	1
1.3 Scope of Assessment .....	2
1.4 Assessment Tools.....	2
1.5 Data and Response Analysis for the Assessment of the 3Rs in 2023.....	2
CHAPTER TWO.....	4
READING SKILLS ASSESSMENT.....	4
2.1 Introduction .....	4
2.2 The Structure of the Reading Skills Assessment Paper.....	4
2.3 Assessment Criteria in Reading Skills.....	5
2.4 Pupils' Performance on Reading Skills .....	6
2.5 Comparison of Pupils' Performance Based on School Location, Sex and Region.....	23
2.5.1 Comparison of Pupils' Performance Based on School Location .....	23
2.5.2 Comparison of Pupils' Performance Based on Sex.....	24
2.5.3 Comparison of Pupils' Performance by Region.....	25
2.6 Summary of Reading Skills Analysis.....	28
CHAPTER THREE .....	29
WRITING SKILLS ASSESSMENT .....	29
3.1 Introduction .....	29
3.2 Structure of the Writing Skills Assessment Paper .....	29
3.3 Performance Criteria for Writing Skills .....	29
3.4 Pupils' Response Analysis in Writing Skills.....	30
3.4.1 Question 1: Writing Names of Objects Depicted on Pictures .....	31
3.4.2 Pupils' Performance on Identifying and Writing each Word.....	37

3.4.3	Question 2: Writing Words by Using Capital Letters .....	41
3.4.4	Question 3: Copying a Passage and Putting Punctuation Marks .....	47
3.5	Comparison of the Pupils' Performance by Regions, Locations and Gender .....	51
3.5.1	Comparison of the Pupils' Performance by Region .....	51
3.5.2	Comparison of Pupils' Performance by School Location.....	53
3.5.3	Comparison of Pupils' Performance by Gender.....	54
3.6	Summary of Writing Skills Analysis .....	55
CHAPTER FOUR .....		56
ARITHMETIC SKILLS ASSESSMENT .....		56
4.1	Introduction .....	56
4.2	Structure of the Assessment Papers.....	56
4.3	Performance Criteria in Arithmetic Skills .....	57
4.4	Overall Performance in Arithmetic Skills .....	57
4.5	Analysis of Pupils' Performance on each Subtask .....	58
4.5.1	Pupils' Competence in Identifying Missing Numbers in a Sequence .....	58
4.5.2	Pupils' Competence in Addition .....	62
4.5.3	Pupils' Competence in Subtraction.....	64
4.5.4	Pupils' Competence in Solving Word Problems.....	66
4.6	Comparison of Pupils' Performance by Sex.....	73
4.6.1	Comparison of pupils' performance on Identifying the Missing Number and Solving Word Problems by Sex .....	73
4.6.2	Comparison of Pupils' Performance by Sex in the Addition and Subtraction Subtask .....	74
4.7	Comparison of Pupils' Performance by School Location.....	74
4.7.1	Comparison of Performance in Number Identification and Solving Word Problems by Location.....	75

4.7.2	Comparison of Performance in Addition and Subtraction between Urban and Rural Schools.....	76
4.7.3	Comparison of Pupils' Performance in Number Identification and Solving Word Problems by Region.....	77
4.7.4	Comparison of Pupils' Performance in Addition and Subtraction by Region .....	79
4.7.5	Pupils' Overall Performance by Region .....	81
4.8	Summary of the Performance in Arithmetic Skills .....	83
CHAPTER FIVE .....		85
THE SITUATION OF THE TEACHING AND LEARNING OF 3Rs IN SCHOOLS.....		85
5.1	Introduction .....	85
5.2	Sources of Data on the Teaching and Learning of 3Rs in Schools .....	85
5.3	General Information on Schools.....	85
5.4	Availability of Teaching and Learning Materials and Resources .....	86
5.5	Teaching and Learning Environment for 3Rs .....	87
5.6	Challenges in Teaching and Learning 3Rs .....	88
CHAPTER SIX.....		90
CONCLUSION AND RECOMMENDATIONS .....		90
6.1	Introduction .....	90
6.2	Conclusion .....	90
6.3	Recommendations .....	93

## LIST OF TABLES

Table 1 : The Pupils' Performance in 2023.....	3
Table 2: Pupils' Performance on Reading Words.....	7
Table 3 : Pupils' Performance on Answering Comprehension Questions.....	16
Table 4 : General Pupils' Performance on Writing Skills .....	30
Table 5 : Overall Performance in Arithmetic Skills.....	57
Table 6 : Addition questions .....	62
Table 7 : Subtraction questions .....	64
Table 8 : Word Problem Subtasks .....	66
Table 9 : Situation of Teaching and Learning Materials.....	86
Table 10 : Teaching and Learning Environments .....	88
Table 11 : Challenges in Teaching and Learning the 3Rs .....	89

## LIST OF CHARTS

Chart 1: Percentage of Pupils who correctly read each word .....	12
Chart 2: Percentage of Pupils' Correct Response on Each Item .....	21
Chart 3: Comparison of Pupils' Performance Between Urban and Rural Schools .....	24
Chart 4: Comparison of Pupils' Performance Between Boys and Girls .....	25
Chart 5 : Comparison of the pupils' Performance region wise .....	26
Chart 6: Pupils' Performance on Writing Names of Pictures .....	31
Chart 7: Pupils' Performance on Writing Words in Capital Letters.....	42
Chart 8: Pupils' Performance on Copying a Passage and Punctuating it .....	48
Chart 9: Pupils' Performance Region wise for 2021 and 2023 Assessment.....	52
Chart 10: Pupils' Performance in Urban and Rural Schools .....	54
Chart 11: Comparison of Pupils' Performance by Gender .....	54
Chart 12: The Percentage of Pupils' Correct Responses in identifying the Missing Numbers .....	59
Chart 13: Percentage of Pupils who correctly answered the Questions involving Addition of Numbers .....	63
Chart 14: The Percentage of Pupils' Correct Responses on Subtraction of Numbers .....	65
Chart 15: Percentage of Pupils who correctly solved the given Word Problems .....	67
Chart 16: The Overall Performance of two Subtasks by Sex.....	73
Chart 17: The Overall Performance of two Subtasks by Sex.....	74

Chart 18: Comparison of Pupils' Performance between Urban and Rural Schools.....	75
Chart 19: Comparison of Pupils' Performance Between Urban and Rural schools in Addition and Subtraction subtasks.....	76
Chart 20: Pupils' Performance in Identifying Numbers and Solving Word Problems Regionally in 2021 and 2023.....	78
Chart 21: Comparison of Pupils' Performance in Addition and Subtraction Subtasks Regionally.....	80
Chart 22 : Overall Comparison of Pupils' Performance Regionally.....	82

## LIST OF EXTRACTS

Extract 1: A sample of responses from a pupil with very good performance to question 1 .....	7
Extract 2: A sample of responses from a pupil with very good performance to question 1 .....	8
Extract 3: A sample of responses from a pupil with good performance to question 1 .....	9
Extract 4: A sample of responses from a pupil with weak performance to question 1 .....	10
Extract 5: A sample of responses from a pupil with weak performance to question 1 .....	10
Extract 6: A sample of responses from a pupil with average performance to question 1 .....	11
Extract 7: A sample of responses from a pupil with good performance to question 2 .....	16
Extract 8: A sample of responses from a pupil with unsatisfactory performance to question 2.....	17
Extract 9: A sample of pupil's responses with unsatisfactory performance to task 2 .....	18
Extract 10: A sample of responses from a pupil with an average performance to task 2 .....	19
Extract 11: A sample of responses from a pupil with a very good performance to question 2 .....	20
Extract 12: A sample of pupil's responses with unsatisfactory performance .....	32
Extract 13: A sample of responses from a pupil with average performance .....	34

Extract 14: A sample of responses from a pupil with good performance .....	35
Extract 15: A sample of responses from a pupil with very good performance .....	36
Extract 16: A sample of responses from a pupil who wrote numbers of letters forming the word instead of writing the words in capital letters .....	43
Extract 17: A sample of responses from a pupil who elaborated the word instead of writing items in capital letters .....	43
Extract 18: A sample of responses from a pupil who wrote the first letter in capital letter instead of the whole words .....	44
Extract 19: A sample of responses from a pupil with average performance .....	45
Extract 20: A sample of responses from a pupil with good performance .....	46
Extract 21: A sample of responses from a pupil with very good performance .....	47
Extract 22: A sample of incorrect responses to question 3.....	49
Extract 23: A sample of incorrect responses to question 3.....	49

## FOREWORD

The National Examinations Council of Tanzania conducted the assessment of Reading, Writing and Arithmetic Skills (3Rs) for Standard Two pupils on 31<sup>st</sup> January, 2024 to 1<sup>st</sup> February, 2024. The assessment aimed at determining the students' competence in 3Rs. The assessment was done in 524 public primary schools from all regions in Tanzania Mainland whereby 2 to 5 schools were sampled from all 186 district councils located in rural and urban areas.

Writing and Arithmetic Skills (Missing Numbers and Word Problems tasks) were administered using traditional paper-and-pencil methods for all schools. By contrast, Reading and Arithmetic skills (addition and subtraction level II tasks) were administered using tablets, whereby the marks were automatically captured. Moreover, head teachers filled in a questionnaire about the teaching and learning of the 3Rs in their schools.

A total of 48,051 pupils were registered for 3Rs assessment in 2023. Among them, 40,184 (83.63%) pupils sat for the assessment while 7,867 pupils equal to (16.37%) did not sit for the assessment due to various reasons such as truancy, illness and repeating classes.

The analysis of pupils' responses indicates that the performance of pupils who sat for the assessment was good as 74.45 per cent of pupils had performance ranging from average to very good performance. The performance on Reading Skills was high by 78.92 per cent followed by Writing Skills (69.63%) and Arithmetic Skills (62.56%).

The National Examinations Council of Tanzania expects that the feedback provided in this report will enable all education stakeholders to take effective measures to improve the teaching and learning process for strengthening the competence of pupils in 3Rs skills.



Dr. Said A. Mohamed  
**EXECUTIVE SECRETARY**

# **CHAPTER ONE**

## **SAMPLE, ASSESSMENT TOOLS AND DATA ANALYSIS**

### **1.1 Introduction**

The National Examinations Council of Tanzania conducted the Standard Two National Assessment in 2023 on Reading, Writing and Arithmetic Skills (3Rs) on **31<sup>st</sup> January, 2024** to **1<sup>st</sup> February, 2024**. The aim of this assessment was to determine pupils' ability in mastering those skills.

Each skill assessed pupils' ability in various concepts. For example, pupils were assessed on reading fluency and speed as well as their ability to comprehend while reading before answering questions in Reading Skills. In Writing Skills, pupils were assessed on their ability to form words using pictures, writing the words in capital and small letters. Also, they were assessed on their ability to copy a passage and use punctuation marks appropriately. Moreover, in Arithmetic Skills, pupils were assessed on their ability to identify missing numbers in the given sequence, add or subtract numbers that do not exceed 999 as well as solving word problems. Missing Numbers and Word Problems tasks were administered using traditional paper-and-pencil methods..

### **1.2 Assessment Sample**

The Standard Two National Assessment on 3Rs was conducted in all 26 regions of Tanzania Mainland where a total of 186 Councils were involved. All the schools involved in the assessment were randomly selected considering urban and rural representations. In each District Council, 2 to 5 schools that use Kiswahili as a medium of instruction in teaching and learning were selected; thus, making the number of schools assessed to be 524. A total number of 39,080 pupils attempted Reading Skills Assessment; 38,957

pupils attempted Writing Skills Assessment; and 37,920 pupils participated the Arithmetic Skills Assessment through writing while Reading and Arithmetic Skills Assessment was done orally. The attendance of the pupils in this assessment varied from one skill to another due to truancy or illness.

### **1.3 Scope of Assessment**

The 3Rs assessment of 2024 was limited to 524 schools randomly selected out of 15,939 schools from Tanzania Mainland. Also, the selected schools did not include schools with less than 25 standard two pupil enrolment and schools that use English language as a medium of instruction. Also, the data which was used to calculate the pupils' performance in each skill were not weighed, so the analysis was done by using real data.

### **1.4 Assessment Tools**

The tools which were used for the assessment were question papers for Reading, Writing and Arithmetic skills, tablets and questionnaires. In each Skill, there were questions that assessed the pupils' ability based on their performance levels. In addition, questionnaires for head teachers were used aiming at collecting information about pupils, teachers who teach 3Rs, the availability of teaching and learning materials as well as the state of the teaching and learning environment. In general, the questionnaires were of great importance in identifying various challenges facing teachers and pupils in the teaching and learning process.

### **1.5 Data and Response Analysis for the Assessment of the 3Rs in 2023**

After the Reading, Writing and Arithmetic skills assessment, a statistical analysis of the pupils' results was done to identify the competences they acquired in each skill. Their competence was assessed by considering 4 levels of performance which are unsatisfactory level if the pupil scored 0 – 12 marks, average performance (13 - 25 marks), good

performance (26 – 37 marks) and very good performance (38 – 50 marks). The pupils who scored average to very good performance were considered to have passed a specific skill. Table 1 shows the performance of the pupils for each skill.

**Table 1: The Pupils' Performance in Reading, Writing and Arithmetic Skills**

Skills	Number of Pupils Assessed	The Pupils whose Performance Ranged from Average to Very Good	
		Number	Percentage
Reading	39,080	30,842	78.92
Writing	38,957	27,128	69.63
Arithmetic	37,920	23,726	62.56

Table 1 shows that the pupils' performance on Reading, Writing and Arithmetic Skills was 78.98, 69.63 and 62.56 per cent respectively. This shows that many pupils performed well in Reading Skills compared to Writing and Arithmetic Skills. The comparison of pupils' performance in these skills in 2021 and 2023 shows that pupils' performance has improved in Reading, Writing and Arithmetic Skills by 10.02, 7.21 and 1.66 per cent respectively. Also, the samples of the pupils' responses have been used to show their competences and the challenges they encountered in each set of skills. Moreover, the comparison of the pupils' performance based on school location (rural and urban), sex and region was done.

## **CHAPTER TWO**

### **READING SKILLS ASSESSMENT**

#### **2.1 Introduction**

The Reading Skills assessment was conducted in order to determine the pupils' ability to read the passage with fifty words fluently and at the required speed as well as answering comprehension questions. Each pupil was required to perform two tasks. The first task assessed the pupils' reading fluency measured in correct words per minute. Likewise, the second task assessed the pupils' comprehension skills through answering comprehension questions orally after reading a passage. The pupils' performance was compared based on regions, school location (urban/rural) and sex (boys/girls) of the pupils involved.

#### **2.2 The Structure of the Reading Skills Assessment Paper**

The pupils were assessed by using a paper with a passage which had 50 words in Reading Skills. A pupil was required to read the passage. On the other hand, another paper was for instructions to the assessor on how to assess the pupil by using a tablet. Each pupil attempted two tasks whereby the first task assessed the speed and fluency of the pupils in reading a passage. The second task assessed the pupil's comprehension abilities through answering questions orally after re-reading the passage.

The rating of the pupils was done using a tablet. Each pupil was required to use five minutes, one minute was used for reading the passage; and at the same time the assessor rated a pupil while the marks were captured automatically by the system in the tablet, three minutes were given for re-reading the passage in order to answer comprehension questions orally and one-minute for the assessor to ask comprehension questions.

### **2.3 Assessment Criteria in Reading Skills**

The analysis on the performance of the Reading Skills Assessment was based on four levels of performance in the both two tasks. In the first task, the pupil was considered to have a very good performance if he/she read 38-50 words per minute, good performance (26-37 words), average performance (13-25 words) and unsatisfactory performance (0 to 12) words.

The assessor was supposed to use the following procedures to obtain the correct number of words which were read fluently by the pupil:

- (a) If the pupil read a word fluently, the assessor was not supposed to do anything.
- (b) If the pupil failed to read a word, the assessor touched the word and it changed into red colour.
- (c) If the assessor touched the word that the pupil misread but then read correctly again, the assessor touched the word again and the red colour disappeared.
- (d) If the pupil failed to read all the words of the first sentence, the assessor touched those words and all subsequent words were counted as a mistake.
- (e) If the pupil failed to finish reading the passage within a minute, the assessor touched and held for a while the last word which the pupil read and a red palm of the hand followed that word to indicate that it was the last word to be read. Also, all the subsequent words were counted as a mistake.

In the second task, the performance criteria considered was the number of questions the pupil answered correctly after reading the same passage. A pupil who answered all five questions correctly had very good

performance, four questions as a good performance, two to three questions as average performance and the pupil who answered one question correctly or failed all the questions had weak performance.

## **2.4 Pupils' Performance on Reading Skills**

The registered pupils for the Reading Skills Assessment in 2023 were 48,051. Among them, 39,080 (81.33%) pupils participated in the assessment whereby the boys were 19,427 (49.71%) and girls were 19,653 (50.29%). The statistical analysis shows that 30,842 (78.92%) pupils had average to very good performance. On the other hand, 8,238 (21.08%) pupils had weak performance.

The performance of the pupils who had an average to very good performance on Reading Skills has increased by 10.82 per cent from 68.10 per cent in 2021 to 78.92 per cent in 2023. Also, 21.08 per cent of the pupils had weak performance in 2023 compared to 2021 in which they were 31.90 per cent. Therefore, the performance has improved by 10.82 per cent.

### **2.4.1 Question 1: The Competence on Reading a Passage**

In this question, the pupil was assessed on the ability to read fluently in one minute. The analysis of the pupils' responses shows that 78.04 per cent of the pupils who did the assessment had an average to very good performance. These pupils read 13 to 50 correct words per minute. On the other hand, 21.96 per cent of the pupils had weak performance since they read only 0 to 12 correct words per minute. The pupils' performance on this task is shown in Table 2.

**Table 2: Pupils' Performance on Reading Words**

Words	Performance	Number of Pupils	Percentage
0 -12	Unsatisfactory	8585	21.96
13 - 25	Average	5744	14.70
26 - 37	Good	10097	25.84
38 - 50	Very good	14654	37.50
<b>Total</b>		<b>39080</b>	<b>100</b>

Table 2 shows that 14,654 (37.50%) pupils had very good performance as they read 38 to 50 correct words per minute. Extracts 1 and 2 show sample responses of the pupils who had a very good performance.

Musa na Eliza wanaishi na babu yao. Makazi yao ni kwenye kijiji cha Nako. Siku moja, Musa na Eliza walikwenda porini kutafuta matunda. Musa alitumia fimbo kuangua matunda mtini. Mara Musa akaanza kupiga kelele, kumbe alikuwa ameng'atwa na nyuki. Eliza alimpeleka Musa hospitali. Babu alimshukuru sana Eliza kwa wema wake.

**Extract 1:** A sample of responses from a pupil with very good performance to question 1


In Extract 1, the pupil correctly read all fifty words within one minute. This shows that he/she had sufficient ability in reading at the required speed.

Musa na Eliza wanaishi na babu yao. Makazi yao ni kwenye kijiji cha Nako. Siku moja, Musa na Eliza walikwenda porini kutafuta matunda. Musa alitumia fimbo kuangua matunda mtini. Mara Musa akaanza kupiga kelele, kumbe alikuwa ameng'atwa na nyuki. Eliza alimpeleka Musa hospitali. 🖐 Babu alimshukuru sana Eliza kwa wema wake.

**Extract 2:** A sample of responses from a pupil with very good performance to question 1

Extract 2 shows a sample of the pupil's responses with very good performance. This pupil read thirty-eight correct words per minute. Also, he/she misread some of the words in the passage. Words with red colours are the ones which he/she read incorrectly. Also, he/she ended at the word 'hospitali' – the word with the sign of the palm of the hand since the assessor held it to show that the pupil ended at that particular word.

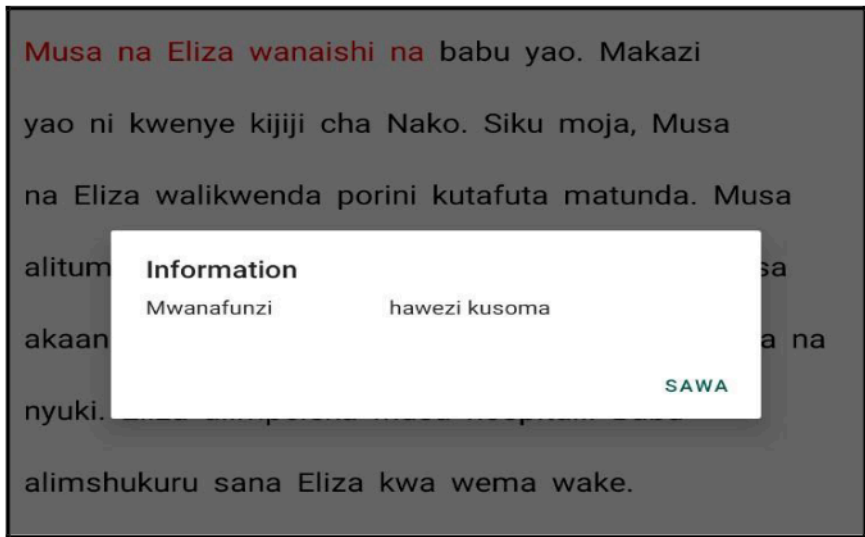
Likewise, 10,097 (25.84%) pupils read correctly 27 to 37 words per minute. This shows that the pupils had a good performance in reading the passage. Extract 3 shows a sample of responses from a pupil in this category.

Musa na Eliza wanaishi na babu yao. Makazi yao ni kwenye kijiji cha Nako. Siku moja, Musa na Eliza walikwenda porini kutafuta **matunda**. Musa alitumia fimbo kuangua matunda mtini. Mara Musa akaanza kupiga kelele,  **kumbe alikuwa ameng'atwa nyuki. Eliza alimpeleka Musa hospitali. Babu alimshukuru sana Eliza kwa wema wake.**

**Extract 3:** A sample of responses from a pupil with good performance to question 1

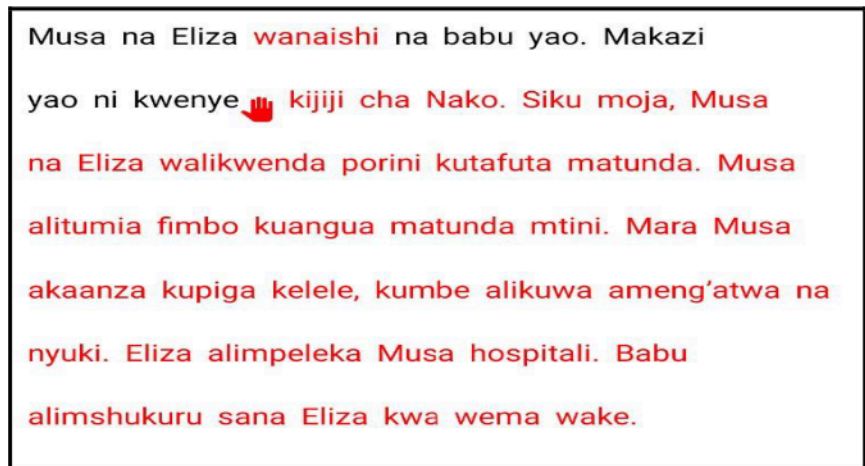
Extract 3 indicates that a pupil read thirty-three correct words per minute and ended at the word 'kelele.'

Further analysis shows that 8,585 (21.97%) pupil's had weak performance. Among them, 5,106 (13.07%) pupils could not read a single word from the passage. In addition, 3,479 (8.90%) pupils read 1 word to 12 words fluently. Extracts 4 and 5 show samples of responses from pupils who had weak performance.



**Extract 4:** A sample of responses from a pupil with weak performance to question 1


In Extract 4, the pupil failed to read the first five words of the first sentence in the provided passage which implies that the pupil could not read even the rest of words.



**Extract 5:** A sample of responses from a pupil with weak performance to question 1

In Extract 5, the pupil correctly read only ten words as he/she ended at the word 'kwenye.'

On the other hand, 25.84 per cent of the pupils who did the assessment had an average performance since they read fluently 13 to 25 words. Extract 6 shows a sample of the pupil's responses who had an average performance.

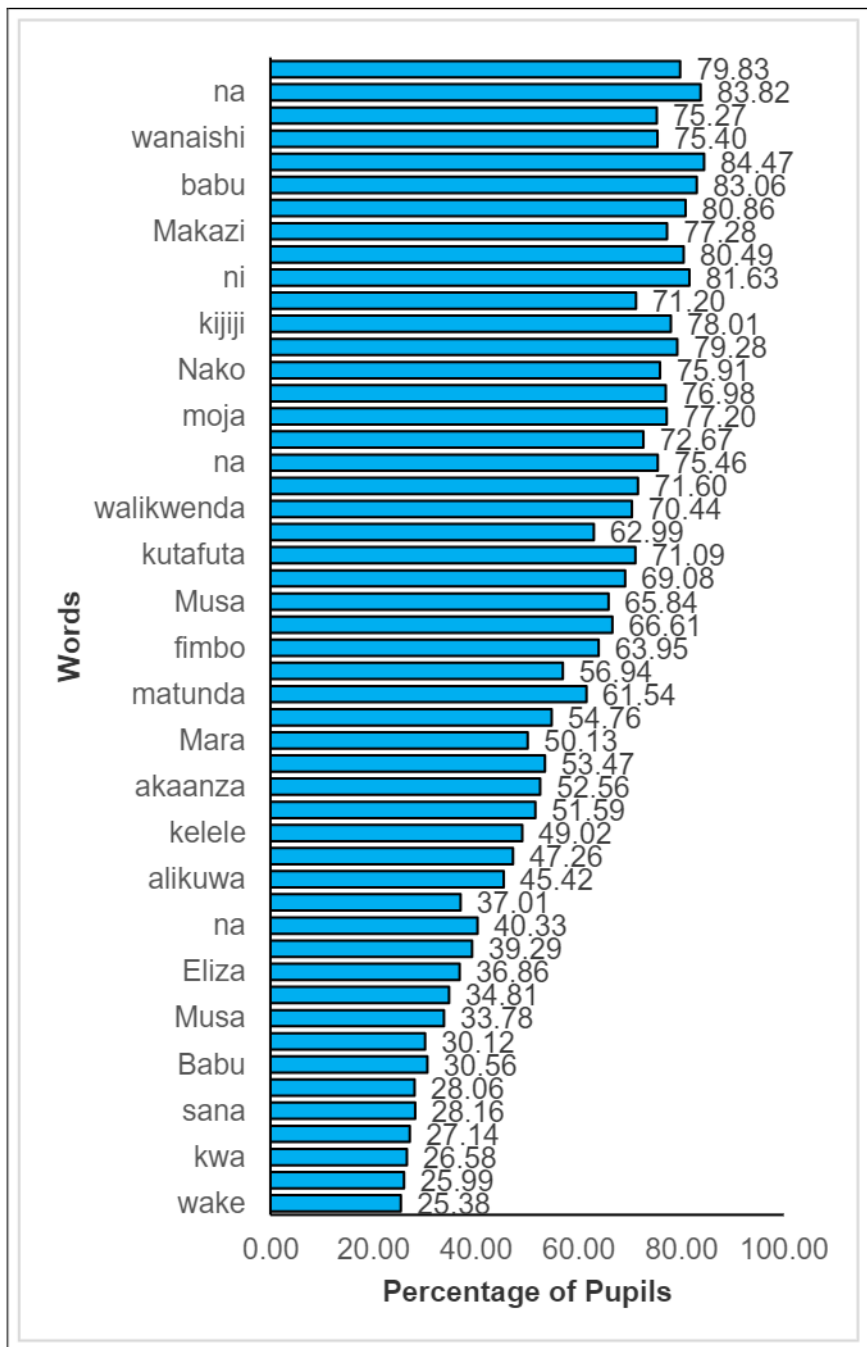
Musa na Eliza wanaishi na babu yao. Makazi yao ni kwenye kijiji cha Nako. Siku moja, Musa na Eliza walikwenda porini kutafuta matunda. Musa alitumia fimbo  kuangua matunda mtini. Mara Musa akaanza kupiga kelele, kumbe alikuwa ameng'atwa na nyuki. Eliza alimpeleka Musa hospitali. Babu alimshukuru sana Eliza kwa wema wake.

**Extract 6:** A sample of responses from a pupil with average performance to question 1

Extract 6 shows that the pupil read only twenty-four correct words in a minute. He/she ended at the word 'fimbo.'

#### 2.4.2 Pupil's Performance on Reading Each Word

The statistical analysis shows that there were some differences in reading words between one pupil and another. For instance, there were pupils who read correctly all the words and others who failed due to various reasons. Chart 1 shows the percentage of pupils who were able to read each word correctly.



**Chart 1:** Percentage of Pupils who correctly read each word

Chart 1 shows that most pupils read correctly words which were made up of one syllable such as *na* (83.82%), *ni* (81.63%) and *cha* (79.28%). Analysis shows that the pupils

read such words because when reading, they pronounced them as one beat of sound. Likewise, they read the words with syllables which were made up of a single consonant and a vowel. Such words are *babu* (83.06%), *Musa* (79.83%), *moja* (77.20%) and *siku* (76.98%). Many pupils read such words correctly because they are made up of open syllables ending with a vowel. When reading such words there is no any blockage of air at the end.

Moreover, pupils had good performance in reading words made up of vowels with the characteristics of standing as syllable. For example, 80.86 per cent of the pupils read correctly the word “yao.”

However, the performance of the pupils on reading words made up of syllables with consonant clusters was average. Such words are made up of consonant clusters where the pupil was required to pronounce them as one sound, hence causing a challenge to some pupils to pronounce a combination of sounds as one sound while they seem to be two sounds. Words with consonant clusters which had an average performance to pupils were *matunda* (61.54%), *kuanguka* (56.94%) and *akaanza* (52.56%).

Also, the pupils had average performance in reading words made up of consonants with the characteristics of standing as syllable. For example, 54.76 per cent of the pupils read the word “mtini.” Other pupils (45.24%) failed to read this word because they did not realize that the sound 'm' in the word “mtini” stands as a syllable. Therefore, they added sound 'u' in the sound 'm' hence; they wrongly pronounced it as “mutini” instead of “mtini.”

Conversely, other pupils failed to read some of the words due to various reasons. These words were such as *ameng'atwa* (37.01%), *kelele* (49.02%) and *mara* (50.13%). For example, the word “*ameng'atwa*” is made up of a nasal

sound (ng') that is pronounced by blowing air through the nose. Instead, many pupils pronounced the sound by blowing air through the mouth. This caused them to pronounce "amengatwa" instead of "ameng'atwa." Likewise, many pupils failed to pronounce the word "mara" and "kelele" due to the effect of ethnic languages on the Kiswahili language which is their second language. Some of the ethnic languages lack some of the sounds present in the Kiswahili language. Thus, the pupils of the respective ethnics failed to pronounce the words formed by those sounds. For example, some of the pupils read the word "kerere" instead of "kelele" and "mala" instead of "mara" due to the absence of the sounds 'l' and 'r' respectively in their mother tongue.

In addition, many pupils mixed the sounds 'l' and 'r' which are articulated at the edge of the alveolar ridge with partial obstruction of the air. When the sound 'r' is articulated, the tip of the tongue touches the back of the alveolar ridge, while the sides of the tongue are in contact with the hard palate. When the sound 'l' is articulated, the tip of the tongue is raised and comes into contact with the edge of the alveolar ridge, causing air to pass through the sides of the tongue. This was a challenge to some of the pupils as they failed to distinguish on how to articulate those sounds.

Further statistical analysis showed that there were some pupils (63.69%) who failed to finish reading the passage within a minute. This shows that these pupils were unable to read at the required speed. Most of them ended at the word 'na' which was the 38<sup>th</sup> out of the fifty words that made the passage. For example, other words which they failed to read within one minute included: "nyuki" (60.71%), "Eliza" (63.14%), "alimpeleka" (65.19%), "Musa" (66.22%) and "hospitali" (69.88%). Moreover, the results showed that the mean reading speed was 29 correct words per minute. The analysis shows that the pupils' performance in reading

words at the required speed in 2023 increased by 2 words (6.90%) from 27 correct words per minute in 2021 to 29 correct words per minute in 2023.

### **2.4.3 Task 2: Reading for Comprehension**

This task tested pupils' ability to read the passage, understand the passage and orally answer the questions based on the passage. The pupil was required to read the passage in three minutes before answering the five items that followed. The following is the passage that was provided:

*Musa na Eliza wanaishi na babu yao.*

*Makazi yao ni kwenye kijiji cha Nako. Siku moja, Musa na Eliza walikwenda porini kutafuta matunda. Musa alitumia fimbo kuangua matunda mtini. Mara Musa akaanza kupiga kelele, kumbe alikuwa ameng'atwa na nyuki. Eliza alimpeleka Musa hospitali. Babu alimshukuru sana Eliza kwa wema wake.*

The performance of the pupils in this task was good since 29,059 pupils equivalent to 74.36 per cent had average to very good performance. These pupils correctly answered two to five items. However, 10,021 pupils equivalent to 25.64 per cent had weak performance. Table 3 shows the pupils' performance on this question.

**Table 3: Pupils' Performance on Answering Comprehension Questions**

Number of Items	Performance Levels	Number of Pupils	Percentage of Pupils
0 - 1	Unsatisfactory	10,021	25.64
2 - 3	Average	9,280	23.75
4	Good	10,597	27.12
5	Very good	9,182	23.50
<b>Total</b>		<b>39,080</b>	<b>100</b>

Table 3 shows that 10,597 (27.12%) pupils had a good performance as they correctly answered four out of five items. The pupils had the ability to read the passage and understand its content. Extract 7 shows a sample of the responses from one of the pupils in this category.

1. Eliza na Musa waliishi na nani? (Babu yao)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Musa alitumia nini kuangua matunda mtini? (Fimbo)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Musa alipong'atwa na nyuki alifanya nini? (Alipiga kelele)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4. Nani alimpeleka Musa hospitali? (Eliza)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Kwa nini babu alimshukuru Eliza? (Alikuwa mwema, alimpeleka Musa hospitali)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Extract 7:** A sample of responses from a pupil with good performance to question 2

Extract 7 shows a sample of the pupil who correctly answered four out of five items while wrongly answered the third item.

In spite of good performance for some pupils, 10,021 (25.64%) pupils had unsatisfactory performance. Among them 7,466 (19.10%) pupils responded incorrectly to all five items. Also, 2,555 (6.54%) pupils answered correctly only one item. Generally, the pupils from this category did not understand the content of the passage due to insufficient reading skills. Samples of the pupil's responses who failed to answer any of the items; and the one who was able to answer only one item out of the five items are shown in Extracts 8 and 9 respectively.

1. Eliza na Musa waliishi na nani? (Babu yao)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Musa alitumia nini kuangua matunda mtini? (Fimbo)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Musa alipong'atwa na nyuki alifanya nini? (Alipiga kelele)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Nani alimpeleka Musa hospitali? (Eliza)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Kwa nini babu alimshukuru Eliza? (Alikuwa mwema, alimpeleka Musa hospitali)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Extract 8:** A sample of responses from a pupil with unsatisfactory performance to question 2

Extract 8 shows a sample of the pupil's responses of the pupil who answered incorrectly all five items.

1. Eliza na Musa waliishi na nani? (Babu yao)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Musa alitumia nini kuangua matunda mtini? (Fimbo)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Musa alipong'atwa na nyuki alifanya nini? (Alipiga kelele)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Nani alimpeleka Musa hospitali? (Eliza)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Kwa nini babu alimshukuru Eliza? (Alikuwa mwema, alimpeleka Musa hospitali)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Extract 9:** A sample of pupil's responses with unsatisfactory performance to task 2

In Extract 9, the pupil answered correctly the second item only and failed the other items. This is because the item tested the lower level of thinking.

Likewise, 9,280 (23.75%) pupils answered correctly two to three out of the five items, resulting into average performance. These pupils had average understanding of the content present in the passage. Extract 10 is a sample of the pupil's responses who attempted this question.

1. Eliza na Musa waliishi na nani? (Babu yao)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Musa alitumia nini kuangua matunda mtini? (Fimbo)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Musa alipong'atwa na nyuki alifanya nini? (Alipiga kelele)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4. Nani alimpeleka Musa hospitali? (Eliza)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Kwa nini babu alimshukuru Eliza? (Alikuwa mwema, alimpeleka Musa hospitali)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Extract 10:** A sample of responses from a pupil with an average performance to task 2

Extract 10 shows a sample of the pupil's responses for the pupil who correctly answered the first, second and fourth items though he/she failed in third and fifth items.

On the other hand, 9,182 (23.50%) pupils had a very good performance as they correctly answered all five items. This was due to their ability in reading fluently and understanding the content of the passage. Extract 11 shows responses of a pupil with average performance.

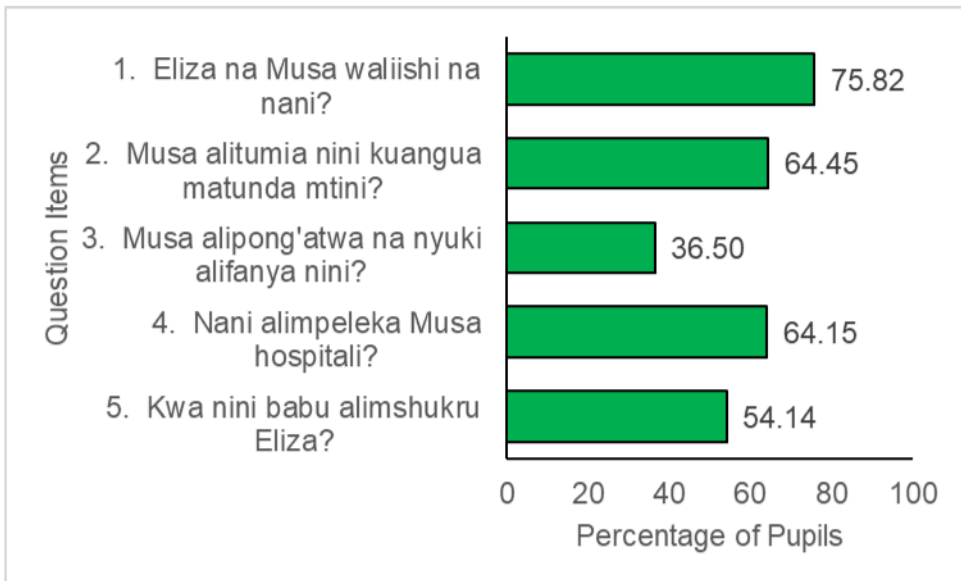
1. Eliza na Musa waliishi na nani? (Babu yao)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Musa alitumia nini kuangua matunda mtini? (Fimbo)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Musa alipong'atwa na nyuki alifanya nini? (Alipiga kelele)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Nani alimpeleka Musa hospitali? (Eliza)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Kwa nini babu alimshukuru Eliza? (Alikuwa mwema, alimpeleka Musa hospitali)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Extract 11:** A sample of responses from a pupil with a very good performance to question 2

Extract 11 shows a sample of the pupil's responses who managed to answer all the five items correctly due to fluency in reading and understanding the content of the passage.

#### 2.4.4 Pupils' Performance on Each Comprehension Item

The pupils involved in the assessment showed different performance in answering the items of this task for various reasons. Despite the different answers given by those pupils, on average all pupils answered correctly two items out of five. This implies that the pupils' ability to read, understand and answer comprehension questions was average. Chart 2 shows the percentage of pupils' performance in each item.



**Chart 2:** Percentage of Pupils' Correct Response on Each Item

Chart 2 shows that 75.82 per cent of the pupils correctly answered the first item that asked “Eliza na Musa wanaishi na nani?” This shows that these pupils read the passage fluently and understood its content. This made them remember who lived with Eliza and Musa. In addition, this item was answered correctly by many pupils because it tested the lower level of thinking which is remembering.

Likewise, the second item was answered correctly by 64.45 per cent. The item asked “Musa alitumia nini kuangua matunda?” Pupils who answered this item correctly understood the content of the passage. Thus, they indicated that Musa used ‘fimbo’ to pick fruits. On the other hand, 35.55 per cent of the pupils failed to answer this item correctly. Most of them did not understand the content of the passage so, they mentioned other things that can be used to pick fruits. For example, one of the pupils mentioned ‘jiwe’ and another one mentioned ‘mti.’ Generally, these pupils did not understand the device which was mentioned in the passage. Instead, they mentioned other things that can be used to pick fruits.

On the other hand, few pupils (36.50%) answered the third item correctly. The item asked: "Musa alipong'atwa na nyuki alifanya nini?" These pupils answered correctly because they read the passage fluently and they understood it. This made them remember what Musa did after being stung by a bee. Apart from that, many pupils (63.50%) failed to answer this item correctly. These pupils did not have the ability to read fluently, so they failed to understand the passage. Some of the pupils provided answers which were the results of being stung by bees but they were not mentioned in the passage. For instance, some of the pupils answered that "when Musa was bitten by a bee he ran away" and others answered; "he fainted." Generally, these pupils did not fully understand the content of the passage so, they provided answers which were totally not related to the passage.

Further analysis of the pupils' responses showed that more than half of the pupils (64.15%) correctly answered the fourth item that asked "Nani alimpeleka Musa hospitali?" These pupils answered correctly because they considered the message of the passage. So, they understood that it was Eliza who took Musa to the hospital. However, other pupils (35.85%) answered this item incorrectly because they did not consider the message of the passage. For example, some of the pupils answered that "Musa was sent to the hospital by his father/mother/sister/brother instead of Eliza as mentioned in the passage. These responses show that these pupils mentioned people who, in their normal environment, are likely to take pupils to hospital.

In the fifth item that asked "Kwanini babu alimshukuru Eliza?" was answered correctly by 54.14 per cent of the pupils. These pupils understood the passage well thus, they were able to give the reason why the grandfather mentioned in the passage thanked Eliza. They said that it was because "she was good/she took Musa to the

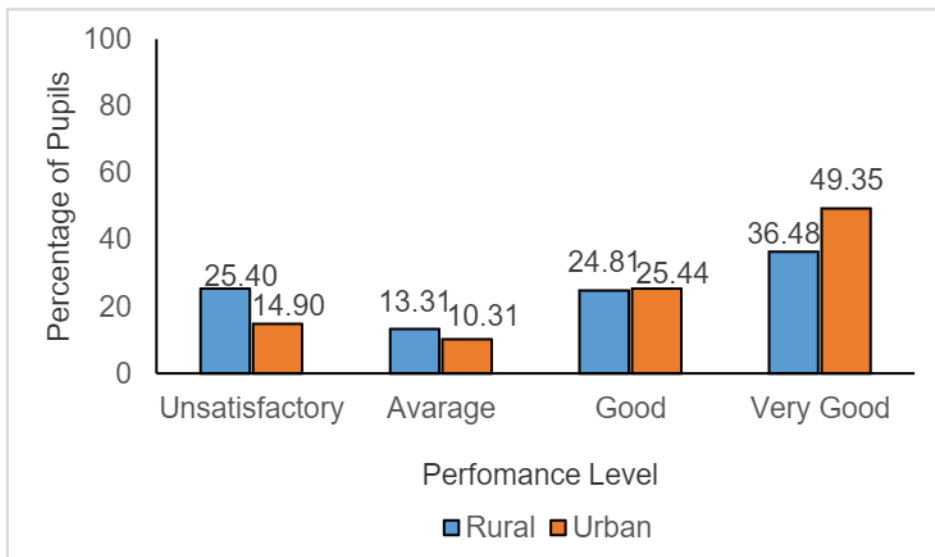
hospital.” This shows that the pupils clearly understood the message in the passage despite it being at the higher level of thinking. Also, they related what they read in the passage with real life that a person who does something good like Eliza should be thanked.

## **2.5 Comparison of Pupils’ Performance Based on School Location, Sex and Region**

The statistical analysis on Reading Skills Assessment Results was done to compare the pupils’ performance by school location (urban and rural), sex (boys and girls) and regions. The comparison was done to establish whether there were significant differences on pupils’ performance on those categories.

### **2.5.1 Comparison of Pupils’ Performance Based on School Location**

A total of 39,080 pupils were assessed in the Reading Skills in 2023. Among them, 16,084 (41.15%) were from urban schools; and 22,996 (58.85%) were from rural schools. The difference on the pupils’ performance in terms of urban and rural schools has been shown in Chart 3.

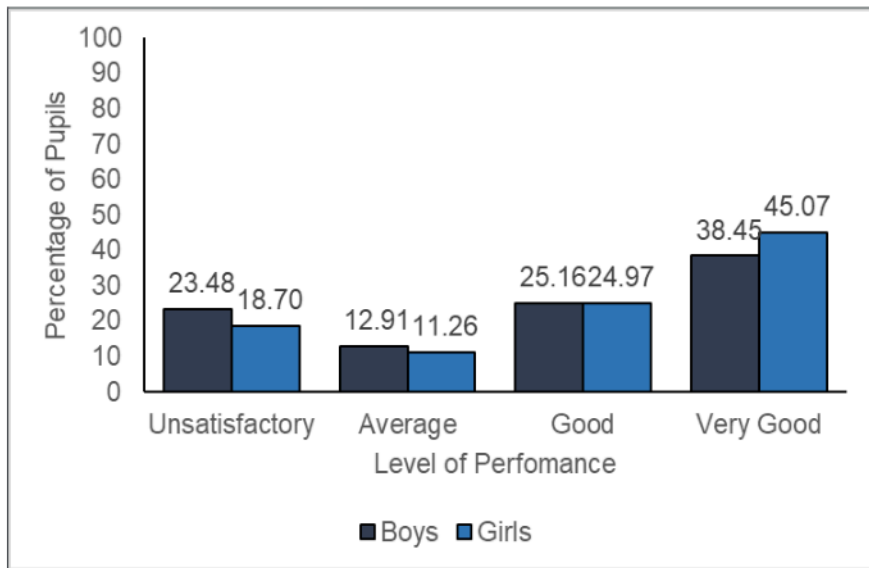


**Chart 3:** Comparison of Pupils' Performance between Urban and Rural Schools

Chart 3 shows that 85.10 per cent of the pupils from urban schools had average to very good whereas compared to 74.60 per cent from rural schools with such performance. This implies that pupils from urban schools had better reading skills when compared with pupils from rural schools. Despite the pupils' performance from both settings increased by 11.48 per cent from 73.63 in 2021 to 85.10 per cent in 2023 in urban schools. Likewise, pupils' performance from rural schools improved by 11.49 per cent from 62.61 per cent in 2021 to 74.60 in 2023.

### 2.5.2 Comparison of Pupils' Performance Based on Sex

Among 39,080 pupils who sat for the Reading Skills Assessment, girls were 19,653 which were 50.28 per cent and boys were 19,427 which was equivalent to 49.72 per cent. The comparison on their performance is indicating in Chart 4.



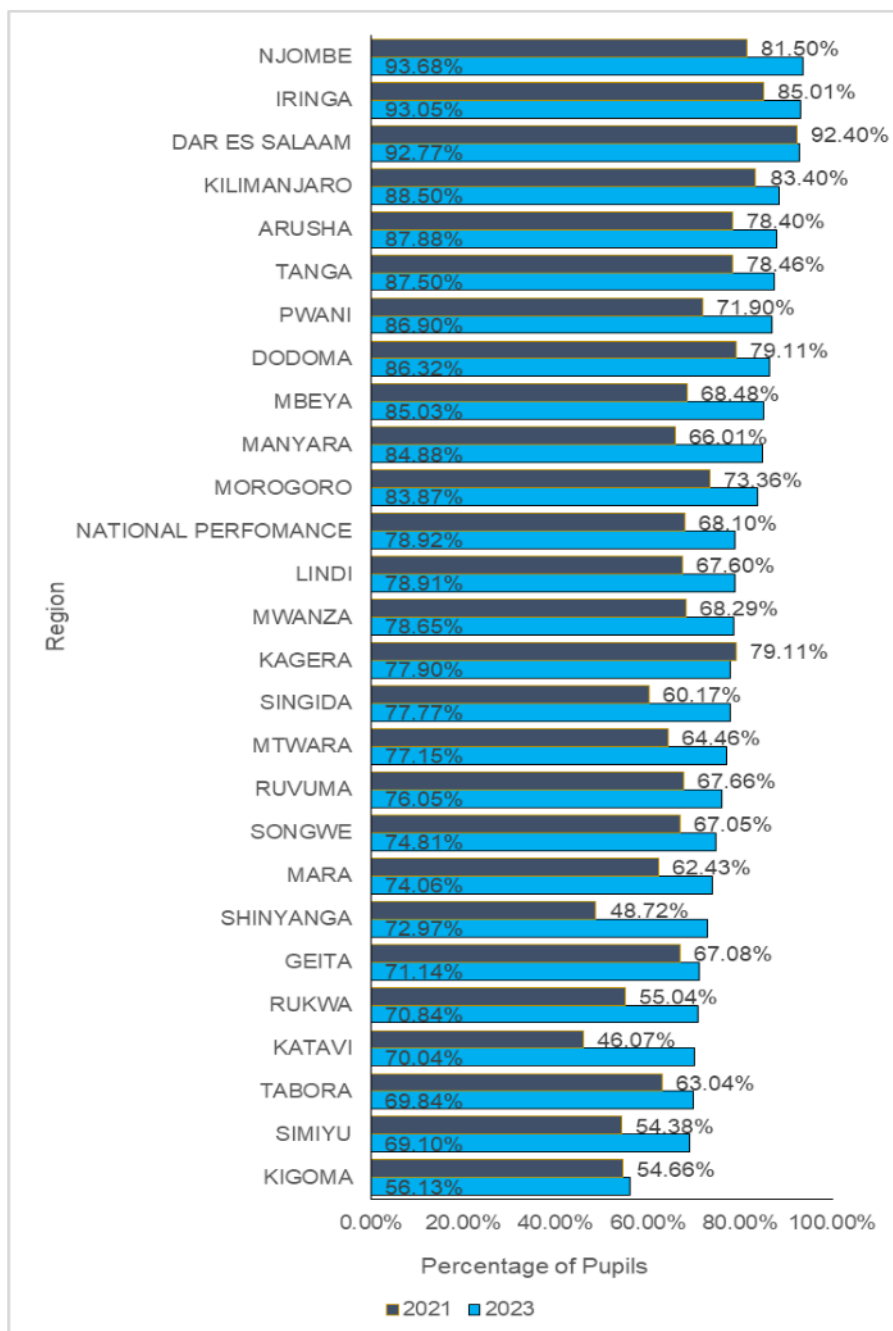
**Chart 4:** Comparison of Pupils' Performance between Boys and Girls

The statistics on Chart 4 shows that 81.30 per cent of girls had average to very good performance compared to 6.52 per cent with similar performance levels. This implies that the girls' had better reading abilities than that of the boys. Comparison on boys' and girls' performance between 2021 and 2023 shows that girls have continued to have good performance when compared to boys. In 2021, girls had 72.33 per cent and boys had the performance of 63.70 per cent. However, regardless of these differences, boys' and girls' performance improved by 8.97 and 8.63 per cent in 2023 respectively.

### 2.5.3 Comparison of Pupils' Performance by Region

The comparison on the pupils' performance region wise was done between 2021 and 2023. The aim was to determine if there was an increase or decrease of the pupils' ability in reading region wise. The following criteria was considered when making such comparison: The pupil who got 0-12 marks was counted to have unsatisfactory performance, the one with 26-37 had good performance, that with 13-25 had average performance and the one who had 38-50 had very good performance. However, the pupils' performance region wise considered pupils'

performance from average to very good performance. Chart 5 shows the comparison of the pupils' performance region wise.



**Chart 5 :** Comparison of the pupils' Performance region wise

Chart 5 shows that the pupils' performance nation wise in Reading Skills improved by 10.82 per cent from 68.10 per cent in 2021 to 78.92 per cent in 2023. This implies that there were some efforts that had been made in the teaching and learning of Reading Skills in schools. Among 26 regions of Tanzania mainland, Njombe region led by having 93.68 per cent.

Further analysis shows that the pupils' performance at the national level improved tremendously in some of the regions in 2023 compared to 2021. Those regions were Shinyanga (24.25%), Katavi (23.97%), Singida (17.60%), Mbeya (16.55%), Rukwa (15.80%) and Simiyu (11.63%).

Likewise, many regions which had good performance in 2021, continued to have that standard whereby the pupils' performance increased in 2023 compared to 2021. For instance, Mbeya region had the performance of 68.48 per cent in 2021 and 85.01 per cent in 2023, Njombe improved from 81.05 per cent to 93.68 per cent, Mwanza 68.29 per cent to 78.65 per cent and Iringa had 85.01 in 2021 and 93.08 per cent in 2023. However, the Kigoma region which had an average performance of 54.66 per cent in 2021, improved by 1.47 per cent in 2023. That was the only region whose performance improved with a very small per cent.

On the other hand, the pupils' performance dropped in Kagera region where in 2021, the performance was 79.11 per cent and 77.90 per cent in 2023. Therefore, the pupils' performance in this region dropped by 1.21 per cent. Apart from that, the rate of the pupils' performance regionally on Reading Skills in 2023 was good compared to that of 2021.

## 2.6 Summary of Reading Skills Analysis

The analysis on the pupils' performance on Reading Skills shows that pupils had the performance ranging from average to very good by 78.92 per cent. These pupils correctly read 13-50 words in a minute. Also, they answered 2 to 5 items correctly after reading the passage. On the other hand, 21.08 per cent of the pupils had unsatisfactory performance since they failed to read most words. For example, they failed to read correctly words made up of consonant clusters such as 'walikwenda,' 'hospitali,' 'alimpeleka.' Also, they failed to read words which were made up of 'r' and 'l' sounds like 'mara,' and 'kelele.' Also, the word 'ameng'atwa' which is made up of nasal sound became difficult to most pupils. Likewise, they failed to read the passage fluently and understand it. Hence, they failed to answer comprehension questions correctly.

Generally, pupils' performance on Reading Skills increased by 10.82 per cent in 2023 compared to 2021. The pupils' performance in 2021 was 68.10 per cent while in 2023 it was 78.92 per cent. This proves that the teaching and learning process in Reading Skills had been improved within the two years of assessment.

# **CHAPTER THREE**

## **WRITING SKILLS ASSESSMENT**

### **3.1 Introduction**

This chapter analyses Writing Skills Assessment based on the structure of the Assessment Paper, the assessment criteria, statistical analysis and samples of pupil's responses. The chapter further defines the levels of pupil's performance, which are very good performance (38 to 50 marks), good performance (26 to 37 marks), average performance (13 to 25 marks), and unsatisfactory performance (0 to 12 marks). In addition, this chapter shows the results about the ability of pupils to write the names of objects depicted on pictures correctly, write words in capital letters and appropriate use of punctuation marks. Also, the chapter presents the comparison of pupils' performance by regions, school location (urban/rural) and sex (boys/girls).

### **3.2 Structure of the Writing Skills Assessment Paper**

The Writing Skills assessment paper comprised three questions. The first question required pupils to write names of objects depicted on the pictures. The second question required pupils to write 10 words presented in small letters and write them in capital letters and in the third question, a pupil was supposed to copy a 16 word passage and punctuate it appropriately. The assessment aimed at determining the pupil's competences in writing skills.

### **3.3 Performance Criteria for Writing Skills**

The pupils' competences in writing skills was based on four (4) levels of performance, which were unsatisfactory, average, good and very good. In questions 1 and 2, the pupil's competence was considered unsatisfactory if the pupil failed to write correctly all words or wrote correctly 1

– 2 words. It was considered to be Average if the pupil wrote correctly 3 – 5 words. In contrast, the performance was good if a pupil wrote correctly 6 – 8 words and very good if the pupil wrote correctly 9 – 10 words. Moreover, in copying the passage and applying the appropriate punctuation marks, the pupil’s competence was based on the total marks he/she got after copying the phrase, and applying the appropriate punctuation marks. Scores from 0 - 5 marks indicated unsatisfactory performance, 6 - 10 showed average performance, 11 - 15 indicated good performance and 16 - 20 signified very good performance

### 3.4 Pupils’ Response Analysis in Writing Skills

The analysis of the pupils’ responses indicates that 38,957 (74.85%) pupils sat for Writing Skills Assessment. Among them, 27,083 (69.52%) had the performance, which varied from average to very good. By contrast, 11,874 (30.48%) had unsatisfactory performance. Table 4 shows the overall performance on writing skills.

**Table 4: General Pupils’ Performance on Writing Skills**

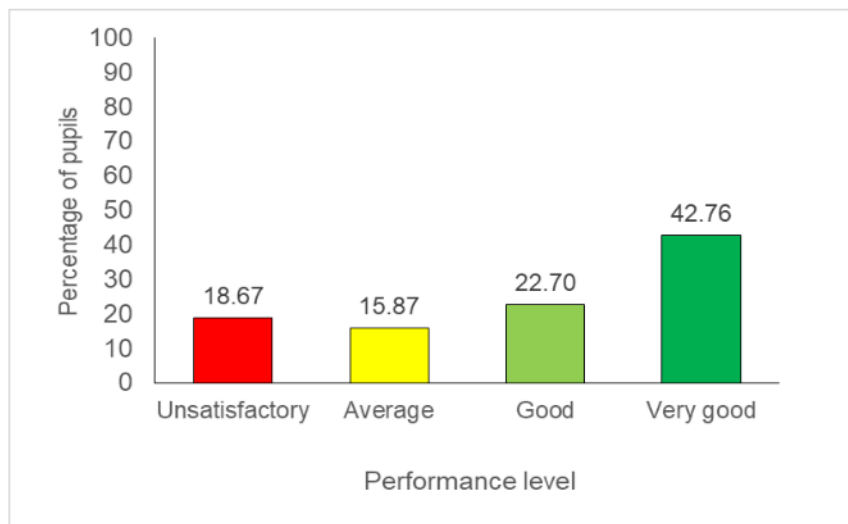
Competence Assessed	Level of Performance							
	Unsatisfactory		Average		Good		Very Good	
	Number of pupils	%	Number of pupils	%	Number of pupils	%	Number of pupils	%
Word formation	7,275	18.67	6,182	15.87	8,843	22.70	16,657	42.76
Writing of capital letters	22,793	58.51	5,736	14.72	3,425	8.79	7,003	17.98
Copying the passage and using appropriate punctuation marks	25,196	64.68	1,578	4.05	2,299	5.90	9,884	25.37

Table 4 indicates that the pupils with average to very good performance were 81.33 per cent, words in capital letters were 41.49 per cent, and in copying the passage and using the appropriate punctuation marks it was 35.32 per cent. Generally, the competence of copying the passage

and inserting the appropriate punctuation was 64.68 per cent.

### 3.4.1 Question 1: Writing Names of Objects Depicted on Pictures

In the competence writing correctly the names of objects shown on pictures, the statistics show that 31,682 (81.33%) pupils had performance ranging from average to very good. However, 7,275 (18.67%) had unsatisfactory performance as shown in Chart 6.







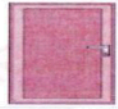





**Chart 6:** Pupils' Performance on Writing Names of Pictures

Chart 6 indicates that many pupils had good performance as they managed to identify and write names of the objects shown on pictures correctly.

Further analysis indicates that 7,275 (18.67%) pupils had unsatisfactory performance. The pupils failed to associate the pictures with their subsequent names. Some of them wrote the names of the pictures using their mother tongue; others mixed capital and small letters in forming words while others committed spelling mistakes when writing the words. Moreover, others failed to write the names of the pictures, which were made up of consonant clusters. Extract 12 is a

sample of the responses of a pupil who had unsatisfactory performance.

1. Andika majina ya picha hizi:











(a)	 GALI	(b)	 Papai
(c)	 Zmaksi	(d)	 KaBo
(e)	 mala	(f)	 Mazi
(g)	 TAI	(h)	 Ufio
(i)	 KATI	(j)	 Komputa

**Extract 12:** A sample of pupil's responses with unsatisfactory performance

In Extract 12, a pupil failed to associate the picture with its name as he/she wrote “nazi”, and “komputa” instead of writing *ndizi* and *feni* respectively. Likewise a pupil had a spelling issue, leaving out some letters and mixing up letters to form a word. For example, the pupil wrote “zmaki” instead of “samaki”, “kabo” instead of “kobe”. “mla” instead of “mlango”, “ufio” instead of “ufagio” and “kati” instead of “kiatu”. Furthermore, the pupil had pronunciation problems by writing “Gali” instead of “Gari”. However, the pupil was able to correctly write the word “papai” in part (b) and “tai” in part (g), thus receiving a score of unsatisfactory performance.

On the other hand, 6,182 (15.87%) pupils had average performance since they were able to identify 3 to 5 pictures and they wrote their names correctly. Some of them added incorrect pronunciations and others wrote some names in their native languages. Extract 13 provides a sample of the responses from a pupil who had average performance.

1- Andika majina ya picha hizi:











(a)  Gari	(b)  pipa
(c)  Samaki	(d)  Kobe
(e)  mlango	(f)  ndizi
(g)  bendera	(h)  mfagio
(i)  Kiata	(j)  mzani

**Extract 13:** A sample of responses from a pupil with average performance

In Extract 13, a pupil managed to correctly write the names of objects shown in pictures in (a), (c), (d), (e) and (i) but failed to write the correct names in (b), (f), (g), (h) and (j). In items (f) and (h) a pupil wrote the names in native languages by writing "ndizi" instead of *Ndizi* and "mfagio" instead of *Fagio*.

Further analysis indicates that 8,843 (22.70%) pupils had good performance as they wrote correctly 6 to 8 words. Extract 14 provides a sample of responses from a pupil with good performance.

**1- Andika majina ya picha hizi:**





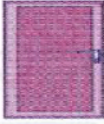





(a)	 gari	(b)	 papai
(c)	 Samaki	(d)	 kobo
(e)	 mlango	(f)	 ndizi
(g)	 kitamba	(h)	 ufagio
(i)	 kiatu	(j)	 pasi

**Extract 14:** A sample of responses from a pupil with good performance

In Extract 14, a pupil correctly wrote 8 words.

Likewise, 16,657 (42.76%) pupils who had a very good performance wrote correctly 10 words as shown in Extract 15.

7. Andika majina ya picha hizi :

(a)	 Gari	(b)	 Papai
(c)	 Samaki	(d)	 Koba
(e)	 Mlango	(f)	 Ndizi
(g)	 Tai	(h)	 Usagio
(i)	 Kiata	(j)	 Feni

**Extract 15:** A sample of responses from a pupil with very good performance

In Extract 15, a pupil was able to write correctly the names of the pictures in all items (a) – (j) and thus had very good performance.

### **3.4.2 Pupils' Performance on Identifying and Writing each Word**

Statistical analysis was done to determine the pupils' correct responses in each word. Their performance on each word was as follows:

#### **(a) Gari**

The analysis shows that 20,942 (53.76%) pupils wrote correctly the word *Gari*. The pupils identified the picture and associate it with the correct name by writing and forming correctly the letters of the word.

On the other hand, 18,015 (46.24%) pupils failed to write the relevant name correctly due to their inability to distinguish the use of the consonants "r" and "l". Some wrote "gali" and others wrote words which do not relate to the image of *Gari*.

#### **(b) Papai**

The analysis shows that 28,438 (73.00%) pupils identified the relevant picture and wrote the name "Papai" correctly. The pupils had the competence in writing words which are formed by consonants and vowels.

However, 10,519 (27.00%) pupils failed to recognize the picture so they wrote irrelevant names. Some wrote "pipa", "pipi" and others wrote "popo". Those were considered to have challenges in writing correctly after observing pictures.

**(c) Samaki**

The data shows that 30,327 (77.85%) pupils were able to identify the picture of *Samaki* and write the name correctly because it is mostly used in our meals. In addition, the pupils had enough knowledge about words made up of consonant and vowel structure, namely “sa” “ma” “ki”.

On the other hand, 8,630 (22.15%) pupils recognized the picture but failed to write the appropriate name as some mentioned the types of *samaki* and other organisms such as “sato”, “kibua”, “sangara” and “kasa.”

**(d) Kobe**

A total of 27,531 (70.67%) pupils managed to write the name *Kobe* correctly maybe due to the fact that, the animal is found in the environment where the pupils live. Thus, they were able to identify its image easily. In addition, the pupils had enough knowledge about words formed by two (2) syllables, which were; “ko” and “be” with a consonant and vowel structure.

However, 11,426 (29.33%) pupils failed to write correctly the name *Kobe*. Some of them wrote words that were unrelated to the picture such as “kamba”, “sungura”, “Kinyonga” and “chura”. Others wrote the word “konokono” because they failed to distinguish between the image of a kobe and the shelled gastropod type of konokono.

**(e) Mlango**

Analysis in this item showed that 21,541 (55.29%) pupils failed to write the name *Mlango*, where some wrote *mba*, *mbao*, *dirisha*, *mulango*, *nyumba*, *mlingo* and *mrango* due to effects of the native language and incorrect use of the letters “r” and “l”.

In addition, 17,416 (44.71%) pupils managed to identify the relevant picture and correctly write its name. The pupils identified the picture possibly because it is found in their real environment including in their classes, toilets and homes. Therefore, they identified the picture and wrote its name correctly based on the basics of word formation.

**(f) Ndizi**

The data shows that 24,852 (63.79%) pupils had a good performance, as they were able to identify the picture and write correctly the name *Ndizi* because it is a fruit that is abundantly available in their surroundings as well as their mastery of writing skills.

However, 14,105 (36.21%) pupils failed to write correctly the word *Ndizi* because they were incompetent in forming the consonant cluster 'nd' hence, they incorrectly wrote "Dizi", "disi" and "nizi" instead of *Ndizi*. In addition, some pupils wrote names unrelated to the respective pictures such as "nazi", "ua" and "muwa".

**(g) Tai**

Analysis shows that 23,365 (59.98%) pupils had good performance in writing the name *Tai*. They identified the picture and wrote correctly the name of the picture as is worn by most of the people and used as a school uniform for some schools.

In addition, a total of 15,592 (40.02%) pupils failed to write correctly the name of the picture because they did not have the competence to associate the picture with the relevant name. Some pupils incorrectly wrote the words which are not related to the picture of "tai" such as; "nguo", "bendera", "suti", "taulo", "filimbi", "kifungo" and "ukosi".

### **(h) Fagio**

A total of 21,581 (55.40%) pupils had unsatisfactory performance in forming the word *Fagio* because they failed to associate the picture with the relevant name. They failed to realize that the word has three syllables, which are /fa/ /gi/ /o with the pattern of consonant + vowel, consonant + vowel and vowel only. Also, some pupils were influenced by their native languages and wrote “mufagiyo” and “fagiyo”.

On the other hand, 17,376 (44.60%) pupils had a good performance in writing the name *Fagio* because they were able to identify the picture and associate it with the given name hence, write the name correctly. These pupils recognized the picture easily because “fagio” is found at home and school environment as it is a tool used in environmental cleanliness and were able to write the name because they had writing skills.

### **(i) Kiatu**

The analysis shows that 24,960 (64.07%) pupils' responses had good performance in writing the name *Kiatu*. The pupils were able to recognize the given picture and correctly wrote its name. In addition, the pupils were competent in creating a three-syllable words “ki”, “a” and “tu”.

In addition, 13,997 (35.93%) pupils failed to associate the picture and write the relevant name hence unsatisfactory performance. Some pupils were affected by their first languages (mother tongues) and wrote “fiatu”, “kiyatu”, “kilatu” and “kihatu”.

### **(j) Feni**

The data showed that 20,854 (53.53%) pupils had sufficient knowledge in associating the picture with the name of the respective picture. In addition, they were

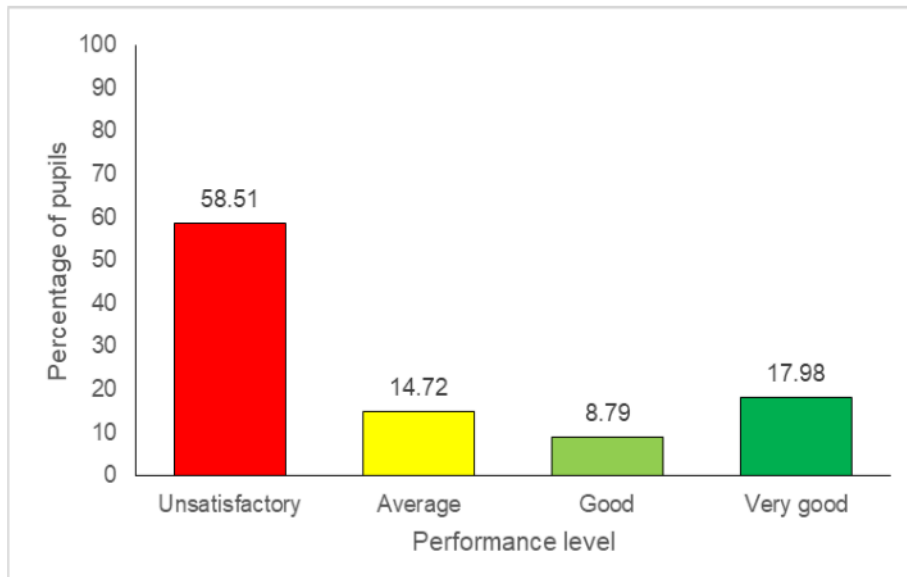
able to write “Feni” correctly because the word is formed by only two syllables with a combination of the consonant sounds and vowel sound “fe” and “ni” as well as having writing skills.

On the other hand, 18,103 (46.47%) pupils were incompetent in recognizing the picture and relating it to its appropriate name. Some pupils wrote, "Kataupepo", "ua" "gesi", "mzani", "fenesi", "pasi", "umeme" and "taa". Those pupils failed to identify the picture because *feni* is a tool that is available in some places with electricity and owned by some people who are economically well off or in some government offices to which they might have no access.

### **3.4.3 Question 2: Writing Words by Using Capital Letters**

The question tested the pupils’ competencies in writing words in capital letters. The pupils were provided with 10 words written in small letters and were required to re-write them in capital letters.

A total of 38,957 (100%) pupils attempted this question and the pupils’ performance on this question was average. Chart 7 provides a summary of the pupils’ performance on question 2.



**Chart 7: Pupils' Performance on Writing Words in Capital Letters**

Chart 7 shows that 22,793 (58.51%) pupils had unsatisfactory performance as they wrote only 1 to 2 words while others in this category could not write a single word in capital letters. In addition, the statistics indicate that 5,736 (14.72%) pupils had average performance. These pupils wrote 3 to 5 words in capital letters. On the other hand, 3,425 (8.79%) pupils had a good performance since they wrote 6 to 8 words in capital letters and 7,003 (17.98%) pupils had very good performance, as they wrote correctly 9 to 10 words in capital letters.

The analysis of 22,793 (58.51%) pupils with unsatisfactory performance shows that they were incompetent in writing words in capital letters. Some of them mixed capital with small letters in word formation. Others wrote the first letter of each given word instead of capitalizing the entire word. In addition, there are pupils who did not understand the question so they constructed sentences, drew a picture, wrote the number of letters or wrote the use of the words given instead of writing the words in capital letters. Extracts

16 - 18 provide samples of responses from pupils with unsatisfactory performance.

2. Andika maneno yafuatayo kwa kutumia herufi kubwa katika nafasi zilizoachwa wazi kwa kila neno:

(a) Popo 4

(b) Mwalimu 7

(c) Meli 4

(d) Shamba 6

(e) Mswaki 6

(f) Majeruhi 8

(g) Bendera 7

(h) Ubao 4

(i) Ugonjwa 7

(j) miaka 5

**Extract 16:** A sample of responses from a pupil who wrote numbers of letters forming the word instead of writing the words in capital letters

2. Andika maneno yafuatayo kwa kutumia herufi kubwa katika nafasi zilizoachwa wazi kwa kila neno:

(a) Popo ana raka juu

(b) Mwalimu ana ardha vbaoni

(c) Meli ina zana kuwonyetabari

(d) Shamba kinamabindi meg

(e) Mswaki ni kitu china sawsha mero

(f) Majeruhi hupatiwa matibabu

(g) Bendera ya taifa hushusha saakumi

(h) Ubao ni mzuri sana

(i) Ugonjwa ni hatari sana

(j) miaka miaka kumi

**Extract 17:** A sample of responses from a pupil who elaborated the word instead of writing items in capital letters

2. Andika maneno yafuatayo kwa kutumia herufi kubwa katika nafasi zilizoachwa wazi kwa kila neno:

- (a) Popo \_\_\_\_\_ Popo \_\_\_\_\_
- (b) Mwalimu \_\_\_\_\_ Mwalimu \_\_\_\_\_
- (c) Meli \_\_\_\_\_ Meli \_\_\_\_\_
- (d) Shamba \_\_\_\_\_ Shamba \_\_\_\_\_
- (e) Mswaki \_\_\_\_\_ Mswaki \_\_\_\_\_
- (f) Majeruhi \_\_\_\_\_ Majeruhi \_\_\_\_\_
- (g) Bendera \_\_\_\_\_ Bendera \_\_\_\_\_
- (h) Ubao \_\_\_\_\_ Ubao \_\_\_\_\_
- (i) Ugonjwa \_\_\_\_\_ Ugonjwa \_\_\_\_\_
- (j) miaka \_\_\_\_\_ miaka \_\_\_\_\_

**Extract 18:** A sample of responses from a pupil who wrote the first letter in capital letter instead of the whole words

The performance results show that 5,736 (14.72%) pupils had average performance as they wrote some words in capital letters and failed on others. Some failed to distinguish the use of letters “r” and “l” while writing capital letters by writing *MWARIMU*, *MERI MAJELUHI* and *BENDELA*. Others failed to write some letters in capital letters for example, *MELi* and *uBAO*. Extract 19 provides a sample of responses from a pupil who had average performance.

2. Andika maneno yafuatayo kwa kutumia herufi kubwa katika nafasi zilizoachwa wazi kwa kila neno:

- (a) Popo POPO
- (b) Mwalimu MWALIMU
- (c) Meli MELI
- (d) Shamba SHAMBA
- (e) Mswaki MSWAKI
- (f) Majeruhi MAJERUHI
- (g) Bendera BENDERA
- (h) Ubaa UBAA
- (i) Ugonjwa UGONJWA
- (j) miaka MIIKA

**Extract 19:** A sample of responses from a pupil with average performance

In Extract 19, a pupil wrote correctly words in (a), (d), (g) (h) and (i). While, in items (b), (c), (e), (f) and (j) the pupil mixed could not differentiate correctly capital and small letters.

Further analysis shows that 3,425 (8.79%) pupils had a good performance. These pupils were competent in creating capital letters as they wrote correctly 6 to 8 words. Extract 20 provides a sample of responses of pupils with good performance.

2. Andika maneno yafuatayo kwa kutumia herufi kubwa katika nafasi zilizoachwa wazi kwa kila neno:

- (a) Popo POPO
- (b) Mwalimu MWALIMU
- (c) Meli MELI
- (d) Shamba SHAMBA
- (e) Mswaki MSWAKI
- (f) Majeruhi MAJERUHI
- (g) Bendera BENDERA
- (h) Ubao UBAO
- (i) Ugonjwa UGONJWA
- (j) miaka MIKA

**Extract 20:** A sample of responses from a pupil with good performance

In Extract 20 the pupil wrote words in capital letters in 7 items but failed to do the same in (f), (g) and (i) due to misuse of “r”, “l” and “l” in (f) and (g).

On the other hand, 7,003 (17.98%) pupils had a very good performance. The pupils in this category wrote correctly all (10) words in capital letters. Extract 21 is a sample of responses from a pupil in this category.

2. Andika maneno yafuatayo kwa kutumia herufi kubwa katika nafasi zilizoachwa wazi kwa kila neno:

- (a) Popo POPO
- (b) Mwalimu MWALIMU
- (c) Meli MELI
- (d) Shamba SHAMBA
- (e) Mswaki MSWAKI
- (f) Majeruhi MJERUHI
- (g) Bendera BENDERA
- (h) Ubao UBAO
- (i) Ugonjwa UGONJWA
- (j) miaka MIAKA

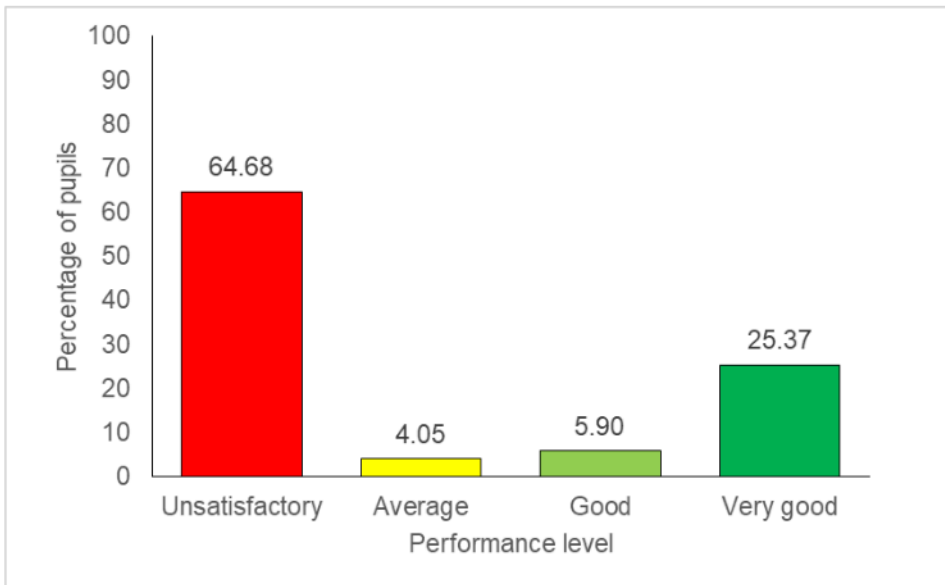
**Extract 21:** A sample of responses from a pupil with very good performance

In Extract 21 the pupil correctly wrote all words in capital letters. This implies that the pupil was competent in forming capital letters.

#### 3.4.4 Question 3: Copying a Passage and Putting Punctuation Marks

This question assessed the pupil's ability to use appropriate punctuation marks. Those punctuation marks were; full stop (.), comma (,), exclamation mark (!) and question mark (?).

Analysis shows that 38,957 (100%) pupils answered this question. The pupils' performance in this question was average. Chart 8 provides a summary of pupils' performance on question 3.



**Chart 8:** Pupils' Performance on Copying a Passage and Punctuating it

Chart 8 shows that 9,884 (25.37%) pupils had very good performance as they scored 16 to 20 marks. In addition, 2,299 (5.90%) pupils with good performance managed to copy, use punctuation marks correctly in some words, and score 11 to 15 marks. However, 1,578 (4.05%) pupils had average performance by scoring 6 to 10 marks. In addition, 25,196 (64.68%) pupils had unsatisfactory performance as they either scored nothing or 1 to 5 marks.

The analysis of pupils' responses shows that 25,196 (64.68%) pupils had unsatisfactory performance. The pupils failed to copy the passage and put the punctuation marks correctly. Some of them wrote irrelevant words, copied punctuation marks by words, others composed sentences and wrote letters (alphabet). Others copied the passage in capital letters without using appropriate punctuation marks. Others used punctuation marks without copying the passage. Extracts 22 - 24 show samples of responses from pupils with unsatisfactory performance.

3. Nakili sentensi ifuatayo kisha weka alama za uandishi; nukta (·), mkato (.), alama ya mshangao (!) na alama ya kuuliza (?) sehemu sahihi.

Kwa nini hujala chakula na sisi \_\_\_ Hutupendi Loo \_\_\_ leo chakula cha jioni ikiwa tayari \_\_\_ tutakula pamoja \_\_\_

Kaka ana fuga ng'ombe  
mama ana pika ugali  
Baba ana enda Kazini  
dada ana fua nguo

**Extract 22:** A sample of incorrect responses to question 3

In Extract 22, the pupil constructed sentences instead of copying the passage and punctuating it.

3. Nakili sentensi ifuatayo kisha weka alama za uandishi; nukta (·), mkato (.), alama ya mshangao (!) na alama ya kuuliza (?) sehemu sahihi.

Kwa nini hujala chakula na sisi \_\_\_ Hutupendi Loo \_\_\_ leo chakula cha jioni ikiwa tayari \_\_\_ tutakula pamoja \_\_\_

A B C D E F G  
H I J K L M N  
O P Q R S T U  
V W X Y Z

**Extract 23:** A sample of incorrect responses to question 3

In Extract 23, the pupil wrote alphabets instead of copying the passage and using appropriate punctuation marks.

Further analysis shows that 1,578 (4.05%) pupils who had average performance copied 6 to 10 out of 16 words. Some of them failed to insert punctuation marks appropriately while others used the punctuation inappropriately. Extract 24 shows a sample of responses from a pupil with average performance.

3- Nakili sentensi ifuatayo kisha weka alama za uandishi; nukta (.), mkato (,), alama ya mshangao (!) na alama ya kuuliza (?) sehemu sahihi.

Kwa nini hujala chakula na sisi Hutupendi Loo leo chakula cha jioni ikiwa tayari \_\_\_\_\_ tutakula pamoja \_\_\_\_\_

Kwa nini chakula na sisi Hutupendi  
leo chakula cha jioni ikiwa  
tayari alama.

**Extract 24:** A sample of responses from a pupil with average performance

In Extract 24, the pupil copied correctly 9 out of 16 words but failed to use appropriate punctuation marks. Also the pupil used 1 punctuation mark (.) out of 4.

On the other hand, 2,299 (5.90%) pupils with good performance copied many words and correctly inserted some of the punctuation marks. Extract 25 shows a sample of responses from a pupil with good performance.

3- Nakili sentensi ifuatayo kisha weka alama za uandishi; nukta (.), mkato (,), alama ya mshangao (!) na alama ya kuuliza (?) sehemu sahihi.

Kwa nini hujala chakula na sisi \_\_\_\_\_ Hutupendi Loo \_\_\_\_\_ leo chakula cha jioni ikiwa tayari \_\_\_\_\_ tutakula pamoja \_\_\_\_\_

Kwa nini chakula sisi ! Hutupendi Loo & leo chakula  
cha jioni ikiwa tayari > tutakula pamoja -

**Extract 25:** A sample of responses from a pupil with good performance

In extract 25, the pupils copied 12 words and used appropriately three punctuation marks.

Further analysis shows that 9,884 (25.37%) pupils had very good performance. These pupils copied the passage of 16

words and used appropriate punctuation marks. Extract 26 is a sample of responses from a pupil with very good performance.

**3. Nakili sentensi ifuatayo kisha weka alama za uandishi; nukta (.), mkato (,), alama ya mshangao (!) na alama ya kuuliza (?) sehemu sahihi.**

*Kwa nini hujala chakula na sisi \_\_\_\_\_ Hutupendi Loo \_\_\_\_\_ leo chakula cha jioni ikiwa tayari \_\_\_\_\_ tutakula pamoja \_\_\_\_\_*

*Kwa nini hujala chakula na sisi? Hutupendi loo! leo chakula cha jioni kikiwa tayari, tutakula pamoja.*

**Extract 26:** A sample of responses from a pupil with very good performance

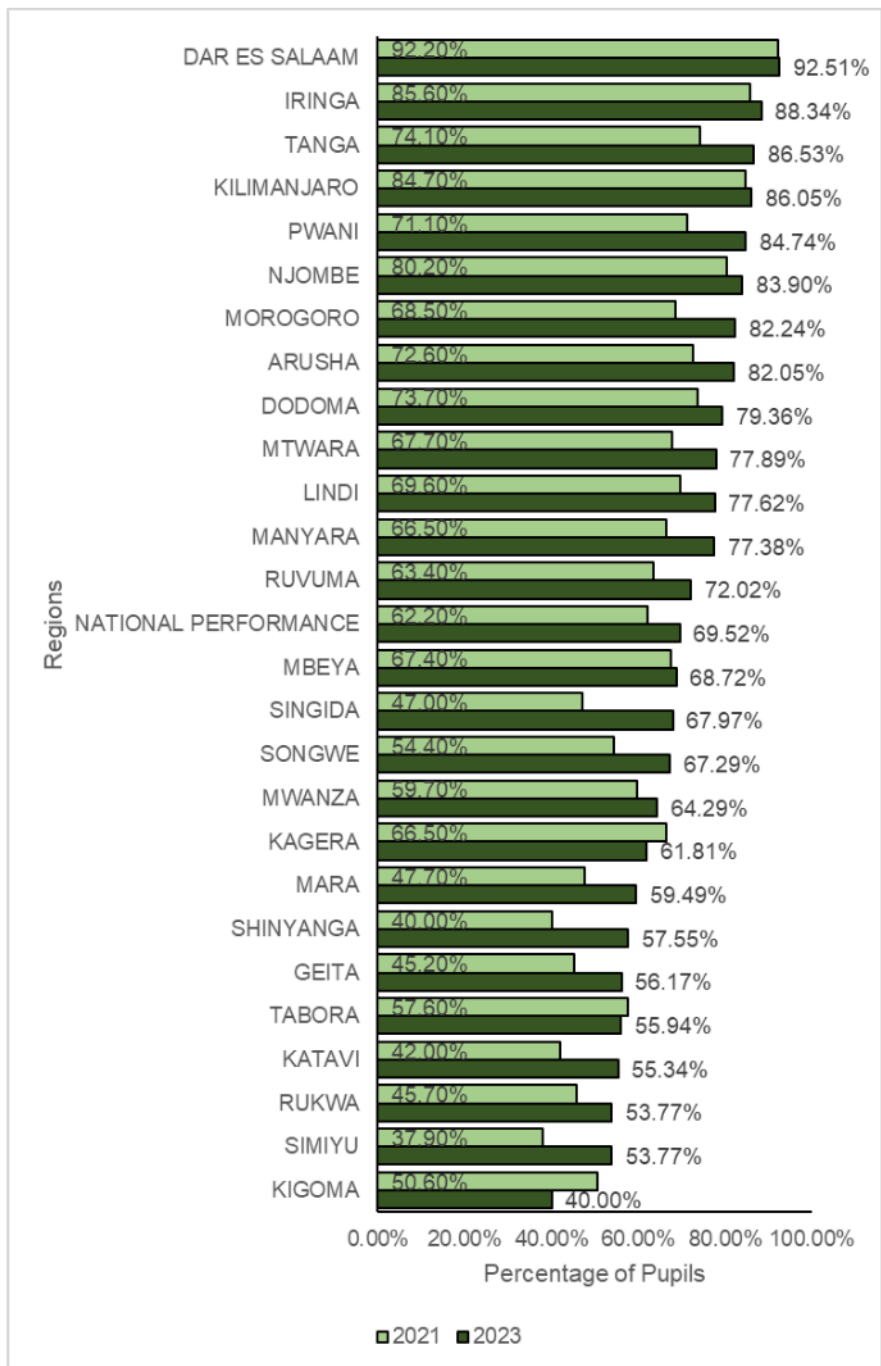
In Extract 26, the pupil copied the passage and used appropriately all 4 punctuation marks.

### 3.5 Comparison of the Pupils' Performance by Regions, Locations and Gender

In Writing Skills, comparison of pupil's performance by region, location and gender was done to determine there are significant differences based on these parameters.

#### 3.5.1 Comparison of the Pupils' Performance by Region

In 2023, the Writing Skills Assessment was conducted in all regions in Tanzania mainland as it was the case in 2021. In addition, the pupils' performance was compared region wise so as to determine their pupils' competences in writing skills. In making the comparison, the following criteria were considered: Very good performance (38 to 50 marks), good (26 to 37 marks), average (13 to 25 marks) and unsatisfactory (0 to 12 marks). Chart 9 shows the comparison of pupil's performance region wise for 2021 and 2023 assessments.



**Chart 9:** Pupils' Performance Region wise for 2023 and 2021 Assessment

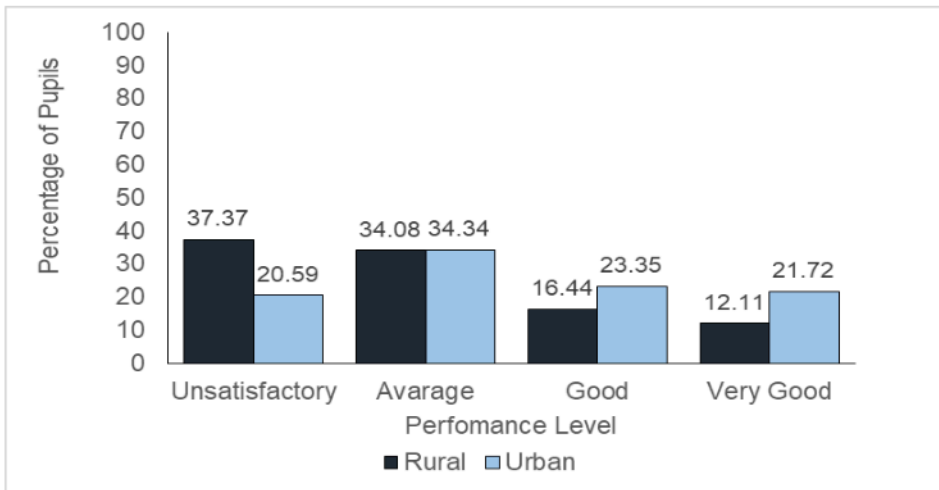
Chart 9 shows that the benchmark of the national pass mark for the year 2023 improved by 7.32 per cent from 62.20 in

2021 to 69.52 in 2023. Dar es Salaam region led with average to very good performance in 2021 and 2023 respectively. In addition, the performance of pupils in Dar es Salaam region improved by 0.31 per cent from 92.20 per cent in 2021 to 92.51 per cent in 2023.

On the other hand, Kigoma region had the lowest performance of all regions in 2023. Its performance also dropped by 10.60 per cent from 50.60 per cent in 2021 to 40.00 per cent in 2023. Similarly, the performance of Tabora region dropped by 1.64 per cent from 57.60 per cent in 2021 to 55.94 per cent in 2023. Likewise, the performance of Kagera region dropped by 4.69 per cent from 66.50 per cent in 2021 to 61.81 per cent in 2023.

### **3.5.2 Comparison of Pupils' Performance by School Location**

A comparison of pupils' performance based on the location of the school was conducted. Statistics show that, in 2023, 38,957 pupils sat for the Writing Skills Assessment. Out of them, 15,998 pupils were from urban schools and 22,959 from rural ones. The aim of the comparison was to determine the performance levels between urban and rural schools. This will be used to identify the challenges facing pupils based on the environment they live in and to devise ways to solve the challenges to improve performance levels. Chart 10 shows the comparison of pupil's performance between urban and rural schools.

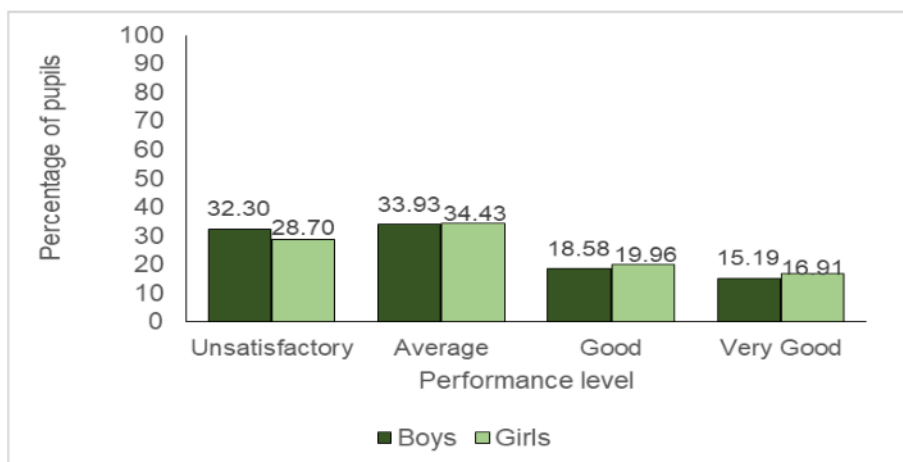


**Chart 10:** Pupils' Performance in Urban and Rural Schools

Chart 10 shows that pupils from urban schools had better performance compared to those from rural schools.

### 3.5.3 Comparison of Pupils' Performance by Gender

A total of 38,957 pupils sat for the Writing Skills Assessment in 2023 where 19,308 were boys and 19,649 girls. The aim of comparing pupils' performance based on gender was to identify their performance levels between boys and girls in order to improve their competences. Chart 11 presents comparison of performance by gender.



**Chart 11:** Comparison of Pupils' Performance by Gender

Chart 11 shows that 71.30 per cent of girls had performance ranging from average to very good compared to 67.70 per cent of boys with similar performance.

### **3.6 Summary of Writing Skills Analysis**

The analysis shows that most of pupils who sat for Writing Skills Assessment, 27,083 (69.52%) had average to very good performance. In addition, the pupils' performance on writing names depicted on pictures correctly was better than writing words in capital letters, copying a passage and using appropriate punctuation marks.

The data shows that 31,682 (81.33%) pupils had competence in identifying pictures and writing its names. The pupils were able to write the correct names of 3-10 pictures. Therefore, they scored average to very good performance. However, 16,164 (41.49%) pupils had the competence to write words in capital letters. Hence, they demonstrated average to very good performance as they managed to write 3 -10 words in capital letters.

On the other hand, 13,761 (35.32%) pupils had average to very good performance. The students were able to copy 6 -16 words from the given passage and inserted 1 to 4 appropriate punctuation marks.

## CHAPTER FOUR

### ARITHMETIC SKILLS ASSESSMENT

#### 4.1 Introduction

This chapter analyses the assessment of Arithmetic Skills that was done to Standard Two pupils in 2023. The structure of the assessment papers, performance criteria, and overall performance of the pupils were used as the basis for the analysis. The chapter also outlines areas where pupils had very good, good, average and unsatisfactory performance. A comparison of pupils' performance considering factors such as sex, school location, and regions has also been presented in the chapter. Finally, the chapter concludes with a summary of the analysis of pupils' performance in Arithmetic skills.

#### 4.2 Structure of the Assessment Papers

The pupils' competence in Arithmetic Skills was assessed in *201 Stadi ya Kusoma na Kuhesabu* and *203 Stadi ya Kuhesabu*. The first paper consisted of 10 questions where the pupils' competence in Addition and Subtraction of whole numbers less than 999 was assessed. The pupils were required to answer all questions orally. The invigilators used tablets to capture the scores which were directly stored into the database.

The second paper had 10 questions which assessed pupils' competence in identifying the missing numbers and solving word problem subtasks. In this paper, the pupils were required to answer all questions by writing their answers in the spaces provided. Each question that required the pupils to identify the missing numbers carried 2 marks, whereas those questions in the problem solving competence carried 4 marks, making a total of 30 marks. Therefore, both papers had a total of 50 marks.

### 4.3 Performance Criteria in Arithmetic Skills

Four categories of performance were used as criteria for determining pupils' performance in each competence in Arithmetic Skills Assessment. The performance was unsatisfactory if the pupil failed to attempt any question or correctly answered not more than two questions. The performance was categorised as average if the pupil correctly answered three questions, good if the pupil correctly answered four questions and very good if the pupil correctly answered all five questions.

### 4.4 Overall Performance in Arithmetic Skills

The data analysis indicates that 37,920 out of 48,051 pupils (78.92%) participated in the Arithmetic Skills assessment while 10,131 pupils (21.08%) were absent. Table 5 shows the number and percentages of pupils with unsatisfactory, average, good, or very good performances for each subtask.

**Table 5 : Overall Performance in Arithmetic Skills**

Assessed Competence	Pupils' Performance							
	Unsatisfactory		Average		Good		Very Good	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Identifying Missing Numbers	15,073	38.63	14618	37.46	4835	12.39	4492	11.51
Addition	18,275	46.76	6,189	15.84	6,225	15.93	8,391	21.47
Subtraction	20,673	52.90	5,950	15.23	5,590	14.30	6,867	17.53
Solving Word Problems	16,130	41.34	7,301	18.71	6,718	17.22	8,869	22.73

Table 5 shows that 38.63, 46.76, 52.90 and 41.34 per cent of the pupils had unsatisfactory performance because they answered three to five questions correctly. On the other hand, 61.37 per cent demonstrated average to very good performance in identifying

missing numbers followed by 58.66 per cent of pupils with similar performance in solving word problems, addition (53.24%) and lastly in subtracting numbers (47.10%). Very good performance was observed in solving word problems (22.73%) when compared to Addition (21.47%), Subtraction (17.73%) and identifying missing numbers (11.51%).

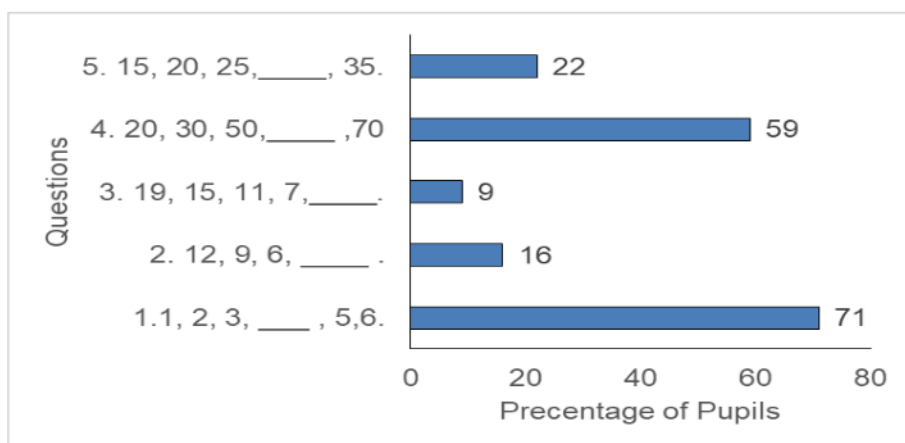
#### **4.5 Analysis of Pupils' Performance on each Subtask**

This part describes the pupils' performance on each competence by showing the percentage of pupils who correctly responded to each question. It also analyses the strengths and weaknesses identified in the pupils' responses by considering those with very good, good, average and weak performance. Moreover, extracts are included to justify the explanations related to pupils' responses.

In the addition subtask, a total of 18,906 pupils (37.00%) used tallies and counting fingers, while 18,851 pupils (36.45%) did the same for subtraction subtask. Additionally, the number of pupils who used paper and pencil in addition and subtraction competences were 26,933 (52.71%) and 27,672 (53.51%) respectively. Conversely, 5,258 (10.29%) pupils and 5,191 (10.04%) pupils respectively, answered addition and subtraction subtask without using any aid.

##### **4.5.1 Pupils' Competence in Identifying Missing Numbers in a Sequence**

The pupils' competence to identify missing numbers in a sequence of numbers was assessed in questions 1 to 5 in the *203 Stadi ya Kuhesabu* paper. Pupils were required to respond to the questions by writing answers in the spaces provided. Questions 2, 4, and 5 involved increasing sequences while questions 1 and 3 involved decreasing sequences of numbers. Chart 12 shows the percentage of pupils who answered each question correctly.



**Chart 12:** The Percentage of Pupils' Correct Responses in identifying the Missing Numbers

As seen in Chart 12, 71 per cent of pupils answered question 1 correctly. On the other hand, 16 per cent of the pupils answered question 2 correctly, As for question 3, 9 per cent got it correctly, On the contrary, 59 per cent answered question 4. Lastly, 22 per cent answered question 5 correctly. This shows that pupils performed better in the sequences of increasing numbers than in the sequences of decreasing numbers.

In this competence, 4,492 pupils (11.51%) had very good performance as they answered all five questions correctly. These pupils realized that the given sequence of numbers in question 1 was increasing by 1, so they added 3 to 1 to get 4. In question 2, they subtracted 3 from 6 to get 3 because the sequence was decreasing by 3. Similarly, they realized that the sequence of numbers in question 3 was decreasing by 4. Therefore, they subtracted 4 from 7 to get 3. In question 4, they discovered that the numbers were increasing by 10. Hence, they added 10 to 50 to get 60. Similarly, in question 5, they understood that the numbers were increasing by 5, hence they added 5 to 25 to get 30. Extract 27 presents a sample of answers of a pupil who correctly identified the missing numbers in all questions.

Andika namba inayokosekana katika nafasi iliyoachwa wazi katika swali la 1 hadi la 5.

1. 1, 2, 3, 4, 5, 6
2. 12, 9, 6, 3
3. 19, 15, 11, 7, 3
4. 20, 30, 40, 50, 60, 70, 80
5. 15, 20, 25, 30, 35.

**Extract 27:** A sample of a pupil's responses of a pupil whose performance was very good

Extract 27 shows that the pupil was able to identify the missing number in each sequence of numbers. Additionally, they wrote their answers without deleting and carefully following the steps of writing numbers.

Furthermore, a total of 4,835 pupils (12.39%) had good performance as they answered four (4) questions correctly. Additionally, 14,618 pupils (37.46%) had average performance as they answered three (3) out of five (5) questions correctly. Many of them failed to recognize that the sequence of numbers provided in question 2 was decreasing by 3. The most common incorrect answers included adding 1 to 6 to get 7, adding 1 to 7 to get 8 and subtracting 1 from 6 to get 5. In question 3, pupil failed to realize that the next number in the given sequence could be obtained by subtracting 4 from the preceding number. Thus, they wrote incorrect answers such as subtracting 7 from 11 to get 4, subtracting 1 from 7 to get 6, and adding 1 and 7 to get 8. Extract 28 shows the answers from one of the pupils who had average performance.

Andika namba inayokosekana katika nafasi iliyoachwa wazi katika swali la 1 hadi la 5.

1. 1, 2, 3, 4, 5, 6
2. 12, 9, 6, 1
3. 19, 15, 11, 7, 8
4. 20, 30, 40, 50, 60, 70, 80
5. 15, 20, 25, 30, 35.

**Extract 28:** A sample pupil's response whose performance was average

In Extract 28, the pupil made several mistakes in answering questions 2 and 3. The pupil incorrectly thought that the given numbers could be obtained by adding 1.

On the other hand, 15,073 pupils (38.63%) had unsatisfactory performance. Many of them wrote answers which were not related to the questions asked. For example, in question 5, one pupil wrote 90 as the missing number in the sequence 15, 20, 25, \_\_\_\_, 35 instead of 30. Other pupils considered the common difference between one number and another as the missing number. For instance, in question 3, one pupil calculated  $15 - 11$  to get 4 and then he/she assumed that the obtained common difference was the missing number. Others added the common difference to the first number after the blank space. For example, in question 4, one pupil added 10 to 70 to get 80 instead of adding 10 to 50 to get 60. Additionally, in question 1, another pupil added 1 to 5 to get 6 instead of adding 1 to 3 to get 4. Some pupils copied one of the numbers in the given sequences of numbers. For instance, in question 5, one pupil copied the last number (35) and then considered it as the correct answer. An example of an answer from a pupil with unsatisfactory performance is shown in Extract 29.

Andika namba inayokosekana katika nafasi iliyoachwa wazi katika swali la 1 hadi la 5.

1. 1, 2, 3, 17, 5, 6
2. 12, 9, 6, 27
3. 19, 15, 11, 7, 52
4. 20, 30, 40, 50, 80, 70, 80
5. 15, 20, 25, 90, 35.

**Extract 29:** A sample of a response of a pupil whose performance was unsatisfactory

In Extract 29, the pupil did not abide by the instructions of the questions. Hence, they wrote answers that are unrelated to the given sequences of numbers.

#### 4.5.2 Pupils' Competence in Addition

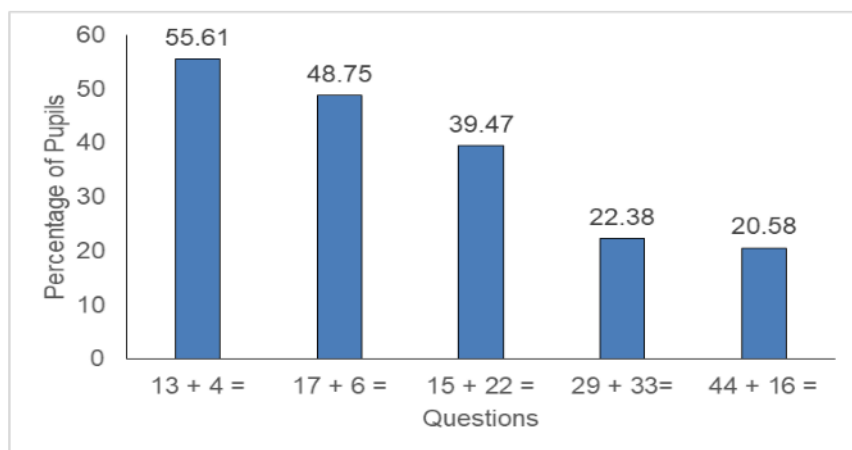
The pupils' competence in adding numbers was assessed in five questions. The pupil was required to answer the questions orally. The pupil who failed to answer the first four questions was instructed to proceed with subtraction questions. The questions are shown in Table 6.

**Table 6:** Addition questions

Question Number	Question
1.	$13 + 4 =$ <input type="text"/>
2.	$17 + 6 =$ <input type="text"/>
3.	$15 + 22 =$ <input type="text"/>
4.	$29 + 33 =$ <input type="text"/>
5.	$44 + 16 =$ <input type="text"/>

As seen in Table 6, there were 5 questions that assessed the pupils' competence in adding numbers. Questions 1 and

3 assessed the pupils' ability to add two numbers without carrying. Question 1 involved adding a two-digit number and a single digit number whereas question 3 involved adding two numbers with two-digits each. Conversely, question 2, 4 and 5 assessed the pupils' ability to add numbers by carrying. Chart 13 shows the pupils' performance in the addition subtask.



**Chart 13:** Percentage of Pupils who correctly answered the Questions involving Addition of Numbers

Chart 13 shows that pupils had good performance in question 1 (55.61%) and 2 (48.71%). Therefore, they were competent in adding a two-digit number to a single-digit number without carrying. For instance, in question 1, they correctly added 13 and 4 and orally stated 17. In question 2, they added 17 and 6 by carrying and orally stated 23.

Likewise, in question 3, 39.47 per cent of pupils were competent in adding two-digit numbers each without carrying. They correctly added 15 and 22 and orally stated 37.

In contrast, the chart indicates that pupils had unsatisfactory performance on question 4 (22.38%) and 5 (20.58%). This demonstrates that they lacked skills of adding two-digit numbers by carrying. For example, in question 4, pupils

failed to carry 1 to the tens place to get 62. The incorrect answers they orally stated were 52 and 50 respectively.

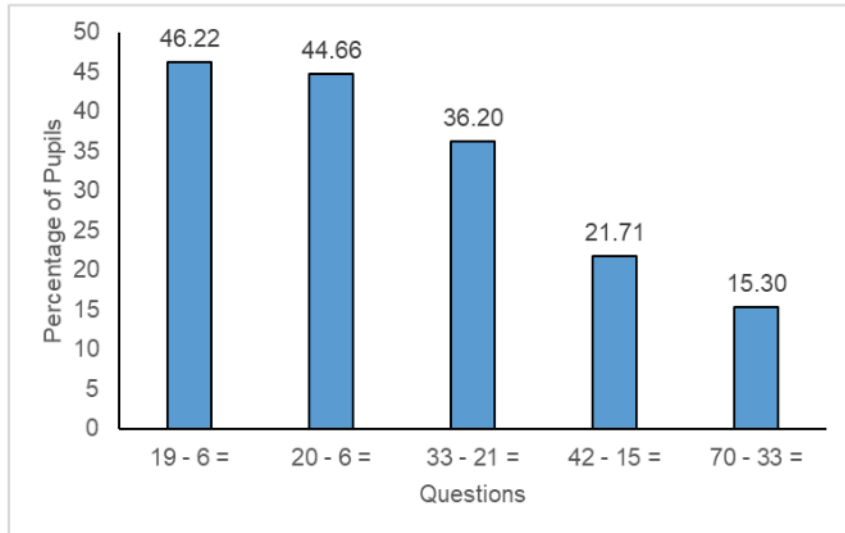
### 4.5.3 Pupils' Competence in Subtraction

The competence in subtraction of numbers was assessed in questions 6 to 10 in the *201 Stadi ya Kusoma na Kuhesabu* paper. The questions are shown in Table 7.

**Table 7: Subtraction questions**

Question Number	Question
6.	$19 - 6 =$ <input type="text"/>
7.	$20 - 6 =$ <input type="text"/>
8.	$33 - 21 =$ <input type="text"/>
9.	$42 - 15 =$ <input type="text"/>
10.	$70 - 33 =$ <input type="text"/>

The pupils were required to answer these questions orally. Questions 6 and 8 were based on subtraction without taking one-tens from tens to ones while questions 7, 9 and 10 involved taking one-tens. Question 6 had two numbers of one digit each. Question 7 had two numbers; one number with two digits whereas the other had one digit. Each of the questions 8, 9 and 10 had two numbers which were made up of two digits each. Chart 14 shows the percentage of pupils who correctly responded to each question about the subtraction of numbers.



**Chart 14:** The Percentage of Pupils' Correct Responses on Subtraction of Numbers

Chart 14 shows that many pupils were competent in subtracting single-digit numbers from two-digit numbers as demonstrated in question 6 and 7. For example, in question 6, 46.22 per cent of pupils calculated  $19 - 6$  without borrowing and orally stated 13. In question 7, 44.66 per cent of pupils subtracted 6 from 20 by borrowing and orally stated 14, which was the correct answer. Similarly, pupils were competent in subtracting two-digit numbers from two-digit numbers without borrowing. For example, in question 8, they correctly subtracted 21 from 33 and orally stated 12.

However, many pupils had unsatisfactory performance in subtracting two-digit numbers by borrowing. For example, in question 9, 21.71 per cent of pupils stated  $42 - 15 = 37$  orally instead of 27, and in question 10, 15.30 per cent of pupils stated  $70 - 33 = 47$  orally instead of 37.

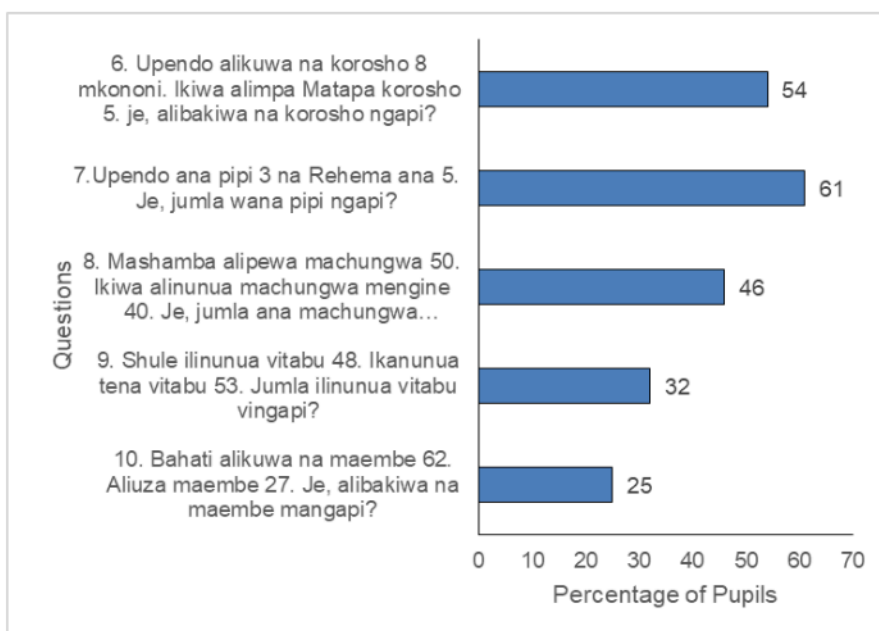
#### 4.5.4 Pupils' Competence in Solving Word Problems

The pupils' ability to solve word problems was assessed in question 6 through 10. The questions are shown in Table 8.

**Table 8: Word Problem Subtasks**

Question Number	Question
6.	Upendo alikuwa na korosho 8 mkononi. Ikiwa alimpa Matapa korosho 5. Je, alibakiwa na korosho ngapi?
7.	Upendo ana pipi 3 na Rehema ana 5. Je, jumla wana pipi ngapi?
8.	Mashamba alipewa machungwa 50. Ikiwa alinunua machungwa mengine 40. Je, jumla ana machungwa mangapi?
9.	Shule ilinunua vitabu 48. Ikanunua tena vitabu 53. Jumla ilinunua vitabu vingapi?
10.	Bahati alikuwa na maembe 62. Aliuza maembe 27. Je, alibakiwa na maembe mangapi?

The questions assessed the pupils' ability to solve real life related problems using the concept of addition or subtraction of whole numbers. The performance of the pupils on this subtask is indicated in Chart 15.



**Chart 15:** Percentage of Pupils who correctly solved the given Word Problems

Chart 15 shows that 54 per cent of pupils answered question 6 correctly, 61 per cent answered question 7, 46 per cent answered question 8, 32 per cent question 9, and 25 per cent question 10 correctly. This indicates that pupils were more competent in solving word problems involving addition without carrying and subtraction without borrowing.

In this competence, 8,869 pupils (22.73%) had very good performance as they were able to answer all five questions correctly. In question 6, pupils identified that the given word problem involved subtraction. They correctly subtracted 5 cashew nuts from 8 cashew nuts to get 3 cashew nuts, which Upendo was left with. In question 7, pupils identified addition as the operation in the given word problem. Thus, they correctly added 3 sweets of Upendo and 5 sweets of Rehema to get a total of 8 sweets. In question 8, pupils understood that the meaning of "jumla" was addition, hence, they correctly added 50 oranges and 40 oranges to get 90 oranges. Similarly, in question 9, pupils recognized that the concept of "total" means addition. Hence, they correctly

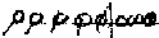
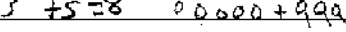
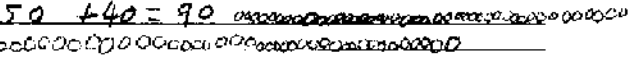
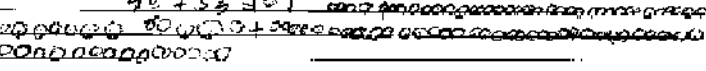
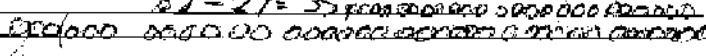
added 48 books and 53 books to get a total of 101 books. In question 10, pupils were able to solve the word problem involving subtraction and were also competent in borrowing during subtraction. Therefore, they correctly subtracted 27 mangoes from 62 mangoes and were left with 35 mangoes. A sample of answers from one of the pupils who correctly solved the given word problems is as shown in Extract 30.

6.	Upendo alikuwa na korosho 8 mkononi. Ikiwa alimpa Matapa korosho 5. Je, alibakiwa na korosho ngapi?
	$\begin{array}{r} \text{korosho } 8 \\ \text{korosho } - 5 \\ \hline 3 \end{array}$
	Alibakiwa na korosho 3
7.	Upendo ana pipi 3 na Rehema ana 5. Je, jumla wana pipi ngapi?
	$\begin{array}{r} \text{pipi } 3 \\ \text{pipi } + 5 \\ \hline 8 \end{array}$
	Jumla wana pipi 8
8.	Mashamba alipewa machungwa 50. Ikiwa alinunua machungwa mengine 40. Je, jumla ana machungwa mangapi?
	$\begin{array}{r} \text{machungwa } 50 \\ \text{machungwa } + 40 \\ \hline 90 \end{array}$
	Jumla alikuwa na machungwa 90
9.	Shule ilinunua vitabu 48. Ikanunua tena vitabu 53. Jumla ilinunua vitabu vingapi?
	$\begin{array}{r} \text{vitabu } 48 \\ \text{vitabu } + 53 \\ \hline 101 \end{array}$
	Jumla ilinunua vitabu 101
10.	Bahati alikuwa na maembe 62. Aliuza maembe 27. Je, alibakiwa na maembe mangapi?
	$\begin{array}{r} \text{maembe } 62 \\ \text{maembe } - 27 \\ \hline 35 \end{array}$
	Alibakiwa na maembe 35

**Extract 30:** A sample of responses from a pupil who correctly solved the given word problems

In Extract 30, the pupil solved word problems correctly. Additionally, the pupil correctly performed calculations for word problems that required carrying or borrowing.

Other pupils attempted all items by counting fingers or tallying in finding the answers. Extract 31 shows the responses of a pupil from this category.

6.	Upendo alikuwa na korosho 8 mkononi. Ikiwa alimpa Matapa korosho 5. Je, alibakiwa na korosho ngapi?
	$8 - 5 = 3$ 
7.	Upendo ana pipi 3 na Rehema ana 5. Je, jumla wana pipi ngapi?
	$3 + 5 = 8$ 
8.	Mashamba alipewa machungwa 50. Ikiwa alinunua machungwa mengine 40. Je, jumla ana machungwa mangapi?
	$50 + 40 = 90$ 
9.	Shule ilinunua vitabu 48. Ikanunua tena vitabu 53. Jumla ilinunua vitabu vingapi?
	$48 + 53 = 101$ 
10.	Bahati alikuwa na maembe 62. Aliuza maembe 27. Je, alibakiwa na maembe mangapi?
	$62 - 27 = 35$ 

**Extract 31:** A sample of responses from a pupil who correctly answered the given word problems

In Extract 31, the pupil used drawings to represent numbers and counted carefully while adding and subtracting numbers

to solve the given word problems, thus obtaining correct answers.

Analysis shows that 6,718 pupils (17.22%) had good performance since they answered four (4) questions correctly. Furthermore, 7,301 pupils (18.71%) had average performance as they answered three (3) out of five (5) questions correctly. Pupils with average performance failed to answer questions 9 and 10 correctly. In question 9, they failed to add two-digit numbers by carrying. For example, a pupil correctly added 8 and 3 to get 11 but wrote 11 instead of 1, then carried one group of ten to the tens place. Thus, they got 911 instead of 101. In question 10, pupils failed to subtract two-digit numbers by borrowing. For example, one pupil added 62 mangoes and 27 mangoes to get 89 mangoes instead of subtracting 27 from 62 mangoes to get 35 mangoes. Additionally, another pupil subtracted 27 mangoes from 62 mangoes to get 45 mangoes. The pupils forgot that they borrowed 1 from the tens place, which should be subtracted from 6. Extract 32 shows a portion of incorrect answers from one of the pupils with average performance.

9. Shule ilinunua vitabu 48. Ikanunua tena vitabu 53. Jumla ilinunua vitabu vingapi?

$$\begin{array}{r} 48 \\ +53 \\ \hline 911 \end{array}$$

10. Bahati alikuwa na maembe 62. Aliuza maembe 27. Je, alibakiwa na maembe mangapi?

$$\begin{array}{r} 62 \\ -27 \\ \hline 45 \end{array}$$

**Extract 32:** A sample of responses from a pupil who failed to answer word problems in Question 9 and 10

In Extract 32, the pupil failed to carry out 1 in question 9 and also failed to understand that 1 was borrowed from 6 to remain with 5 before subtracting 2 in 10.

On the other hand, a total of 16,130 pupils (41.34%) had unsatisfactory performance in this task. Some of them failed to solve the given word problems. These pupils were unable to differentiate between the words "alibakiwa" (remained) and "jumla" (total), which represent subtraction and addition concepts respectively. For instance, in question 6, one pupil added 8 cashew nuts and 5 cashew nuts to get 13 cashew nuts instead of calculating  $8-5$  to get 3 cashew nuts. In addition, some pupils copied the given word problems instead of solving. Moreover, others wrote responses that were unrelated to the given word problems and few omitted the items. Extract 33 presents a sample of the answers from a pupil who failed to answer all the questions in this competence.

6. Upendo alikuwa na korosho 8 mkononi. Ikiwa alimpa Matapa korosho 5. Je, alibakiwa na korosho ngapi?

85

7. Upendo ana pipi 3 na Rehema ana 5. Je, jumla wana pipi ngapi?

34

8. Mashamba alipewa machungwa 50. Ikiwa alinunua machungwa mengine 40. Je, jumla ana machungwa mangapi?

1050

9. Shule ilinunua vitabu 48. Ikanunua tena vitabu 53. Jumla ilinunua vitabu vingapi?

4853

10. Bahati alikuwa na maembe 62. Aliuza maembe 27. Je, alibakiwa na maembe mangapi?

6227

**Extract 33:** A sample of responses from a pupil who failed to solve all word problems

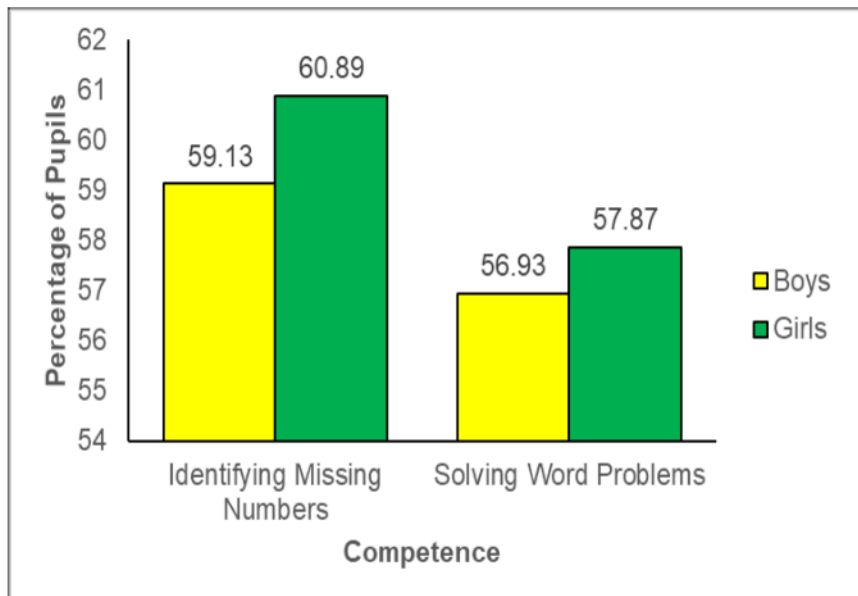
In Extract 33, the pupil combined the numbers in the question to obtain the answers that were not related to the given word problems. For example, in question 9, he/she combined 48 and 53 to get 4853.

## 4.6 Comparison of Pupils' Performance by Sex

This part presents the comparison of pupils' performance based on sex on identifying the missing numbers in sequences and solving word problems. It also compares the pupils' competence in adding and subtracting numbers.

### 4.6.1 Comparison of pupils' performance on Identifying the Missing Number and Solving Word Problems by Sex

Analysis shows that a total of 38,981 pupils (19,325 boys and 19,656 girls) participated in the Arithmetic Assessment. The findings of this analysis is shown in Chart 16.



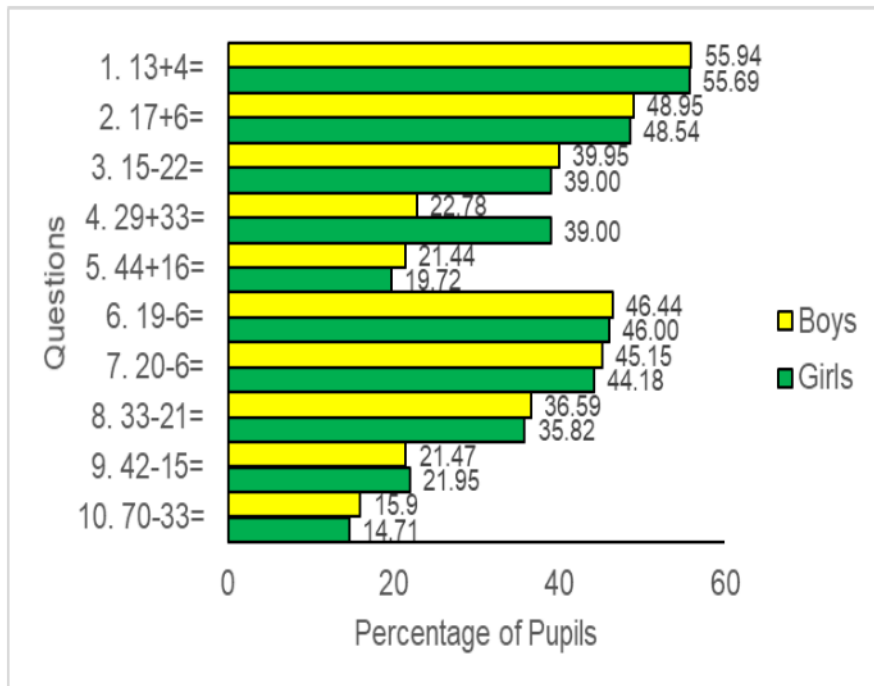
**Chart 16:** The Overall Performance of two Subtasks by Sex

Chart 16 shows that 59.13 per cent of boys had average to very good performance on Identifying Missing Numbers compared to 60.89 per cent of girls.

Similarly, in solving word problems, boys had average to very good performance by 56.93 per cent, whereas girls had average to very good performance by 57.87 per cent. This indicates that the performance of girls was better than that of boys.

#### 4.6.2 Comparison of Pupils' Performance by Sex in the Addition and Subtraction Subtask

The analysis shows that 19,427 boys and 19,653 girls were assessed in the competence of addition and subtraction. Chart 17 shows the percentage of boys and girls who correctly answered addition and subtraction questions.



**Chart 17:** The Overall Performance of two Subtasks by Sex

Chart 17 shows that boys performed better than girls in all addition questions except for question 4, where 22.78 per cent of boys performed well compared to 39.00 per cent of girls. Additionally, in subtraction questions, boys outperformed girls in questions 6, 7, 8, and 10, while girls performed better only in question 9.

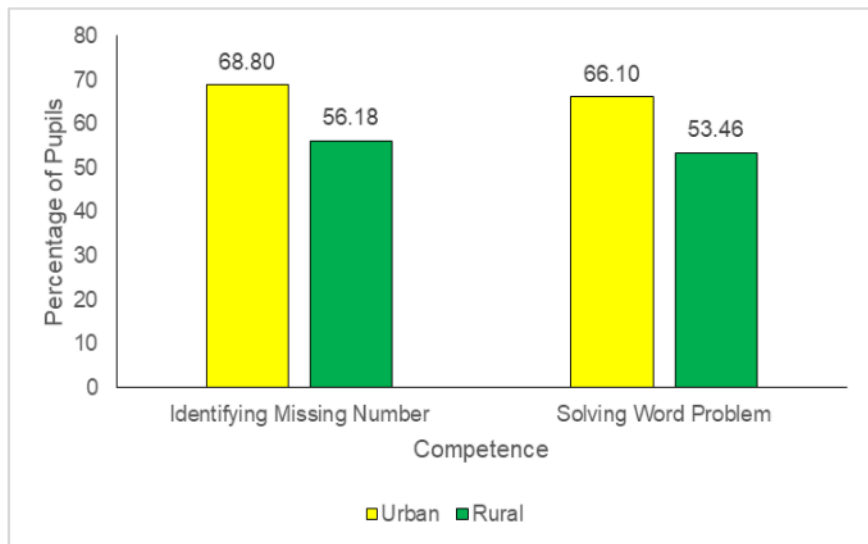
#### 4.7 Comparison of Pupils' Performance by School Location

The comparison of the pupils' performance by school location aimed to determine whether there was a significant difference in performance among pupils based on location.

This will enable the Government, institutions and education stakeholders to take appropriate measures in improving pupils' performance in Arithmetic Skills through strategic teaching and learning. The comparison of performance was made on Identification of Numbers, Solving Word Problems, Addition and Subtraction subtasks.

#### 4.7.1 Comparison of Performance in Number Identification and Solving Word Problems by Location

The comparison of performance in identifying numbers and solving word problems was conducted by comparing pupils from urban and rural schools, where a total of 16,084 pupils from urban schools and 22,996 pupils from rural schools were assessed. The results of pupils' performance are shown in Chart 18.



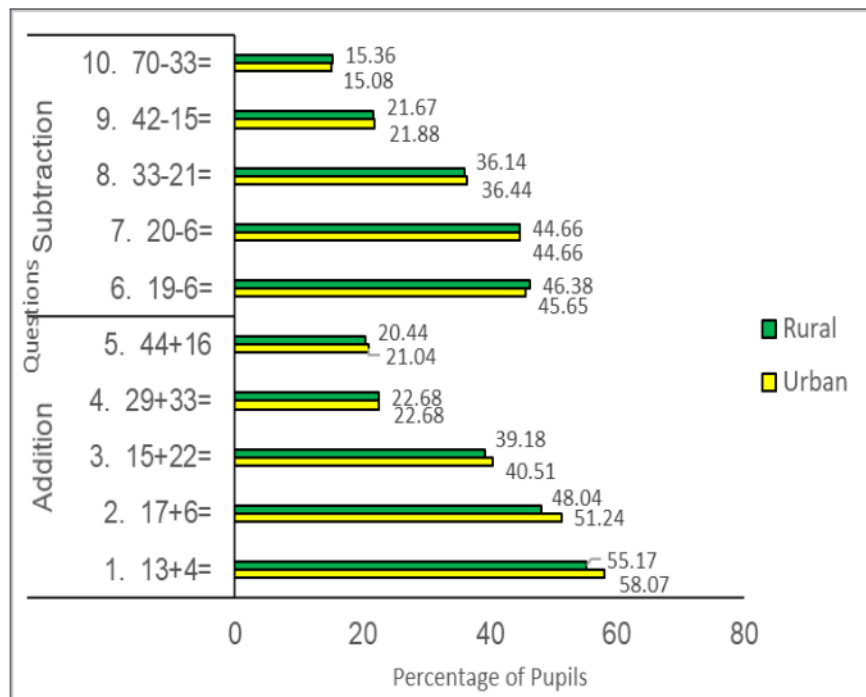
**Chart 18:** Comparison of Pupils' Performance between Urban and Rural Schools

The statistics in Chart 18 indicate that there is a difference in the performance of pupils from rural school compared to urban schools. In Missing Numbers Subtask, 68.80 per cent of pupils from urban schools had average to very good performance compared to 56.18 per cent of the pupils from

rural schools. Likewise, in solving Word Problem, pupils had average to very good performance in urban schools by 66.10 per cent when compared to 53.46 per cent in rural schools. Therefore, the pupils' performance in urban schools was better than that of rural schools.

#### 4.7.2 Comparison of Performance in Addition and Subtraction between Urban and Rural Schools

The comparison of pupils' performance on addition and subtraction subtasks was done in order to find out the variations of pupils' performance based on schools' location. The results of the findings are shown in Chart 19.



**Chart 19:** Comparison of Pupils' Performance Between Urban and Rural schools in Addition and Subtraction subtasks

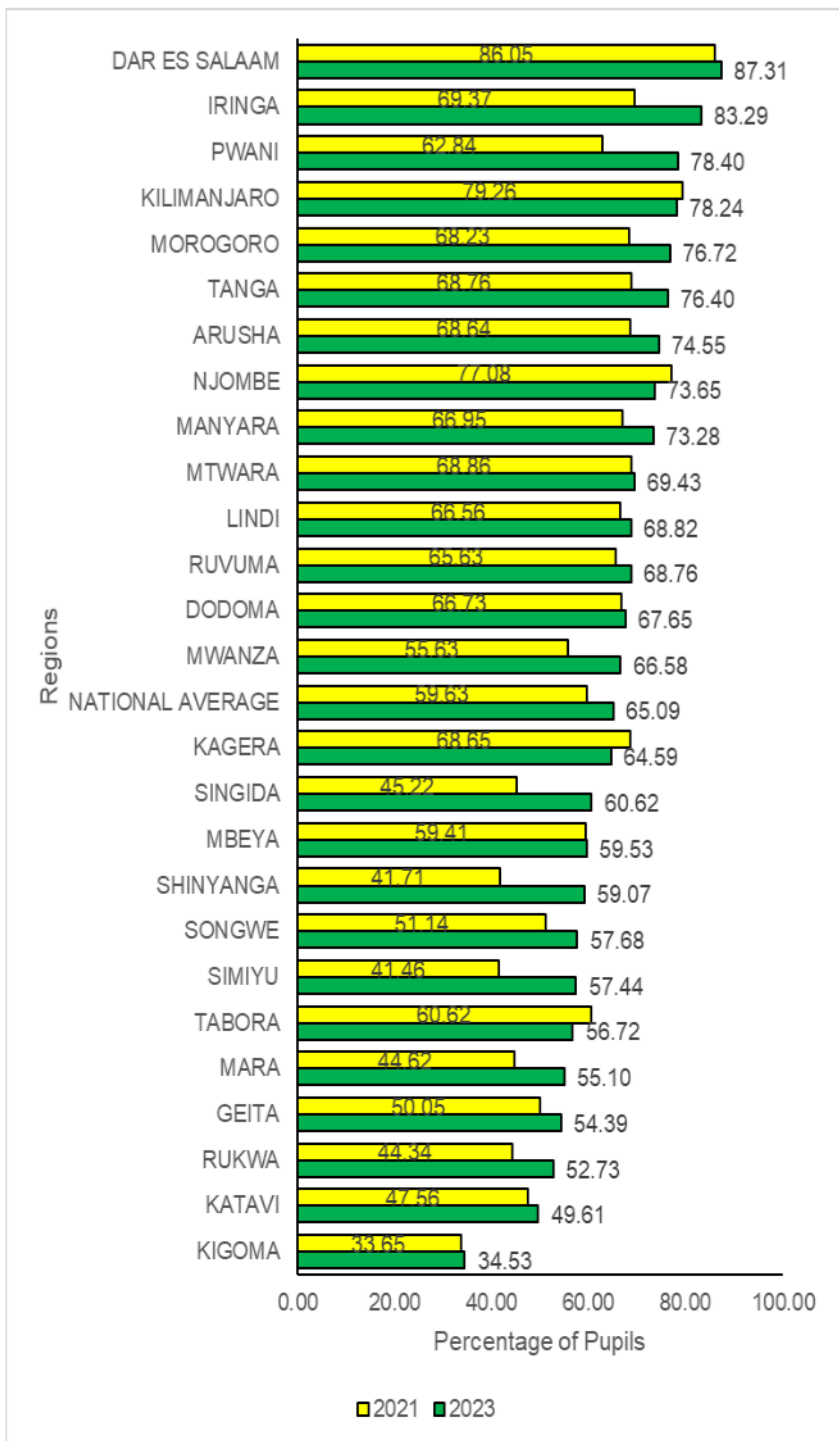
Chart 19 shows that in the Addition competence, pupils from urban schools performed better in questions 1, 2, 3, and 5 except question 4 whereby both urban and rural school pupils had average to very good performance equal to 22.68 per cent. This indicates that urban school pupils were

better in answering addition questions orally compared to rural school pupils.

Furthermore, urban pupils performed better in questions 8 and 9. The performance of urban and rural school pupils was equal by 44.66 per cent in question 7. However, rural school pupils overtook urban school pupils in questions 6 and 10. This indicates that rural pupils were better in subtracting single-digit numbers from two-digit numbers when compared to urban pupils. Additionally, rural school pupils excelled in subtracting two-digit numbers by carrying than urban school pupils.

#### **4.7.3 Comparison of Pupils' Performance in Number Identification and Solving Word Problems by Region in Year 2023 and 2021**

The comparison of pupils' performance between the years 2023 and 2021 in number identification and solving word problems subtasks was carried out in each region. This comparison considered the scoring standards in primary education assessments and examinations, where scores ranging from 13 to 50 marks were considered as average to very good performance. Additionally, pupils scoring from 0 to 12 marks were considered to have unsatisfactory performance. The comparison of performance was carried out in 26 regions with a total of 39,080 pupils participating in the assessment. The results of this comparison are shown in Chart 20.



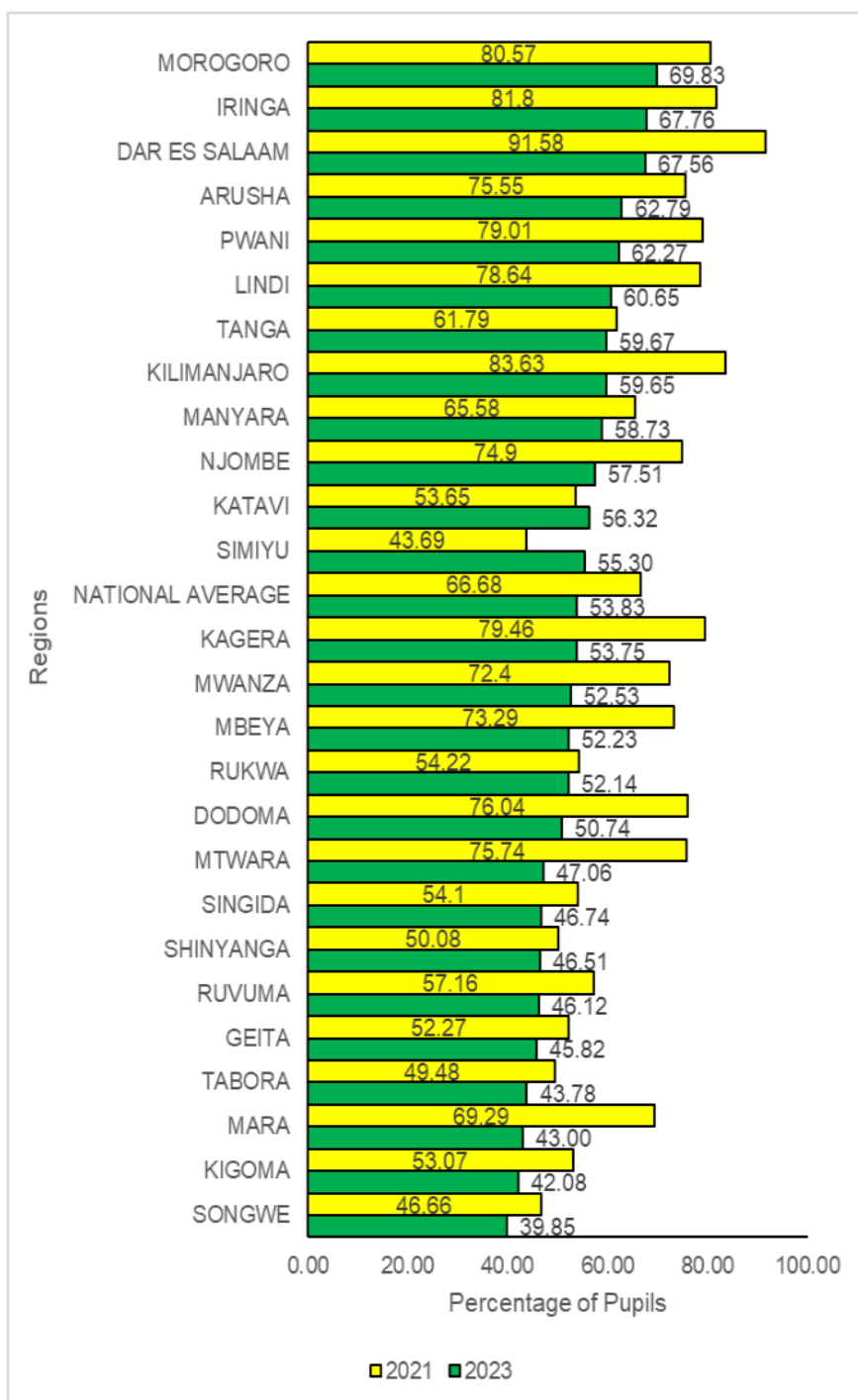
**Chart 20:** Pupils' Performance in Identifying Numbers and Solving Word Problems Regionally in 2023 and 2021

Chart 20 shows that pupils in 14 out of 26 regions had average to very good performance, which was above the national average of 65.09 per cent. These regions were Dar es Salaam, Iringa, Pwani, Kilimanjaro, Morogoro, Tanga, Arusha, Njombe, Manyara, Mtwara, Lindi, Ruvuma, Dodoma and Mwanza. Among those regions, 3 namely Dar es Salaam (87.31%), Iringa (83.29%), and Pwani (78.40%) had the highest level of performance. Furthermore, in 2021, pupils in Dar es Salaam and Kilimanjaro region had highest level of performance ranging from average to very good at 86.05% and 76.26% respectively. However, pupils in Mwanza region had a performance level ranging from average to very good, which was below the national average of 59.96 per cent.

In 2023, pupils in 12 regions which were Kigoma (33.65%), Katavi (47.56%), Rukwa (52.73%), Geita (54.39%), Mara (55.10%), Tabora (56.72%), Simiyu (57.44%), Songwe (57.68%), Shinyanga (59.07%), Mbeya (59.53%), Singida (60.62%) and Kagera (64.59%) had average to very good performance which was below the national average. Additionally, in 2021, pupils in these regions had performance levels that were below the national average except for Kagera and Tabora regions which had 68.65 and 60.62 per cent respectively. Furthermore, Kigoma region remained the lowest-performing region as was the case in 2021.

#### **4.7.4 Comparison of Pupils' Performance in Addition and Subtraction by Region**

In this section, the comparison of pupils' performance focused on assessments for Standard Two pupils in 2023 and 2021. The comparison involved the number of pupils who scored from 5 to 20 marks in addition and subtraction subtasks. A summary of the regional comparison of pupils' performance in 2023 and 2021 is presented in Chart 21.



**Chart 21:** Comparison of Pupils' Performance in Addition and Subtraction Subtasks Regionally

Chart 21 shows that in the 2023 assessment, Morogoro region had the highest performance level compared to other regions. In this region, 69.83 percent of the pupils had average to very good performance. Other regions which demonstrated average to very good performance were Dar es Salaam (67.56%), Iringa (67.76%), Arusha (62.79%), Pwani (62.27%), Lindi (60.65%), Tanga (59.67%), Kilimanjaro (59.65%), Manyara (58.73%), Njombe (57.51%), Katavi (56.32%), and Simiyu (55.30%).

The comparison of performance between the assessments in 2021 and 2023 indicates that in 2021, four regions had average to very good performance, which was below the national average, but in 2023, the regions had average to very good performance above the national average. The regions whose pupils' performance improved along with their percentage increase were Katavi (2.67%), Simiyu (11.61%), Manyara (6.85%), and Tanga (1.92%).

However, 14 regions, namely Kagera (53.75%), Mwanza (52.53%), Mbeya (52.27%), Rukwa (52.14%), Dodoma (50.74%), Mtwara (47.06%), Singida (46.74%), Shinyanga (46.51%), Ruvuma (46.12%), Geita (45.82%), Tabora (43.78%), Mara (43.00%), Kigoma (42.08%), and Songwe (39.85%) had the performance that was below the national average.

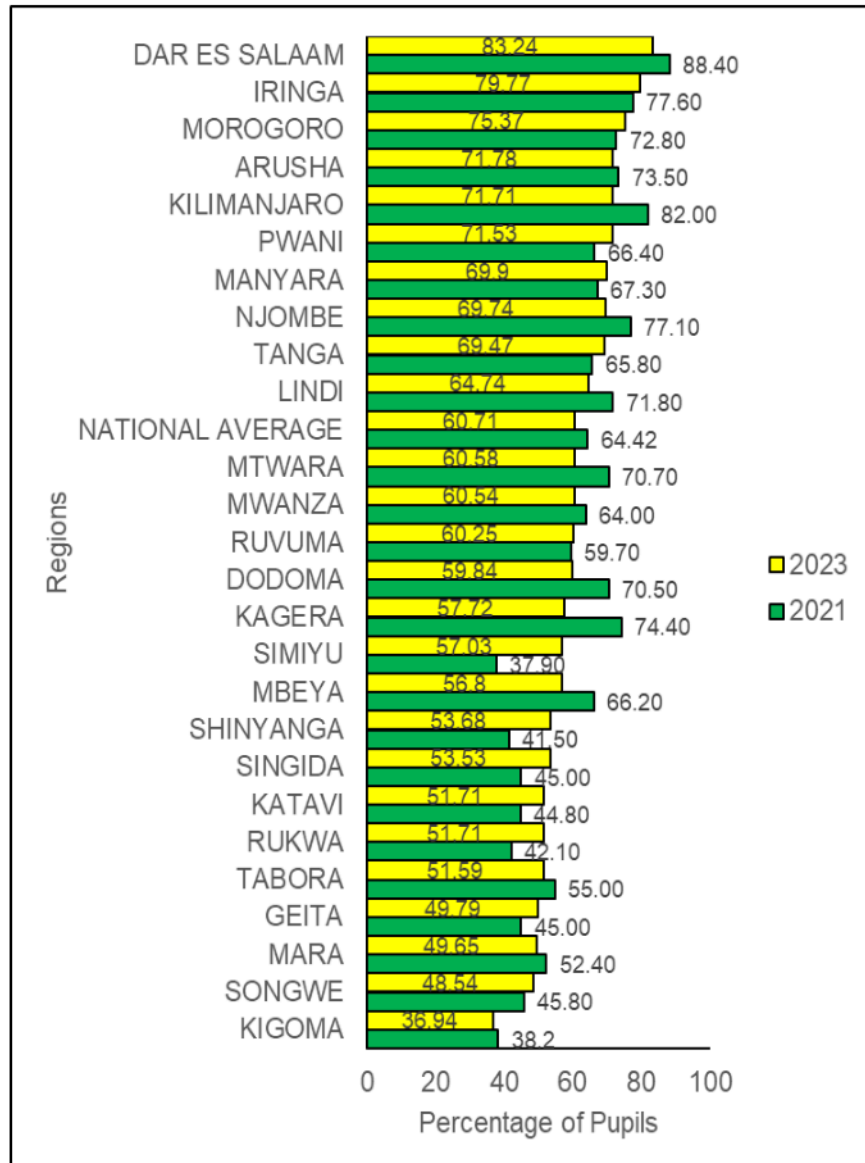
The analysis of the comparison shows that in 2021, six regions, namely Kagera, Mwanza, Mbeya, Dodoma, Mara, and Mtwara, had average to very good performance above the national average. However, in 2023, these regions had the performance below the national average by 0.8, 1.30, 1.60, 3.09, 10.89 and 6.75 per cent respectively.

Further analysis shows that seven regions, namely Rukwa, Singida, Shinyanga, Ruvuma, Geita, Tabora, Kigoma, and Songwe, consistently performed below the national average over the two years. Additionally, Songwe region was ranked last compared to other regions.

#### **4.7.5 Pupils' Overall Performance by Region**

The comparison of pupils' performance between 2023 and 2021 was conducted for all 26 regions, where a total of

37,920 pupils were assessed. This comparison focused on pupils who scored between 13 and 50 marks, representing average to very good performance. The assessment results are displayed in Chart 22.



**Chart 22:** Overall Comparison of Pupils’ Performance Regionally

Chart 22 shows that the national average performance for the year 2023 was 60.71 per cent compared to 61.42 per

cent in 2021. The pupils in 10 regions out of 26, including Dar es Salaam (83.24%), Iringa (79.77%), Morogoro (75.37%), Arusha (71.76%), Kilimanjaro (71.71%), Pwani (71.53%), Manyara (69.90%), Njombe (69.74%), Tanga (69.47%), and Lindi (64.74%) had the highest percentage of pupils with average to very good performance. With these results, pupils in Dar es Salaam region continued to maintain the first position as was the case in 2021.

On the other hand, pupils in Kigoma (36.94%), Songwe (48.54%), Mara (49.65%), Geita (49.74%), Tabora (51.59%), Rukwa (51.71%), Katavi (51.71%), Singida (53.53%), Shinyanga (53.68%), Mbeya (56.80%), Simiyu (57.03%), Kagera (57.72%), Dodoma (59.84%), Ruvuma (60.24%), Mwanza (60.54%), and Mtwara (60.58%) regions had average to very good performance below the national average.

#### **4.8 Summary of the Performance in Arithmetic Skills**

During the Arithmetic Skills assessment, pupils were assessed on questions related to four competences namely Identifying Missing Numbers, solving word problems, addition and subtraction Subtasks. All questions involved the use of whole numbers.

Following the analysis of the Arithmetic Skills in identifying missing numbers, it was found that 23,945 pupils, (61.39%) had average to very good performance. These pupils excelled in answering questions whose sequences increased by 1 and 10. However, they faced difficulties in answering questions whose sequences decreased by 3 and 4. This shows that they were incompetent in identifying missing numbers in decreasing sequences when compared to those in increasing ones.

In the competence that involved addition of numbers, 20,805 pupils (53.24%) demonstrated performance ranging from average to very good. These pupils excelled in adding

one digit numbers to two-digit numbers. Additionally, they were able to add numbers with two digits without carrying. However, they showed unsatisfactory performance in answering questions that required carrying 1 from the ones place to the tens place.

Regarding subtraction questions, 18,407 pupils (47.10%) demonstrated performance ranging from average to very good. These pupils excelled particularly in subtracting a single-digit number from a two-digit number. They were also competent in subtracting two-digit numbers from two-digit numbers without borrowing. Conversely, their performance was unsatisfactory in subtracting two-digit numbers that involved borrowing.

Furthermore, in questions that assessed solving word problems 16,698 (42.86%) pupils had average to very good performance. These pupils excelled in solving word problems that did not involve carrying over when adding or borrowing from ones to tens during subtraction. However, they had trouble in subtracting two-digits numbers by borrowing.

Generally, in the Arithmetic study, 23,726 pupils (60.70%) had average to very good performance. This indicates that pupils were able to identify missing numbers in a sequence that was increasing by 1 and 10; add two-digits numbers and single digit number as well as adding two-digit numbers without carrying; subtract a single digit from a two-digit number and subtract a two-digit number from a two-digit number without borrowing, and finally, solve word problems that did not require carrying during addition or borrowing 1 from the tens place during subtraction. On the other hand, 39.29% of pupils had unsatisfactory performance due to lack of skills in reading and writing numbers, adding numbers by carrying and subtracting numbers by borrowing, as well as solving word problems.

## CHAPTER FIVE

### THE TEACHING AND LEARNING CONDITIONS FOR READING, WRITING AND ARITHMETIC SKILLS (3Rs) IN SCHOOLS

#### 5.1 Introduction

This chapter describes the actual situation of teaching and learning by looking at the teaching environment in schools. It also assesses the availability of teaching and learning materials and the challenges that prevail during the teaching of 3Rs in schools.

#### 5.2 Sources of Data on the Teaching and Learning of 3Rs in Schools

The questionnaires were used to obtain information about teaching and learning resources for 3Rs. Questionnaires were administered to head teachers to explore on the realities of the teaching and learning environment. The availability of teaching and learning materials, teachers, and other resources. Moreover, the questionnaires were prepared to explore the challenges and collect opinions for improving the teaching and learning of 3Rs.

#### 5.3 General Information on Schools

A total of 524 (100%) head teachers responded to the questionnaires that aimed at obtaining information on the teaching and learning of 3Rs in schools. Among them, 241 (46.35%) had undergone training in teaching and learning 3Rs and 279 (53.65%) were not trained on teaching 3Rs. Those head teachers indicated the presence of 672 teachers who teach Standards II. Moreover, the head of schools portrayed presence of one to more than five streams in their schools. Schools with one stream were 143 (27.50%), two streams were 171 (32.89%), three were 71 (13.65%), four were 49 (9.42%), five were 35 (6.73%), more than five streams were 48 (9.23%).

Among the 524 head of schools three did not provide information about the number of streams in their schools.

#### 5.4 Availability of Teaching and Learning Materials and Resources

The information on the availability of textbooks, supplementary books as well as teaching and learning materials for Arithmetic, Writing and Reading skills were obtained from the heads of schools interviewed. The availability of teaching and learning materials was categorized into five groups, namely unsatisfactory, below average, average, good and very good as presented in Table 9.

**Table 9: Availability of Teaching and Learning Materials**

S/N	Item	Poor (%)	Average (%)	Good (%)	Very Good (%)	Total No. of Respondents	Total % (Average to Very Good)
(i)	Availability of textbooks for teaching and learning Arithmetic skills.	17.18	44.08	34.92	3.82	524	82.82
(ii)	Availability of supplementary books for teaching and learning Arithmetic skills.	26.98	41.23	27.55	4.24	519	73.02
(iii)	Availability of resources for teaching and learning Arithmetic skills such as counting aids and other resources.	17.11	39.81	35.58	7.50	520	82.89
(iv)	Availability of materials for teaching Writing skills such as writing boards (slates) and other resources.	33.85	40	23.85	2.30	520	66.15
(v)	Availability of textbooks for teaching Reading skills.	17.40	38.05	38.24	6.31	523	82.60
(vi)	Availability of materials aimed at developing pupils' Reading skills such as short story books.	9.09	29.01	45.45	16.45	517	90.91

In all, 524 participants responded to items on the availability of textbooks for teaching Arithmetic skills, as indicated in Table 9. The findings suggest a good supply of textbooks for the teaching and learning of Arithmetic, with 82.82 percent of the respondents expressing positive perceptions. On the Availability of resources for teaching and learning Arithmetic skills such as counting aids and other resources, 82.89 percent of the respondents considered the availability to be good. On the other hand, 73.02 percent of the participants supported positive on the availability of supplementary books for teaching Arithmetic Skills.

Furthermore, it emerged that the supply of textbooks for teaching and learning Reading Skills in schools was reportedly as good, according to 82.6 percent of the respondents. The data also indicate a good availability of reading books such as short story books as teaching resources, with 90.91 percent of the respondents indicating their availability.

The survey also investigated the availability of teaching and learning materials for writing skills such as writing boards and slates and other resources. The findings indicate that 66.15 percent of the respondents rated the availability in a range of average to very good.

## **5.5 Teaching and Learning Environment for 3Rs**

The information about teaching and learning environments were obtained through questionnaires in schools where assessment was conducted. The information is presented in Table 10.

**Table 10: Teaching and Learning Environments**

S/N	Item	Poor (%)	Average (%)	Good (%)	Very Good (%)	Total No. of respondents	Total % Average to Very good
(i)	Availability of desks, tables and chairs for pupils and teachers.	21.75	37.60	34.35	6.30	524	78.25
(ii)	Adequacy of classrooms relative to the number of pupils in Standards I and II.	38.89	30.73	23.85	6.87	524	61.45
(iii)	Availability of water sources for the pupils to drink and sanitation.	24.17	28.65	33.72	13.45	513	75.83

The data presented in Table 10 shows that there was a good availability of desks, tables and chairs for pupils and teachers, representing 78.25 percent of all the respondents. In response to the question about the adequacy of classrooms relative to the number of pupils in standards I and II, 524 Heads of schools provided feedback. The data indicate that 61.45 percent of the respondents reported positively about the availability of classrooms. Furthermore, an evaluation on the availability of water sources for pupils to drink and for sanitation purposes revealed that 75.83 percent reported a good supply of water sources.

## 5.6 Factors Affecting the Teaching and Learning of 3Rs

Heads of School were also enquired through the questionnaire to give the current situation on the challenges impeding the teaching and learning of the 3Rs (Reading, Writing and Arithmetic). The enquiry was based on a predetermined list of items, including distance from home to school, absenteeism, pupil-teacher ratio, receiving incompetent pupils in 3Rs from other schools and the shortage of teaching and learning materials. Table 11 summarises the results on the factors affecting the teaching and learning of the 3Rs.

**Table 11: Factors Affecting the Teaching and Learning of 3Rs**

<b>S/N</b>	<b>Item</b>	<b>Number of Respondents</b>	<b>Percentage</b>
1.	Distance from home to school.	256	48.8
2.	Unsatisfactory pupils' attendance.	278	53.0
3.	Shortage of 3Rs teachers in comparison to teacher-pupils ratio.	420	80.1
4.	Transferred- in pupils with low 3Rs Skills.	334	63.7
5.	Shortage of teaching and learning materials like books in comparison to book-pupils ratio.	319	60.8

As Table 11 illustrates, the main factor affecting the teaching and learning of the 3Rs in schools included the shortage of 3Rs teachers particularly in terms of the prohibitive teacher-pupils' ratio as identified by 80.15 percent of the respondents. On the contrary, distance from home to school was the least factor identified to affect the teaching and learning of the 3Rs as reported by 48.85 percent of the respondents. Other factors posed only a moderate effect in the teaching and learning of 3Rs.

# CHAPTER SIX

## CONCLUSION AND RECOMMENDATIONS

### 6.1 Introduction

This chapter provides the conclusion of the assessment results on Reading, Writing, and Arithmetic Skills 3Rs 2023 for standard II pupils. It also provides the recommendations regarding areas to be improved and ways to implement these improvements for educational stakeholders.

### 6.2 Conclusion

The statistics show that pupils had good performance in Reading, Writing, and Arithmetic skills, as 76.05 per cent of the pupils passed.

The analysis of the pupils' performance in assessing Reading skills indicates that pupils had performance ranging from average to very good by 76.75 per cent. These pupils were able to read fluently 13 to 50 words in a minute. Additionally, they correctly answered 2 to 5 comprehension questions. On the other hand, 23.25 per cent of pupils had unsatisfactory performance because they were unable to read fluently and failed to comprehend the passage of 50 words, thus failing to correctly answer the comprehension questions asked. For example, they struggled with reading words containing consonant clusters such as 'walikwenda,' 'hospitali,' and 'alimpeleka.' Additionally, some pupils failed to read words which were made up of 'r' and 'l' sounds for example words like 'mara' and 'kelele,' as well as the word 'ameng'atwa' which is made up of a nasal sound.

Regarding the Writing skills, the analysis shows that 27,083 pupils (67.40%) had average to very good performance. These pupils were able to identify pictures and write the names of the pictures. Additionally, they correctly wrote 3 to 10 words in capital letters and correctly copied 6 to 16 words

from a passage using 1 to 4 punctuation marks. On the other hand, 11,874 pupils (32.60%) had unsatisfactory performance due to their inability to identify pictures and write the appropriate names of the given pictures. Furthermore, they failed to write words in capital letters and copy a passage using correct punctuation marks.

In the Arithmetic skills, 23,517 pupils (58.52%) had average to very good performance. These pupils were able to identify the missing number in a sequence increasing by 1 and 10; add two-digit numbers to single-digit numbers; add two-digit numbers without carrying; subtract single-digit numbers from two-digit numbers and subtract two-digit numbers from two-digit numbers without borrowing. Additionally, they were able to solve word problems that did not require carrying when adding or borrowing when subtracting. On the other hand, 41.48 per cent of pupils had unsatisfactory performance due to lack of skills to recognize missing numbers, inability to add and subtract with carrying and borrowing, as well as difficulty in solving word problems.

The comparative statistics at the regional level show that the regions with average to very good performance which were above the national average (75.29%) were Iringa (93.15%), Njombe (92.12%), Dar es Salaam (90.68%), Kilimanjaro (86.63%), Arusha (84.91%), Tanga (84.81%), Pwani (83.95%), Dodoma (81.54%), Manyara (81.46%), Morogoro (80.61%), Mbeya (79.78%), Lindi (78.81%), and Mtwara (75.63%). Iringa region was ranked first nationally when compared to 2021, where Dar es Salaam region held a similar position.

In the Reading skills, Njombe region with (93.68%) was ranked first followed by Iringa with (93.05%) while Dar es Salaam region (92.77%) was ranked to be in the third position. In the Writing and Arithmetic skills, Dar es Salaam region was ranked to be the first position with 92.41 and 83.2

per cent respectively, followed by Iringa with 88.47 and 79.8 per cent respectively.

However, Ruvuma with (74.30%), Mwanza with (73.13%), Singida with (73.08%), Kagera (71.65%), Songwe (69.95%), Shinyanga with (66.45%), Mara with (65.93%), Tabora (64.66%), Rukwa (64.29%), Geita (64.19%), Katavi (63.43%), Simiyu with (63.40%), and Kigoma (49.04%) had average to very good performance below averages national wise. In 2021, Kigoma region ranked last, followed by Katavi region, and then Simiyu region, which continued to hold the second-to-last position. Additionally, Ruvuma and Kagera regions were above the national average in terms of performance in 2021, but in 2023, they performed below average national wise.

Generally, 78.15 per cent of girls had better performance, ranging from average to very good, in all the three skills assessed than 73.93 per cent of boys. In the Reading skills, girls had average to very good performance of 81.30 per cent while boys had the performance of 76.52 percent. In the Writing skill, girls (79.41%) had better performance than boys (67.70%) and in the Arithmetic skills, the girls' performance was 60.88 per cent compared to 60.54 per cent of boys.

Moreover, urban pupils outperformed their rural counterparts. In the Reading skills, urban school pupils had average to very good performance of 85.10 per cent, while rural school pupils had the performance of 74.60 per cent. In the Writing skill, urban school pupils had a performance of 79.38 per cent when compared to 62.63 per cent of the rural schools. Similarly, in Arithmetic skills, the performance of rural school pupils was 59.17 per cent while urban pupils were 68.07 per cent.

### 6.3 Recommendations

The findings show that the pupils' performance for Writing and Arithmetic skills dropped. In order to improve the performance for reading, writing and arithmetic, the following recommendations are made:

- (a) Teachers who teach Arithmetic skills should improve teaching methods that involve pupils to enhance understanding particularly in addition by carrying and subtraction by borrowing.
- (b) Studies show that pupils learn well the addition, subtraction and solving word problem competences using real objects such as bottle caps, sticks, grains, and abacuses. Hence, there is a need of improving teaching and learning strategies.
- (c) In Arithmetic skills, teachers should provide sufficient exercises to build pupils' ability to recognize numbers before and after in the sequence of numbers. Additionally, pupils should be equipped with the skill of arranging numbers in ascending and descending order to identify the missing number in a sequence of numbers. Hence pupils will acquire better the skills needed in Arithmetic.
- (d) Teachers should encourage pupils to use Kiswahili to avoid learners writing certain words in native languages (mother tongues). As was evidenced by 'pyagiyo' instead of 'fagio' in the writing skills. Additionally, the use of teaching and learning tools along with songs should be employed to build long term memory for the pupils, for example, recognizing pictures and their respective names in the Swahili language. Furthermore, teachers should provide immediate feedback to pupils, monitor the formation of letters, and the use of punctuation marks to build the pupils' competence in copying passages of few words and placing punctuation marks correctly.

- (e) Teachers should put more emphasis on reading words made up of nasal sounds (“ng”).
- (f) Teachers should put more emphasis on correcting pupils when pronouncing words so that they should not pronounce single syllable. Instead, they should pronounce the whole word. For example, ‘Kisu,’ instead of ‘ki-su.’ This will enable them to read words correctly at the required speed.
- (g) A teacher who teaches Reading Skills should guide pupils to read fifty words at the required speed in one minute. Also, when assessing the reading competence, they should use the passage with fifty words and should consider the time of one minute.
- (h) In the reading and arithmetic skills, it is important to put more emphasis on reading and solving questions using tablets to equip both pupils and teachers with experience before the administration of Standard Two National Assessment.

