

**THE ACHIEVEMENT OF PRIMARY SCHOOL PUPILS AND TEACHERS IN UGANDA IN  
NUMERACY AND LITERACY IN ENGLISH**

**A SUMMARY OF 2015 NAPE REPORT**

## 1.0 INTRODUCTION

This is a summary report on the achievement of pupils and teachers in the 2015 NAPE survey. The summary gives a brief description of testees, subjects assessed, sample and achievement of P 3, P 6, in-service teachers, pre-service teachers and tutors in Numeracy and Literacy in English.

## 1.2 TESTEES

The assessments were administered to pupils of Primary 3 (P 3) and Primary 6 (P 6). In addition, the P 6 tests were administered to In-service teachers, Pre-service teachers and Primary Teachers' College (PTC) tutors.

## 1.3 SUBJECTS ASSESSED

The subject areas assessed were as follows:

- Numeracy
- Literacy in English

It should, however, be noted that In-service teachers and Tutors sat for the subject areas they teach/lecture while Pre-service teachers sat for both tests.

## 1.4 SAMPLE SIZE

The national sample size for the pupils and In-service teachers consisted of 1250 primary schools, with representation from all the 112 districts in the country (Appendix 1). A random sample of 20 pupils was obtained from each of P 3 and P 6 classes in the selected schools, while teachers of Numeracy and Literacy in English from both P 3 and P 6 classes comprised the national sample. In some cases, the teachers were the same class-wise (*teaches Literacy in English or Numeracy at both P 3 and P 6*) and subject-wise (*teaches both Literacy in English and Numeracy at either P 3 or P6 class*).

All the second year students (*Pre-service teachers*) from all the 54 PTCs in this country and their respective Tutors of Literacy in English and Numeracy were included in the sample.

TABLE: 1.01 NUMBER OF PUPILS AND TEACHERS IN THE ACHIEVED SAMPLE, BY GENDER

Category of testees	Males		Females		All	
	N	Percentage	N	Percentage	N	Percentage
Primary 3	12,447	51.8	11,597	48.2	24,044	100
Primary 6	11,448	50.4	11,284	49.6	22,732	100
In-service	2,723	65.0	1,467	35.0	4,190	100
Pre-service	3,482	42.7	4,673	57.3	8,155	100
Tutors	115	70.1	49	29.9	164	100

In all, there were 24,044 P 3 pupils and 22,732 P 6 pupils in the sample. In addition, there were 4,190 in-service teachers, 8,155 pre-service teachers and 164 tutors.

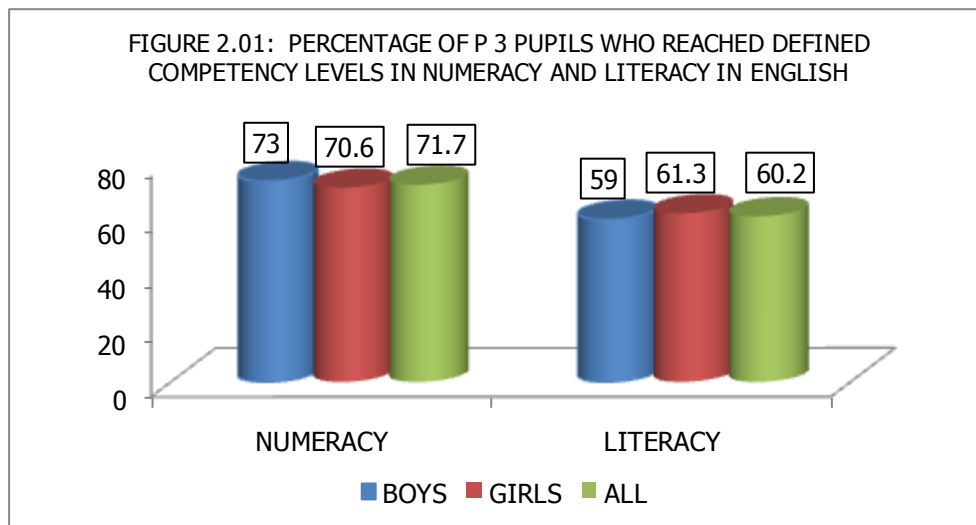
## 2.0 ACHIEVEMENT OF P 3 PUPILS

This section presents the achievement of P 3 pupils in Numeracy and Literacy in English. The overall level of achievement in the two subject areas is presented first, followed by achievement in the various competencies. Then achievement is also reported by school ownership, district and over the years 2007 – 2015.

### 2.1 OVERALL LEVEL OF ACHIEVEMENT OF P 3 PUPILS IN NUMERACY AND LITERACY IN ENGLISH

This section describes the performance of P 3 pupils in Numeracy and Literacy in English by gender.

Figure 2.01 gives a comparison of the percentage of P 3 pupils reaching the defined level of proficiency in Numeracy and Literacy in English by gender.



Nearly three quarters (71.7%) of the P 3 pupils reached the defined competency level in Numeracy. The P 3 pupils who reached the defined competency level in Literacy in English were 60.2%. The differences in the proportions of boys and girls with this rating in both Literacy in English and Numeracy were not statistically significant.

### 2.2 ACHIEVEMENT OF P 3 PUPILS IN COMPETENCIES OF NUMERACY AND LITERACY IN ENGLISH

This section highlights the performance of P 3 pupils in selected competencies assessed in the Numeracy and Literacy in English tests. The arrow attached to each figure was assigned specific meaning: The arrow facing up (↑) represents competencies in which at least three quarters of the pupils were rated proficient. The arrow facing sideways (→) represents competencies in which at least a half, but less than three quarters of the pupils reached the desired proficiency. Lastly,

the arrow facing the bottom (↓) consists of competencies in which less than a half of the pupils attained the desired rating.

### 2.2.1. Achievement of P 3 Pupils in Numeracy by Topical Areas.

This sub-section is a presentation of the P 3 pupils' performance in Numeracy by Topical Areas.

Table 2.01 shows the percentages of P 3 pupils rated proficient in Numeracy by Topical areas.

TABLE 2.01: PERCENTAGE OF P 3 PUPILS RATED PROFICIENT IN NUMERACY BY TOPICAL AREAS

TOPICAL AREA	BOYS	GIRLS	ALL
Associating objects	↑ 99.1	↑ 99.2	↑ 99.2
Counting	↑ 98.2	↑ 98.1	↑ 98.1
Identifying place value	↑ 82.7	↑ 81.7	↑ 82.2
Completing sequences and sorting	→ 70.7	→ 69.3	→ 69.9
Graphs and Interpretation	→ 56.7	→ 58.9	→ 57.8
Statistics	→ 56.7	→ 58.9	→ 57.8
Fractions and forming sets	→ 51.5	→ 56.0	→ 53.8
Measures	↓ 49.7	↓ 42.6	↓ 46

P 3 pupils performed best in the topic of 'Associating objects' with nearly all the pupils (99.2%) reaching at or above the desired proficiency level. This was followed by 'counting objects and figures in ones, fives and tens' and 'identifying place value'. In the other topics, apart from place values, fewer than 3 in 4 pupils attained the desired rating.

The boys' and girls' performance was comparable in most of the topics. However, while the girls performed significantly better than the boys in 'Fractions and forming sets' the converse was true in the topic of 'Measures'.

### 2.2.2 Achievement of P 3 Pupils in Selected Competencies of Numeracy

This sub-section is a presentation of the P 3 pupils' performance in selected competencies of Numeracy. Table 2.02 shows the percentages of P 3 pupils who were competent in 'associating objects', 'identifying place value' and 'counting'. Then Table 2.03 shows the percentages of P 3 pupils competent in 'operations on numbers'.

TABLE 2.02: PERCENTAGE OF P 3 PUPILS RATED PROFICIENT IN ASSOCIATING OBJECTS, IDENTIFYING PLACE VALUE AND COUNTING

COMPETENCIES	BOYS	GIRLS	ALL
Associating objects to equal number of objects	↑ 99.3	↑ 98.3	↑ 99
Counting objects in ones	↑ 97.7	↑ 98	↑ 97.8
Counting objects in tens	↑ 97.8	↑ 98	↑ 97.8
Associating objects to their corresponding number in figures	↑ 96.6	↑ 97.5	↑ 97
Counting in fives	↑ 92.8	↑ 90	↑ 91.3
Showing a three digit number on an abacus	↑ 90.4	↑ 88.5	↑ 89.4
Associating figures to its name in words	↑ 84.0	↑ 85.6	↑ 84.8
Identifying place value on an abacus	→ 68.5	→ 69.3	→ 69
Identifying place value on a number	→ 66.8	→ 66.5	→ 66.7
Counting in words	→ 55.1	→ 56.8	→ 56
Writing number symbols from words	↓ 48.8	↓ 49.0	↓ 48.8

More than 90% of the P 3 pupils were able to associate objects to equal number of objects or their corresponding number in figures, as well as count objects in ones, fives and tens. Whereas over three quarters of the pupils (89.4) could show a three digit number on an abacus, fewer than 3 in 4 could identify place value on an abacus/number as well as count in words. P 3 pupils exhibited the lowest performance in 'writing number symbols from words', where only 48.8% reached the desired proficiency level. The proportions of boys and girls reaching at or above the threshold proficiency were comparable.

TABLE 2.03: PERCENTAGE OF P 3 PUPILS RATED PROFICIENT IN OPERATIONS ON NUMBERS

COMPETENCIES	BOYS	GIRLS	ALL
Adding a 2-digit number to at least a 1-digit number	↑ 88.4	↑ 81.5	↑ 84.8
Subtracting a 1-digit number from at least a 1-digit number without borrowing	↑ 78.5	→ 69.9	→ 74
Sharing objects	→ 57.7	→ 60.4	→ 59.1
Multiplying a 1- digit number by 1-digit number vertically/ horizontally	→ 61	→ 56.5	→ 58.7
Dividing a number less/ greater than 20 by 1-digit number	→ 56.4	→ 52.8	→ 54.5
Applying addition in daily life	↓ 31.7	↓ 26.7	↓ 29.1
Adding two 2-digit numbers with carrying	↓ 32.2	↓ 25.1	↓ 28.5
Applying subtraction in novel situations	↓ 30.4	↓ 23.3	↓ 26.7
Multiplying using tables	↓ 22.2	↓ 19.8	↓ 21

In 'operations on numbers', best performance was exhibited in adding a 2-digit number to at least a 1-digit number without carrying. This was followed by 'subtracting a 1-digit number from at least a 1-digit number without borrowing. Then sharing objects (59.1%) came next followed by multiplying a 1- digit number by a 1- digit number vertically/ horizontally where 58.7% of the pupils reached at or above the threshold proficiency. Less than a third (29.1%) of the pupils could apply addition in daily life. Similarly, just only 21.0% of the pupils' demonstrated competence in multiplying using multiplication tables.

Apart from 'sharing of objects' where more girls than boys were rated proficient, more boys than girls reached at or above the threshold proficiency in all the competencies of 'operation on numbers'.

### 2.2.3. Achievement of P 3 Pupils in Competencies of Literacy in English

The percentages of P 3 pupils who were competent in Reading Comprehension and Writing are shown in Tables 2.04 and 2.05, respectively.

TABLE 2.04: PERCENTAGE OF P 3 PUPILS RATED PROFICIENT IN SELECTED COMPETENCIES OF READING COMPREHENSION

COMPETENCIES	BOYS	GIRLS	ALL
Reading and completing words.	→ 73.7	↑ 77.7	↑ 75.6
Reading and comprehending a story.	→ 62.9	→ 70.2	→ 66.4
Reading and completing sentences.	→ 56.6	→ 62.6	→ 59.5
Identifying capital letters.	↓ 38.1	↓ 42.2	↓ 40.1
Reading and describing activities in a picture.	↓ 24.5	↓ 30.2	↓ 27.3

Three quarters of the pupils (75.6%) were able to read and complete given words. About two thirds (66.4%) of the pupils could read and comprehend a story. Nevertheless, only 27.3% of the pupils were able to read and describe activities in a picture. Girls were better than boys in all the competencies of Reading Comprehension.

TABLE 2.05: PERCENTAGE OF P 3 PUPILS RATED PROFICIENT IN SELECTED COMPETENCIES OF WRITING

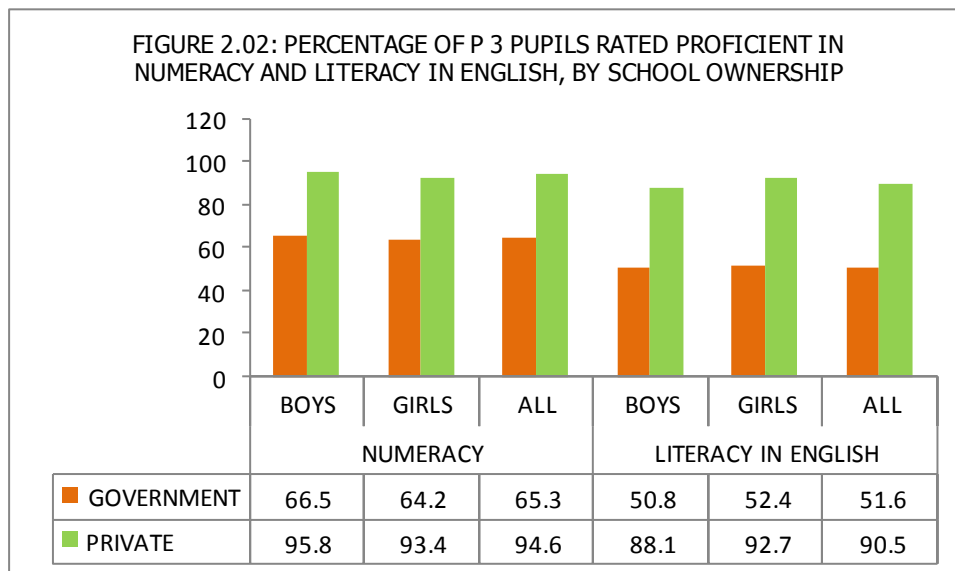
COMPETENCIES	BOYS	GIRLS	ALL
Writing letters of the alphabet.	↑ 88.5	↑ 89.9	↑ 89.2
Copying a story.	↑ 78.6	↑ 83.4	↑ 80.9
Writing sentences.	→ 56.7	→ 61.6	→ 59.1
Naming objects in pictures.	↓ 34.8	↓ 37.9	↓ 36.3

Majority of P 3 pupils could write letters of the alphabet (89.2%) and (80.9%) could copy a story correctly, respectively. On the other hand, only 36.3% of the pupils proved capable of naming objects in pictures. Girls were better than boys in all the competencies of Writing. The gender differences were statistically significant in 'copying a story' and 'writing sentences'.

### 2.3 ACHIEVEMENT OF P 3 PUPILS IN NUMERACY AND LITERACY IN ENGLISH BY SCHOOL OWNERSHIP

This section presents the performance of P 3 pupils in Numeracy and Literacy in English by school ownership.

The percentage of P 3 pupils reaching defined competency levels in Numeracy and Literacy in English by school ownership is shown in Figure 2.02.



In both Numeracy and Literacy in English, over 90% of the P 3 pupils from private schools reached the desired level of proficiency. Their counter parts from the government schools who acquired

the same level of proficiency in Numeracy were 65.3% and 51.6% in Literacy in English. The girls from private schools performed significantly better than the boys.

## **2.4 ACHIEVEMENT OF P 3 PUPILS IN NUMERACY AND LITERACY IN ENGLISH BY DISTRICT**

In this section, the achievement of P 3 pupils in Numeracy and Literacy in English by district is described. The districts were grouped using the following colours: 'Green', 'Yellow' and 'Red'. The 'Green' colour is for those districts where 75% and above of the P 3 pupils were rated proficient. The districts categorized as 'Yellow' are those in which at least a half, but less than three quarters of the P 3 pupils attained the desired rating. Districts in 'Red' are those where less than a half of the pupils reached the desired proficiency level. 'Red' districts with an asterisk (\*) had less than a quarter of the pupils rated proficient.

### **2.4.1 Achievement of P 3 Pupils in Numeracy by District**

This sub-section describes the performance of P 3 pupils in Numeracy by district.

Table 2.06 shows the categorization of the districts according to the percentages of pupils rated proficient in Numeracy.



TABLE 2.06: CATEGORIZATION OF DISTRICTS ACCORDING TO THE PERCENTAGES OF P 3 PUPILS RATED PROFICIENT IN NUMERACY

GREEN	Bukomansimbi 99.8	Bushenyi 99.7	Sembabule 99.5	Sheema 99.5	65 58 ..
	Mbarara 99.3	Kiruhura 99	Buhweju 98.8	Masaka 98.7	
	Luweero 98.1	Kalangala 97.6	Isingiro 97.5	Buikwe 97.3	
	Mitooma 97.3	Rubirizi 97.1	Wakiso 97	Kalungu 96	
	Lantonde 95	Ntungamo 95	Kampala 94.2	Mukono 94.1	
	Ibanda 93.8	Rukungiri 92.2	Butambala 91.3	Nakaseke 91	
	Yumbe 90.7	Ntoroko 90.5	Mbale 88.1	Adjumani 88.1	
	Kiboga 87.8	Rakai 87.8	Iganga 86.8	Jinja 86.8	
	Zombo 86.7	Kibaale 86.5	Moroto 86	Mpigi 85.7	
	Kaabong 85.5	Namayingo 85.4	Katakwi 85.3	Napak 85.1	
	Bundibugyo 84.8	Kyankwanzi 84.6	Hoima 84.3	Kamuli 84	
	Kamuli 84	Lwengo 82.8	Kamwenge 82.7	Mubende 82.3	
	Kasese 82.3	Busia 81.8	Kotido 80.8	Kyegegwa 80.2	
	Buvuma 79.1	Abim 78.8	Buliisa 78.7	Nebbi 78.3	
	Lira 78.2	Kayunga 78	Mityana 78	Amuria 78	
	Nwoya 77	Gulu 76.7	Maracha 76.3	Bududa 76	
Pader 76	Kabarole 75.4				
YELLOW	Serere 74.8	Pallisa 74.3	Nakapiripirit 73.6	Arua 73.2	35 31 ..
	Kabale 72.7	Nakasongola 72	Kween 72	Luuka 71.8	
	Lamwo 71.8	Ngora 71.7	Gomba 71.2	Koboko 70.5	
	Budaka 70.1	Kyenjojo 68.7	Amudat 67.3	Kisoro 66.4	
	Kanungu 65.7	Bugiri 65.2	Amuru 64.8	Sironko 64.2	
	Bulambuli 63.5	Namutumba 63.3	Otuke 62.7	Apac 61.4	
	Dokolo 60.2	Buwko 59.4	Kole 59.2	Mayuge 57.4	
	Kiryandongo 55.7	Kibuku 55.4	Buyende 55	Masindi 55	
	Amolatar 53.5	Moyo 53.3	Kaliro 52		
RED	Kitgum 48	Soroti 47	Oyam 47	Butaleja 46.8	12 10 7
	Tororo 43	Kumi 39.1	Kapchorwa 38.5	Kaberamaido 38.1	
	Manafwa 36.8	Bukedea 36	Agago 34.9	Alebtong 32	

Sixty five districts out of 112 were in 'Green' constituting a percentage of 58.0%. 35 (31%) districts were in 'Yellow' and 10.7% of the districts were in Red.

#### 2.4.2 Achievement of P 3 Pupils in Literacy in English by District

This sub-section describes the achievement of P 3 pupils in Literacy in English by district. Table 2.07 shows the categorization of the districts according to the percentages of pupils rated proficient in Literacy in English.

TABLE 2.07: CATEGORIZATION OF DISTRICTS ACCORDING TO THE PERCENTAGES OF P 3 PUPILS RATED PROFICIENT IN LITERACY IN ENGLISH

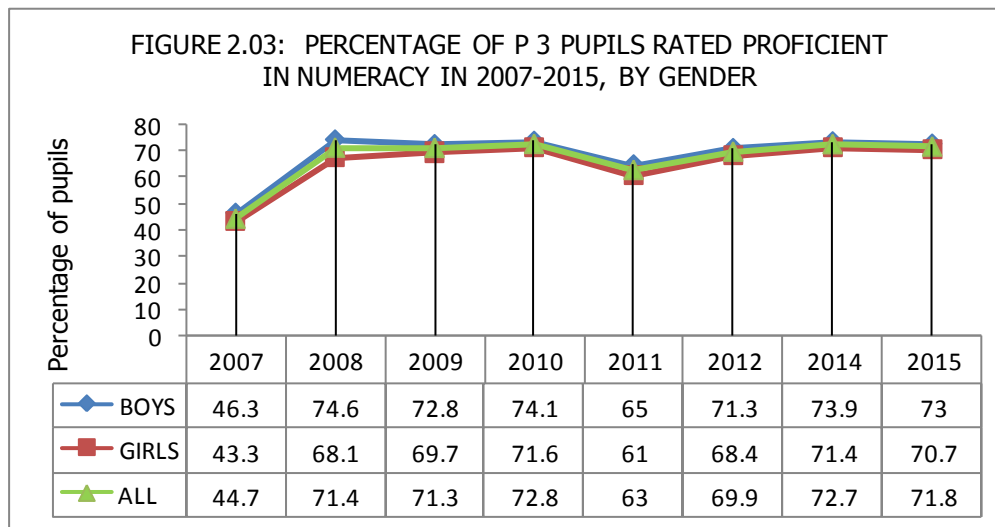
GREEN		YELLOW		RED	
Mitooma	99.2	Kyankwanzi	73.7	Bugiri	49.6
Sheema	99.1	Ntoroko	73.5	Napak	48.5
Ssembabule	98.9	Hoima	73.2	Kisoro	47.7
Bukomansimbi	98.8	Kaabong	72.1	Nebbi	46.8
Kiruhura	98.7	Mbale	71.2	Kanungu	44.9
Kampala	98.5	Namayingo	70.9	Serere	44.7
Mbarara	98.0	Mayuge	70.9	Nwoya	44.3
Buhweju	97.8	Buvuma	67.3	Dokolo	44.1
Bushenyi	97.7	Kibaale	67.3	Kaliro	43.9
Masaka	97.3	Zombo	67.1	Apac	42.8
Luweero	96.1	Gomba	66.1	Kibuku	42.7
Buikwe	95.7	Bundibugyo	64.9	Kiryandongo	41.8
Kalangala	94.8	Mityana	64.6	Sironko	41.4
Kalungu	94.0	Nakapiripiriti	64.5	Lamwo	40.7
Wakiso	93.8	Amuria	64.1	Kapchorwa	38.4
Butambala	93.2	Kyegegwa	64.0	Masindi	38.1
Lyantonde	92.9	Budaka	63.7	Kole	37.9
Rubirizi	92.9	Buliisa	63.3	Tororo	37.2
Mukono	92.7	Busia	62.1	Bukwo	37.1
Isingiro	91.8	Ngora	61.8	Kween	36.7
Ntungamo	90.2	Adjumani	61.8	Amolatar	34.8
Ibanda	87.4	Kayunga	61.6	Kitgum	34.1
Rukungiri	85.8	Maracha	61.0	Soroti	30.7
Mpigi	85.7	Kabarole	61.0	Moyo	29.3
Nakaseke	85.3	Kabale	60.8	Bukedea	29.1
Iganga	81.8	Pallisa	59.6	Otuke	28.0
Kiboga	79.3	Kasese	59.5	Kumi	27.0
Lwengo	79.3	Gulu	58.4	Manafwa	26.5
Rakai	78.8	Koboko	56.8	Butaleja	26.4
Jinja	78.7	Bududa	55.4	Oyam	24.9*
Mubende	78.5	Buyende	55.4	Amuru	23.9*
Kamuli	78.5	Katakwi	55.1	Agago	18.7*
Moroto	77.9	Kamwenge	54.9	Kaberamaido	18.2*
Lira	77.6	Arua	54.7	Alebtong	14.8*
Yumbe	77.0	Namutumba	54.4		
		Nakasongola	54.1	34 (30.4%)	
35 (31.3%)		Kyenjojo	53.8		
		Amudat	53.3		
		Kotido	53.1		
		Bulambuli	52.4		
		Luuka	52.3		
		Pader	51.4		
		Abim	51.2		
		43 (38.4%)			

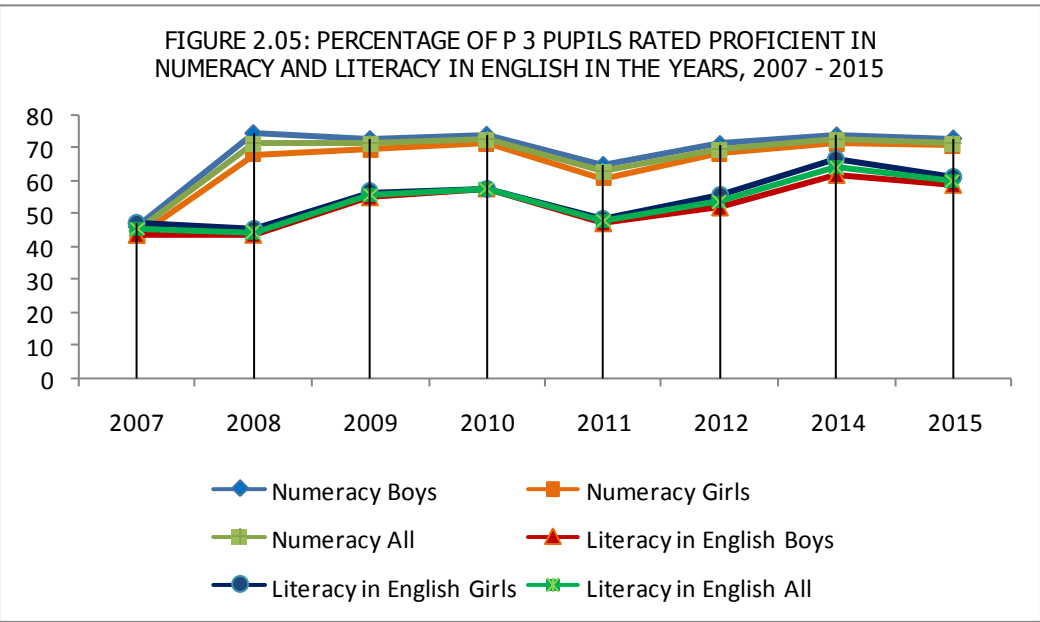
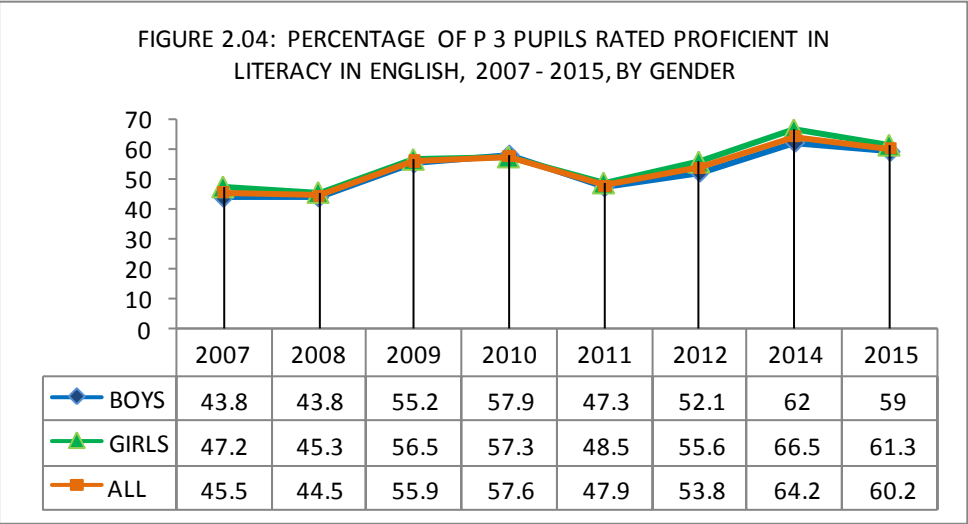
Just about a third, 31.3% of the districts were rated 'Green'. Majority (38.4%) of the districts were categorized 'Yellow'. Similarly, about a third, 30.4%, of the districts were rated 'Red'. Most of the districts in 'Red' with the exception of Kanungu, Kiryandongo and Masindi are from the Eastern and Northern regions.

Five districts in the 'Red' category earned an asterisk. The districts are: Kaberamaido from the Far East zone, Alebtong and Oyam from the Mid-North I, and Agago and Amuru from Mid North II. More girls than boys were rated proficient Literacy in English in 73 out of 112 districts.

## 2.5 ACHIEVEMENT OF P 3 PUPILS IN NUMERACY AND LITERACY IN ENGLISH IN THE YEARS 2007 – 2015

In this section, a presentation of the performance pattern of P 3 pupils in Numeracy and Literacy in English from 2007 – 2012, and then 2014 - 2015 is made. Figures 2.03 and 2.04 show the percentage of P 3 pupils rated proficient in Numeracy and Literacy in English respectively, over the years 2007 – 2015. Figure 2.05 shows a comparison of the proportions of pupils rated proficient in Numeracy and Literacy in English over the years 2007 – 2015.





The proportions of P 3 pupils rated proficient in Numeracy increased from 44.7% in 2007 to 71.4% in 2008 where it remained nearly constant up to 2010. In 2011, the proportion dropped to 63.0% and in 2012 it rose to about its previous constant value up to 2015. More boys than girls reached at or above the threshold proficiency in Numeracy each year.

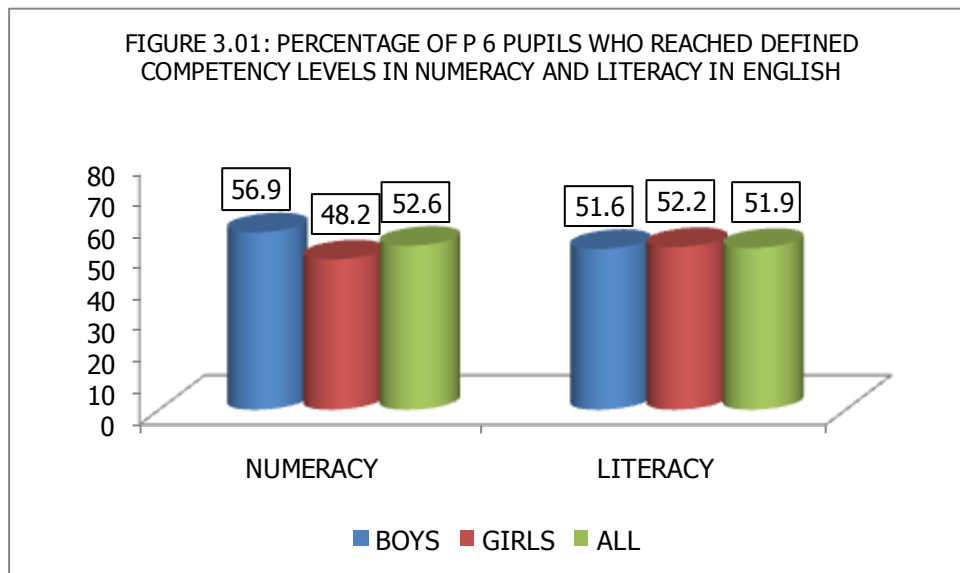
On the other hand, the percentage of pupils rated proficient in Literacy in English had increased from 45.5% in 2007 to 64.2% in 2014. In 2015, there has been a decline from 64.2% to 60.2%. More girls than boys were rated proficient in Literacy in English in almost all the years.

### 3.0 ACHIEVEMENT OF P 6 PUPILS

This section presents the achievement of P 6 pupils in Numeracy and Literacy in English. The overall level of achievement in the two subjects is presented first, followed by achievement in the various competencies. Then achievement is also reported by school ownership, district and over the years, 2007 – 2015.

#### 3.1 OVERALL LEVEL OF ACHIEVEMENT OF P 6 PUPILS IN NUMERACY AND LITERACY IN ENGLISH

This section describes the overall performance of P 6 pupils in Numeracy and Literacy in English by gender. Figure 3.01 gives a comparison of the percentages of P 6 pupils rated proficient in Numeracy and Literacy in English, by gender.



Nearly the same percentages of P 6 pupils reached the defined competency levels in Numeracy (52.6%) and Literacy in English (51.9%). The proportion of boys (56.9%) rated proficient in Numeracy was significantly higher than that of the girls (48.2%). However in Literacy in English, the gender difference was not significant, though more girls than boys were rated proficient.

#### 3.2 ACHIEVEMENT OF P 6 PUPILS IN TOPICAL AREAS AND COMPETENCIES OF NUMERACY

This section highlights the performance of P 6 pupils in selected competencies assessed in the Numeracy and Literacy in English tests. The arrow attached to each figure was assigned specific meaning: The arrow facing up (↑) represents competencies in which at least three quarters of the pupils were rated proficient. The arrow facing sideways (→) represents competencies in which at least a half, but less than three quarters of the pupils reached the desired proficiency. Lastly, the arrow facing the bottom (↓) consists of competencies in which less than a half of the pupils attained the desired rating.

### 3.2.1. Achievement of P 6 Pupils in Numeracy by Topical Areas

This sub-section presents the achievement of P 6 pupils in Numeracy by Topical Areas. Table 3.01 shows the proportions of pupils attaining the desired rating by topical area and gender.

TABLE 3.01: PERCENTAGES OF P 6 PUPILS RATED PROFICIENT IN DIFFERENT TOPICAL AREAS

TOPICAL AREA	BOYS	GIRLS	ALL
Operation on numbers	↑ 85.4	↑ 81.4	↑ 83.4
Number system and place value	↑ 82.4	↑ 75.6	↑ 79
Graphs and interpretation	→ 53.6	↓ 44.4	↓ 49.1
Fractions	↓ 40.8	↓ 36.5	↓ 38.6
Measures	↓ 36.9	↓ 27.4	↓ 32.2
Geometry	↓ 31.3	↓ 26.5	↓ 28.7
Number patterns and sequences	↓ 27.7	↓ 24.7	↓ 26.2

Over 3 in 4 pupils reached at or above the minimum desired proficiency level in either 'Operation on numbers' and 'Number system and place value'. These were the topics where the pupils exhibited the best performance. They were followed by 'Graphs and interpretation' where nearly a half of the pupils were rated proficient. Fewer than 1 in 3 pupils were rated proficient in 'measures', 'Geometry' and 'Number patterns and sequences'.

Within each topical area, the proportion of boys attaining the desired rating was significantly higher than that of the girls. The performance gap was closest in 'Number patterns and sequences' than the rest of the topical areas.

### 3.2.2 Achievement of P 6 Pupils in Competencies of Numeracy

This sub-section is a presentation of the achievement of P 6 pupils in Numeracy by selected competencies.

Table 3.02 shows the percentages of P 6 pupils who were rated proficient in selected competencies of 'Operations on Numbers'.

TABLE 3.02: PERCENTAGE OF P 6 PUPILS RATED PROFICIENT IN OPERATIONS ON NUMBERS

COMPETENCE	BOYS	GIRLS	ALL
Subtracting of two 3-digit numbers without borrowing	↑ 95.4	↑ 96	↑ 95.6
Adding of two 3-digit numbers without carrying	↑ 94.8	↑ 94.7	↑ 94.8
Adding of two 3-digit numbers with carrying	↑ 95.1	↑ 94	↑ 94.5
Applying of addition in real novel situations	↑ 92	↑ 89.7	↑ 90.8
Subtracting of two 3- digit numbers with borrowing	↑ 88.2	↑ 86.8	↑ 87.5
Multiplying of natural numbers by a one digit number	↑ 87	↑ 85	↑ 86
Divising of a 2-digit number by a 1-digit number	↑ 75	→ 73	→ 74
Applying of subtraction in real life situations	↑ 76.1	→ 69.7	→ 73
Applying of Multiplication in novel situations	→ 74.7	→ 69.4	→ 72.1
Multiplying of natural numbers by a 2-digit number	→ 73	→ 70.2	→ 71.7
Applying of division in real life situations	→ 67.8	→ 59.6	→ 63.4
Using symbols <, > to compare numbers	→ 63.7	→ 57.2	→ 60.5
Using brackets to show order in which combined operations(x, +) must be performed	↓ 30.9	↓ 32.2	↓ 31.5

More than 3 in 4 P 6 pupils reached at or above the threshold proficiency in the competencies of 'Adding', 'Subtracting', and 'Multiplying' of two 3-digit numbers' as well as 'Applying addition in novel situations'.

Over two thirds of the P 6 pupils could carry out and apply the four basic operations in real life situations apart from applying division where a slightly lower proportion (63.4%) attained a similar rating. Less than a third of the P 6 pupils were proficient in using brackets to show combined operations. The proportion of boys and girls rated proficient was comparable in all the competencies of the four basic operations except 'Applying division in real life situations'.

TABLE 3.03: PERCENTAGE OF P 6 PUPILS RATED PROFICIENT IN 'MEASURES'

COMPETENCE	BOYS	GIRLS	ALL
Solving problems involving money (buying and selling)	↑ 81.8	↑ 79	↑ 80.4
Carrying out money calculations (Bills)	→ 63.8	→ 59.3	→ 61.5
Finding the perimeter of a rectangle	↓ 38.0	↓ 33.2	↓ 35.6
Changing a smaller unit to a larger one and vice versa	↓ 46.0	↓ 32.2	↓ 39.1
Solving problems involving time and distance	↓ 38.0	↓ 33.2	↓ 35.6
Telling time on a clock face	↓ 43.0	↓ 21.2	↓ 32.3
Finding the number of smaller areas/ volumes that fill a bigger/larger one	↓ 23.1	↓ 18.5	↓ 20.8

Whereas over two thirds of the P 6 pupils demonstrated best performance in the competencies of buying and selling of common objects, fewer than 2 in 5 pupils reached at or above the minimum desired proficiency in the rest of the competencies of 'Measures' assessed. Lowest performance was exhibited in the computation of the number of smaller areas required to cover a larger surface. The proportion of boys rated proficient was significantly higher than that of the girls in nearly all the competencies of 'Measures'.

### 3.3 ACHIEVEMENT OF P 6 PUPILS IN LITERACY IN ENGLISH BY SKILL AREA

This section presents the achievement of P 6 pupils in Literacy in English by skill area; sub-skill areas and competencies of Reading Comprehension, Writing and Grammar. Table 3.04 shows the achievement of P 6 pupils in Literacy in English by skill area.

TABLE 3.04: PERCENTAGE OF P 6 PUPILS RATED PROFICIENT IN LITERACY IN ENGLISH BY SKILL AREA

SKILL AREA	BOYS	GIRLS	ALL
Reading Comprehension	→ 59.0	→ 57.5	→ 58.3
Writing	↓ 49.7	→ 53.5	→ 51.6
Grammar	→ 52.0	→ 51.6	→ 51.8

Over a half of the P 6 pupils (58.3%, 51.6% and 51.8%) were rated proficient in the skill areas of 'Reading Comprehension', 'Writing', and 'Grammar', respectively. The gender differences were not significant. However, whereas the boys 59.9% and 52% performed better than the girls 57.5% and 51.6% in 'Reading Comprehension' and 'Grammar', respectively, the girls (53.5%) performed far better than the boys (49.7%) in 'Writing'.

#### 3.3.1 Achievement of P 6 Pupils in Reading Comprehension



This section is a description of P 6 pupils' performance in the sub-skill areas and competencies of 'Reading Comprehension'. Table 3.05 shows the percentage of P 6 pupils rated proficient in the sub-skill areas of Reading Comprehension.

*TABLE 3:05: PERCENTAGE OF P 6 PUPILS REACHING THE DESIRED PROFICIENCY LEVELS IN VARIOUS SUB-SKILL AREAS OF READING COMPREHENSION*

SUB-SKILL AREAS OF READING COMPREHENSION	BOYS	GIRLS	ALL
Associating words to pictures or actions to pictures	↑ 96.2	↑ 96.6	↑ 96.3
Naming objects	↑ 88.5	↑ 87	↑ 87.8
Describing activities in a picture.	↑ 75.2	↑ 77	↑ 76.1
Telling time.	→ 73.8	→ 63.4	→ 68.7
Reading a story.	→ 58.7	→ 58.2	→ 58.4
Reading a Poem.	→ 57.0	→ 53.3	→ 55.2
Reading tabular information.	→ 53.0	→ 52.6	→ 52.8

Nearly all the P 6 pupils (96.3%) were rated proficient in 'Associating words to pictures or actions to pictures', while more than three quarters, 87.8% and 76.1%, were rated proficient in 'Naming objects' and 'Describing activities in a picture', respectively. The gender differences were not significant for most of the skill areas except 'Telling time' where the boys performed significantly better than the girls.

Table 3.06 shows the percentage of pupils rated proficient in selected competencies of 'Reading Comprehension'.

TABLE 3:06: PERCENTAGE OF P 6 PUPILS WHO RESPONDED CORRECTLY TO ITEMS ON SELECTED COMPETENCIES OF 'READING COMPREHENSION'.

COMPETENCIES	BOYS	GIRLS	ALL
<b>Reading a story</b>			
Read a story and answer direct questions about it.	↑ 86.9	↑ 86.6	↑ 86.7
Read a story and answer questions by making inferences.	↓ 29.9	↓ 29.3	↓ 29.6
<b>Reading a poem</b>			
Read a poem and interpret its message.	↑ 75.2	→ 70.9	→ 73.1
Read a poem and form own opinion based on the text.	↓ 30.2	↓ 31.2	↓ 30.7
<b>Reading Tabular information</b>			
Read a timetable and answer direct questions about it.	→ 55.9	→ 56.0	→ 55.9
Read a timetable and form own opinion based on the timetable.	↓ 31.7	↓ 23.4	↓ 27.6

More pupils were rated proficient on items that required picking direct responses from the texts i.e. 86.7%, 73.1% and 55.9% for 'Reading a story', 'Reading a poem' and 'Reading tabular information', respectively. More boys than girls were rated proficient in 'Reading Comprehension' competence.

### 3.3.2 Achievement of P 6 Pupils in Writing

The achievement of P 6 pupils in the sub-skill areas and selected competencies of 'Writing' is described in this sub-section. Table 3.07 shows the percentage of pupils rated proficient in the sub-skill areas of 'Writing'.

TABLE 3:07: PERCENTAGE OF P 6 PUPILS RATED PROFICIENT IN VARIOUS SUB-SKILL AREAS OF WRITING

SUB-SKILL AREAS OF WRITING	BOYS	GIRLS	ALL
Drawing and labelling.	↑ 90.9	↑ 87.2	↑ 89.1
Copying a story.	↑ 83.3	↑ 87.1	↑ 85.1
Writing words correctly.	→ 73.9	→ 74.5	→ 74.2
Copying sentences with correct punctuation.	→ 66.7	↑ 78.1	→ 72.3
Writing a personal letter.	→ 50.9	→ 59.1	→ 54.9
Writing sentences.	↓ 41.6	↓ 42.9	↓ 42.3
Writing a short composition.	↓ 37.4	↓ 35.1	↓ 36.3

Over three quarters of the pupils, 89.1% and 85.1%, were rated proficient in 'Drawing and labelling' and 'copying a story,' respectively. However, just 42.3% and 36.3% could write sentences and a composition, respectively.

### 3.3.3 Achievement of P 6 Pupils in Grammar

The achievement of the pupils in the competencies of 'Grammar' is described in this sub-section. Table 3.08 shows the achievement of P 6 pupils in the selected competencies of Grammar.

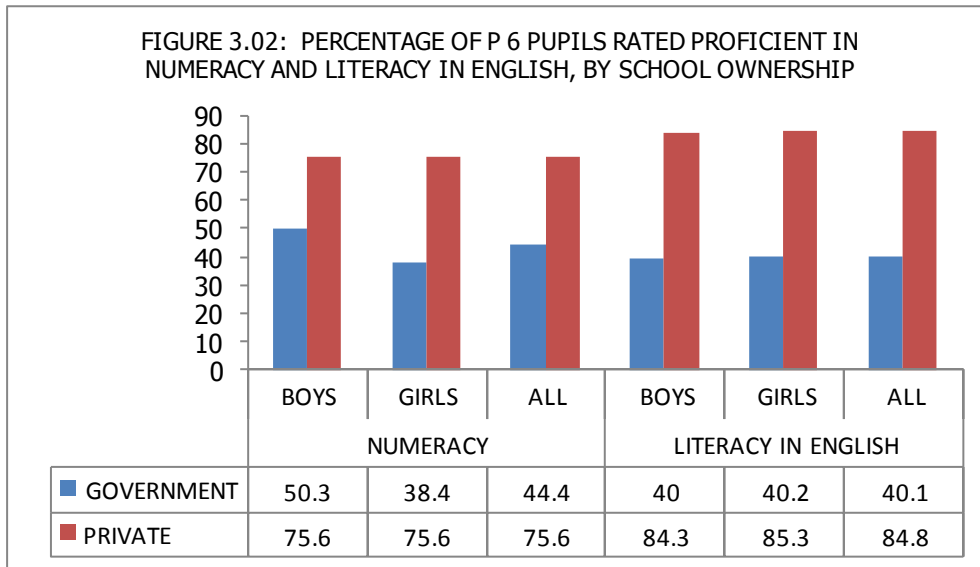
TABLE 3:08: PERCENTAGE OF P 6 PUPILS RATED PROFICIENT IN VARIOUS SUB-SKILL AREAS OF GRAMMAR

SUB-SKILL AREAS OF GRAMMAR	BOYS	GIRLS	ALL
Giving plurals of given nouns.	↑ 91.9	↑ 93.4	↑ 92.6
Using given vocabulary.	↑ 81	↑ 81.2	↑ 81.1
Using descriptive words in sentences.	→ 66.8	→ 70.8	→ 68.7
Using given sentence structures.	→ 51.4	→ 50.6	→ 51.0
Using the correct tense.	↓ 47.3	↓ 46.7	↓ 47.0

Over three quarters of the pupils, 92.6% and 81.1%, reached the minimum desired proficiency in 'Giving plurals' and 'Using given vocabulary'. On the other hand, just 51.0% and 47.0% reached a similar proficiency level in 'using given structures' and 'using the correct tense'.

### 3.4 ACHIEVEMENT OF P 6 PUPILS IN NUMERACY AND LITERACY IN ENGLISH BY SCHOOL OWNERSHIP

This section presents the achievement of P 6 pupils in Numeracy and Literacy in English by school ownership and gender. Figure 3.02 shows the percentage of P 6 pupils rated proficient in Numeracy and Literacy in English by school ownership and gender.



Private schools had more pupils reaching the defined competency levels in both subjects. Almost twice more pupils in private schools than government schools were proficient in Literacy in English. Whereas 75.6% of the P 6 pupils in private schools were proficient in Numeracy, 44.4% of those in government schools got a similar rating in the subject. The gender differences were not significant.

### **3.5 ACHIEVEMENT OF P 6 PUPILS IN NUMERACY AND LITERACY IN ENGLISH BY DISTRICT**

This section presents a description of the achievement of P 6 pupils in Numeracy and Literacy in English by district. The districts are grouped according to their performance. The grouping uses the following colours: 'Green', 'Yellow' and 'Red'.

The 'Green' colour denotes those districts in which 75% and more of the pupils were rated proficient. The 'Yellow' colour is the category of districts where over a half, but less than three quarters of the pupils reached the desired minimum level of proficiency. Lastly, is the 'Red' colour which denotes districts with less than a half of the pupils rated proficient.

In the 'Red' colour districts, there are those marked with an asterisk (\*). These are districts with less than a quarter of their pupils rated proficient. The districts with double asterisks (\*\*) had less than 10% of their P 6 pupils rated proficient.

#### **3.5.1 Achievement of P 6 Pupils in Numeracy by District**

This sub-section describes the achievement of P 6 pupils in Numeracy by district. The percentages of P 6 pupils rated proficient in Numeracy by district, and colour are presented in Table 3.09.

TABLE 3.09: CATEGORIZATION OF DISTRICTS ACCORDING TO THE PERCENTAGES OF P 6 PUPILS RATED PROFICIENT IN NUMERACY

G	Mbarara 83.4	Bushenyi 79.4	Rubirizi 75.0	Kiruhura 74.8	4 4.0%
Y E L L O W	Mitooma 73.0 Kamwenge 65.0 Lyantonde 63.2 Bukomansimbi 60.0 Wakiso 58.6 Busia 57.6 Mpigi 55.0 Napak 52.0	Kampala 71.5 Kisoro 64.2 Moyo 62.2 Ntungamo 59.8 Katakwi 58.2 Moroto 57.5 Ibanda 53.7 Namayingo 50.6	Sheema 70.5 Masaka 63.9 Kanungu 62.0 Nakapiripirit 59.7 Adjumani 58.1 Buikwe 57.3 Soroti 53.5	Kalangala 67.3 Gulu 63.7 Kotido 60.7 Rukungiri 59.0 Yumbe 57.7 Isingiro 56.1 Mukono 52.8	31 27.6
R E D	Jinja 49.6 Kamuli 48.0 Sembabule 46.5 Mityana 45.6 Kitgum 41.5 Mbale 39.1 Bukedea 37.6 Amudat 36.7 Namutumba 35.6 Kaberamido 35.0 Rakai 33.1 Pallisa 31.5 Lwengo 29.0 Nakasongola 27.5 Kiboga 26.3 Buvuma 25.1 Buyende 22.3* Tororo 21.0* Amuru 17.1* Bukwo 1.7**	Pader 49.5 Kyegegwa 47.5 Bududa 46.2 Lira 43.8 Nakaseke 41.2 Kole 39.0 Budaka 37.5 Mayuge 36.4 Maracha 35.4 Hoima 34.6 Amolatar 33.0 Zombo 31.3 Masindi 28.6 Amuria 27.5 Kabale 26.2 Sironko 25.0 Alebtong 22.2* Kumi 20.1* Manafwa 17.0*	Abim 49.1 Kasese 47.0 Iganga 45.7 Lamwo 43.7 Arua 40.1 Nwoya 37.6 Luuka 37.3 Otuke 36.2 Luweero 35.2 Kabarole 33.8 Kalungu 32.2 Kaliro 29.5 Ngora 28.2 Butaleja 27.5 Mubende 25.6 Kapchorwa 24.6* Kiryandongo 22.2* Bugiri 18.4* Kayunga 14.2*	Kyenjojo 48.1 Kyankwanzi 46.6 Kaabong 45.7 Koboko 43.4 Bundibugyo 39.7 Kibuku 37.6 Oyam 37.3 Dokolo 35.8 Nebbi 35.0 Ntoroko 33.7 Kibaale 31.6 Gomba 29.2 Butambala 28.0 Serere 27.2 Buliisa 25.7 Bulambuli 23.0* Agago 21.4* Apac 17.6* Kween 10.4*	77 68.8

Four districts (4%) were in the 'Green' category, 27.7% of the districts were in 'Yellow' and a majority (77 districts) of the districts were in 'Red' constituting a percentage of 68.8%. Fourteen (14) districts had an asterisk and Bukwo had double asterisk.

### 3.5.2 Achievement of P 6 Pupils in Literacy in English by District

This sub-section is a presentation of the performance of P 6 pupils in Literacy in English by district. The percentages of P 6 pupils rated proficient in Literacy in English by district, and colour are presented in Table 3.10.

TABLE 3.10: CATEGORIZATION OF DISTRICTS ACCORDING TO THE PERCENTAGES OF P 6 PUPILS RATED PROFICIENT IN LITERACY IN ENGLISH

G	Kalangala 79.7	Kampala 78.4			2 14.3%	
Y E L L O W	Wakiso 69.3 Bushenyi 61.3 Buhweju 56.2 Mitooma 52.3 Adjumani 51.9	Buikwe 69.0 Mukono 61.2 Lyantonde 55.5 Mpigi 52.2 Kiruhura 51.4	Moroto 64.7 Masaka 58.8 Soroti 54.3 Abim 52.1 Rubirizi 50.1	Kotido 63.0 Nakapiripirit 56.2 Gulu 54.1 Jinja 52.0		19 17.0
R E D	Kamuli 49.5 Moyo 46.8 Pader 43.0 Amudat 40.9 Nakaseke 39.7 Koboko 37.3 Ntoroko 36.8 Bududa 33.4 Kyankwanzi 30.4 Ibanda 29.5 Rukungiri 26.3 Kibuku 24.4* Serere 23.1* Isingoro 22.5* Amolatar 21.7* Kibaale 21.5* Amuria 20.4* Kitgum 18.9* Manafwa 16.2* Oyam 13.3* Maracha 9.2** Buyende 7.4** Bukwo 0.4**	Mbarara 49.4 Napak 46.1 Katakwi 42.6 Iganga 40.7 Budaka 39.1 Arua 37.1 Kyenjojo 35.4 Bukedea 32.8 Lira 30.4 Pallisa 29.1 Buliisa 25.9 Sheema 23.5* Bulambuli 22.7* Kiryandongo 22.2* Kole 21.7* Buvuma 21.4* Dokolo 20.3* Nakasongola 17.4* Kaliro 15.6* Butaleja 10.9* Kween 8.8** Bugiri 6.9**	Bukomansimbi 49.3 Ssembabule 43.5 Kamwenge 41.1 Busia 40.1 Yumbe 38.3 Ntungamo 37.0 Masindi 35.0 Kaabong 32.6 Namayingo 30.1 Kalungu 29.0 Ngora 25.8 Namutumba 23.3* Tororo 22.6* Kapchorwa 22.1* Zombo 21.6* Nwoya 21.3* Mubende 19.6* Kanungu 16.9* Agago 15.2* Amuru 10.7* Otuke 8.8** Alebtong 5.8**	Luwero 49.0 Mityana 43.1 Mbale 41.0 Butambala 39.9 Kasese 38.0 Kyegegwa 36.8 Hoima 33.9 Mayuge 31.2 Kaberamido 29.9 Kiboga 27.2 Lamwo 24.9* Kabarole 23.3* Luuka 22.6* Kisoro 21.8* Gomba 21.5* Sironko 20.5* Nebbi 19.1* Lwengo 16.4* Kumi 13.3* Kayunga 9.8** Kabale 8.5** Apac 4.9**		91 81.3

Just two districts: Kampala and Kalangala were categorized 'Green'; implying that they had more than three quarters of their pupils rated proficient in Literacy in English.

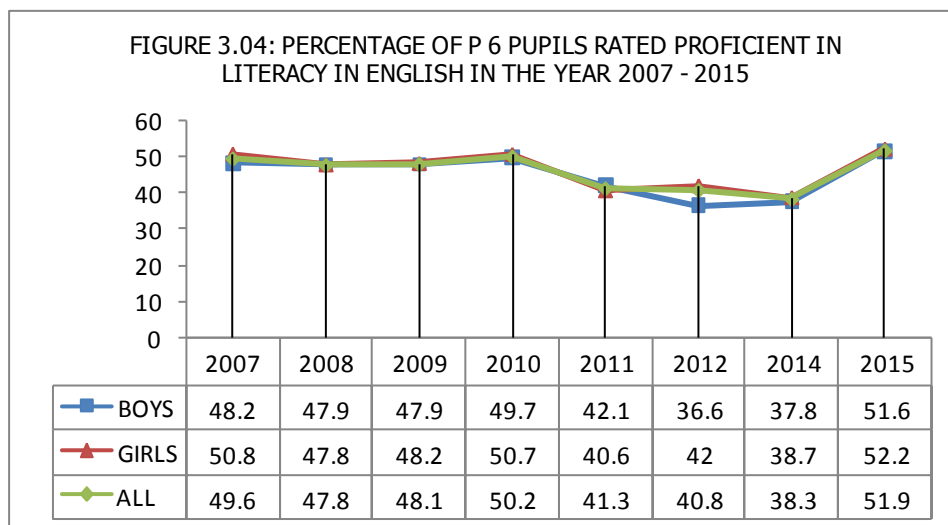
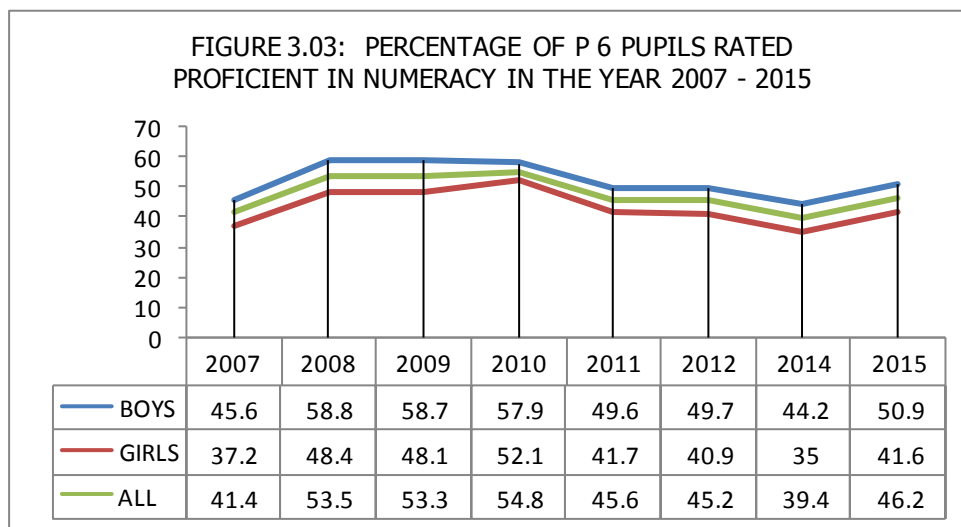
Less than a fifth (17.0%) of the total number of districts were categorized 'Yellow'. These had 50% or more but less than a third of their pupils rated proficient in Literacy in English.

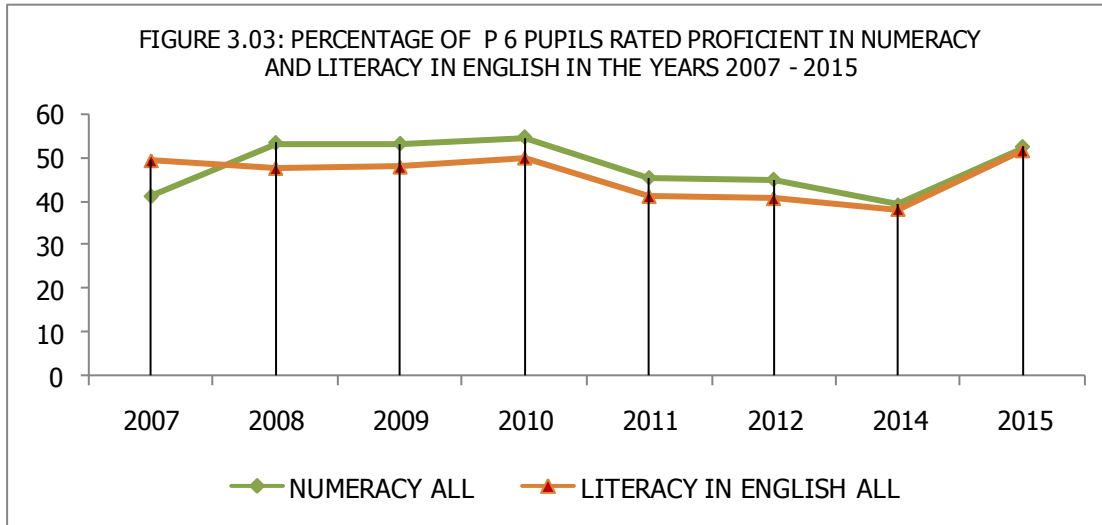
The 'Red' category had most of the districts i.e. 81.3%. Of these, 46 districts had a quarter or less of their pupils rated proficient.

The following districts with double asterisks (\*\*) had less than 10% of their P 6 pupils rated proficient: Bukwo, Kween, Bugiri, Buyende, Kayunga, Alebtong, Apac, Otuke, Maracha and Kabale.

### 3.6 ACHIEVEMENT OF P 6 PUPILS IN NUMERACY AND LITERACY IN ENGLISH IN THE YEARS 2007 – 2015

In this section a presentation of the performance pattern of P 6 pupils in Numeracy and Literacy in English from 2007 – 2012, and then 2014 - 2015 is made. The percentage of P 6 pupils rated proficient in Numeracy and Literacy in English is shown in Figure 3.03 and 3.04 respectively, over the years 2007 – 2015. A comparison of the proportions of pupils rated proficient in Numeracy and Literacy in English over the years 2007 – 2015 is shown in Figure 3.05.





The proportion of pupils rated proficient in Numeracy increased from 41.4% in 2007 to 53.5% in 2008, and then remained constant for about 3 years. It then dropped to 45.6% in 2011 remaining nearly the same in 2012. However, in 2015, it rose to 52.6%; 7.0 points above the 2012 constant value.

On the other hand, between the years 2007 – 2014, there was a decline in the overall performance of the pupils rated proficient in Literacy in English from 49.6% in 2007 to 38.3% in 2014. This year 2015 P 6 pupils have been rated highly at 51.9%. There was a significant gender difference in performance in 2012. However, for the years 2011, 2014 and 2015 the gender differences were not significant though the girls remained in the lead.

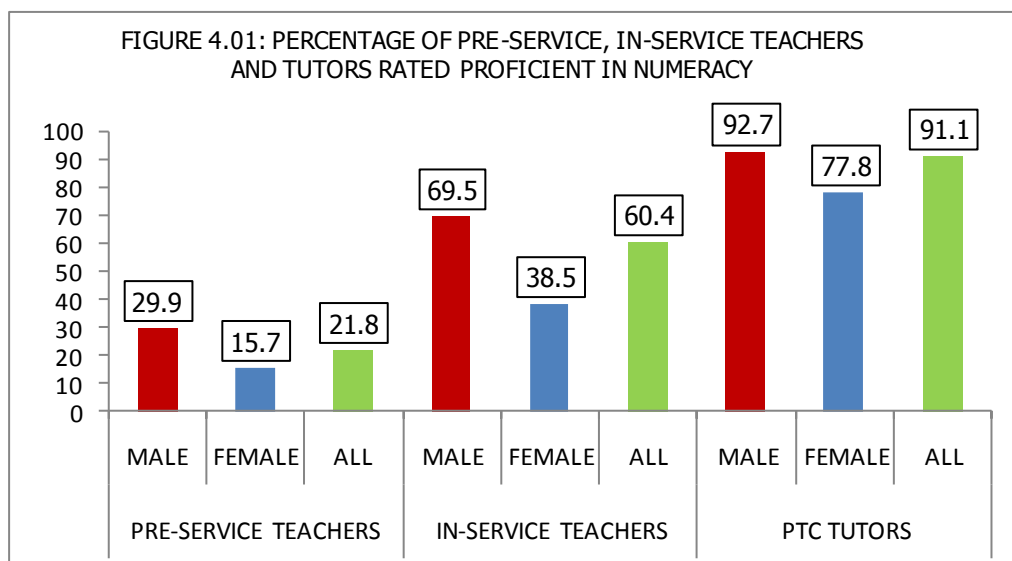


#### 4.0 ACHIEVEMENT OF PRE-SERVICE TEACHERS, IN-SERVICE TEACHERS AND PTC TUTORS IN NUMERACY AND LITERACY IN ENGLISH

This chapter presents the overall achievement of Pre-service teachers, In-service teachers and PTC tutors in P 6 Numeracy and Literacy in English curricula. This is followed by achievement in the various competencies.

#### 4.1 OVERALL ACHIEVEMENT OF TEACHERS AND TUTORS IN NUMERACY

This section describes the achievement of teachers and tutors in Numeracy by gender. Figure 4.01 shows the overall performance of teachers and tutors in Numeracy by gender.



The respective proportions of pre-service teachers, in-service teachers and PTC tutors rated proficient in Numeracy were: 21.8%, 60.4% and 91.1%, respectively. There was a significant difference between the percentage of tutors and teachers reaching at or above the desired proficiency in Numeracy. More so, about 1 in 5 pre-service teachers were rated proficient in Numeracy.

The proportion of male tutors rated proficient was significantly higher than that of the female tutors. The mean score of the tutors was 87.3% with respective mean scores of males and females being 87.4% and 86.4%.

#### 4.1.1 The Achievement of Teachers and Tutors in Topical Areas of Numeracy by Gender

In this sub-section, a description of the achievement of teachers and tutors by topical areas of Numeracy and gender is made. Table 4.01 shows the proportion of teachers and tutors rated proficient in Numeracy by topical areas and gender.

*TABLE 4.01: OVERALL PERCENTAGE OF TEACHERS AND TUTORS RATED PROFICIENT IN NUMERACY BY TOPICAL AREAS AND GENDER*

Topical Area	Pre -service Teachers			In-service Teachers			Tutors		
	M	F	All	Male	F	All	M	F	All
Operations on numbers	91.8	87.8	89.5	95.5	94.1	95.1	97.2	88.9	96.3
Measures	69.8	46.8	56.6	87.3	61.4	79.7	94.3	100	95.0
Number System and place value	51.8	36.9	43.3	77.2	58.3	71.6	91.4	100	92.5
Geometry	39.7	33.5	36.1	72.5	46.4	64.8	82.9	77.8	82.5
Fractions	56.1	40.7	47.3	82.7	54.0	74.2	78.6	88.9	80.0
Number patterns and sequences	12.0	6.4	8.8	38.3	14.1	31.2	37.2	55.6	38.8
Graphs and Interpretation	5.3	6.0	5.7	6.6	11.3	8.0	20.0	11.1	18.8

Tutors performed much better than teachers in all the various topical areas of Numeracy. The proportion of teachers and tutors rated proficient in Numeracy was highest in the topic of 'Operations on numbers' followed by 'Measures'. Lowest performance was exhibited in the topic of 'Graphs and interpretation'. Within the topic of 'Graphs and Interpretation', the respective proportions of tutors, in-service teachers and pre-service teachers rated proficient in 'interpreting graphs' were 87.7%, 68.0% and 51.3% whereas in 'Drawing graphs' were 7.5%, 2.1% and 4.1%, respectively.

#### **4.1.2 The Achievement of Teachers and Tutors in Selected Competencies of Numeracy by Gender**

This sub-section presents the performance of the teachers and tutors in the selected competencies of Numeracy. Table 4.02 shows the percentages of teachers and tutors rated proficient in selected competencies of Numeracy by gender.

TABLE 4.02: PERCENTAGE OF TEACHERS AND TUTORS RATED PROFICIENT IN SELECTED COMPETENCIES OF NUMERACY, BY GENDER

Competence	Pre- service Teachers			In- service Teachers			Tutors		
	M	F	A	M	F	A	M	F	A
Subtraction without borrowing	99.2	99.2	99.2	98.6	99.4	98.9	100	100	100
Writing numbers in expanded form	99.5	99.3	99.4	99.3	99.3	99.2	100	100	100
Multiplying fraction by fraction	84.9	79.0	81.5	93.2	81.6	89.8	100	100	100
Application of subtraction in real life	96.7	96.7	96.7	97.2	97.7	97.4	98.6	100	98.8
Dividing fraction by fraction	78.8	70.0	73.7	89.5	64.6	82.4	98.6	100	98.8
Application of addition in real life	97.8	97.4	97.5	99.4	99.3	99.2	100	88.9	98.7
Rounding off numbers	64.7	55.3	59.3	88.3	65.5	78.1	97.1	100	97.5
Use of symbols to compare numbers	82.5	73.7	77.4	92.7	88.3	91.4	91.4	88.9	91.3
Identifying even or odd numbers	92.8	92.2	92.4	97.3	95.9	96.9	84.3	77.8	83.8
Finding square roots of numbers up to 300	37.4	29.5	32.9	62.6	29.1	52.8	80.0	66.7	78.8
Finding the L.C.M.	77.6	69.9	73.2	84.7	62.9	78.4	72.9	88.9	73.8
Showing a number on an abacus	16.2	13.1	14.4	36.5	32.3	35.3	44.3	44.4	43.8
Applying fractions in novel situations	3.6	2.1	2.8	7.4	3.5	6.3	30.0	33.3	31.3
Drawing of bar graphs	1.4	1.7	1.6	1.6	3.3	2.1	7.2	11.1	7.5

In general, more tutors than teachers reached at or exceeded the threshold proficiency levels in Numeracy. Best performance was exhibited in the competencies of the four operations on numbers and writing numbers in expanded form. Whereas the tutors and teachers could manipulate addition, subtraction, multiplication and division of fractions, they had difficulty in applying fractions in novel situations. Lowest performance (fewer than 10% of the tutors and teachers) was exhibited in the topic of 'Drawing bar graphs'.

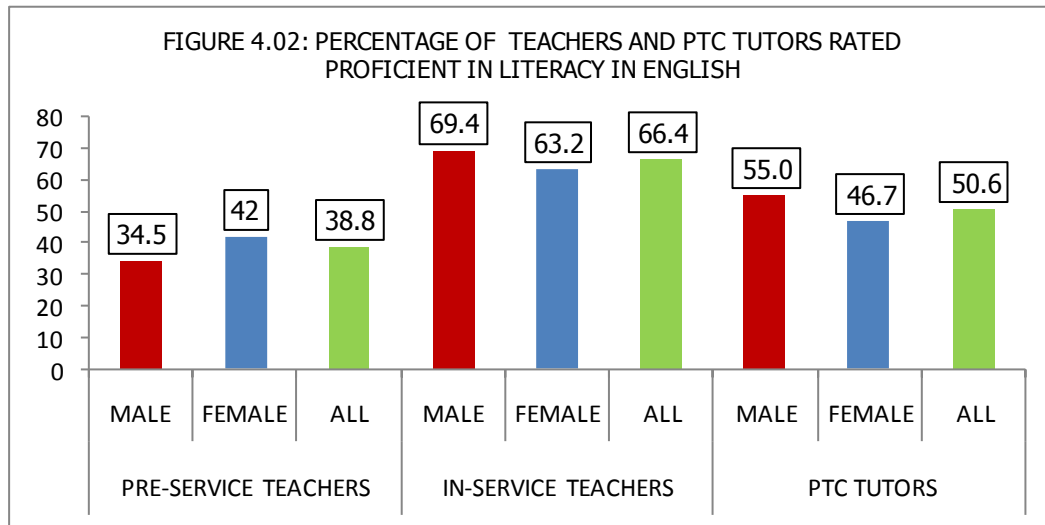
With exception of a few competencies such as 'Finding the LCM', 'Finding square roots of numbers', 'Rounding off numbers to the nearest decimal point' and 'Multiplying fractions with fractions', the performance of the male and female teachers and tutors was comparable.

#### 4.2 OVERALL ACHIEVEMENT OF TEACHERS AND TUTORS IN LITERACY IN ENGLISH

This section presents the achievement of the pre-service teachers, in-service teachers and PTC tutors in Literacy in English. The presentation begins with a display of the overall achievement of the three categories of testees. This is followed by achievement by skill areas of 'Reading Comprehension', 'Writing' and 'Grammar'. Finally, the testees' performance is presented by competencies within each of the skill areas.

#### 4.2.1 Overall Achievement of Teachers and Tutors in Literacy in English

This sub-section describes the performance of pre-service teachers, in-service teachers and tutors in Literacy in English by gender. Figure 4.02 shows the percentage of teachers and tutors rated proficient in Literacy in English.



The proportion of teachers and tutors rated proficient in Literacy in English varied. More of the in-service (66.4%) were rated proficient followed by the tutors (50.6%). Only 38.8% of the pre-service teachers reached the desired minimum proficiency level. The male in-service teachers and male PTC tutors performed significantly better than the females. On the other hand, the female pre-service teachers did significantly better than their male counterparts.

#### 4.2.2 Achievement of Teachers and Tutors in Literacy in English by Skill Area

This sub-section describes the achievement of pre-service teachers, in-service teachers and tutors in Literacy in English by skill area.

Table 4.03 shows the percentage of pre-service teachers, in-service teachers and tutors rated proficient in Literacy in English by skill area.

*TABLE 4.03: PERCENTAGE OF PRE-SERVICE TEACHERS, IN-SERVICE TEACHERS AND PTC TUTORS RATED PROFICIENT IN LITERACY IN ENGLISH BY SKILL AREA*

Skill Area	Pre-service teachers			In-service teachers			PTC Tutors		
	Male	Female	All	Male	Female	All	Male	Female	All
Reading comprehension	82.6	85.9	84.5	89.9	90.3	89.5	80.4	80.0	80.2
Writing	20.3	26.3	23.8	40.4	40.1	40.3	6.1	18.4	9.6
Grammar	27.3	29.7	28.7	68.0	66.1	67.1	69.6	77.5	73.3

'Reading Comprehension' was the best done skill area. More of the in-service teachers, 89.5%, were rated proficient in 'Reading Comprehension', followed by the pre-service teachers who were 84.5%. A lesser percentage, 80.2% of the tutors reached a similar rating in 'Reading Comprehension'. There was significant difference in achievement with the in-service teachers leading both the pre-service and tutors in this skill area. However, there was no significant gender difference in performance within each group.

'Writing' registered the lowest performance. Less than a half of the two categories of teachers and then the tutors were rated proficient i.e. 23.8%, 40.3% and 9.6% for the pre-service teachers, in-service teachers and tutors, respectively. It is apparent that the proficiency level for the tutors in this skill area is just less than a tenth. The male and female in-service teachers performed at nearly the same level in this skill area. However, there were significant gender differences in performance of pre-service teachers and PTC tutors with the female in the lead in both cases.

In 'Grammar', the performance of the three categories of testees still varied. PTC tutors 73.3% performed better than the pre-service teachers and in-service teachers in this skill area. Whereas 'Grammar' is the second best done skill area for all the testees, just less than a third (28.7%) of the pre-service teachers were rated proficient in it. There was a significant gender difference in performance of tutors with the female tutors achieving much better.

#### **4.2.3 The Achievement of Tutors and Teachers in Literacy in English by selected Competencies**

This sub-section presents the performance of the pre-service teachers, in-service teachers and tutors in Literacy in English by selected competencies of 'Reading Comprehension', 'Writing' and 'Grammar'. Table 4.04 presents the achievement of pre-service teachers, in-service teachers and tutors in Literacy in English by selected competencies.

TABLE 4.04: PERCENTAGE OF PRE-SERVICE TEACHERS, IN-SERVICE TEACHERS AND PTC TUTORS RATED PROFICIENT ON SELECTED COMPETENCIES OF LITERACY IN ENGLISH

Competencies	Pre-service Teachers			In-service Teachers			PTC Tutors		
	M	F	All	M	F	All	M	F	All
<b>Reading a story</b>									
Read a story and answer direct questions about it.	99.7	99.7	99.7	99.8	99.7	99.7	97.7	100.0	98.8
Read a story and answer questions by making inferences.	62.9	66.5	65.0	65.3	65.8	65.5	45.5	35.0	40.5
<b>Reading a poem</b>									
Read a poem and interpret its message.	96.6	97.0	96.8	96.4	96.6	96.5	95.6	97.5	96.5
Read a poem and form own opinion based on the text.	70.7	72.5	71.8	81.0	81.3	81.1	93.3	100.0	96.5
<b>Reading Tabular information</b>									
Read a timetable and answer direct questions about it.	94.8	95.4	95.1	95.5	97.7	96.5	91.1	89.7	90.5
Read a timetable and form own opinion based on it.	61.7	57.7	59.4	74.4	77.7	75.9	64.4	61.5	63.1

More of the pre-service teachers, in-service teachers and tutors were able to respond to question items that required picking the answer direct from the text. However, less percentages of those rated proficient were recorded when it came to items that required exhibition of higher level cognitive abilities. For example: The competence where the least percentages of the in-service teachers (65.5%) and PTC tutors (40.5%) were rated proficient was 'Read a story and answer questions by making inferences'. Similarly, the least percentage of pre-service teachers rated proficient (59.4%) was recorded in 'Reading a timetable and form own opinion based on it'.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

The results, conclusions and recommendations for the level of achievements of P 3, P 6 and teachers in Numeracy and Literacy in English are presented in this chapter.

### **5.1 PRIMARY 3**

#### **Results:**

- Overall, 71.7% of the P 3 pupils reached the defined proficiency level in Numeracy and 60.2% attained a similar rating in Literacy in English. This means that over 7 in every 10 pupils in P 3 demonstrated that they had acquired the Numeracy competencies and skills specified in the national curriculum at their level. However, less than two thirds of the P 3 pupils attained a similar rating in Literacy in English.
- In all districts of the country, at least 30% of the P 3 pupils were rated proficient in Numeracy.
- In the following districts: Alebtong, Agago, Kaberamaido, Amuru and Oyam, more than 75% of the P 3 pupils were NOT rated proficient in Literacy in English.

#### **Conclusion:**

- More P 3 pupils were rated proficient in Numeracy than in Literacy in English.

#### **5.1.1 Achievement of P 3 Pupils in Numeracy**

##### **Results:**

In Numeracy, P 3 pupils performed well in:

- Associating objects to equal number of objects.
- Counting objects in ones, tens and fives.
- Showing a three digit number on an abacus.
- Adding a 2 digit number to a 1 digit number.
- Subtracting a 1digit number from a 1 digit number without borrowing.

They had difficulty in:

- Applying the four basic operations in novel situations
- Applying capacity in novel situations
- Adding money
- Writing number symbols from words
- Counting in words
- Competencies of 'Measures' and 'Fractions'.

##### **Conclusion:**

- Fewer pupils were rated proficient in application questions which were mostly word questions because of low levels of reading comprehension skills.

### **5.1.2 Achievement of P 3 Pupils in Literacy in English**

#### **Result:**

- More P 3 Pupils were rated proficient in competencies of 'Writing' than 'Reading Comprehension'

#### **Conclusions:**

- P 3 pupils are much more involved in practical writing activities than reading comprehension. For example, their homework these days is more of writing than reading.
- Low levels of reading comprehension skills.

## **5.2 PRIMARY 6**

#### **Results:**

- The proportion of P 6 pupils who reached the defined proficiency levels in Numeracy and Literacy in English was 52.6% and 51.9%, respectively. This means slightly more than a half of the P 6 pupils acquired most of the competencies of Numeracy and Literacy in English specified in the national curriculum. In Literacy in English, best performance was exhibited in 'Reading Comprehension' 58.3% followed by 'Grammar' 51.8% and then 'Writing' 51.6%.
- In these districts: Agago, Alebtong, Amuru, Apac, Bugiri, Bukwo, Bulambuli, Buyende, Kayunga, Kapchorwa, Kiryandongo, Kumi, Kween, Manafwa and Tororo, more than 75% of the P 6 pupils were NOT rated proficient in Numeracy.
- Nearly all the P 6 pupils in Bukwo district were NOT rated proficient in both Numeracy and Literacy in English.
- A total of 46 out of 112 districts of the country had more than 75% of their P 6 pupils NOT rated proficient in Literacy in English.  
Of these, ten districts had less than 10% of their P 6 pupils rated proficient in Literacy in English. These were: Alebtong, Apac, Bugiri, Bukwo, Buyende, Kabale, Kayunga, Kween, Maracha and Otuke.

#### **Conclusion:**

- P 6 pupils had difficulty in areas that involved making their own opinion in Reading and Writing tasks such writing a short composition.

### **5.2.1 Achievement of P 6 Pupils in Numeracy**



**Results:**

P 6 pupils could:

- Carryout the four basic operations on numbers and fractions
- Show a number on an abacus
- Solve problems involving money
- Draw bar graphs
- Write a number in expanded form and vice versa

They had difficulty in:

- Use of brackets to show order in which the combined operation( $x, +$ ) is performed.
- Rounding off numbers to the nearest value.
- Interpreting pictographs.
- Applying fractions in novel situations.
- Dividing fractions.
- Applying capacity in real life situations.
- Measuring an obtuse angle.
- Finding the square roots of numbers.
- Completing a sequence.

**Conclusion:**

- The concept of fractions is not understood by pupils.

**5.2.2 Achievement of P 6 Pupils in Literacy****Results:**

P 6 Pupils could:

- Read a comprehension text and answer questions of recall nature.
- Write a personal letter with the correct attributes.
- Write a short composition with the correct format.

They had difficulty in:

- Reading a story and answering questions requiring higher order thinking skills.
- Reading and interpreting information presented in tabular form.
- Writing a composition and letter with enough relevant content.
- Being creative and imaginative.
- Writing sentences using given words.

**Conclusion:**

- P 6 pupils exhibited low levels of achievement on higher order thinking skills i.e. creativity, imagination and interpretation.

### **5.3 Achievement of P 3 and P 6 Pupils in Numeracy and Literacy in English by Gender**

#### **Result:**

- More P 3 and P 6 boys than girls were rated proficient in Numeracy whereas in Literacy in English, girls performed better than boys.

### **5.4 Achievement of P 3 and P 6 Pupils in Numeracy and Literacy in English by school ownership**

#### **Result:**

- The proportions of pupils rated proficient in both Numeracy and Literacy in English in private schools were significantly higher than those from government schools. This means that pupils from private schools are acquiring more of the expected competencies at their level than their counter-parts from the government schools.

#### **Conclusion:**

- More pupils in private than government schools were rated proficient in both Numeracy and Literacy in English.

### **5.5 Achievement of P 3 and P 6 Pupils in Numeracy and Literacy in English by school location**

#### **Results:**

- Urban schools performed significantly better than rural schools at both P 3 and P 6.

### **5.6 ACHIEVEMENT OF PRE-SERVICE / IN-SERVICE TEACHERS AND TUTORS IN NUMERACY AND LITERACY IN ENGLISH.**

#### **Overall Results:**

- In Numeracy the respective proportions of tutors, in-service teachers and pre-service teachers rated proficient were 91.2%, 60.4% and 21.8%, respectively.
- Apart from Bushenyi core PTC, Bishop Stuart PTC, Mbarara, Bulera PTC, Gulu PTC, St. George PTC, Ibanda, Kabale-Bukinda PTC, Kaliro PTC, Kisoro PTC, Kitgum PTC, Kiyooro PTC, Ndegeya PTC, St. Noa Mawagali PTC, Loro PTC and Kabwangasi, in all the other 40 Primary Teachers' Colleges more than 75% of the pre-service teachers were NOT rated proficient in Numeracy.

- Luteete PTC, Kampala University PTC, Moroto Core PTC, Eresi PTC, Paidha PTC, Kitabi PTC and St. Mary's Bukedea PTC had less than 10% of their pre-service teachers rated proficient in Numeracy.
- The proportions of tutors, in-service teachers and pre-service teachers reaching at or above the desired proficiency level in Literacy in English were 46.5%, 66.4% and 38.8%, respectively.
- Arua PTC, St. Mary's Bukedea PTC, Kapchorwa PTC, Kotido PTC, Luteete PTC, Kampala University PTC, Moroto Core PTC, Eresi PTC, St. Alysious Ngora PTC, and St. John Bosco Lodonga had more than 75% of their pre-service teachers NOT rated proficient in Literacy in English.

**Conclusions:**

- Indeed there were more in-service teachers than tutors rated proficient in Literacy in English.
- Fewer pre-service teachers than P 6 pupils were rated proficient in Numeracy and Literacy in English.

**5.6.1 Achievement of Teachers and Tutors in Numeracy and Literacy by Topical / Skill Area**

**Results:**

- Whereas the tutors, in-service/pre-service teachers performed best in 'Reading Comprehension', their achievement was low in 'Writing'.
- In 'Grammar' the respective proportions of tutors, in-service teachers and pre-service teachers rated proficient were 73%, 67.1% and 28.7%, respectively.
- In Numeracy, the proportion of tutors and teachers rated proficient was highest in topics of 'Operations on Numbers' and 'Measures'. However, the topics of 'fractions' and 'Graphs and Interpretation' were a challenge.

**Conclusions:**

- The concept of fractions was a challenge to tutors and teachers.
- Low levels of competence in some sub-skill areas of writing.

## RECOMMENDATIONS

SN	Recommendation	Responsibility Centre
1.	There is a need for language panelists to train teachers on interpretation and use of orthography of Leb Acoli and Leb lango.	Language panellists for LebAcoli & Leblango
2.	Further Research needs to be carried out to find out what is responsible for the good performance in P 3 Numeracy so that it can be replicated in other subjects.	UNEB, Research department.
3.	Strengthen the methodology of teaching the four language skills i.e. from listening – speaking – writing – Reading systematically in every Literacy lesson.	TIET
4.	Teachers should carryout Oral Reading Assessment on individual pupils to ascertain the ability level of the pupil in Reading.	Teachers
5.	Pupils in classes should be organised into groups of abilities so that the teachers can build the pupil from one ability level to another.	Head teachers
6.	A culture of essay writing competitions should be strengthened in all schools to allow pupils to practice free writing, free thinking and imagination.	Head teachers
7.	Teaching and Assessment for learning in Literacy in English should emphasize; <ul style="list-style-type: none"> <li>- Deeper understanding of texts, making predications, inferences and deriving lessons from texts.</li> <li>- Writing a well sequenced composition relevant to the topic and a formal letter with the correct format.</li> </ul>	Teachers
8.	Teaching and Assessment for learning in Numeracy should emphasize; <ul style="list-style-type: none"> <li>- Relating learnt concepts to daily life / novel situations thus making Numeracy lessons as interesting as possible.</li> </ul>	Teachers
9.	Review the teaching of fractions in primary schools	NCDC DES
10.	Develop and video record model lessons for teachers' use.	TIET

*APPENDIX I: REGIONS, ZONES AND DISTRICTS IN UGANDA AND THE MAJOR LANGUAGES SPOKEN*

<b>REGION</b>	<b>ZONE</b>	<b>DISTRICTS</b>	<b>MAJOR LANGUAGE(S)</b>
Central	Central I	Buikwe, Butambala, Buvuma, Gomba, Kayunga, Mpigi, Mukono, Wakiso.	Luganda.
	Central II	Kiboga, Kyankwanzi, Luweero, Mityana, Mubende, Nakaseke, Nakasongola.	Luganda, Lululi, Runyoro.
	Central III	Bukomansimbi, Kalangala, Kalungu, Lwengo, Lyantonde, Masaka, Rakai, Sembabule.	Luganda, Runyankore.
East	Far East	Amuria, Bukedea, Kaberamaido, Katakwi, Kumi, Ngora, Soroti, Serere.	Ateso, Kumam.
	Mid East I	Bududa, Bukwo, Bulambuli, Kapchorwa, Kween, Manafwa, Mbale, Sironko.	Kupsabiny, Lumasaba.
	Mid East II	Budaka, Busia, Butaleja, Kibuku, Pallisa, Tororo.	Ateso, Dhopadhola, Kiswahili, Lugwere Lunyole, Lusamya.
	Near East	Bugiri, Buyende, Iganga, Jinja, Kaliro, Kamuli, Luuka, Mayuge, Namayingo, Namutumba.	Lusoga, Lusamya.
Kampala		Kampala.	English, Kiswahili, Luganda.
North	Mid North I	Alebtong, Amolatar, Apac, Dokolo, Kole, Lira, Otuke, Oyam.	Lango.
	Mid North II	Agago, Amuru, Gulu, Lamwo, Kitgum, Nwoya, Pader.	Acoli.
	North East	Abim, Amudat, Kaabong, Kotido, Moroto, Nakapiripirit, Napak.	Ngakarimojong, Thur.
	West Nile	Adjumani, Arua, Koboko, Maracha, Moyo, Nebbi, Yumbe, Zombo.	Alur, Kakwa, Lugbara, Madi.
West	Far West	Kabale, Kanungu, Kisoro, Rukungiri.	Rukiga, Kinyarwanda, Rufumbira.
	Mid West	Bundibugyo, Kabarole, Kamwenge, Kasese, Kyegegwa, Kyenjojo, Ntoroko.	Kiswahili, Lukhonzu, Lwamba, Rutooro.
	North West	Buliisa, Hoima, Kibaale, Kiryandongo, Masindi.	Kiswahili, Runyoro, Lugungu.
	South West	Bushenyi, Buhweju, Ibanda, Isingiro, Kiruhura, Mbarara, Mitooma, Ntungamo, Rubirizi, Sheema.	Kinyarwanda, Runyankore.