

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

**A SUMMARY OF 2010 NAPE REPORT**

**UGANDA NATIONAL EXAMINATIONS BOARD**

## 1.0 INTRODUCTION

This volume contains a summary of the report on the achievement of pupils in the 2010NAPE assessment.

## 1.2 CLASSES ASSESSED

- Primary 3 (P 3) and Primary 6 (P 6).

## 1.3 SUBJECTS ASSESSED

- Numeracy
- Literacy in English
- Literacy in Local Language (For P 3 pupils in some districts)

## 1.4 SAMPLE SIZE

The national sample consisted of 1,098 schools, representing an increase of about 122% over the 2009 sample.

### Number of Pupils in the Achieved Sample

Table: 1.1 The Number of Pupils in the Achieved Sample, by Gender

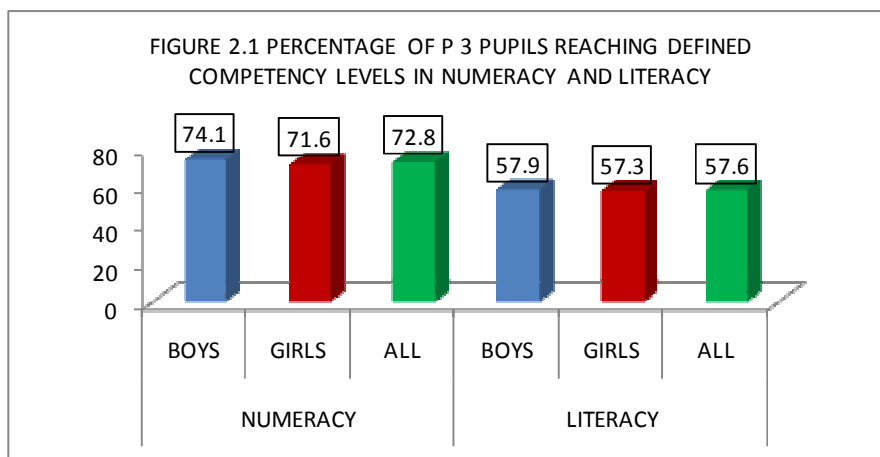
CLASS	BOYS		GIRLS		ALL	
	Count	Percentage	Count	Percentage	Count	Percentage
Primary 3	11,101	51.3%	10,552	48.7%	21,653	100.0
Primary 6	10,920	51.0%	10,493	49.0%	21,413	100.0

In all there were 21,653 P 3 pupils and 21,413 P 6 pupils in the sample.

## 2.0 ACHIEVEMENT OF PRIMARY 3 PUPILS

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

Figure 2.1 shows the percentage of P 3 pupils reaching the defined level of proficiency in Numeracy and Literacy in English.



Overall, 72.8% of the P 3 pupils reached the defined competency level in Numeracy, with slightly more boys (74.1%) than girls (71.6%) reaching this level. The P 3 pupils who reached the defined competency level in Literacy in English constituted 57.6%. The difference in the proportions of boys and girls with this rating was negligible.

## 2.2 ACHIEVEMENT OF P 3 PUPILS IN COMPETENCES OF NUMERACY AND LITERACY

This section highlights the performance of P 3 pupils in selected competences assessed in the Numeracy and Literacy tests. The flag on each figure was assigned the colours: 'Green', 'Yellow', or 'Red' where: 'Green' represents competences in which at least three quarters of the pupils were rated proficient. 'Yellow' represents competences in which at least a half, but less than three quarters of the pupils reached the desired proficiency. Lastly, 'Red' consists of competences in which less than a half of the pupils attained the desired rating.

### 2.2.1. ACHIEVEMENT OF P 3 PUPILS IN COMPETENCES OF NUMERACY

Tables 2.1 and 2.2 show the percentages of P 3 pupils who were competent in counting and number operations respectively.

TABLE 2.1: PERCENTAGE OF P 3 PUPILS WHO COMPETENT IN COUNTING

COMPETENCE	BOYS	GIRLS	ALL
Associating a number of objects to figures	↑ 96.0	↑ 94.5	↑ 95.2
Counting in ones	↑ 91.2	↑ 91.4	↑ 91.2
Counting in tens	↑ 89.7	↑ 89.0	↑ 89.4
Counting in fives	→ 55.4	↓ 47.5	→ 51.4

Pupils were able to associate a number of objects to figures and count in 'ones' or 'tens'. However, they encountered difficulties in counting in 'fives'.

More boys than girls were able to count in 'fives'

TABLE 2.2: PERCENTAGE OF P 3 PUPILS WHO WERE COMPETENT IN NUMBER OPERATIONS

COMPETENCE	BOYS	GIRLS	ALL
Adding two or three two-digit numbers without carrying.	↑ 94.9	↑ 94.0	↑ 94.4
Multiplication as repeated addition.	↑ 86.6	↑ 85.3	↑ 85.9
Subtracting up to 3-digit number from up to 3-digit number without borrowing.	→ 73.7	→ 72.0	→ 72.8
Multiplying a one digit number by a one digit number.	→ 70.1	→ 67.3	→ 68.6
Division of a number less than 20 by a one-digit number.	→ 60.5	→ 58.6	→ 59.6
Adding two or three two-digit numbers with carrying.	→ 51.8	↓ 48.1	↓ 49.9
Solving sums involving buying and selling of objects.	↓ 35.0	↓ 26.6	↓ 30.7
Subtracting up to digit-number from a two-digit number with borrowing	↓ 29.2	↓ 27.9	↓ 28.5

Pupils could add numbers without carrying and carry out multiplication as repeated addition, in which over 80% of them responded correctly. Nevertheless, they failed to show this level of proficiency in addition and subtraction with carrying or borrowing; and solving problems involving shopping.

Boys were better than the girls only in solving problems involving buying and selling, but in the other competences, performance of the two genders was comparable.

### 2.2.2. ACHIEVEMENT OF P 3 PUPILS IN COMPETENCES OF LITERACY IN ENGLISH

The percentages of pupils who were competent in Reading and Writing are shown in Tables 2.3 and 2.4.

TABLE 2.3: PERCENTAGE OF P 3 PUPILS WHO RESPONDED CORRECTLY TO SELECTED COMPETENCES OF READING

COMPETENCE	BOYS	GIRLS	ALL
Associate picture to picture.	↑ 98.8	↑ 98.7	↑ 98.7
Associate picture to sentence.	↑ 78.2	↑ 77.1	↑ 77.6
Associate picture to word.	→ 74.1	→ 74.2	→ 74.1
Read and comprehend story.	↓ 48.5	↓ 46.9	↓ 47.7
Read and describe activities in a picture.	↓ 22.4	↓ 23.8	↓ 23.1

In Reading, almost all the pupils (98.7%) were able to associate a picture to another picture. The proportions of pupils who could associate picture to a sentence or to a word were less. However, very few pupils were able to read and comprehend a story or read and describe activities in a picture. More boys than girls could identify missing parts on a picture.

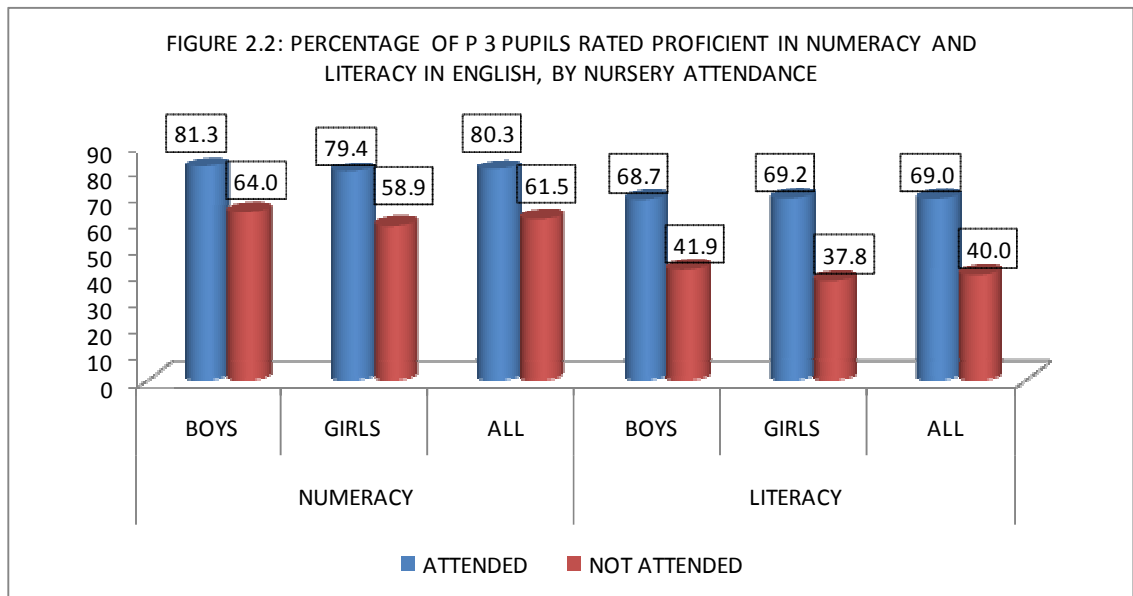
TABLE 2.4: PERCENTAGE OF P 3 PUPILS WHO RESPONDED CORRECTLY TO SELECTED COMPETENCES OF WRITING

COMPETENCE	BOYS	GIRLS	ALL
Write patterns.	↑ 96.2	↑ 95.9	↑ 96.1
Write letters of the alphabet.	↑ 89.3	↑ 89.2	↑ 89.3
Draw pictures.	↑ 78.5	↑ 81.0	↑ 79.8
Copy a story.	→ 71.3	→ 73.9	→ 72.6
Write names of objects in pictures.	↓ 39.8	↓ 38.0	↓ 38.9

In Writing, nearly all the P 3 pupils (96.1%) could write patterns, with the correct size, shape and rhythm. A big proportion (72.6%) was also able to copy a story correctly. Nevertheless, only 38.9% of the pupils showed they were able to correctly write names of objects. There were no significant gender differences in pupils' achievement on the competences of Writing.

### 2.3 ACHIEVEMENT OF P 3 PUPILS IN NUMERACY AND LITERACY BY ATTENDANCE OF NURSERY SCHOOL

The percentages of P 3 pupils who reached the defined competency levels in Numeracy and Literacy in English according to whether they had attended nursery school or not are shown in Figure 2.2.

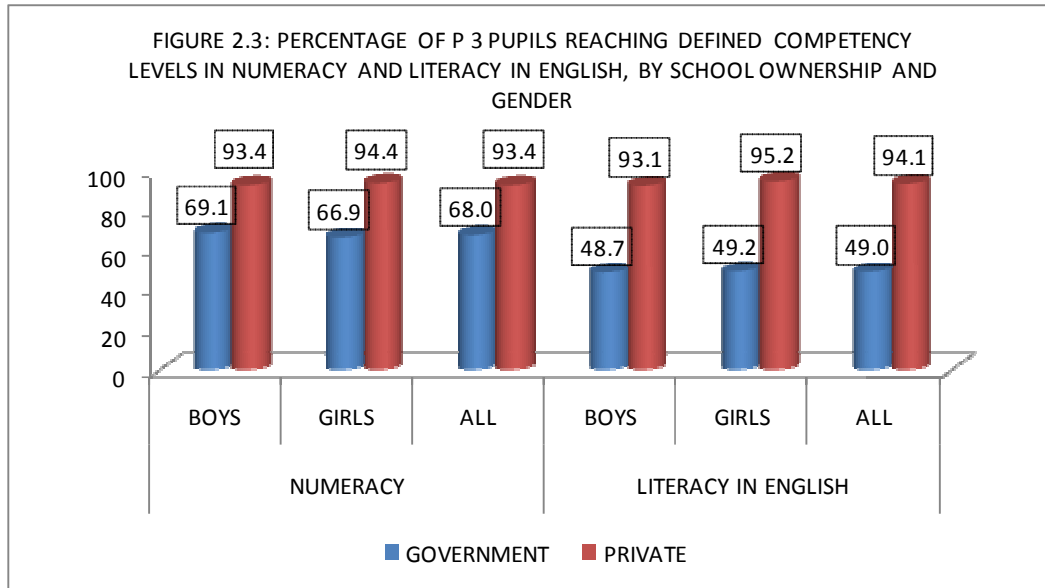


More of the P 3 pupils who had attended nursery school reached the defined competency levels compared to those who had not.

The difference was greater in Literacy in comparison to Numeracy, and for girls rather than the boys.

## 2.4 ACHIEVEMENT 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 2.3.



Although over 90% of the pupils from private schools reached the desired proficiency level in both Numeracy and Literacy in English, smaller proportions in government schools did so. The difference was much bigger for Literacy in English than Numeracy.


The gender difference in either school type was not significant for either subject.

## 2.5 ACHIEVEMENT OF P 3 PUPILS IN NUMERACY AND LITERACY IN ENGLISH, BY DISTRICT

In this section, the achievement of P 3 pupils in Numeracy by district is described. In grouping of the districts, the following descriptors are used: 'Green', 'Orange', and 'Red'. Districts grouped in 'Green' are those in which 75% and above of its pupils were rated proficient. Districts under 'Orange' are those in which at least a half, but less than three quarters of its pupils reached the desired proficiency. Lastly, districts in 'Red' are those in which less than a half of its pupils attained the desired proficiency level. Red districts, with a red flag had less than a quarter of the pupils rated proficient.

Table 2.5 shows the categorization of districts according to the percentages of pupils who reached defined competency levels in both Numeracy and Literacy in English.

*TABLE 3.12: CATEGORIZATION OF DISTRICTS ACCORDING TO THE PERCENTAGES OF P 3 PUPILS REACHING DEFINED COMPETENCY IN BOTH NUMERACY AND LITERACY IN ENGLISH.*



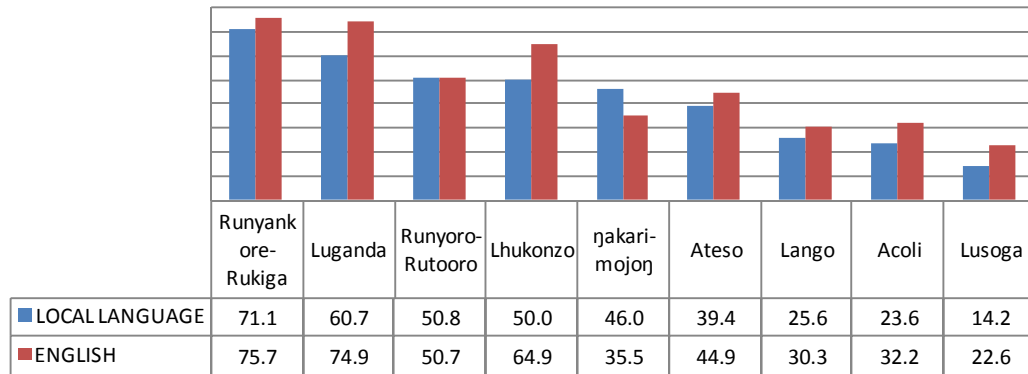
GREEN	YELLOW		RED		
Buikwe	Bududa	Kiboga	Abim	Hoima	Manafwa
Bushenyi	Bukwo	Kisoro	Adjumani	Iganga	Maracha
Kabarole	Bundibugyo	Mityana	Amolatar	Kaabong	Masindi
Kalangala	Ibanda	Mubende	Amudat	Kaberamaido	Mayuge
Kampala	Isingiro	Mukono	Amuria	Kaliro	Mbale
Kiruhura	Jinja	Nakaseke	Amuru	Kamuli	Moroto
Luweero	Kabale	Nakasongola	Apac	Kapchorwa	Moyo
Lyantonde	Kamwenge	Namutumba	Arua	Katakwi	Mpigi
Masaka	Kanungu	Rakai	Budaka	Kayunga	Nakapiripirit
Mbarara	Kasese	Rukungiri	Bugiri	Kitgum	Nebbi
Ntungamo	Kibaale	Soroti	Bukedea	Koboko	Otuke
Sembabule		Zombo	Buliisa	Kotido	Oyam
Wakiso			Busia	Kumi	Pader
			Butaleja	Kyegegwa	Pallisa
			Buyende	Kyenjojo	Sironko
			Dokolo	Lamwo	Tororo
			Gulu	Lira	Yumbe

Thirteen districts fell in green. The second category of yellow comprised twenty three districts. The third category of red had 51 out of the 87 districts.

### **3.0 ACHIEVEMENT OF P 3 PUPILS IN LITERACY IN LOCAL LANGUAGES**

Comparisons in the performance of pupils in Literacy in Local Languages and Literacy in English is shown in Figure 3.1.

FIGURE 3.1: PERCENTAGE OF P 3 PUPILS RATED COMPETENT IN LITERACY IN LOCAL LANGUAGE AND ENGLISH

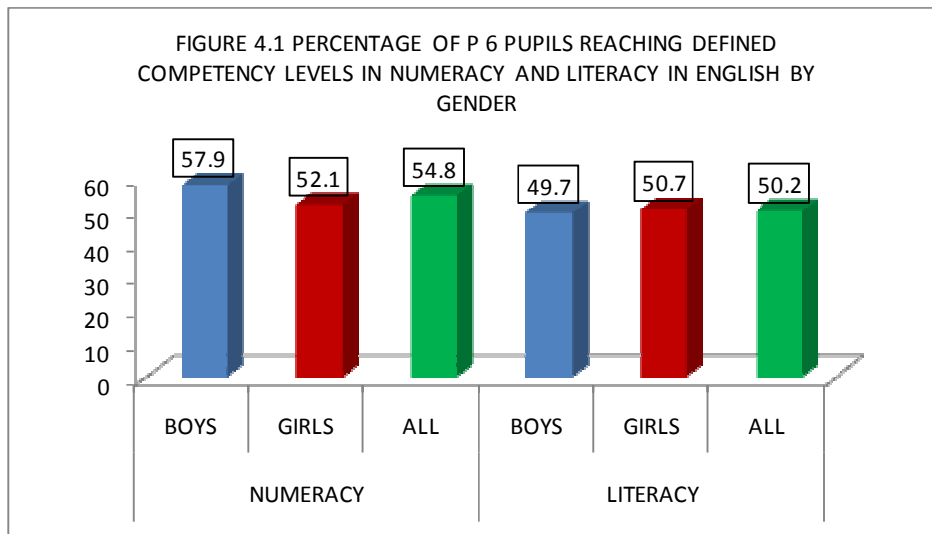


The performance of pupils in the local languages was highly correlated with their performance in English ( $r = 0.9$ ). On average, though, performance was better in English in comparison to the local languages. It was only in ɳakarimojɔŋ that the reverse occurred.

#### 4.0 ACHIEVEMENT OF PRIMARY 6 PUPILS

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

Figure 4.1 shows the percentages of P 6 pupils rated proficient in Numeracy and Literacy in English, by gender.



About a half of the P 6 pupils reached the defined competency levels in Numeracy and Literacy in English. More boys than girls attained the required level of proficiency in Numeracy.

## 4.2 ACHIEVEMENT OF P 6 PUPILS IN COMPETENCES OF NUMERACY AND LITERACY

This section highlights the performance of P 6 pupils in selected competences assessed in the Numeracy and Literacy tests. The flag on each figure were assigned the colours: 'Green', 'Yellow', or 'Red' where: 'Green' represents competences in which at least three quarters of the pupils were rated proficient. 'Yellow' represents competences in which at least a half, but less than three quarters of the pupils reached the desired proficiency. Lastly, 'Red' consists of competences in which less than a half of the pupils attained the desired rating.

### 4.2.1. ACHIEVEMENT OF P 6 PUPILS IN COMPETENCES OF NUMERACY

Table 4.1 shows the percentages of P 6 pupils who responded correctly to selected competences of Numeracy.

TABLE 4.1: PERCENTAGE OF P 6 PUPILS WHO RESPONDED CORRECTLY TO SELECTED COMPETENCES OF NUMERACY

COMPETENCE	BOYS	GIRLS	ALL
Addition of 4 digit numbers without carrying.	↑ 97.5	↑ 97.9	↑ 97.7
Addition of 4 digit numbers with carrying.	↑ 96.9	↑ 96.2	↑ 96.5
Application of addition in real life situations up to 4 digits.	↑ 93.6	↑ 93.4	↑ 93.5
Subtraction of 4 digit numbers without borrowing.	↑ 94.2	↑ 92.1	↑ 93.1
Subtraction of 4 digit numbers with borrowing.	↑ 88.4	↑ 87.6	↑ 88.0
Application of subtraction in real life situations up to 4 digits.	↑ 83.5	↑ 79.7	↑ 81.5
Multiplication of two digit number by a one digit number.	↑ 92.0	↑ 90.5	↑ 91.2
Application of multiplication in real life involving a 2 digit number by a one digit number.	↑ 87.2	↑ 84.4	↑ 85.7
Multiplication of 2 digit number by up to a 2 digit number.	→ 54.3	↓ 47.7	→ 50.8
Division of a two digit number by a one digit number.	↑ 85.7	↑ 84.7	↑ 85.2
Application of division in real life situations (up to 3 digit number by a one digit number).	→ 63.6	→ 56.4	→ 59.8
Solving problems involving money (buying and selling).	↑ 82.5	↑ 84.5	↑ 83.6
Measuring lengths and angles.	↓ 49.4	↓ 41.5	↓ 45.2
Constructing circles and regular polygons.	↓ 43.9	↓ 45.2	↓ 44.6

The percentage of pupils who proved they had acquired the competences of 'operations on numbers' reduced in moving from 'addition' to 'subtraction' to 'multiplication' and then to 'division'. The level of competence of the pupils reduced as the ability level of the items moved from knowledge of the concepts to application of these concepts in novel situations. Besides, less than a half of the pupils could measure lengths and angles or construct circles and regular polygons.

The gender difference in performance in each competence was not significant, apart from ‘application of division in real life situations’ and ‘multiplication of two two-digit numbers’, where the boys did better than the girls.

#### 4.2.2. ACHIEVEMENT OF P 6 PUPILS IN COMPETENCES OF LITERACY IN ENGLISH

The percentages of pupils who responded correctly to items on the competences of Literacy in English are shown in Table 4.2

TABLE 2.2: PERCENTAGE OF P 6 PUPILS WHO RESPONDED CORRECTLY TO ITEMS ON SELECTED COMPETENCES OF LITERACY IN ENGLISH

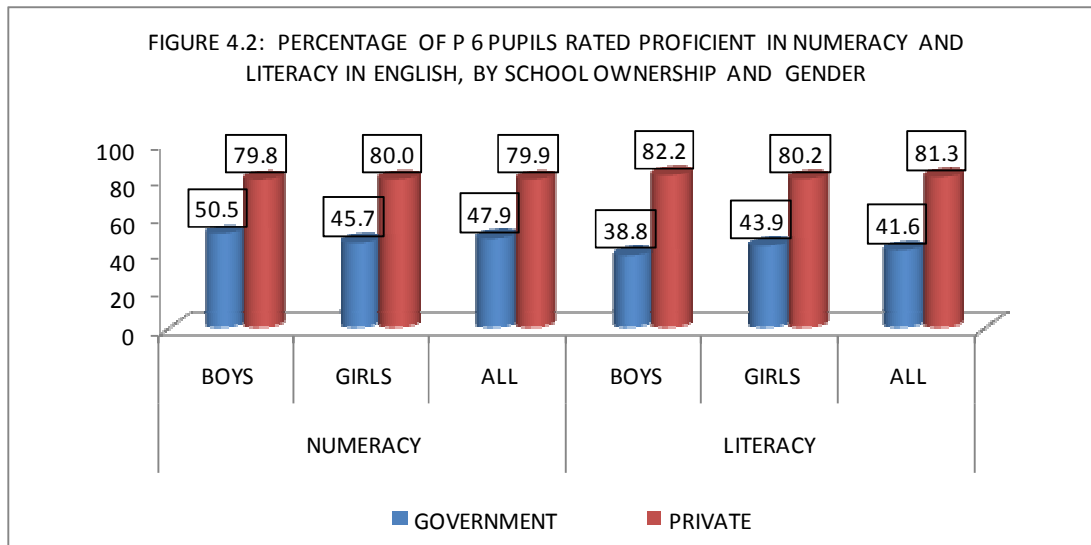
COMPETENCES	BOYS	GIRLS	ALL
<b><i>Calendar reading</i></b>			
Read the day and date correctly from a calendar.	↑ 81.6	↑ 82.7	↑ 82.2
Read a calendar of a month and work out days on which dates in the following month fall.	→ 66.8	→ 62.2	→ 64.4
<b><i>Telling Time</i></b>			
Read the clock and tell the time on the hour.	→ 62.8	→ 55.2	→ 58.8
Read the clock and tell the time on the hour and minutes.	↓ 38.0	↓ 19.7	↓ 28.3
<b><i>Cartoon reading</i></b>			
Read a cartoon and identify items in the pictures.	→ 56.7	→ 55.3	→ 55.9
Read a cartoon, interpret its message and make inferences.	↓ 15.9	↓ 14.1	↓ 14.9
<b><i>Story reading</i></b>			
Read a story and suggest a suitable title for it.	→ 57.5	→ 60.5	→ 59.1
Read a story and derive meaning of phrases as used in the story.	↓ 47.0	↓ 46.2	↓ 46.6
Read a story and derive lessons from the story.	↓ 19.5	↓ 23.5	↓ 21.6
<b><i>Composition writing:</i></b>			
Legibility	→ 61.1	→ 64.4	→ 62.8
Correct format	↓ 33.9	↓ 32.5	↓ 33.2
Correct punctuation and spelling	↓ 28.6	↓ 31.0	↓ 29.9
Relevant content	↓ 22.1	↓ 20.8	↓ 21.4

The performance of the pupils on a particular competence varied with the complexity of the task demanded. For instance, 82.2% of the pupils could read the days and dates from a calendar, while a lower proportion of 64.4% could read a calendar and tell the days on which dates in the following month fall. In story reading, 59.1% of the pupils were able to read a story and suggest a suitable title for it. However, merely 21.6% could derive lessons from the story. Few of the pupils could write a composition with the relevant content using the correct format.

There were no significant gender differences, except in ‘telling time’, in which boys were better.

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

The percentage of P 6 pupils reaching defined competency levels in Numeracy and Literacy in English by school ownership is shown in Figure 4.2.



More pupils in private schools reached the defined competency levels in both subjects, though the difference was bigger for Literacy in English. Additionally, gender disparity was wider in government schools.

#### 4.5 ACHIEVEMENT OF P 6 PUPILS IN NUMERACY BY DISTRICT

In this section, the achievement of P 6 pupils in Numeracy and Literacy in English by district is described. In grouping of the districts, the following descriptors are used: 'Green', 'Orange', and 'Red'. Districts grouped in 'Green' are those in which 75% and above of its pupils were rated proficient. Districts under 'Orange' are those in which at least a half, but less than three quarters of its pupils reached the desired proficiency. Lastly, districts in 'Red' are those in which less than a half of its pupils attained the desired proficiency level. Red districts, with a red flag had less than a quarter of the pupils rated proficient.

Table 4.5 shows the categorization of districts according to the percentages of pupils who reached defined competency levels in both Numeracy and Literacy in English.

**TABLE 4.5: CATEGORIZATION OF DISTRICTS ACCORDING TO THE PERCENTAGES OF P 6 PUPILS REACHING DEFINED COMPETENCY IN BOTH NUMERACY AND LITERACY IN ENGLISH**

GREEN	YELLOW	RED		
Kampala	Buikwe Gulu Ibanda Jinja Kabaroole Kasese Kiruhura Kyenjojo Lira Masindi Mbarara Mityana Moroto Wakiso Zombo	Abim Amudat Arua Bududa Bundibugyo Bushenyi Busia Hoima Iganga Kaabong Kabale Kaberamaido Kalangala Kamuli Kanungu Kibaale Kotido Luweero Lyantonde Masaka Mbale Moyo Mubende Mukono Nakasongola Ntungamo Rakai Rukungiri Sembabule Tororo	Adjumani* Amolatar* Amuria* Amuru* Apac* Budaka* Bugiri* Bukedea* Bukwo* Buliisa* Butaleja* Buyende* Dokolo* Isingiro* Kaliro* Kamwenge* Kapchorwa* Katakwi* Kayunga* Kiboga* Kisoro*	Kitgum* Koboko* Kumi* Kyegegwa* Lamwo* Manafwa* Maracha* Mayuge* Mpigi* Nakapiripirit* Nakaseke* Namutumba* Nebbi* Otake* Oyam* Pader* Pallisa* Sironko* Soroti* Yumbe*

Only Kampala fell in the 'Green' category. There were fifteen (out of 87) districts in 'Yellow'. Out of the remaining 71 districts which were in 'Red', 41 were marked with an asterisk, showing that less than 25% of their pupils reached the defined competency level.

## **5.0 CONCLUSIONS**

The following conclusions can be made of the achievement of the P 3 and 6 pupils in the NAPE assessment in 2010.

### **5.1 OVERALL LEVEL OF ACHIEVEMENT**

#### **Primary 3**

Overall, 72.8% of the P 3 pupils reached the defined competency level in Numeracy and 57.6% attained a similar rating in Literacy in English. This means that nearly three quarters of the pupils in P 3 demonstrated that they had acquired the Numeracy competences as spelt out in the national curriculum. However, just over a half of the pupils showed such proficiency in Literacy in English.

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

In Numeracy, P 3 pupils could, for example, do the following:

- Associate a number of objects to the corresponding number in figures.
- Count in ones or tens.
- Add or subtract numbers without carrying or borrowing.
- Carry out multiplication as repeated addition.

#### **Problem areas of Numeracy at P 3**

- Addition with carrying.
- Subtraction with borrowing.
- Multiplication.
- Division.
- Solving problems involving buying and selling.

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

In Literacy in English, P 3 pupils were able, among others to:

- Associate pictures to pictures.
- Associate pictures to sentences.
- Write patterns with the correct shapes and rhythms.
- Write letters of the alphabet with the correct shape and position.
- Draw pictures.

#### **Problem areas of Literacy in English at P 3**

- Reading and comprehending a story.
- Reading and describing activities in a picture.
- Writing names of objects.

### ***Achievement of P 3 Pupils in Literacy in Local Languages compared to English***

- There was a high correlation in the performance of the pupils in Literacy in the local language and English, but generally better in the latter.

### **Primary 6**

At P 6, about a half of the pupils reached the defined competency level in both Numeracy and Literacy in English: 54.8% and 50.2% respectively.

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

In Numeracy, P 6 pupils were able to:

- Add, subtract, multiply (by a one-digit number) and divide (by a one-digit number).
- Solve problems involving money.

#### Problem areas of Numeracy at P 6

- Multiplication and division of numbers by a number more than one digit.
- Measuring lengths and angles.
- Constructing circles and regular polygons.

### **Achievement of P 6 Pupils in Literacy in English**

In Literacy in English, pupils could:

- Read the day and date on a calendar.

#### Problem areas of Literacy in English at P 6

- Telling time.
- Reading a story and other texts and comprehending it so as to be able to answer questions requiring deeper understanding, such as deriving lessons from the story.
- Writing a relevant composition with the correct format.

## **5.2 ACHIEVEMENT BY SCHOOL OWNERSHIP**

Both P 3 and P 6 pupils in private schools performed better than their counterparts in government schools in the two subjects. However the difference was greater for P 6 than P 3 and in Literacy in English in comparison to Numeracy. Besides boys and girls in private schools performed at about the same levels in both subjects, while in government schools, P 6 boys did better than girls in Numeracy.

Possible reasons:

Better time management therefore more time on task?

More and better utilized reading materials?

Demand for accountability by parents?

More parental involvement in their children's daily school work?