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

MINISTRY OF EDUCATION AND SPORTS

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NAPE REPORT 2018

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

NAPE REPORT 2018

NATIONAL ASSESSMENT OF PROGRESS IN EDUCATION

UGANDA NATIONAL EXAMINATIONS BOARD

Uganda National Examinations Board.

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ACKNOWLEDGEMENT

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ACRONYMS AND ABBREVIATIONS

AL	Application of learnt knowledge
AN	Application of knowledge in New Situation
CFI	Comparative Fit Index
CK	Conceptual Knowledge
CR	Create
CsPro	Census and Survey Processing System
CSV	Comma – Separated Values
CU	Conceptual Understanding
DES	Directorate of Education Standards
DFID	Department for International Development
DISs	District Inspector of Schools
EMIS	Educational Management Information Systems
EPRC	Education Policy Review Commission
EV	Evaluation
GPCM	Generalized Partial Credit Model
ICC	Item Characteristics Curve
IRT	Item Response Theory
MoES	Ministry of Education and Sports
MIS	Municipal Inspector of Schools
NAPE	National Assessment of Progress in Education
NCDC	National Curriculum Development Centre
PL	Parameter Logistic
PLE	Primary Leaving Examination
PTC	Primary Teacher's Colleges
RMSEA	Root Mean Squared Error of Approximation
SEN	Special Education Needs
TAs	Test Administrators
TIC	Test Information Curves
TIET	Teacher instructor Education Training
TLs	Team Leaders
UCE	Uganda Certificate of Education
UNEB	Uganda National Examinations Board
UTSEP	Uganda Teacher and School Effectiveness Project

FOREWORD

UNEB has been conducting NAPE since 1996. NAPE started at the Primary education level as an annual activity. The classes assessed at the Primary education level are P 3 and P 6 in the subjects of Numeracy, Literacy in English and Oral reading.

NAPE findings have made tremendous impact on the education system. The results from the past years' assessments have been used by the government in education planning, policy formulation and review. Teachers are also using the findings to improve their classroom instructional practices.

As UNEB, we are grateful to the Ministry of Education and Sports and Development Partners who, through the Uganda Teacher and School Effectiveness Project (UTSEP), have supported the last two NAPE Teacher-Pupil assessments, that is 2015 and 2018.

It is important to note that Uganda's examination and assessment system is undergoing review. Indeed, UNEB has already started benefiting from the review efforts. I wish to report that DFID, SESIL and Ministry of Education and Sports have provided training to UNEB officers on modern techniques of implementing national assessment. The knowledge acquired from the training has greatly helped in shaping this report.

The report contains the findings of the 2018 NAPE Teacher-Pupil assessment which was conducted in July 2018. It is my sincere hope that the findings will help the Ministry of Education and Sports and other stakeholders in education and planning to improve the quality of education in our country. Therefore, I urge all stakeholders to read and use the report for that purpose.

Dan N. Odongo

EXECUTIVE SECRETARY

EXECUTIVE SUMMARY

In 2018, NAPE conducted a countrywide survey to determine the levels of the P 3 and P 6 learners' achievement in Numeracy and Literacy in English, the relationship between the achievement of learners and gender, school location, school ownership and district. It was also set out to determine the level of achievement of teachers and PTC tutors in Numeracy and Literacy in English, and establish the relationship between P 6 learners' achievement and their usage of school time.

The instruments were administered to a representative sample of Primary 3 (P 3) and Primary 6 (P 6) pupils, teachers, Year 2 student teachers, and Primary Teachers' College (PTC) tutors. It should, however, be noted that, the teachers and tutors were assessed in the subject areas they teach, while the student teachers sat for tests in both Numeracy and Literacy in English.

In addition to the written tests, focus group discussions were held with P 6 learners and Year 2 student teachers while interviews were conducted with P 6 class teachers and PTC Year 2 tutors, to gain a deeper understanding of the contextual factors and how these influence learning.

Sample Size and Sample Design

The sample size for the learners and in-service teachers consisted of 1558 primary schools, and of these 12 were special education Needs schools.

A stratified two stage sampling design was used. Stratified by 122 districts, at least 13 primary schools were randomly selected through probability proportional to class size. A random sample of 20 learners was obtained from each of the P 3 or P 6 classes in the selected schools. However, where the school had less than 20 learners in a P 3 or P 6 class, a compensation was made by oversampling more learners from another school in order to realize the required minimum number of learners required per district. In the sampled schools, four teachers were selected i.e., one teacher of Numeracy and one of Literacy in English from each of the P 3 and P 6 classes.

Description of Proficiency Levels

The achievement of learners was categorized into four proficiency levels and each subject had its unique performance band.

The table below presents a description of level of the knowledge and skills demonstrated, by proficiency level (bands)

Table 1: Description of level of knowledge and skills demonstrated, by proficiency levels (bands)

Band	Proficiency level	Level of knowledge and skills
Band 4	Highly Proficient	An exceptionally high level of understanding of concepts and use of relevant skills
Band 3	Proficient	High level of understanding of concepts and use of relevant skills
Band 2	Moderately proficient	Basic understanding of concepts and use of relevant examples
Band 1	Lowly proficient	Limited understanding of concepts and use of relevant skills

A learner was considered proficient if he/she was in band 3 or 4. Band 3 was the desired minimum level of proficiency.

Overall Level of Achievement of Learners by, Gender, School Location and Ownership

At P 3, the proportion of girls (56.1%) rated proficient in Numeracy was higher than that of boys (54.3%). Similarly, the proportion of P 3 girls (52.5%) rated proficient in Literacy in English was higher

than that of boys (47.4%).

In terms of urban-rural gap, the proportion of learners rated proficient in Numeracy (68.4%) in schools in urban areas was higher than that of learners in schools in rural areas (51.2%). Further, when schools were compared on the basis of ownership, a wider disparity in proportions of learners rated proficient in Literacy in English was noticed between privately owned schools (83.3%) and government schools (44.2%). Likewise, in Numeracy, the proportions of learners rated proficient in private schools (85.1%) was higher than that of learners in government schools (50.1%).

At P 6, slightly more than half of the learners assessed were rated proficient in Numeracy. The proportion of boys (56.2%) rated proficient was higher than that of girls (45.9%). In terms of urban-rural gap, the proportion of learners rated proficient in Numeracy (67.6%) in schools in urban areas was higher than that of learners in schools in rural areas (46.2%).

Further, the proportion of learners rated proficient in Numeracy (78.6%) in private schools was higher than that of learners in government schools (46.4%). This disparity was also witnessed in Literacy in English where, the proportion of learners rated proficient (83.6%) in private schools was higher than that of learners in government schools (48.2%).

Proficiency of P 3 learners in Numeracy and Literacy in English, by district
Twenty six out of 122 districts in Uganda were categorized 'green', implying that at least three quarters (75%) of their P 3 learners were rated proficient in Numeracy. On the other hand, 10 districts were categorized 'red' that is, they had less than a quarter (25%) of their P 3 learners rated proficient in Numeracy.

In Literacy in English, 23 out of 122 districts in Uganda were categorized 'green', and 21 districts were categorized 'red'.

Proficiency of P 6 learners in Numeracy and Literacy in English, by district
Eighteen out of 122 districts in Uganda were categorized 'green', implying that at least three quarters (75%) of their P 6 learners were rated proficient in Numeracy. On the other hand, 4 districts were categorized 'red' meaning that, they had less than a quarter (25%) of their P 6 learners rated proficient in Numeracy.

Furthermore, 19 out of 122 districts in Uganda were categorized 'green', in Literacy in English, and 8 districts were categorized 'red'.

Achievement of Teachers in Numeracy and Literacy in English
The three categories of teachers (pre-service, in-service and tutors) did the same tests of Numeracy and Literacy in English as those of P 6 learners. The teachers were rated **highly proficient in almost all competencies** of Numeracy and Literacy in English assessed at P 6 except in the following areas;

- Writing an informal letter with the correct format
- Using debating language
- Writing a composition with adequate content
- Recognizing the difference between a histogram and a bar graph
- Interpreting a bar graph
- Identifying and drawing all the lines of symmetry of an equilateral triangle
- Indicating the units of measurement for any measurement taken

Achievement of Learners and Effective Usage of School Time
Learners, class teachers, pre-service teachers and class tutors were interviewed on their views on activities/events that disrupt lessons in their respective schools/colleges, and the observance of lesson time as reflected on the classroom timetable displayed in the classroom. It was found out that learners in sampled schools where:

- sports activities or extended assembly time encroached on lesson time, achieved more learning compared to those where the two activities reportedly did not encroach on lesson time.

- pupils came late or missed lessons because of engagement in activities such as harvesting, fishing and gardening, achieved less learning than those in schools where the activities were not reported to have disrupted lessons.

- the timetable was displayed in the classroom and was followed, achieved more learning than those in schools where the timetable was not displayed in classroom.

Organisation of the Report

The report is presented in 10 chapters.

Chapter 1	Introduction
Chapter 2	Survey Procedures
Chapter 3	Achievement of P 3 learners in Numeracy
Chapter 4	Achievement of P 3 learners in Literacy in English
Chapter 5	Achievement of P 6 learners in Numeracy
Chapter 6	Achievement of P 6 learners in Literacy in English
Chapter 7	Achievement of Teachers in Numeracy and Literacy in English
Chapter 8	Achievement of Learners and Effective Usage of School Time
Chapter 9	Conclusions and Recommendations

Mode of Presentation of Findings

Chapters 1 and 2 are the Introduction and Survey procedures, respectively. The findings are presented in Chapters 3, 4, 5, 6, 7 and 9. The presentation of findings in each Chapter begins with a description of competencies assessed by proficiency level, followed by the achievement of learners by gender, school location, school ownership and district.

The format of presentation of findings for learners differs from that of teachers. The achievement of teachers is presented in Chapter 7 in form of a summary statement. This is followed by Chapter 8 which shows the competencies where the teachers and learners had difficulties.

NAPE Assessment 2018 and Previous NAPE Assessments

The 2018 NAPE Teacher-Pupil Assessment is fundamentally different from all the previous NAPE assessments in terms of focus, test development, analysis and reporting format. Therefore, the findings should not be compared with the findings of previous NAPE assessments.

Chapter 1

Introduction

Chapter 1

INTRODUCTION

1.1   BACKGROUND

National Assessment of Progress in Education (NAPE) is a national assessment conducted in Uganda. It measures the performance of the whole education system by ascertaining the national levels of pupils'/students' learning achievement and monitoring changes in the achievement levels over time. In determining learners' achievement, national assessment takes into consideration the context in which learning occurs. Therefore, the contextual factors are correlated with the learning achievements to determine their relation to the achievement levels.

NAPE was created in the education system as a result of the Education Policy Review Commission (EPRC, 1989), realizing the lack of reliable and up-to-date data on educational indicators. The only assessment information used then, for purposes of monitoring and evaluation, was based on results of public examinations such as Primary Leaving Examination (PLE), Uganda Certificate of Education (UCE) and reports written by examiners on these examinations.

The basic idea of NAPE is to collect accurate and timely information on what specified groups of learners know and can do. The data are collected by administering cognitive and non-cognitive instruments to a sample of respondents of interest. The findings are reported at national level and disaggregated at sub national levels. The assessments are done before learners reach the final class of the education cycle so as to allow for any necessary corrective measures to be implemented. The findings from the data are critical to all stakeholders in education, particularly for purposes of planning the necessary inputs to re-direct and fine-tune efforts toward the desired educational goals.

Therefore, NAPE aims to be a reliable mechanism for promoting accountability by ascertaining and monitoring the achievement of learners at the national level. The first national assessment in Uganda was carried out in 1996 at primary education level and 2008 at the secondary education level.

1.2   MAIN OBJECTIVES OF NAPE

The main objectives of NAPE are to:

   i.   determine and monitor the level of achievement of learners over time.

   ii.   generate information on what learners know and can do in different areas of the curriculum.

   iii.   evaluate the effectiveness of reforms in the education system.

   iv.   provide information on variables which affect learning achievement.

   v.   suggest measures for the improvement of teaching and learning in schools.

   vi.   provide data for planning and research.

1.3   CONTEXT OF EDUCATION IN UGANDA

Uganda is one of the Eastern African states lying mostly between latitudes 40 12'N and 10 29'S and longitudes 290 34'E and 350 0' E; astride the equator. It is about 1200m above sea level. Uganda's land area is 241,550.7 square kilometers of which 41,743.2 square kilometres

is open water and swamps[1]. Uganda's climate is generally tropical in nature but differs markedly from one region to another. The climate is favourable for agriculture and has attracted most of the people into farming. The people of Uganda practice mostly subsistence farming, small scale units of commercial farming and very low levels of extensive farming.

The country is land locked, bordered by Kenya in the East, the Democratic Republic of Congo in the West, Tanzania in the South, Rwanda in the South West and the Republic of South Sudan in the North. It is vastly a plateau, whose fringes are marked by mountains and valleys. These, together with other physical features affect the provision of social services, like education in some areas. For instance, access to schools in the island district of Kalangala, which is composed of many small islands on Lake Victoria, poses a challenge, not only to pupils and teachers, but also to education administrators and inspectors. The same applies to the rocky and mountainous districts of: Bundibugyo and Kisoro in the West and Bukwo and Bududa in the East. Uganda is administratively divided into 112 districts (Appendix i) which are administered by the Local Governments and supervised by the Central Government's Ministry of Local Government.

Uganda, with a population density of 126 per square kilometer, has a fast growing population of 3.3%; increasing from 24.2 million in 2002 to the estimated figure of 35.8 million people by 2015[2]. About a half of the population is below 15 years of age, which creates a high level of child dependence. The number of primary school pupils was expected to increase from 8.3 million in 2010 to 18.4 million in 2037. The high rate of population growth affects the country's effort to achieve and sustain quality education.

The population comprises about fifty ethnic groups, each with a different local language, which is supposed to be used as the medium of instruction in lower primary in the rural areas, while English is taught as a subject. However, English is the medium of instruction in upper primary and in institutions of higher learning. Kiswahili is also taught in some primary and secondary schools.

It is in the context discussed above that the Uganda's education system operates.

A list of the districts in Uganda showing the zones and regions as well as the major languages spoken is given in Table 1.1.

TABLE 1.1: **REGIONS, ZONES AND DISTRICTS IN UGANDA AND THE MAJOR LANGUAGES SPOKEN**

REGION	ZONE	DISTRICTS	MAJOR LANGUAGES SPOKEN
Central	Central I	Buikwe, Butambala, Buvuma, Gomba, Kayunga, Mpigi, Mukono, Wakiso.	Luganda
	Central II	Kiboga, Kyankwanzi, Luweero, Mityana, Mubende, Nakaseke, Nakasongola.	Luganda, Lululi, Runyoro, Kinyarwanda
	Central III	Bukomansimbi, Kalangala, Kalungu, Lwengo, Lyantonde, Masaka, Rakai, Sembabule, Kyotera.	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, Namisindwa.	Kupsabiny, Lumasaba
	Mid East II	Budaka, Busia, Butaleja, Kibuku, Pallisa, Tororo, Butebo.	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

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1   Uganda Bureau of Statistics, 2013 Statistical Abstract, pg 1 http://www.ubos.org
2   Uganda Bureau of Statistics, 2014 National Population and Housing Census 2014, Provisional Results, pg 16 http://www.ubos.org

REGION	ZONE	DISTRICTS	MAJOR LANGUAGES SPOKEN
North	Mid North I	Alebtong, Amolatar, Apac, Dokolo, Kole, Lira, Otuke, Oyam.	Lango
	Mid North II	Agago, Amuru, Gulu, Lamwo, Kitgum, Nwoya, Pader, Omoro.	Acoli
	North East	Abim, Amudat, Kaabong, Kotido, Moroto, Nakapiripirit, Napak.	Ngakarimojong Thur
	West Nile	Adjumani, Arua, Koboko,Maracha, Moyo, Nebbi, Yumbe, Zombo, Pakwach.	Alur, Kakwa, Lugbarati, Madi
West	Far West	Kabale, Kanungu, Kisoro, Rukungiri, Rukiga, Rubanda.	Rukiga, Kinyarwanda, Rufumbira.
	Mid-West	Bundibugyo, Kabarole, Kamwenge, Kasese, Bunyangabu, Kyegegwa, Kyenjojo, Ntoroko.	Kiswahili, Lukhonzo,Lwamba, Rutooro
	North West	Buliisa, Hoima, Kibaale, Kakumiro, Kagadi, Kiryandongo, Masindi.	Kiswahili, Runyoro
	South West	Bushenyi, Buhweju, Ibanda, Isingiro, Kiruhura, Mbarara, Mitooma, Ntungamo, Rubirizi, Sheema.	Kinyarwanda, Runyankore

1.4 EDUCATION SYSTEM IN UGANDA

Formal education was introduced in Uganda at the end of the nineteenth century. In the early years of the twentieth century, the first schools for formal education were built in the country. From that time, the education system continued to develop. Today, the system of formal education in Uganda has a structure of 3 years of pre–primary education, 7 years of primary education, 6 years of secondary education (divided into 4 years of lower secondary education and 2 years of upper secondary education), and 3 to 5 years of post–secondary education[3]. Primary education, however, is still largely considered the first official level of formal education since government has not established any pre-primary schools for children[4].

Uganda has all along been committed to the various international initiatives aimed at improving the quality of education. For example, Education For All (EFA) first launched in Jomtien (Thailand) in 1990 to bring benefits of education to every citizen in every society[5]. The country has also been committed to the Millennium Development Goals in 2015 metamorphosed into Sustainable Development Goals. Goal number four of the Sustainable Development Goals (SDGs) is to *"Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".* It is, therefore, essential for the country to provide quality and relevant education to all citizens, irrespective of cultural, gender, regional, physical or social differences.

In order to improve the quality of education in schools, Government and its development partners have put in place a number of Quality Enhancement Initiatives (QEIs). Classrooms, libraries and laboratories have been constructed in many schools. The Primary School and Primary Teacher Colleges' curricula were reviewed to make them more relevant to the country's needs. Recently in 2015, the country launched a new project – Uganda Teacher and School Effectiveness Project (UTSEP) with assistance from Global Partnership for Education (GPE). The main objective of the project is: to support Government in improving teacher and school effectiveness in the public primary schools. It is expected that strengthening the school system, including the capacity of the teachers to deliver, would result into improved quality learning.

3   Review of Education Policy in Uganda: working Paper submitted by Ojijo to the Young Leaders Think tank for policy alternative – Uganda, February 2012, page 2.
http://www.slideshare.net/ojijop/review-of-education-policy-in-uganda
4   Status of Implementation of the ECD Policy in Uganda, Page 6
http://www.education.go.ug/files/downloads/Early%20Childhood%20Development%20Policy%20Review.pdf
5   Count Down to 2015: Is Uganda on Track? Assessment of Progress To Attainment Of EFA goals In Uganda, page 1.
www.education.go.ug/files/downloads/ASSESSMENT OF PROGRESS ON EFA GOALS.pdf.

1.5   THE 2018 NAPE SURVEY

This report presents the results of the 2018 NAPE survey. The objectives of the study are presented in this chapter. Chapter 2 describes the instruments, their mode of administration and the procedures for selecting the sample. Finding about P 3 pupils' achievement in Numeracy and Literacy in English are presented in Chapters 3 and 4, respectively. Chapters 5 and 6 present P 6 pupils' achievement results in Numeracy and Literacy in English. Chapter 7 presents the performance of pre-service teachers, in-service teachers and PTC tutors in Numeracy and Literacy in English.

Finally, the conclusions, discussions and recommendations drawn from pupils' achievement in Numeracy and Literacy in English, pre-service teachers, in-service teachers and PTC tutors are presented in Chapter 8. The results are presented in terms of the overall mean scores and percentages of pupils achieving the desired levels of proficiency. Statistics are also provided by gender, age, school ownership (government or private), location (urban or rural) and by district.

The 2018 survey had the following objectives;

1.   To determine the levels of learners' achievement in Numeracy and Literacy in English.

2.   To examine the relationship between the achievement of learners and gender, school location and school ownership.

3.   To determine the levels of achievement of pre-service teachers, in-service teachers and PTC tutors in Numeracy and Literacy in English.

4.   To determine the relationship between P 6 learners achievement and their usage of school time.

Chapter 2

Survey Procedures

Chapter 2

SURVEY PROCEDURES

This chapter is a description of the instruments and procedures that were used in selecting the sample, collecting, capturing and analyzing the data.

2.1 INSTRUMENTS

There were two categories of instruments used in the survey i.e., written tests of Numeracy and Literacy in English and Contextual instruments (Focus Group Discussion guides and Interview Schedules)

2.2 RESPONDENTS

The assessments were administered to learners of Primary three (P 3) and Primary six (P 6). In addition, the P 6 tests were administered to in-service teachers, pre-service teachers and Primary Teachers' College (PTC) tutors. It should, however, be noted that in-service teachers and tutors sat for tests in the subject areas they teach, while pre-service teachers sat for both tests.

The Focus Group Discussion was held with a purposive sample of 10 – 15 learners and 10-15 Year 2 pre-service teachers, while the interview schedule was administered to P 6 class teachers and Year 2 class tutors.

2.3   SAMPLING DESIGN AND SAMPLE SIZE

A stratified two stage cluster random sampling design was used. Stratified by 122 districts, at least 13 primary schools were randomly selected through probability proportional to class size.

In an ideal situation, a random sample of 20 learners was obtained from each of the P 3 and P 6 classes in the selected schools. Where a school had less than 20 learners in P 3 or P 6 class, a compensation was made by oversampling more learners from another school in order to realize the minimum number of learners required per district. In the sampled schools, four teachers were selected i.e., one teacher of Numeracy and one teacher of Literacy in English from each of the P 3 and P 6 classes. However, the sample was not realized in instances where the same teacher was teaching Numeracy or Literacy in English at both P 3 and P 6; or was teaching both Numeracy and Literacy in English at either P 3 or P 6. In the latter, the teacher made a choice of the test to take.

All the Year 2 students (pre-service teachers) from 65 public and private PTCs in the country and their respective tutors for Literacy in English and Numeracy were assessed.

The national sample size for the learners and in-service teachers consisted of 1,558 primary schools, and of these 12 were Special Education Needs schools. The number of leaners and teachers in the achieved sample is shown in Table 2.1.

Table 2.1: Number of Learners and Teachers in the Achieved Sample, by Gender

Category of testees	Subjects assessed	Males		Females		All	
		N	Percent	N	Percent	N	Percent
Primary 3	Numeracy and Literacy in English	16,001	51.0	15,361	49.0	31,362	100
Primary 6	Numeracy and Literacy in English	15,124	48.9	15,833	51.1	30,957	100

In-service teachers	Numeracy	3,497	64.1	1,927	35.3	5,454	100
	Literacy in English	1,421	53.2	1222	45.8	2,670	100
Pre-service teachers	Numeracy	2,850	46.4	3,299	53.7	6,149	100
	Literacy in English	2,580	46.3	3,300	53.7	6,150	100
Tutors	Numeracy	62	87.3	9	12.7	71	100
	Literacy in English	43	68.3	16	25.4	63	100

N is the number of test takers.

2.4   DESCRIPTION OF PROFICIENCY LEVELS

The achievement of learners was categorized into four proficiency levels as shown in Table 2.2.

Table 2.2:   Description of level of knowledge and skills demonstrated, by proficiency levels (bands)

Band	Proficiency Level	Level of knowledge and skills
Band 4	Highly Proficient	An exceptionally high level of understanding of concepts and use of relevant skills
Band 3	Proficient	High level of understanding of concepts and use of relevant skills
Band 2	Moderately proficient	Basic understanding of concepts and use of relevant skills
Band 1	Lowly proficient	Limited understanding of concepts and use of relevant skills

A learner is considered proficient if he/she is in band 3 or 4. Band 3 is the desired minimum level of proficiency.

Chapter 3

Achievement of P3 Learners in Numeracy

Chapter 3

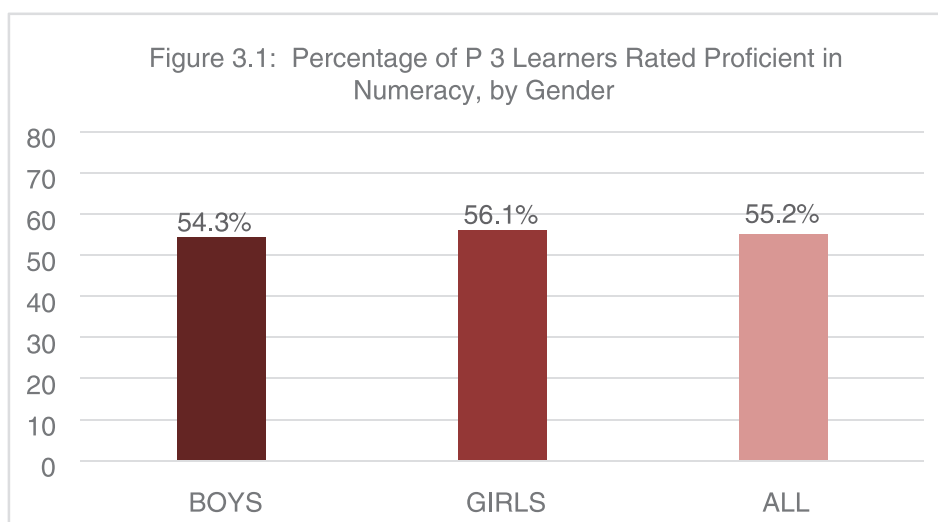# ACHIEVEMENT OF P 3 LEARNERS IN NUMERACY

This chapter presents the achievement of P 3 learners in Numeracy. Learners' achievement was categorized into four proficiency levels, that is, lowly proficient, moderately proficient, proficient and highly proficient. The competencies for a typical P 3 learner in a given proficiency level are shown in Table 3.1.

Table 3.1: Description of Competencies Assessed in Numeracy at P 3, by Proficiency Levels

Proficiency level	Competencies
Lowly proficient	Learners in this category can count in ones, count objects and associate them to figures; read numbers in words up to hundreds with some level of difficulty and associate them to figures; add numbers up to hundreds without carrying; identify fractions.
Moderately proficient	The learners in this proficiency level can, in addition to the above, count in tens, associate numbers in words to figures; subtract two-digit numbers with borrowing; divide single digit numbers; subtract three-digit numbers without borrowing; extract and interpret information from a graph; name and draw sets of objects; tell the time in hours (using a 12-hour analogue clock).
Proficient	In addition to the above, learners in this category can add 2-digit numbers with carrying; read, interpret and work out word problems of addition with carrying; and subtract with borrowing but with some difficulty.
Highly Proficient	These learners can do the above and subtract a two-digit number from a two-digit number with borrowing; read, interpret and work out word problems of addition with carrying; subtract with borrowing with ease; and show time on a clock face.

3.1   Overall Level of Achievement of P 3 Learners in Numeracy, by Gender

This section describes the performance of P 3 learners in Numeracy. The percentages of P 3 learners rated proficient in Numeracy are shown in Figure 3.1.

Figure 3.1: Percentage of P 3 Learners Rated Proficient in Numeracy, by Gender

The proportion of girls (56.1%) rated proficient was significantly (p=0.001) higher than that of boys (54.3%).

3.2   Achievement of P 3 learners in Numeracy, by School location and Gender

This sub-section presents the achievement of P 3 learners in Numeracy by school location and gender. The percentages of the learners rated proficient in Numeracy by school location and gender are shown in Figure 3.2.
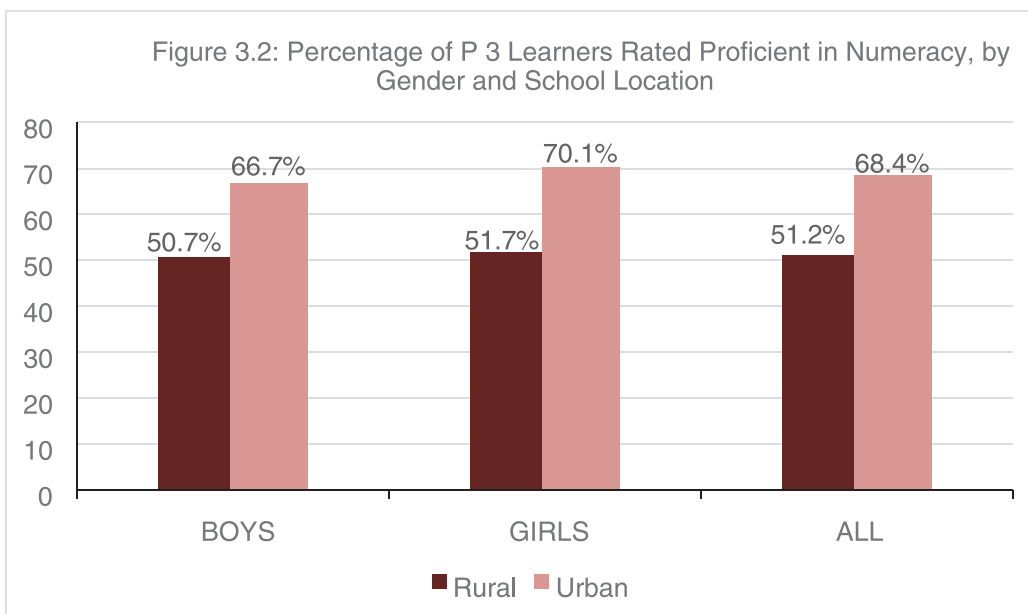
Figure 3.2: Percentage of P 3 Learners Rated Proficient in Numeracy, by Gender and School Location

The proportion of learners rated proficient in Numeracy (68.4%) in schools in urban areas was significantly (p=0.000) higher than that of the learners in schools in rural areas (51.2%).

3.3 Achievement of P 3 learners in Numeracy, by School ownership and Gender

This sub-section shows the percentages of P 3 learners rated proficient in Numeracy by school ownership and gender. The percentages are presented in Figure 3.3.

Figure 3.3: Percentage of P 3 Learners Rated Proficient in Numeracy, by Gender and School Ownership

The proportion of learners rated proficient in Numeracy (85.1%) in private schools was significantly (P=0.000) higher than that of learners in government schools (50.1%)

3.4 Achievement of P 3 learners in Numeracy, by district
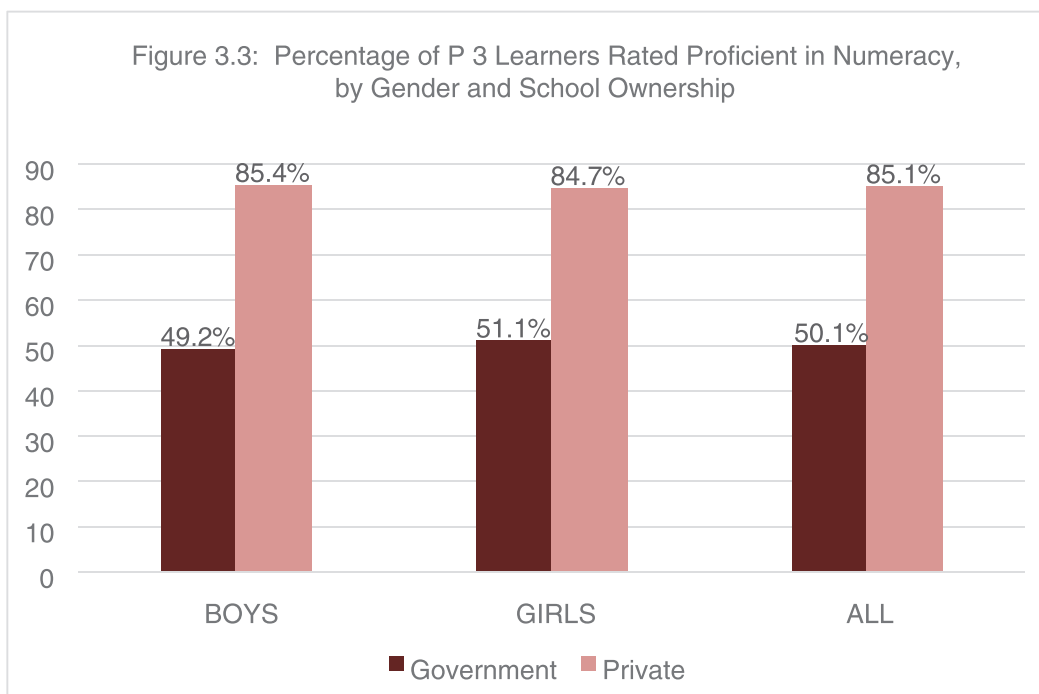
This sub-section presents the achievement of P 3 learners in Numeracy by district. The percentages of P 3 learners rated proficient in Numeracy by district are shown in Figure 3.4.

Figure 3.4: The percentages of P 3 learners rated proficient in Numeracy, by district
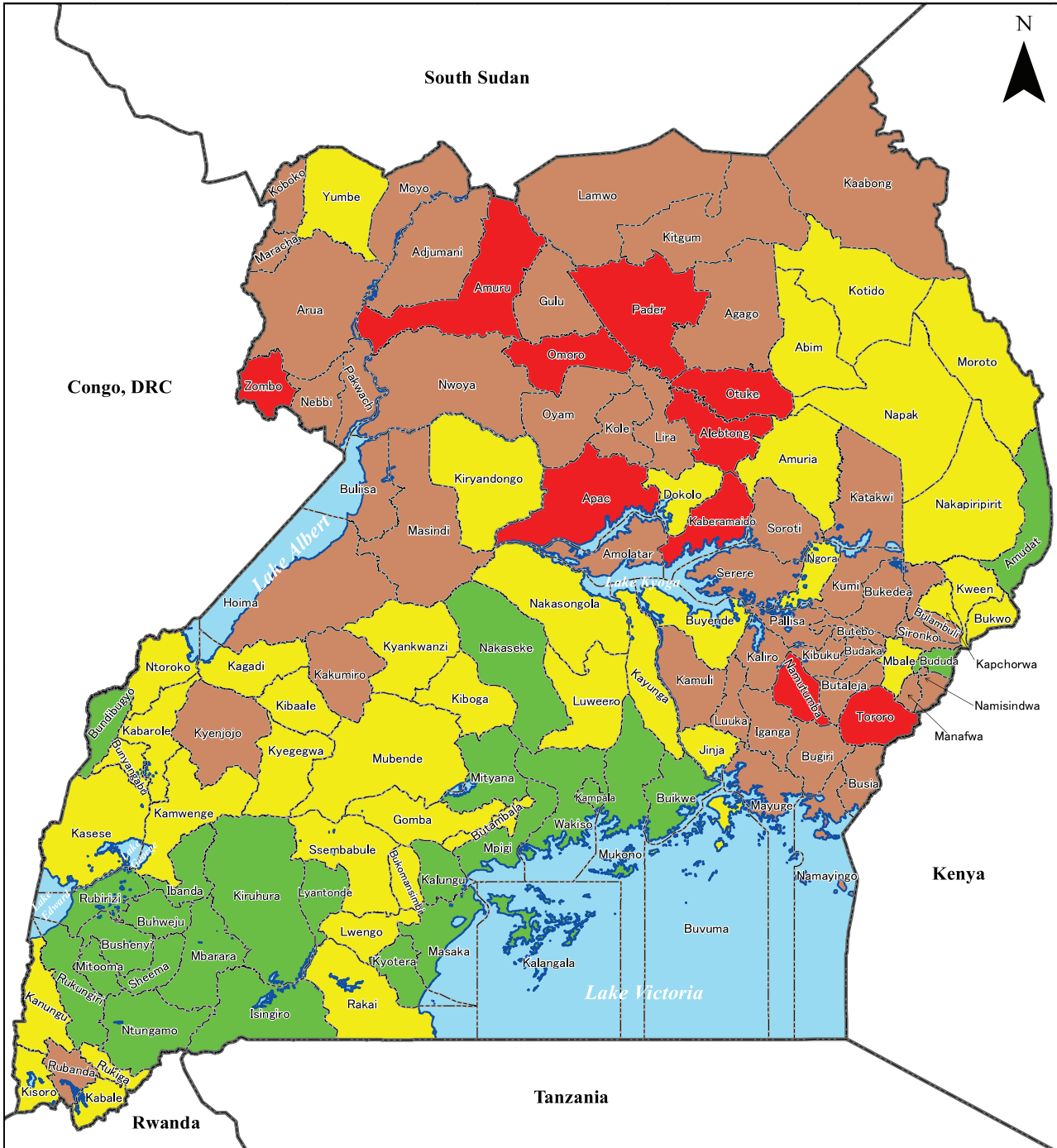
Twenty-six out of 122 districts in Uganda were categorized 'green', implying that at least three quarters (75%) of their P 3 learners were rated proficient in Numeracy. On the other hand, 10 districts were categorized 'red' i.e., they had less than a quarter (25%) of their P 3 learners rated proficient in Numeracy.

Chapter 4

Achievement of P3 Learners in Literacy in English

Chapter 4

ACHIEVEMENT OF P 3 LEARNERS IN LITERACY IN ENGLISH

This chapter presents the achievement of learners in Numeracy. Learners' achievement was categorized into four proficiency levels: lowly proficient, moderately proficient, proficient and highly proficient. The competencies for a typical P 3 learner in a given proficiency level are shown in Table 4.1.

Table 4.1: Description of competencies assessed in Literacy in English at P 3, by proficiency levels

Proficiency level	Competencies
Lowly proficient	Learners in this category can write letters of the alphabet; write sentences and associate common three-letter words to pictures.
Moderately proficient	Learners can read and recognize familiar words and write letters in a pattern. They can, sometimes, re-arrange letters to form a three-letter word; read and extract simple information from a short passage; and identify a word to fit in a short sentence.
Proficient	Learners can use vowels to complete short familiar words; rearrange letters to form a four-letter word; complete sentences with simple three-letter words; copy a passage using appropriate writing conventions; recognize common words that relate to given occupations. They can sometimes name familiar objects using correctly spelled long words and arrange words to form grammatically correct sentences.
Highly Proficient	Learners can draw inferences from a short passage; use prepositions such as 'in' and 'on'; spell common compound words; write complete sentences using verbs in present continuous tense; position an adjective correctly in a sentence.

4.1   Overall Level of Achievement of P 3 Learners in Literacy in English, by Gender

This section describes the performance of P 3 learners in Literacy in English. The percentages of P 3 learners rated proficient in Literacy in English are shown in Figure 4.1.

Figure 4.1: Percentage of P 3 Learners Rated Proficient in Literacy in English, by Gender

The proportion of girls (52.5%) rated proficient in Literacy in English was significantly (p=0.000) higher than that of boys (47.4%).

4.2 Achievement of P 3 learners in Literacy in English, by School location and Gender

This sub-section shows the percentage of P 3 learners rated proficient in Literacy in English by school location and gender. The percentages are presented in Figure 4.2.
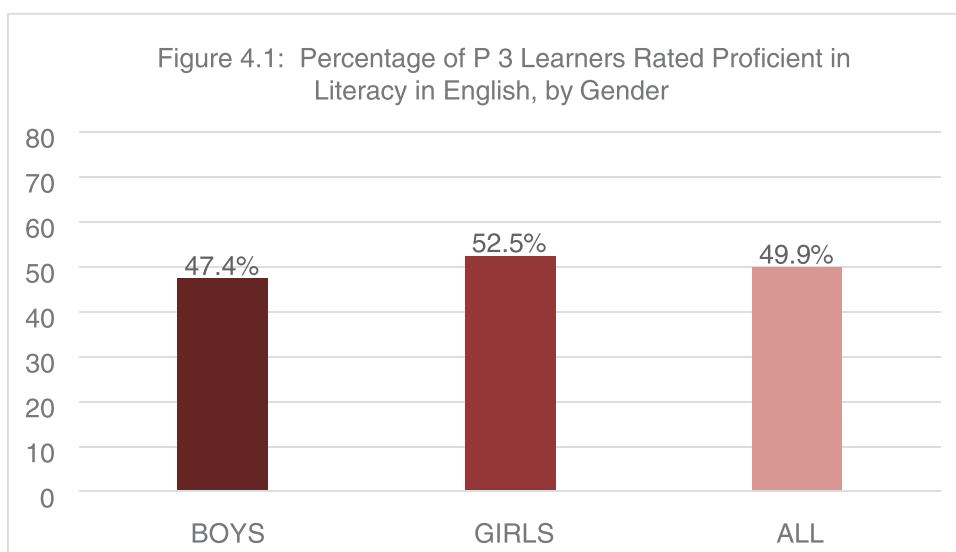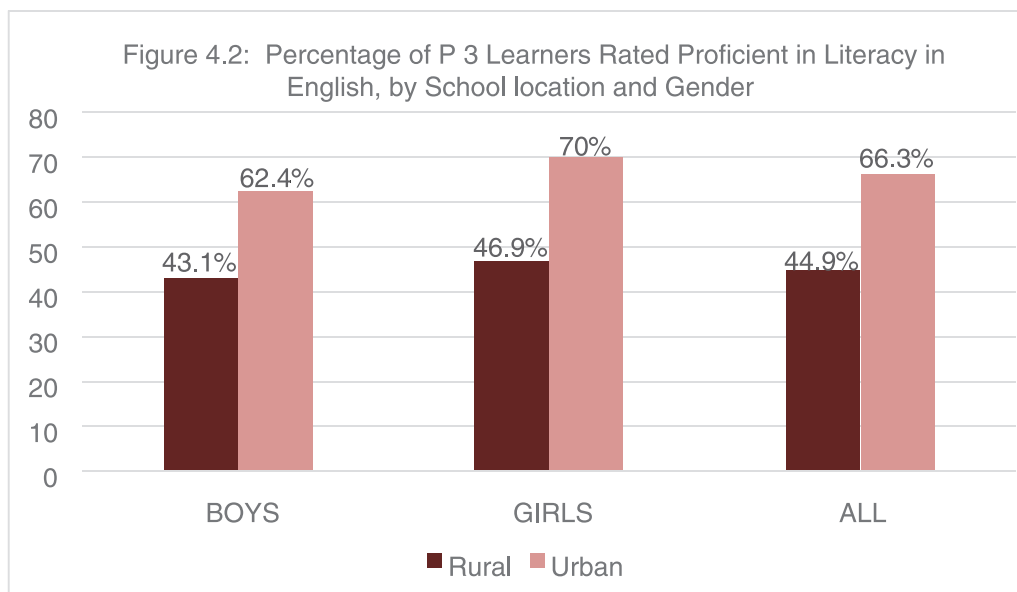

Figure 4.2: Percentage of P 3 Learners Rated Proficient in Literacy in English, by School location and Gender

The proportion of learners rated proficient in Literacy in English (66.3%) in schools in urban areas was significantly (p=0.000) higher than that of learners in schools in rural areas (44.9%).

4.3 Achievement of P 3 learners in Literacy in English, School ownership and Gender

This sub-section shows the percentage of P 3 learners rated proficient in Literacy in English by school ownership and gender. The percentages are presented in Figure 4.3.

Figure 4.3: Percentage of P 3 Learners Rated Proficient in Literacy in English, by School ownership and Gender ownership and gender

The proportion of learners rated proficient in Literacy in English (83.3%) in private schools was significantly (p=0.000) higher than that of learners in government schools (44.2%).

4.4   Achievement of P 3 learners in Literacy in English, by district
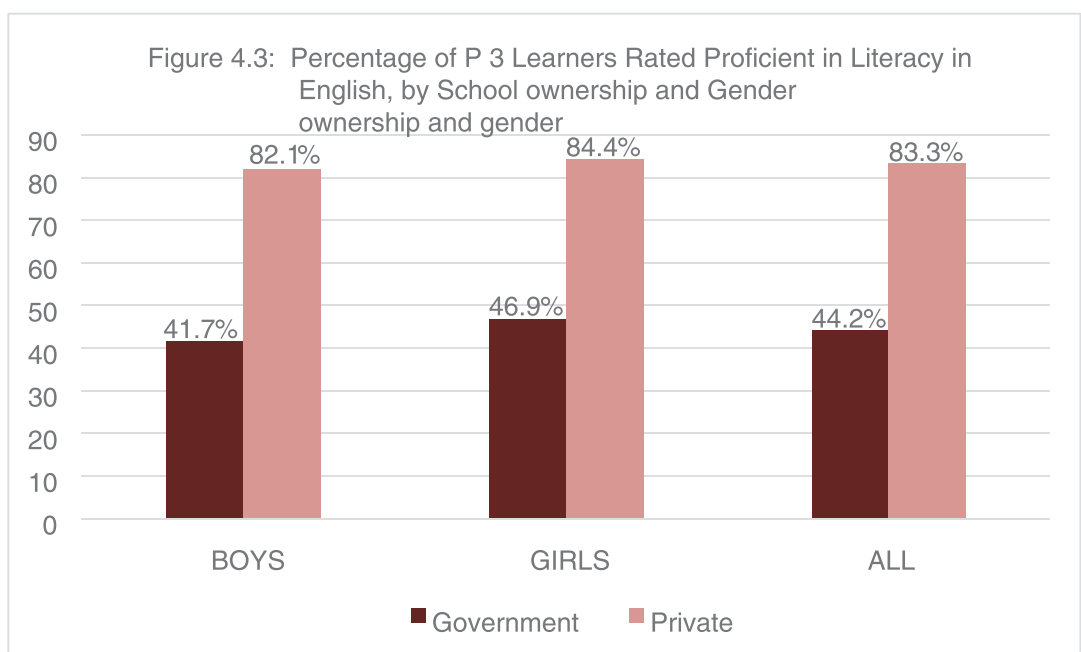
This sub-section shows the percentages of P 3 learners rated proficient in Literacy in English by district. The percentages are presented in Figure 4.4.

Figure 4.4: The percentage of P 3 Learners rated proficient in Literacy in English by district.
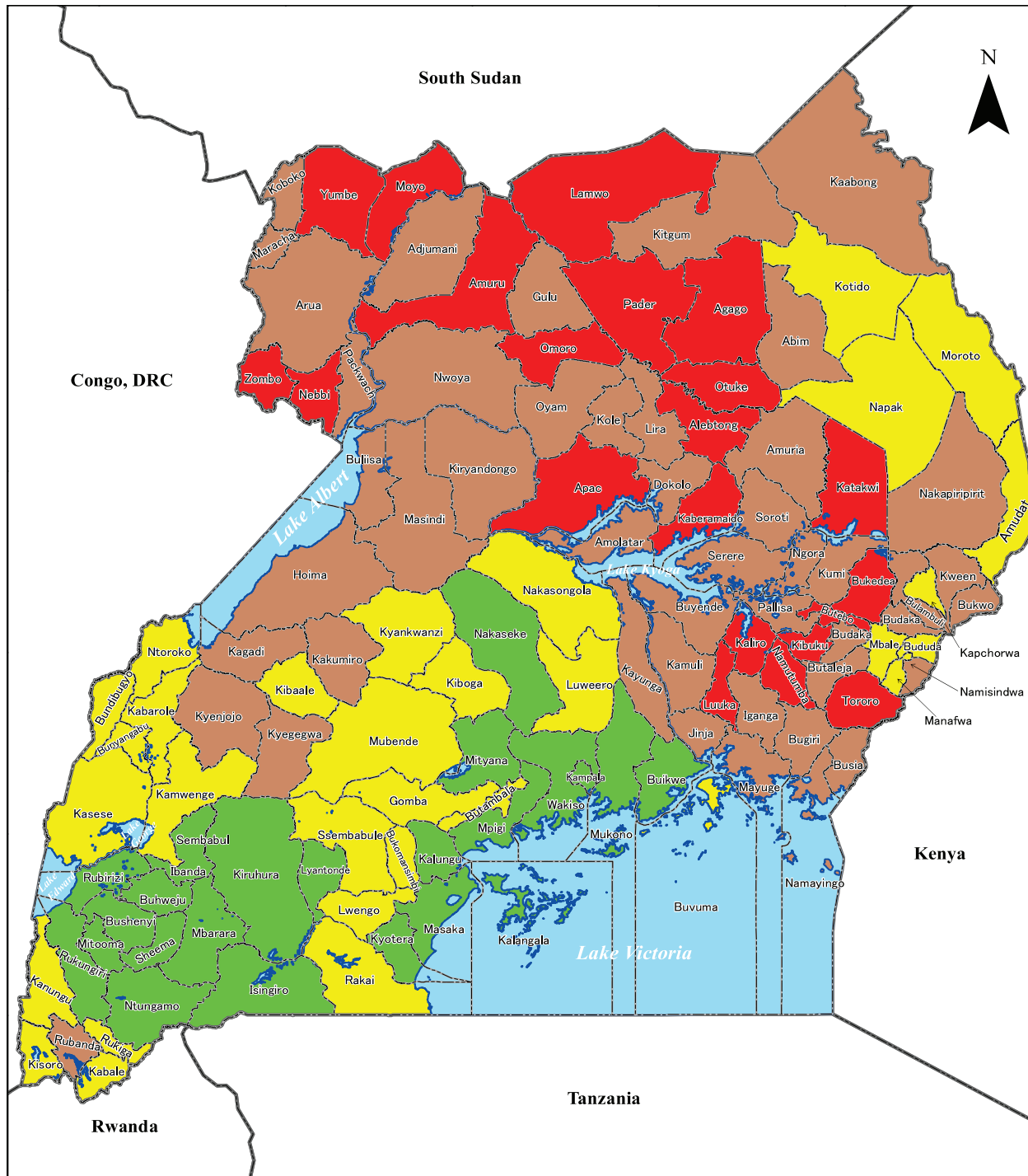
Twenty-three out of 122 districts in Uganda were categorized 'green', meaning at least three quarters (75%) of their P 3 learners were rated proficient in Literacy in English. In contrast, 21 districts were categorized 'red' i.e., they had less than a quarter (25%) of their P 3 learners rated proficient in Literacy in English.

Chapter 5

Achievement of P6 Learners in Numeracy

Chapter 5

ACHIEVEMENT OF P 6 LEARNERS IN NUMERACY

This chapter presents the achievement of P 6 learners in Numeracy. Learners' achievement was categorized into four proficiency levels: lowly proficient, moderately proficient, proficient and highly proficient. The competencies for a typical P 6 learner in a given proficiency level are shown in Table 5.1.

Table 5.1: Description of competencies assessed in Numeracy at P 6, by proficiency levels

Proficiency level	Competencies
Lowly proficient	The learners in this category can perform basic numerical operations such as: addition of up to four-digit numbers with carrying, subtraction of up to three-digit numbers with borrowing, multiply two and three-digit numbers with carrying, add simple fractions with a common denominator, and recognize place values up to thousands.
Moderately proficient	In addition to having the skills in the above proficiency level, typical learners in this category can solve word problems involving subtraction of up to four-digit numbers; divide up to four-digit numbers without remainders; name basic shapes; identify fractions; order numbers in ascending order; complete a pattern; extract information from simple graphs; represent sets using venn diagrams; write four-digit numbers in words; calculate simple profit.
Proficient	In addition to having the above skills, typical learners in this category can divide up to four-digit numbers with remainders; recognize decimal place values; subtract fractions without common denominators; convert a decimal to a fraction; calculate mean and area; form subsets; perform operations (union) on closed sets; round off numbers to the nearest thousands; convert units; calculate speed; solve word problems involving multiple operations and currency; and perform simple geometric construction.
Highly Proficient	In addition to having the above skills, typical learners in this category can solve word problems involving division of up to three-digit numbers; divide fractions; illustrate information in form of a bar graph; infer information from a bar graph; calculate simple finite probability; interpret a venn diagram; tell time, use a ruler to measure length and understand the basic concept of symmetry.

5.1   Overall Level of Achievement of P 6 Learners in Numeracy

This sub-section describes the performance of P 6 learners in Numeracy. The percentage of P 6 learners rated proficient in Numeracy are shown in Figure 5.1.

Figure 5.1: Percentage of P 6 Learners Rated Proficient in Numeracy, by Gender

Slightly more than half (50.9%) of the P 6 learners assessed were rated proficient in Numeracy. The proportion of boys (56.2%) rated proficient was significantly (p=0.000) higher than that of girls (45.9%).

5.2 Achievement of P 6 Learners in Numeracy, by School location and Gender

This sub-section shows the percentage of P 6 learners rated proficient in Numeracy by school location and gender. The percentages are presented in Figure 5.2.

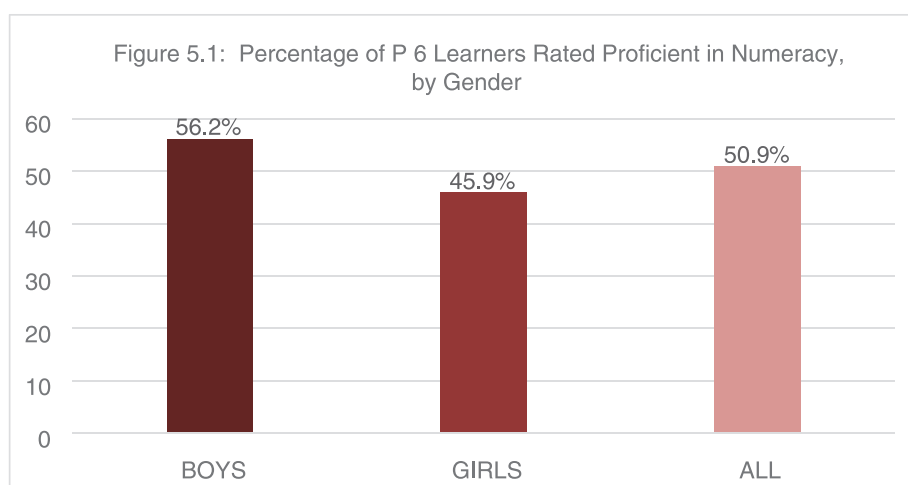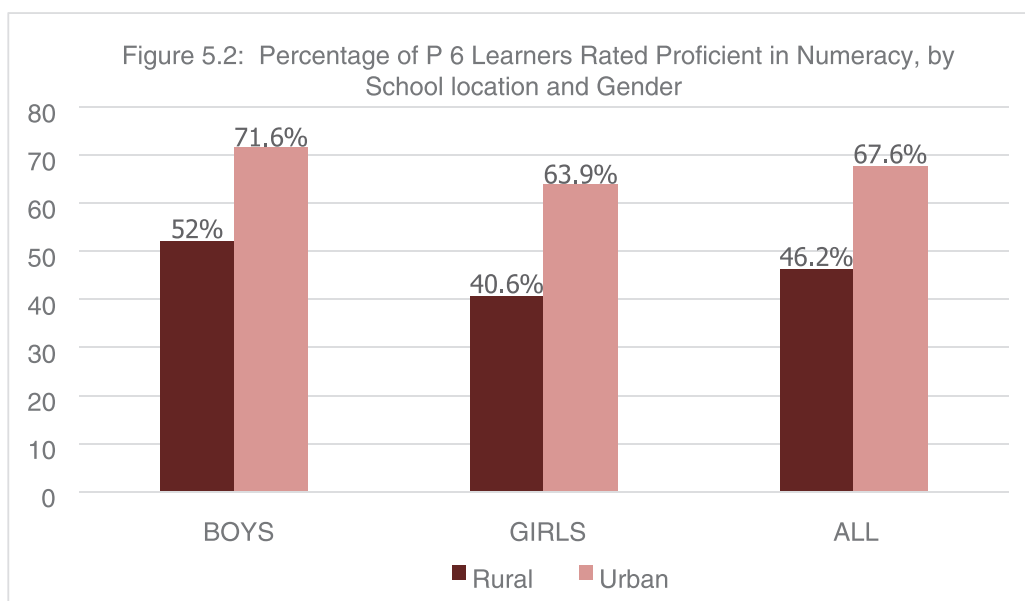Figure 5.2: Percentage of P 6 Learners Rated Proficient in Numeracy, by School location and Gender

The proportion of learners rated proficient in Numeracy (67.6%) in schools in urban areas was significantly (p=0.000) higher than that of learners in schools in rural areas (46.2%).

5.3   Achievement of P 6 learners in Numeracy, by School ownership and Gender

This sub-section shows the percentage of P 6 learners rated proficient in Numeracy by school ownership and gender. The percentages are presented in Figure 5.3.

Figure 5.3: Percentage of P 6 Learners Rated Proficient in Numeracy, By School ownership and Gender
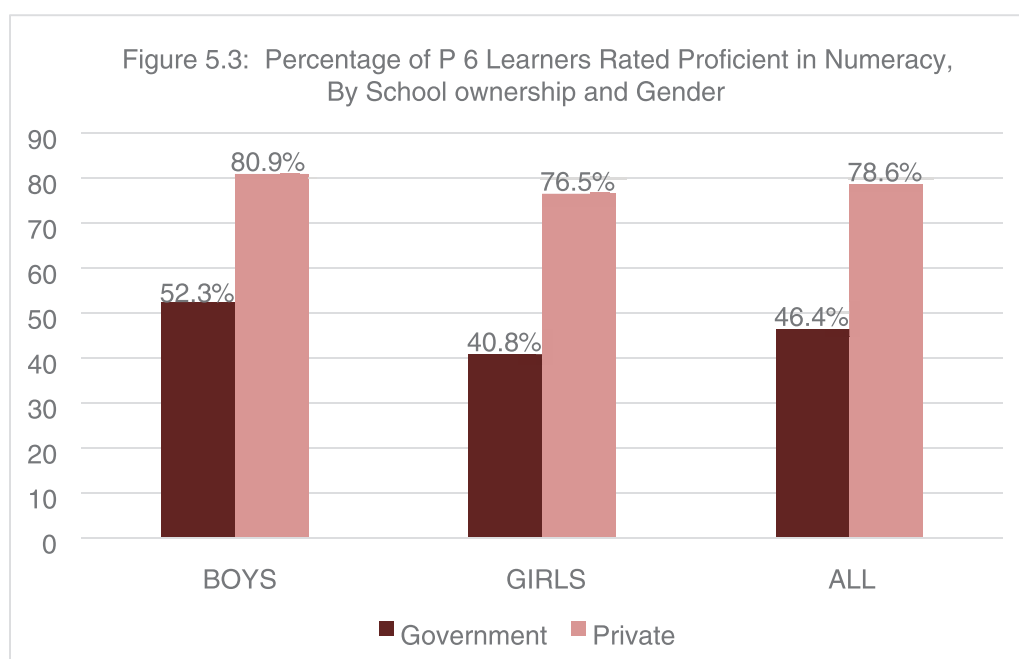
The proportion of learners rated proficient in Numeracy (78.6%) in private schools is significantly (p=0.000) higher than that of learners in government schools (46.4%).

5.4   Achievement of P 6 learners in Numeracy, by district

This sub-section shows the percentages of P 6 learners rated proficient in Numeracy by district. The percentages are presented in Figure 5.4.

Figure 5.4: The percentage of P 6 learners rated proficient in Numeracy, by district.
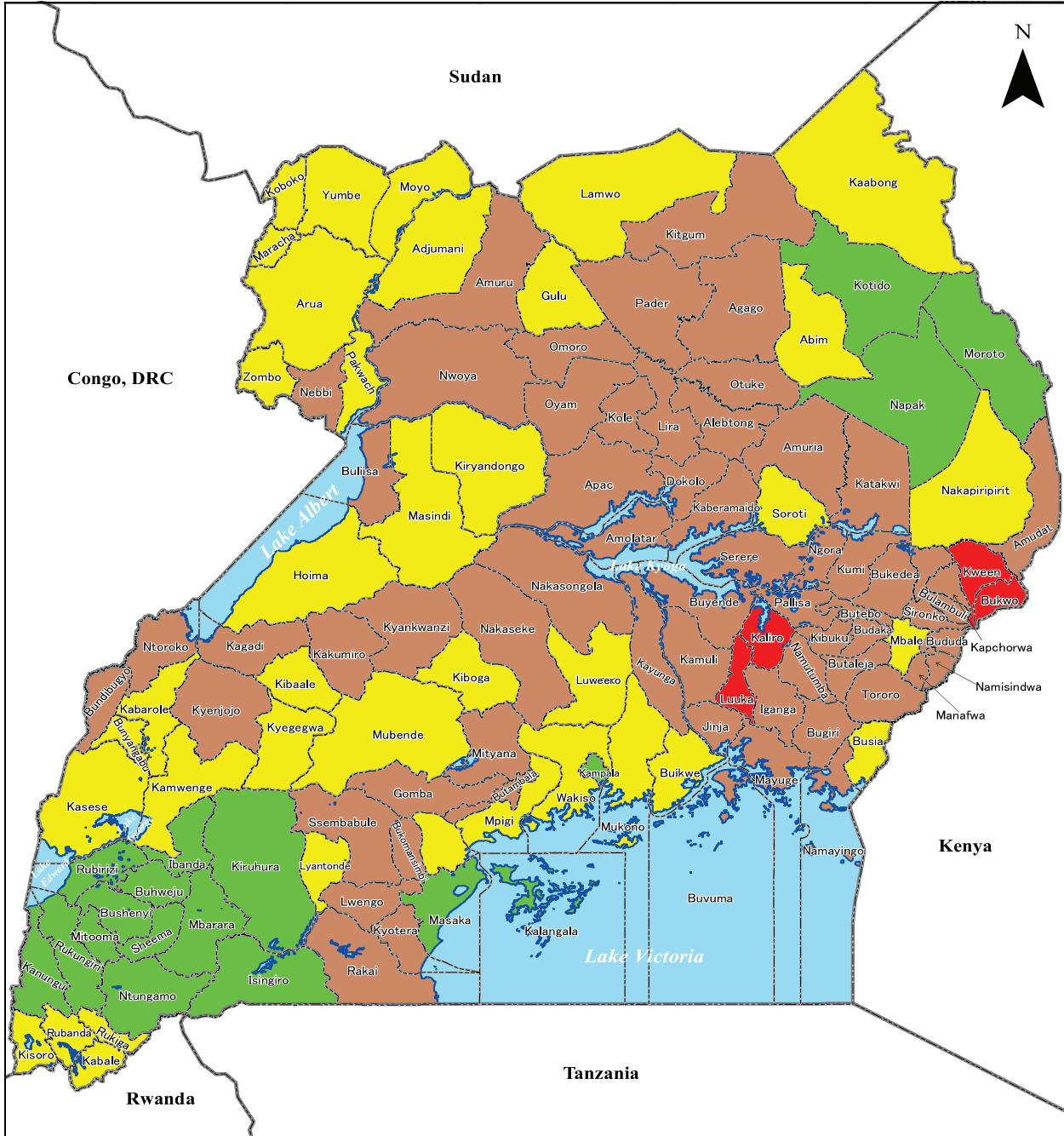
Eighteen out of 122 districts in Uganda were categorized 'green', implying that at least three quarters (75%) of their P 6 learners were rated proficient in Numeracy. On the other hand, 4 districts were categorized 'red' i.e., they had less than a quarter (25%) of their P 6 learners rated proficient in Numeracy.

Chapter 6

Achievement of P6 Learners in Numeracy

Chapter 6

ACHIEVEMENT OF P 6 LEARNERS IN LITERACY IN ENGLISH

This chapter presents the achievement of P 6 learners in Literacy in English. Learners' achievement was categorized into four proficiency levels: lowly proficient, moderately proficient, proficient and highly proficient. The competencies for a typical P 6 learner in a given proficiency level are shown in Table 6.1.

Table 6.1: Description of competencies assessed in Literacy in English at P 6, by proficiency levels

| Proficiency level	Competencies
Lowly proficient	Typical learners in this category can recognize common nouns; extract information from a text; recognize and use common words in sentences; only begin an informal letter with a correct address and salutation.
Moderately proficient	In addition to having the skills in the above proficiency level, typical learners in this category can form plurals of words; re-arrange jumbled letters to form words; re-arrange words to form sentences; extract information from continuous and non-continuous texts; use common vocabulary in context; and use the mechanics of basic English writing.
Proficient	In addition to having the skills in the above proficiency level, typical learners in this category can use the correct tense; form comparative and superlative adjectives; construct grammatically correct sentences using verbs; draw inferences from a continuous text; draw simple inferences from everyday situations, and use complex grammatical structures.
Highly Proficient	In addition to having the skills in the above proficiency level, typical learners in this category can construct a grammatically correct sentence using a verb in the present-continuous tense; interpret information from a complex text; draw inference from a non-continuous text; use less familiar vocabulary correctly; derive contextual meanings of words; and write a composition.

6.1 Overall Level of Achievement of P 6 Learners in Literacy in English

This sub-section describes the performance of P 6 learners in Literacy in English. The percentage of P 6 learners rated proficient are shown in Figure 6.1.

Figure 6.1: Percentage of P 6 Learners Rated Proficient in Literacy in English, by Gender
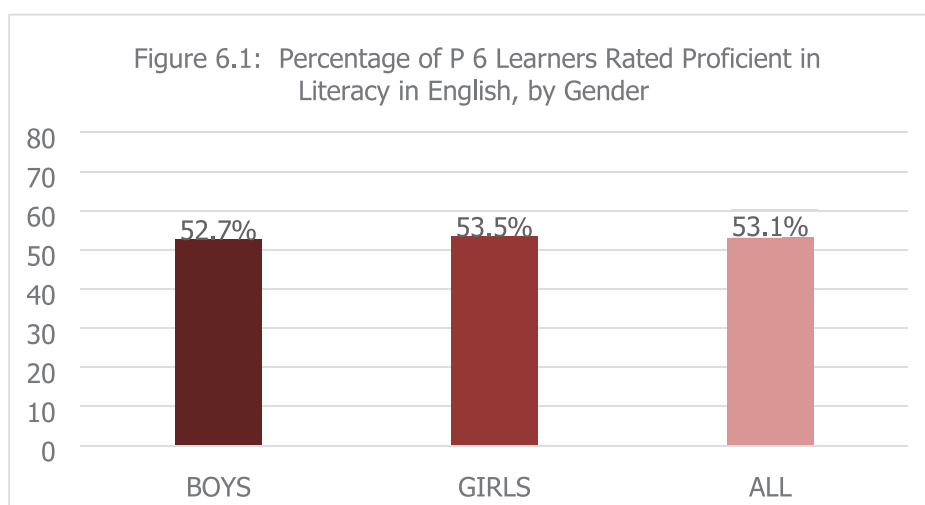
There were no significant (p=0.126) gender differences in the proportion of P 6 learners rated proficient in Literacy in English.

6.2 Achievement of P 6 Learners in Literacy in English, by School location and Gender

Figure 6.2: Percentage of P 6 Learners Rated Proficient in Literacy in English, by School location and Gender

	BOYS	GIRLS	ALL
Rural	46.7%	46.6%	46.7%
Urban	74.4%	77.3%	75.9%
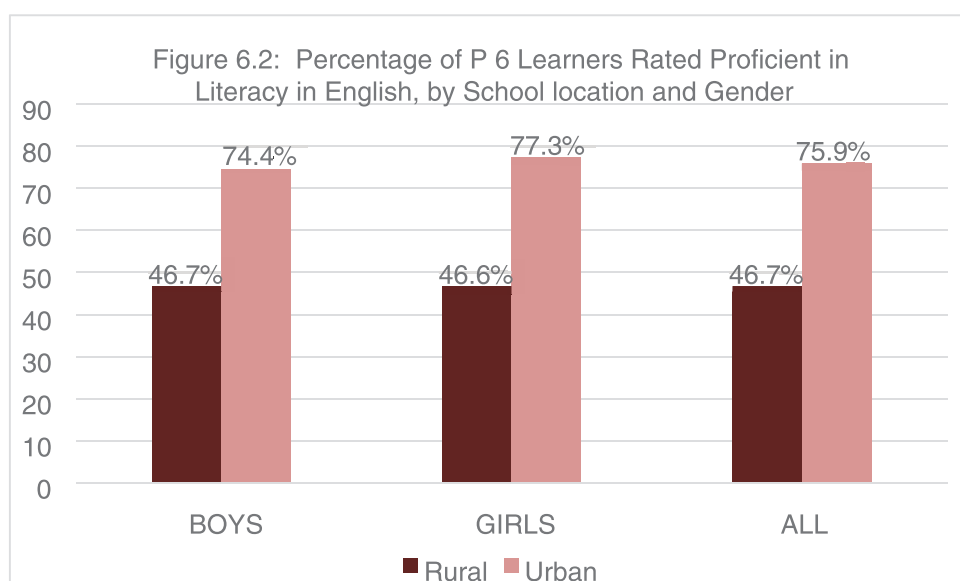
The proportion of learners rated proficient in Literacy in English (75.9%) in schools in urban areas was significantly (p=0.000) higher than that of learners in schools in rural areas (46.7%).

6.3 Achievement of P 6 Learners in Literacy in English, by School ownership and Gender

This sub-section shows the percentage of P 6 learners rated proficient in Literacy in English by school ownership and gender. The percentages are presented in Figure 6.3.

Figure 6.3: Percentage of P 6 Learners Rated Proficient in Literacy in English, by School ownership and Gender

	BOYS	GIRLS	ALL
Government	48%	48.3%	48.2%
Private	82.4%	84.7%	83.6%
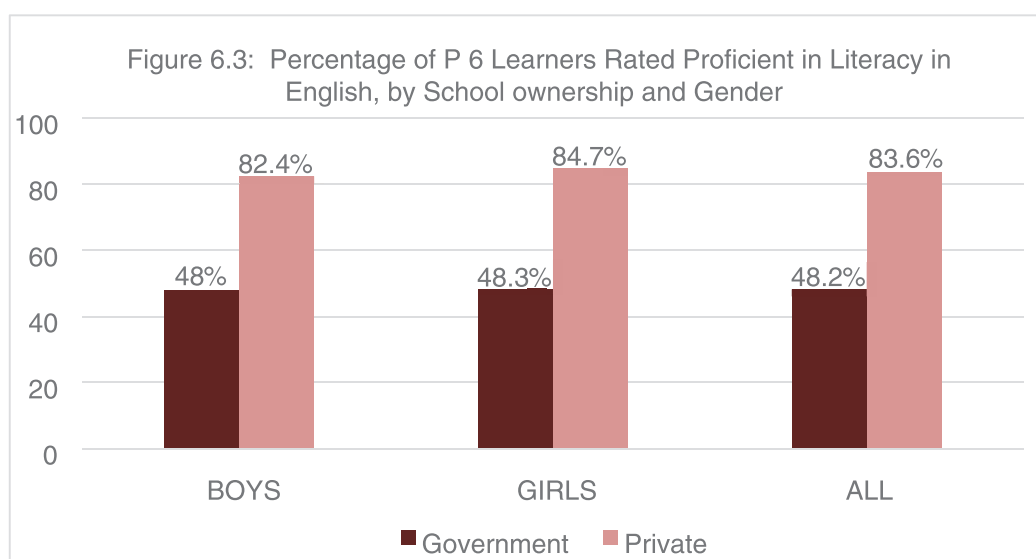
The proportion of learners rated proficient in Literacy in English (83.6%) in private schools was significantly (p=0.000) higher than that of learners in government schools (48.2%).

6.4   Achievement of P 6 Learners in Literacy in English, by district

This sub-section shows the percentages of P 6 learners rated proficient in Literacy in English by district. The percentages are presented in Figure 6.4.

Figure 6.4: The percentages of P 6 learners rated proficient in Literacy in English, by district.
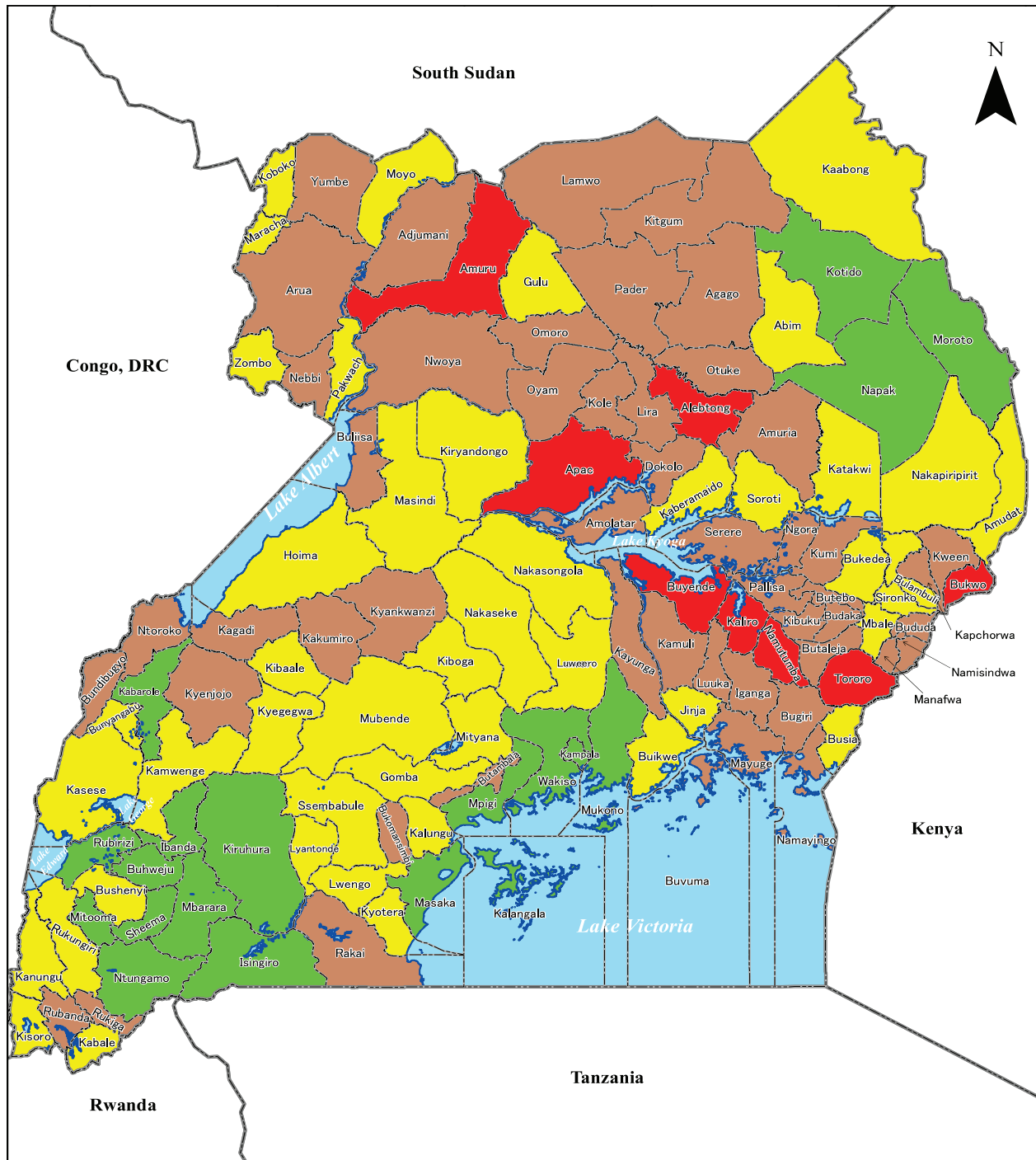
Nineteen out of 122 districts in Uganda were categorized 'green', implying that at least three quarters (75%) of their P 6 learners were rated proficient in Literacy in English. On the other hand, 8 districts were categorized 'red' i.e., they had less than a quarter (25%) of their P 6 learners rated proficient in Literacy in English.

Chapter 7

Achievement of Teachers in
Numeracy and Literacy in English

Chapter 7

ACHIEVEMENT OF TEACHERS IN NUMERACY AND LITERACY IN ENGLISH

This chapter presents the achievement of teachers, that is, pre-service, in-service and tutors. The three categories of teachers did the same tests of Numeracy and Literacy in English as those of P 6 learners. The teachers were **rated highly proficient in almost all competencies** of Numeracy and Literacy in English assessed at P 6 except;

- Writing an informal letter with the correct format
- Using debating language
- Writing a composition with adequate content
- Recognizing the difference between a histogram and a bar graph
- Interpreting a bar graph
- Identifying and drawing all the lines of symmetry of an equilateral triangle · Indicating the units of measurement for any measurement taken

7.1 AREAS OF DIFFICULTY FOR TEACHERS AND LEARNERS

This section presents the areas of Numeracy and Literacy in English which were a challenge to the teachers and learners. The areas of difficulty by subject and the affected testees are shown in Table 7.1.

Table 7.1: Areas of Difficulty for Teachers and Learners, by Subject

Subject	Area of difficulty	Affected testees
LITERACY IN ENGLISH	Writing an informal letter with the correct format	- Pre-service teachers - P 6 learners
	Using appropriate debating language	- Pre-service teachers - In-service teachers - P 6 learners
	Creatively developing adequate content on a topic	- Pre-service teachers - P 6 learners
	Interpreting non-continuous texts	- P 6 learners
	Making / drawing inferences from the short texts that had been read.	- P 3 learners
	Writing the correct names of the objects within their environment	- P 3 learners
	Describing an activity in a picture using a single correct sentence	- P 3 learners

Subject	Area of difficulty	Affected testees
NUMERACY	Recognizing the difference between a histogram and a bar graph	- Pre-service teachers - In-service teachers - Tutors - P 6 learners
	Interpreting a bar graph	- Pre-service teachers - P 6 learners
	Identifying all lines of symmetry of an equilateral triangle	- Pre-service teachers - P 6 learners
	Indicating the units of measurement for any measurement taken	- Tutors - P 6 learners
	Multiplying fractions	- P 6 learners
	Understanding and carrying out subtraction with borrowing	- P 3 learners
	Interpreting and using mathematical information related to money and capacity (measurement of liquids, powder, e.t.c.,)	- P 3 learners

Chapter 8

Achievement of Learners and
Effective Usage of School Time

Chapter 8

ACHIEVEMENT OF LEARNERS AND EFFECTIVE USAGE OF SCHOOL TIME

This chapter presents the findings on the effective usage of school time. Learners, class teachers, pre-service teachers and class tutors were interviewed on their views on activities/events that disrupt lessons in their respective schools/colleges; and the adherence to the lesson time as shown on the timetable displayed in the classroom.

8.1 Achievement of Learners, by Activities/Events Perceived to be Disruptive to Lessons

This section presents the scaled mean scores of learners by activities or events that are perceived to be disruptive to lessons in school. Disruptive activities were defined as activities that are done (at school and at home) during the time allocated for lessons/different lessons on the school timetable. The scaled mean scores are shown in Table 8.1.

Table 8.1: Activities/Events Perceived to be Disruptive to Lessons in Schools/Colleges

Activity or event that disrupts lessons in schools	Learners' scaled mean score in schools where the activity or event was reported	Learners' scaled mean score in schools where the activity or event was NOT reported	P-Value
Pupils coming late to school	48.9 (se=.09)	50.7 (se=.12)	P=0.000
Extended assembly time	50.1 (se=.11)	49.1 (se=.10)	P=0.000
Market day activities	47.5 (se=.12)	50.7 (se=.09)	P=0.000
Harvesting/fishing/gardening	48.2 (se=.15)	50.0 (se=.08)	P=0.000
When it rains	47.7 (se=.20)	49.9 (se=.08)	P=0.000
Sporting activities	51.1 (se=.21)	49.4 (se=.08)	P=0.000
Other activities	49.8 (se=.21)	49.5 (se=.08)	P=0.202

Learners in sampled schools where:
- sports activities or extended assembly time encroached on lesson time, incidentally achieved more learning compared to those where the two activities reportedly did not encroach on lesson time.
- pupils came late or missed lessons because of engagement in activities such as harvesting, fishing and gardening, achieved less learning than those in schools where the activities were not reported to have disrupted lessons.
- the timetable was displayed in the classroom and was followed, achieved more learning than those in schools where the timetable was not displayed in the classroom.

8.2 Achievement of Learners, by whether Timetable was displayed in the Classroom

The achievement of learners in schools where timetables were pinned in the classrooms was significantly (p=0.000) higher than that of learners in schools where timetables were not displayed.

Chapter 9

Summary of Results, Conclusions and Recommendations

Chapter 9

SUMMARY OF RESULTS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of results, conclusions and recommendations of the survey. It begins with summary of results and conclusions in Section 9.1 and finally the recommendations in Section 9.2.

9.1   RESULTS

Primary 3 Numeracy

The proportion of girls (56.1%) rated proficient in Numeracy was higher than that of boys (54.3%).

The proportion of learners rated proficient in Numeracy (85.1%) in private schools was higher than that of learners in government schools (50.1%)

In urban schools, the proportion of learners rated proficient in Numeracy (68.4%) was higher than that of the learners in rural areas (51.2%).

Twenty-six out of 122 districts in Uganda were categorized 'green', implying that at least three quarters (75%) of their P 3 learners were rated proficient in Numeracy. On the other hand, 10 districts were categorized 'red' i.e., they had less than a quarter (25%) of their P 3 learners rated proficient in Numeracy.

Primary 3 Literacy in English

The proportion of P 3 girls (52.5%) rated proficient in Literacy in English was higher than that of boys (47.4%).

However, when schools were compared on the basis of ownership, a wider disparity in proportions of learners rated proficient in Literacy in English was noticed between privately owned schools (83.3%) and government schools (44.2%). Likewise, in Numeracy, the proportions of learners rated proficient in private schools (85.1%) was higher than that of learners in government schools (50.1%).

In terms of urban-rural gap, learners in urban schools were rated more proficient in Literacy in English (66.3%) than those in rural areas (44.9%).

In Literacy in English, 23 out of 122 districts in Uganda were categorized 'green', and 21 districts were categorized 'red'.

Conclusions:
- Girls were more proficient in Numeracy and Literacy in English than boys at P 3.
- Learners in private schools were more proficient in Numeracy and Literacy in English than those in government schools.
- Urban schools had a bigger proportion of their learners rated proficient in both Numeracy and Literacy in English.
- Ten districts out of the 122 districts in Uganda, were categorized 'red' in Numeracy and 21 districts were categorized 'red' in Literacy in English, meaning that less than a quarter (25%) of their P 3 learners were rated proficient in Numeracy and Literacy in English.

Primary 6 Numeracy and Literacy in English

At P 6, slightly more than half of the learners assessed were rated proficient in Numeracy. The proportion of boys (56.2%) rated proficient in Numeracy was higher than that of girls (45.9%). In Literacy in English, the proportion of girls (53.5%) rated proficient was slightly higher than that of boys (52.7%).

In terms of location, the proportion of learners rated proficient in Numeracy (67.6%) in schools in urban areas was higher than that of learners in schools in rural areas (46.2%). A similar trend was observed in Literacy in English where the proportion of learners rated proficient (75.9%) in urban schools was higher than that of schools located in rural areas (46.7%).

By ownership, the proportion of learners rated proficient in Numeracy (78.6%) in private schools was higher than that of learners in government schools (46.4%). This disparity was also witnessed in Literacy in English where, the proportion of learners rated proficient (83.6%) in private schools was higher than that of learners in government schools (48.2%).

Eighteen out of 122 districts in Uganda were categorized 'green', implying that at least three quarters (75%) of their P 6 learners were rated proficient in Numeracy. On the other hand, 4 districts were categorized 'red' i.e., they had less than a quarter (25%) of their P 6 learners rated proficient in Numeracy. Furthermore, nineteen out of 122 districts in Uganda were categorized 'green', in Literacy in English, and 8 districts were categorized 'red'.

Conclusions:
- The proportion of P 6 boys rated proficient in Numeracy was higher than that of girls.
- In Literacy in English, the proportion of girls rated proficient was slightly higher than that of boys.
- At P 3, more girls than boys were rated proficient in Numeracy and Literacy in English.
- More learners in private schools than in government schools were rated proficient in both Numeracy and Literacy in English.
- Schools in urban areas had more of their learners rated proficient in both Numeracy and Literacy in English than those schools located in rural areas.
- Four districts out of the 122 districts in Uganda, were categorized 'red' in Numeracy and 8 districts were categorized 'red' in Literacy in English, meaning that less than a quarter (25%) of their P 6 learners were rated proficient in Numeracy and Literacy in English.

Teachers

The three categories of teachers (pre-service, in-service and tutors) did the same tests of Numeracy and Literacy in English as those of P 6 learners. The teachers were rated highly proficient in almost all competencies of Numeracy and Literacy in English assessed at P 6.

Conclusions:
Teachers still have challenges in the following areas:

- Writing an informal letter with the correct format
- Using debating language
- Writing compositions with adequate content
- Recognizing the difference between a histogram and a bar graph
- Interpretation of bar graphs
- Identifying and drawing all the lines of symmetry of an equilateral triangle
- Indicating the units of measurement for any measurement taken

Effective Usage of School Time
Learners, class teachers, pre-service teachers and class tutors were interviewed on their views on activities/events that disrupt lessons in their respective schools/colleges; and the adherence to lesson time as shown on the timetable displayed in the classroom. It was found out that learners in sampled schools where:
- sports activities or extended assembly time encroached on lesson time, achieved more learning compared to those where the two activities reportedly did not encroach on lesson time.
- pupils came late or missed lessons because of engagement in activities such as harvesting, fishing and gardening, achieved less learning than those in schools where the activities were not reported to have disrupted lessons.

- the timetable was displayed in the classroom and was followed, achieved more learning than those in schools where the timetable was not displayed in classroom.

Conclusions:
- Sports activities and assemblies enhance learning.
- Late coming and absenteeism negatively affect learning.
- Pinning up of the timetable in class and following it closely enhance learning and improves learners' achievements.

9.2   RECOMMENDATIONS

The recommendations are presented in Table 9.1.

Table 9.1: Recommendations

Recommendation	Responsibility centre
Re-activate debates in primary schools and PTCs with emphasis on debating language (specific vocabulary) used.	In-service teachers, Headteachers, CCTs, Tutors
Emphasize all attributes of letter writing especially focusing on the skills of identifying and composing the content.	In-service teachers, Headteachers, CCTs, Tutors,
Expose learners to creative writing and engage them in regular practice.	In-service teachers, CCTs, Tutors
Conduct refresher training for teachers and tutors focusing on: - Identifying the difference between a histogram and bar graph, their presentation and interpretation. - Identifying all the lines of folding symmetry in a given shape. - the relevance of indicating the units of measurement. - Functional writing.	TIET
Expose learners to the concept of 'multiplication of fractions'.	In-service teachers, Headteachers, CCTs, Tutors
Explore effective methods of teaching learners to understand, use and apply mathematical information related to buying and selling; and capacity (measurement of liquids, powder, e.t.c.).	NCDC, TIET, in-service teachers, Tutors
Guide learners to read, understand and interpret non-continuous texts e.g., guided composition.	In-service teachers
Ensure that schools adhere to and conduct sports activities as programmed on the school calendar.	MoE&S, Headteachers, School proprietors, CCTs, DIS, DEO & DES
Ensure that timetables are displayed in the classroom and adhered to.	Headteacher, class teacher.
Use fora such as political and religious gatherings to sensitize the community on the importance of regular class attendance by learners.	Local Councils (I – V), Religious Leaders

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