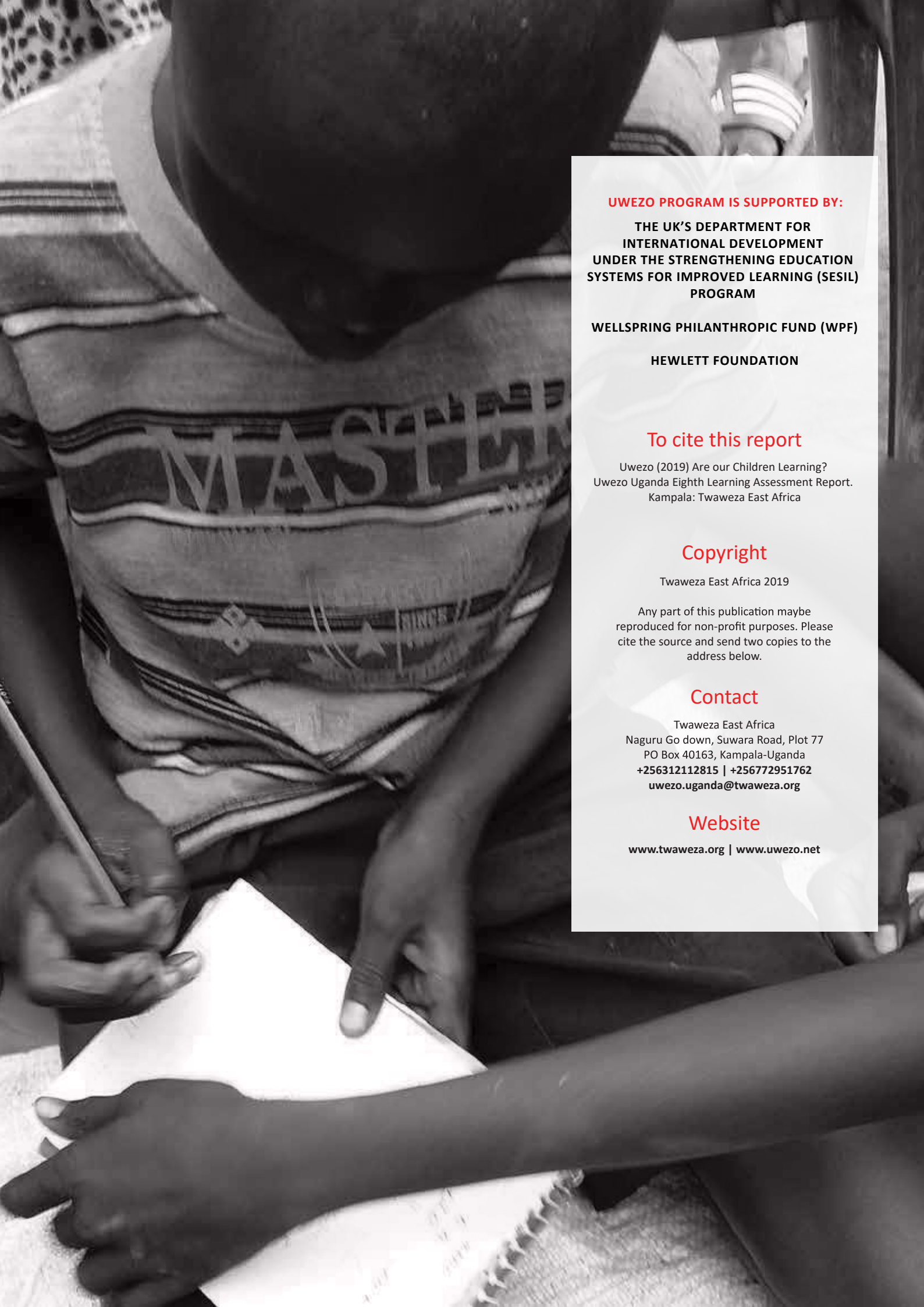
ARE OUR CHILDREN LEARNING?

Uwezo Uganda Eighth Learning Assessment Report 2019

uwezo UGANDA

Twaweza ni sisi



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ABBREVIATIONS

EA	Enumeration Area
ECE	Early childhood education
LARA	Learning Achievement and Retention Activity
P3-P7	Primary Grades 3 to 7
PAL	People's Action for Learning
PPS	Probabilities proportional to size
PTR	Pupil-teacher ratio
RTI	Research Triangle Institute
VACIS	Violence against children in school
SESIL	Strengthening Education Systems for Improved Learning

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To everyone else who contributed in one way or another to concluding the 2018 learning assessment cycle and report, we say a BIG thank you.
Uwezo and Twaweza take full responsibility for the contents of this report.

November 2019

FOREWORD

Periodic, independent evaluations of performance can contribute to the accountability of educational systems. Uwezo worked with its citizen volunteers to carry out an assessment of children's learning in Uganda in 2018, using the same approach as in previous assessments but with some minor differences of focus. The first purpose of this report, based on the assessment, is to show how far official goals for basic literacy and numeracy were being achieved in 2018. Secondly, the report considers whether the levels of learning and of resources for learning had changed since 2015, when the Uwezo's previous assessment took place. The report also gives additional attention to children's progress in relation to their age, in addition to their school grade. It discusses a range of potentially important influences on learning. It includes consideration of the local language being taught in school and whether this is also used in the home.

The findings show a decline in literacy and numeracy levels of P3-6 pupils between 2015 and 2018. In P7, the levels remain the same. But problems of overcrowding, under-achievement and excessive grade repetition in the lower primary school persist. Hope lies in the fact that these problems have come to be better understood in the past few years.

The demand for additional resources for education in Uganda is driven by a high rate of population growth, as well as the desire to raise standards and to have more complete coverage of the population of children (the survival rate to P7 being 32% in 2016-17). In this situation and in a context of moderate economic growth only, inefficient practices such as grade repetition and pupil and teacher absenteeism must be reduced. School environments also need to be healthy and safe – and the report notes some trends of improvements in this area that need to continue. Uwezo will continue its efforts to provide useful research and to foster public support for the improvement of basic education.

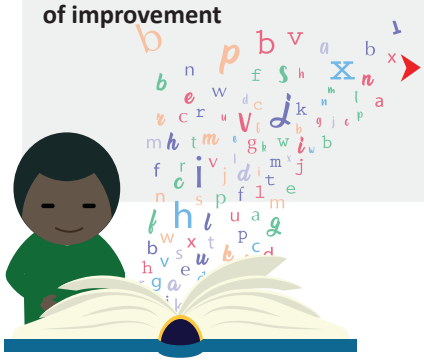
Mary Goretti Nakabugo
Twaweza Country Lead and Regional Manager, Uwezo

Aidan Eyakuze
Executive Director, Twaweza

5 KEY FINDINGS ON CHILDREN'S LEARNING

1

Learning outcomes in literacy and numeracy have remained low, with little, if any, signs of improvement



- Nearly all P3-7 children who could read the story (at P2 level) showed evidence of comprehension but most have not reached that level until they are in P6.

Only **39%** have reached that level by the time they are in P.5.

- The percentage of P3-P7 children who could read and comprehend a basic story at P2 level dropped from **39%** (2015) to **33%** (2018)

- The proportions of complete non-readers and complete non-numerate children in P3-7 slightly reduced from **6.8%** (2015) to **6.2%** (2018)

- The percentage of P3-P7 children who could do P2 division dropped from **52%** (2015) to **45%** (2018)

2

While small minorities of children have already achieved full competence in these basic skills at the age of 6 or 7, by the age of 14, only a minority of children have achieved P2 reading competence and P2 numeracy competence at that age.

- P2 Reading Competence
  - **40%** ENGLISH
  - **34%** LOCAL LANGUAGE
- P2 Numeracy Competence **55%**

3

There are some notable differences between the local languages that are used for teaching, in the literacy levels achieved. In the case of Acholi, P3-P7 children who are from Acholi-speaking homes are nearly twice as likely to have achieved reading competence as those who are not – a difference of 16 percentage points. But this kind of difference was not found for the other languages assessed.

- Reading Competence of Leb-Acoli Speakers vs Non Leb-Acoli Speakers
  34% VS 18%

4

For children in P3-7 who have attended preschool for at least two years, the rate of P2 competence in English reading is 17 percentage points higher than for those who have not. For numeracy, there is a difference of 8 percentage points.

- Attended preschool Vs Non attendance English reading competence
  41% VS 24%
- Attended preschool Vs Non attendance Numeracy competence
  49% VS 41%

5

Children attending community, government and private schools continue to have large differences in learning outcomes. The rates of P2 English reading competence of P3-7 pupils are 22% for community, 28% for government and 44% for private schools.

- P2 English Reading Competence
  - **22%** Community School
  - **28%** Government School
  - **44%** Private School

5 KEY FINDINGS ON THE CONTEXT OF CHILDREN'S LEARNING

1

The general trend of delayed progression of children through the primary grades persists.
By the time children reach the ages of 12 and 13, only small proportions have reached P7 or S1 through uninterrupted promotion. From P2 onwards, over-age enrolment dominates the system.

Grade repetition plays a major part in this and is especially high in P1. It is likely that schools continue to over-use repetition as a response to low achievement.

32% Repeaters in P1

2

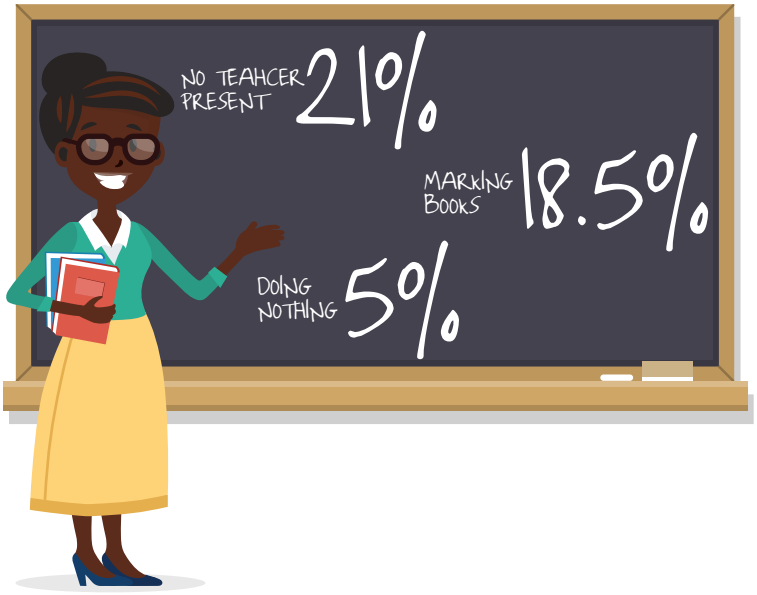
Although pupil absenteeism is less extreme in 2018 than in 2015 the level is still high and should be a matter of concern for educators, policy makers and parents.

2015 **34%**

2018 **23%**

3

Instructional time is being wasted. One in five of a primary school's classes[1], on average, had no teacher present. Of those who were present, nearly one in four, on average, was either marking books or doing nothing.



[1] 'Class' here means one teaching unit, not the whole grade.

4 The general level of textbook provision is low, with only one-third of a school's classes, on average, having at least one textbook between two pupils.

37%

Atleast one textbook between 2 pupils

5 The quality of water, sanitation and hygiene (WASH) in schools has shown some improvement since 2015, but this needs to go much further:

The mean pupil-toilet ratio improved from 93 (estimated) in 2015 to 58 in 2018. A pragmatic (rather than ideal) target would be to have a toilet stance for every 40 pupils and some urinals in addition. However, only about 44% of primary schools in Uganda meet this target.

Toilet stance for every 40 pupils

44%

Pupil-toilet ratio

93 ▲ **58**

2015 **2018**

Only half of the schools surveyed had a hand-washing facility, and of those, only about half had both water and soap available.

50%

Of schools surveyed

The testing of drinking water in primary schools showed bacteria to be present in about half of the cases.

50%

Of schools surveyed

INTRODUCTION

UWEZO LEARNING ASSESSMENTS

This report provides findings from Uwezo's eighth household-based assessment of children's learning in Uganda, which was conducted between October 2018 and March 2019.[2] Uwezo (a Swahili word meaning 'capability') is the educational assessment section of Twaweza East Africa, a regional organisation that works to support effective learning by children, the agency of citizens and more open and responsive government, in Kenya, Tanzania and Uganda. Twaweza pursues the three ideals of successful children, active citizens and responsive authorities through the generation, analysis and communication of data, ideas and stories. In Uganda, the inaugural Uwezo assessment was conducted in 2010 and the first report was launched in 2011. Today Uwezo is part of the People's Action for Learning (PAL) network, which links thirteen countries in three continents to measure the basic literacy and numeracy skills of children in their households.

In conducting the learning assessments, Uwezo engages civil society directly in the assessment process and depends on large teams of citizen volunteers to give simple tests to children and to obtain relevant data. Uwezo has worked to strengthen its volunteer capacity in Uganda and to enable citizens and local leaders to use Uwezo assessment findings as a trigger for dialogue and action to improve learning.

THE EIGHTH UWEZO ASSESSMENT

The eighth Uwezo Assessment Report monitors children's acquisition of basic skills of literacy and numeracy in the same manner as previous reports, with a few changes of emphasis. On this occasion, we provide more details on grade repetition, pupil absenteeism and disabilities. We also give attention to children's levels of learning by age, in addition to grade. We present some new evidence about the effects of home language on local language learning. In the school survey, closer attention is given to teacher presence and activity, textbook provision and water, sanitation and hygiene (WASH).

The objectives of the report are as follows:

1. To review the current patterns of participation in education of children up to the age of 14, including their progression through primary education.

2. To monitor children's levels of basic literacy and numeracy by primary school grade and by age.

3. To illustrate the extent of inequalities among children in their levels of literacy and numeracy, relating to individual and household characteristics, educational experience and locational factors.

4. To monitor primary school resources and practices that are relevant to children's learning and welfare.

[2] Assessment in one of the districts was done in March 2019 due a change of the district partner. Assessment was done in October 2018 in the rest of the 31 districts.

UWEZO ASSESSMENT METHODOLOGY

SURVEY APPROACH

Children aged 6-16 were assessed in the household setting and background information was obtained through related surveys of the households, their local communities and the primary schools which most children in the area attended. Relevant details about the children and the household were obtained from the household head or another adult representative. Information was also obtained about the educational services and infrastructure in the local community (normally a village or urban ward) from the local council leaders. School indicators were obtained from school heads or their representatives and by direct observation.

SAMPLING

The sampling procedure used for this assessment is based to some extent on the framework of the 2014 Uganda Population and Housing Census. The primary sampling units are 32 districts (from a 2018 total of 128), which were selected within 15 sub-regional strata. Except in the case of Kampala, which was sampled with certainty, the districts were selected from the sub-regions with probabilities proportional to size (PPS) and in numbers determined by the size of the sub-region. In the case of the West Nile sub-region, however, some extra districts were included, for future use in relation to refugee issues.

Within each district, 30 enumeration areas (EAs) were selected with PPS (according to the number of households they contained) and, within each of these, 20 households were selected for data collection. The household sample, therefore, was approximately self-weighting up to the district and sub-regional levels. Within each household selected, as far as possible, all available children aged 6-16 who regularly resided in the household were assessed. A total of 16,859 households provided data.

Through the households, basic information was obtained on 45,670 children up to the age of 16. Of the children aged 6-16, 28,285 were assessed in English literacy and 28,030 in numeracy.[3] For literacy in a local language, however, assessment was limited to 13 districts and to four local languages: Leb-Acoli, Luganda, Lusoga and Runyankore-Rukiga. For logistical reasons, the 13 districts had to be selected in a purposive manner and not all sub-regions are represented. In local language literacy, 10,548 children were assessed. As the assessment was done during school term time, children in boarding schools were not included. For purposes of analysis, the child sample is restricted either by age or by grade, as explained in the presentation.

For the school survey, one primary school was selected from each EA, being the one attended by the largest proportion of children residing in the EA, irrespective of ownership. The schools were identified with the help of local council leaders. The final sample consists of 954 schools.

[3] The difference in number of children assessed in math and English resulted from volunteers who in some instances assessed only one of the two subjects instead of both.

THE SURVEY INSTRUMENT AND LITERACY AND NUMERACY TESTS

Data were collected at enumeration area, school and household levels using a structured survey tool (https://www.twaweza.org/go/uwezo-learning-assessment-survey-tool-2018). Each child aged 6-16 in each of the sampled households was assessed on basic English literacy and numeracy, and children in 13 districts were also assessed in literacy in one of four local languages.

The three test sets used in the assessment were the product of a carefully designed process of test development resulting in three samples of tests with the same level of difficulty for each subject. Test developers included primary school teachers, book authors and teacher educators, supported by experts from the National Curriculum Development Centre (NCDC). The Uganda Primary 2 curriculum was referenced in the development of these tests, which were extensively pre-tested (three times) in both rural and urban areas. Examples of the tests are included in Annex Ia-d and the complete set can be accessed from:
https://www.twaweza.org/go/uwezo-learning-assessment-survey-tool-2018

ANALYSIS AND PRESENTATION OF FINDINGS

The analysis and presentation of findings is divided into five parts. Part I provides an overview of the participation of children in basic education, including details about progression, absenteeism and non-enrolment. Part II reports on the performance of children attending Primary Grades 3-7 (P3-P7) in the P2 level Uwezo assessment tasks of reading in English, simple arithmetic and reading in a local language. Part III reports on performance, in the same tasks, of children aged 6-14 according to their age cohorts. Part IV identifies factors relating to inequalities in learning outcomes. Part V reports on resources and practices in primary schools that form part of the environment for children's learning.

Part I: Overview of Participation in Basic Education

This part of the findings presents and discusses national estimates of the educational (schooling) status of children aged 3 to 14. We first consider the distribution of one-year age groups between early childhood education (ECE) and the various grades of primary and secondary education, After this we provide some details about grade repetition, pupil absenteeism, categories of children not enrolled in formal education and the implications of disabilities for educational status.

The evidence about participation is of intrinsic importance, but also provides a background for the findings on learning outcomes and school resources (Parts II to V). The age range in Part I excludes children aged 15 and 16 because many of them live away from home.

A. Educational status by age

Table 1 provides national estimates of the proportions of each age group which were enrolled in ECE and in each primary and secondary grade (P1-P7 and S1-S4) in 2018.

TABLE 1: FORMAL EDUCATION STATUS BY AGE - NATIONAL ESTIMATES (PERCENTAGES)

Educational status

Child Age	ECE	P1	P2	P3	P4	P5	P6	P7	S1	S2	S3	NE	ALL
3	6.7	--	--	--	--	--	--	--	--	--	--	93.3	100.0
4	21.2	--	--	--	--	--	--	--	--	--	--	78.8	100.0
5	33.8	--	--	--	--	--	--	--	--	--	--	66.2	100.0
6	36.2	40.1	5.7	1.0	--	--	--	--	--	--	--	17.0	100.0
7	19.7	46.2	20	3.9	0.6	--	--	--	--	--	--	9.6	100.0
8	7.9	33.1	31.7	14.9	30.4	0.6	--	--	--	--	--	8.4	100.0
9	3.9	20.4	31.0	24.7	11.0	2.0	0.4	--	--	--	--	6.6	100.0
10	1.2	11.1	21.8	30.4	19.3	7.9	1.7	0.4	--	--	--	6.1	100.0
11	0.3	4.4	11.6	25.6	29.8	15.4	6.5	0.6	--	--	--	5.7	100.0
12	0.4	2.1	7.1	18.5	27.6	20.8	12.2	3.5	0.8	--	--	7.1	100.0
13	--	0.9	3.1	10.3	22.9	24.6	19.5	7.7	4.1	0.5	--	6.6	100.0
14	--	0.3	1.8	5.2	15.4	23.1	23.4	11.7	5.9	3.0	0.5	9.6	100.0
TOTAL	12.1	14.0	11.3	10.8	9.9	7.0	4.6	1.7	0.8	0.2	0.0	27.6	100.0

Sample size: 35,412

NE - Not enrolled Over-age enrolment Under-age enrolment

Note: See the narrative for a discussion of under-age enrolment in P1.

In comparison with the situation found in 2015 (Uwezo Uganda 2016), the table shows a shift of children aged 6 from non-enrolment to ECE enrolment (increased from about 11% to 36%), with a slightly lower proportion in P1 (40% instead of 43%). But the general trend of delayed progression through the primary grades is unchanged since 2015. P2 is still the median grade for age 9 as well as age 8. By the time children reach the ages of 12 and 13, only small proportions have reached P7 or S1 through uninterrupted promotion. From P2 onwards, over-age enrolment (with yellow highlighting in Table 1) dominates the system.

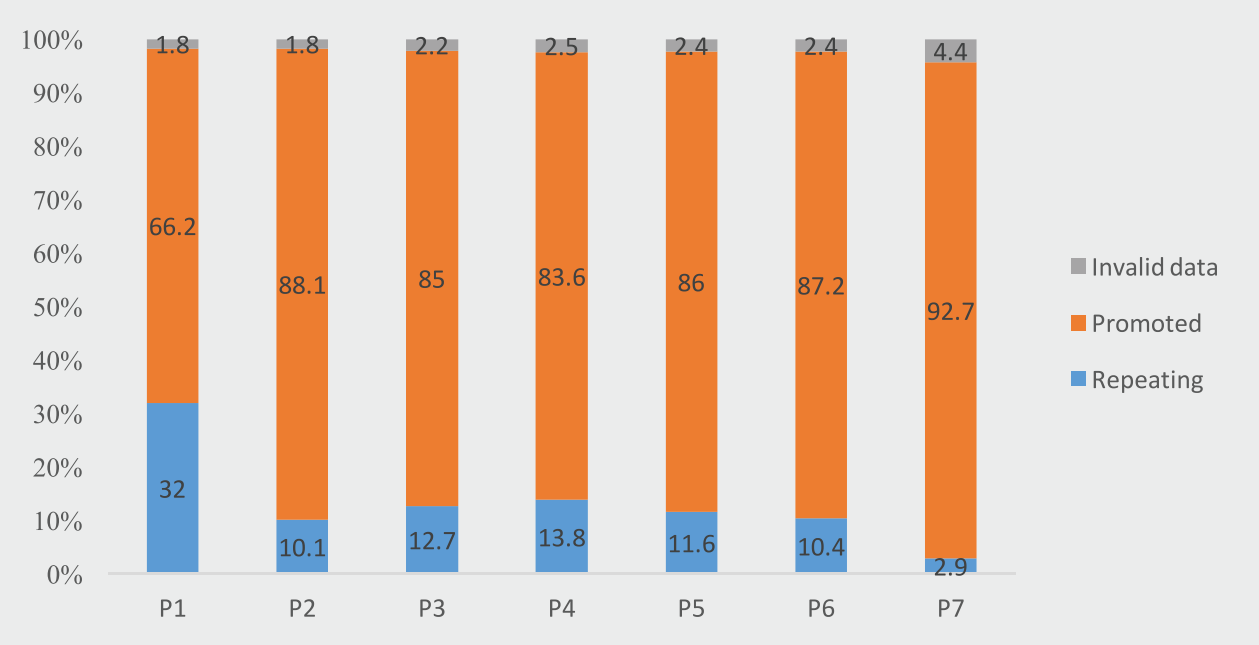
The reported occurrence of some under-age enrolment (with green highlighting in the table) is also similar to that of 2015, except that presence of age 5 (or below) children in P1 should have been recorded. Since 5.7% of children aged 6 were revealed as being in P2 and at least 8.5 of the same age group were repeaters in P1, we may expect that at least 14% of the children aged 5 were really in P1.

An RTI study (Brunette et al. 2017) provides strong evidence that some parents who cannot afford preschool fees send under-age children to primary schools as a substitute. The researchers in that study also experienced some concealment of children's age by parents.

B. Repetition in the primary grades

Grade repetition is a major factor in over-age enrolment and is not necessarily well reported by schools. From household sources, therefore, Uwezo has obtained plausible rates of repetition by the child's schooling statuses in 2017 and 2018. Figure 1 shows national estimates of the rates of repetition, promotion and invalid data for each primary grade. (Apparent cases of demotion and double promotion were treated as invalid).

FIGURE 1: REPETITION AND PROMOTION BY PRIMARY GRADE (NATIONAL ESTIMATES - PERCENTAGES)



Sample size: 18, 586

The very high rate of reported repetition in P1 is an important finding which is consistent with the detailed evidence obtained from parents and teachers in the RTI study (Brunette et al. 2017). The reported repetition rates are also considerable in P2-P6, just as they were in 2015 (within the range 10-14%). It is likely that there is also much unreported repetition in P1 and that schools continue to over-use repetition as a response to low achievement. Our findings imply that the official policy of reducing grade repetition did not succeed in the period 2015-18. From the available evidence, raising participation in ECE would help to provide a foundation for subsequent learning and so reduce repetition in the primary grades (Crouch and Merseth 2017; Brunette et al. 2017).

C. Absenteeism of children attending primary schools

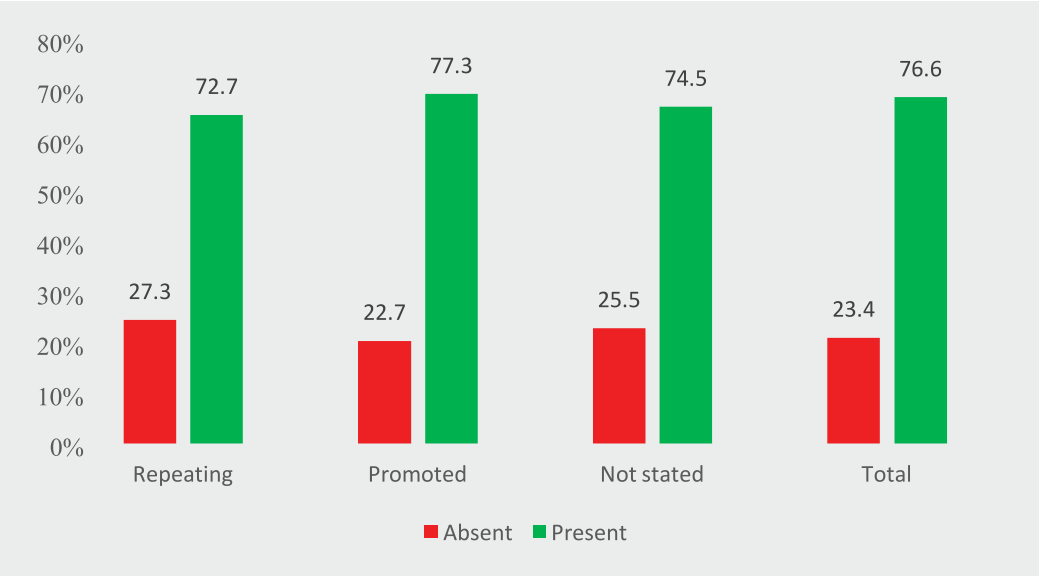
Although nearly all of Uganda's children are enrolled in school at some point, many of those enrolled are not observable in the classroom. Through household interviews, we took the usual Uwezo 'snapshot' of attendance on the Friday of the week in which the assessment took place. The national rate of absenteeism of primary school children observed in 2018 stood at about 24%, compared to 34% in 2014 (Uwezo 2015). As Figure 2A shows, the rate was slightly higher in P1 and lower in P7, but otherwise consistent through the primary grades. The rate was also consistent by gender (25% for boys and 24% for girls) and fairly consistent for all ages from 6 to 14. Even if less extreme than in 2015, the high level of absenteeism should be a matter of concern for educators and policy makers as well as parents.

FIGURE 2A: ABSENTEEISM OF CHILDREN IN PRIMARY SCHOOLS BY CLASS - NATIONAL ESTIMATES (PERCENTAGES)

Sample size: 20,502

Figure 2B shows national estimates of absenteeism, for children aged 6-14 who were enrolled in primary education, cross-tabulated by the child's progression status (promoted or repeating). The absenteeism rate is somewhat higher for children who were repeaters, as we would expect, but only by five percentage points.

FIGURE 2B: ABSENTEEISM OF CHILDREN AGED 6-14 IN PRIMARY SCHOOLS BY PROGRESSION STATUS - NATIONAL ESTIMATES (PERCENTAGES)



Sample size: 18,148

In our new Uwezo strategy 2020-2013 (Uwezo 2019), we hope to carry out in-depth research on the problem of pupil absenteeism, which is potentially a major factor in delayed progression and ineffective learning. It is not simply a demand-side problem, but one in which schools play a part.

D. Categories of out-of-school children

Children who were not enrolled in formal education of any kind were sub-divided into those who had never been enrolled, those who had dropped out, students in non-formal programmes, P7 leavers and S4 leavers. Table 2 gives national estimates of the proportions in each of the first three categories, for the ages 6-14, alongside the proportions in formal education or with no valid response.

TABLE 2: CATEGORIES OF OUT-OF-SCHOOL CHILDREN - NATIONAL ESTIMATES (PERCENTAGES)

	Category						
Age of the child	Never enrolled in school	Dropped out	In non-formal education	Completed P7*	In school (ECE to S3)	No response or invalid data	Total
3	93.3	--	--	--	6.7	--	100.0
4	78.8	--	--	--	21.2	--	100.0
5	66.2	--	--	--	33.8	--	100.0
6	8.4	0.8	0.4	--	83.0	7.5	100.0
7	3.7	0.9	0.2	--	90.4	4.9	100.0
8	3.1	1.1	0.1	--	91.6	4.1	100.0
9	1.9	0.9	0.1	--	93.4	3.7	100.0
10	1.6	1.2	0.2	--	93.9	3.0	100.0
11	0.5	1.3	0.1	--	94.3	3.9	100.0
12	1.6	2.5	0.2	--	92.9	2.8	100.0
13	0.9	2.5	0.2	0.0	93.4	2.9	100.0
14	2.0	5.0	0.3	0.2	90.4	2.6	100.0
Total	23.3	1.3	0.1	0.0	72.4	2.9	100.0

Sample size: 35,412

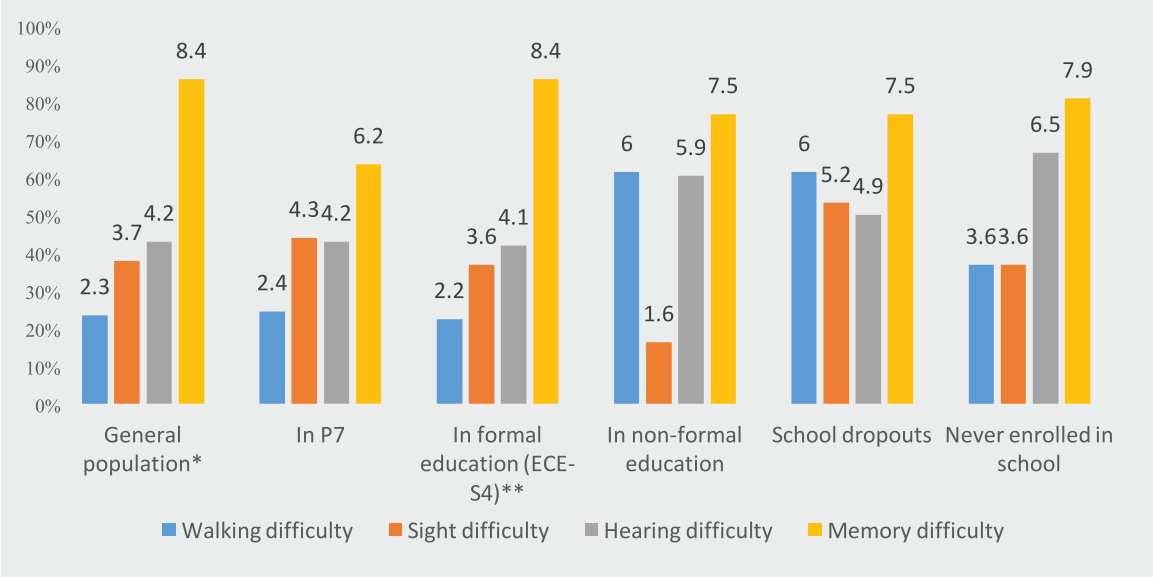
Note:* Some cases of completion of S4 were also reported, but they are treated as invalid for this age range

The table shows a small but significant group of dropouts and a relatively low level of enrolment in non-formal programmes. Relating the findings to population projections, we estimate that about 194,000 children aged 6-14 were school dropouts and about 15,000 children in this age range were enrolled in non-formal education programmes. Although some dropouts are re-admitted to school, the further education and training of this group remains a major challenge. The proportions for those who had completed P7 were very small. Of children aged 14, only 0.2% had completed P7, whereas 5.0% were dropouts.

E. Disability and educational status

In this Assessment, we made use of the Washington Group short set of questions on disability (see Madans et al. 2004), to identify children with difficulties in seeing, hearing, walking and remembering or concentrating. (The questions on self-care and communication were not included.) Here we present some evidence about how far children with disabilities access education, but the data are necessarily incomplete for two reasons. Firstly, the Assessment did not cover children who were in residential institutions (such as schools for the hearing impaired or for children with severe disabilities). Secondly, hardly any responses on disabilities were obtained for children below the age of 6. The findings in Figure 3 are therefore limited to children aged 6-14 and are tentative.

FIGURE 3: CHILDREN WITH DISABILITIES AS PROPORTIONS OF SELECTED POPULATIONS AGED 6-14 - NATIONAL ESTIMATES (PERCENTAGES)



Sample size: 25,820

Notes:
*The estimates apply to the non-institutional population.
**An estimated 91.8% of the age group was in formal education of some kind.

Figure 3 shows the proportions of children with difficulties in each activity – seeing, hearing, walking and remembering – in population groups. First, the percentages in the general population are shown: the percentages in the other columns may be compared with these. In general, children with these difficulties are well represented in P7 and in formal education generally, although those with a memory difficulty are less likely than others to reach P7. Children with sight and walking difficulties are slightly over-represented among school dropouts and those with a hearing difficulty are over-represented among those never enrolled in school.

Nearly all the reported cases are ones of mild or moderate levels of disability; there are very few reported cases of severe impairment or total incapacity to perform the activity. But in some instances, children with severe difficulties may have been in institutions outside the scope of the survey.

In a later section, we shall consider disability as a factor in learning outcomes. It is relevant to mention that both preschool and primary teachers have an important part to play in recognising disabilities at an early stage, advising parents and seeking professional help for the children concerned, as some parents lack the knowledge or the means to do so unaided.

Part II: Levels of Literacy and Numeracy of Children, by Grade, in P3-7

The second part of the findings focuses on children who were assessed and were attending Primary Grades 3 to 7 (P3-7). The highest levels of skill assessed by Uwezo correspond to objectives of the P2 curriculum: therefore, it is of interest to show how far these levels have been achieved by children in the subsequent grades.

Table 3 gives details of the samples used for this part of the analysis and for Part III. For reading in English and for numeracy (simple arithmetic), assessed in 32 districts, we present weighted national estimates of proportions of pupils who have achieved each level in the assessment (see Annex B). For reading in a local language, we also present weighted findings, as explained in Annex B, but the sample is based on only 13 districts with uneven geographical coverage and therefore less reliable than those for English and numeracy.

TABLE 3: THE SAMPLES OF CHILDREN IN P3-P7 AND OF THOSE AGED 6-14

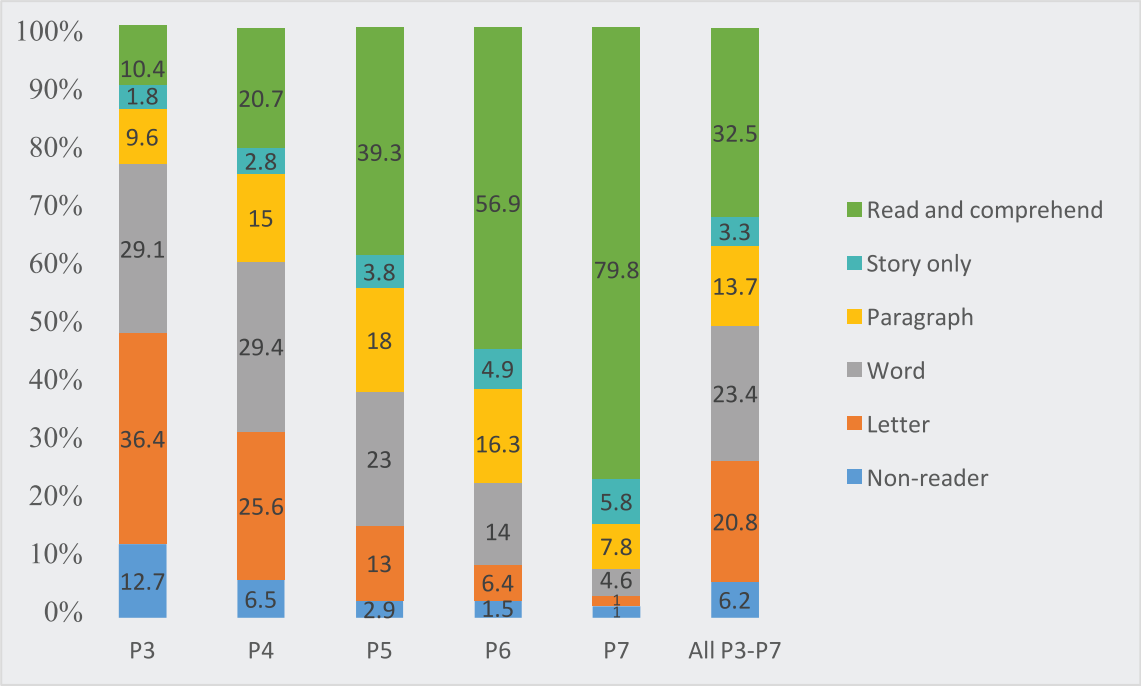
Skill assessed	**Number of children in P3-P7 (for Part II)**	**Number of children aged 6-14 (for Part III)**	**Number of districts**
Reading in English	13,652	24,787	32
Numeracy (simple arithmetic)	13,606	24,690	32
Ethno-maths	13,325	23818	32
Reading in a local language	5,228	9,278	13

A. The levels of reading in English

As in our previous Uwezo assessment in Uganda, the child is considered competent in reading at Primary Grade 2 level if he or she can read a short story and respond correctly to at least one of two comprehension questions based on the content. The five lower levels are: reading a story, but without demonstrating comprehension; reading a paragraph; word recognition; letter recognition; and non-reader status (See Annex Ia).

Figure 4 shows, for each grade, the estimated proportions of children at each reading level. These findings imply, as in previous Uwezo assessments, that children are acquiring reading skills late. As before, nearly all of those who could read the story (at P2 level) showed evidence of comprehension: but most children have not reached that level until they are in P6. Only 39% have reached that level by the time they are in P5. In comparison with the findings of 2015 (Uwezo 2016), the proportions of children with full competence in P3-6 are consistently lower: only P7 shows the same level of achievement. The proportion assessed as competent in P3-P7 overall was 33% in 2018 and 39% in 2015. The only positive change is that the proportions of complete non-readers in P3-5 are slightly lower too. In general, the pattern of delayed learning is linked to overcrowding in the lower grades, absenteeism, insufficient resources for learning and lack of access to ECE (Crouch and Merseth 2017). More detail on these factors is available later in this report (Part IV).

FIGURE 4: LEVELS OF READING IN ENGLISH, BY GRADE - NATIONAL ESTIMATES (PERCENTAGES)



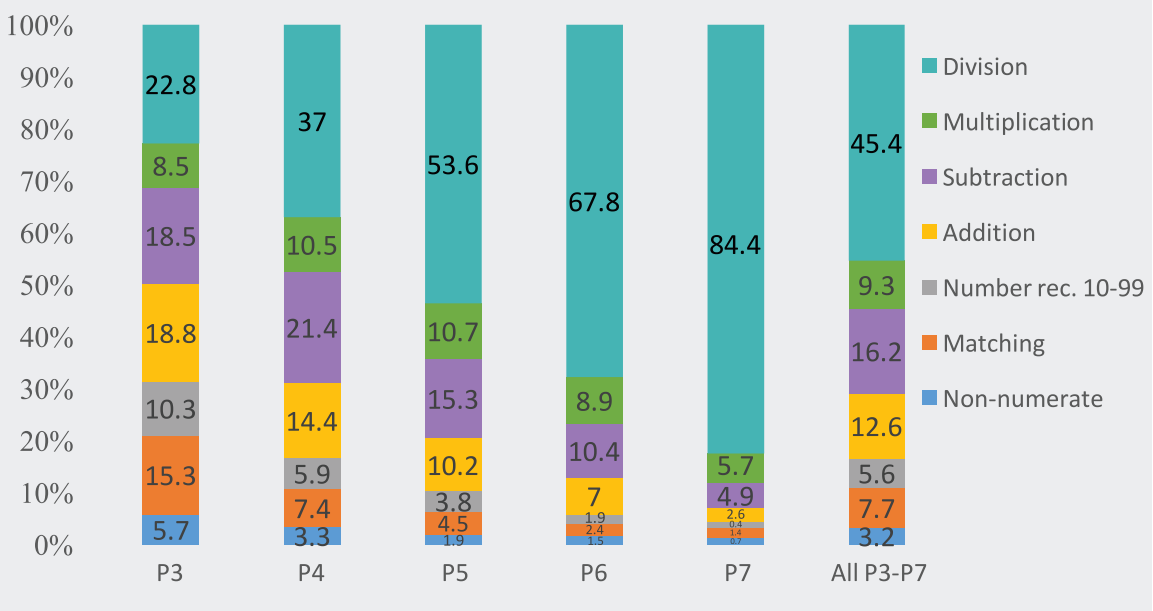
Sample size: 13,652 (English Reading)

B. The levels of numeracy

Children were assessed in matching, number recognition and the four basic arithmetic operations, in assumed order of difficulty (see Annex Ib). Ability to perform division (using a one-digit number) was treated as the indicator of numeracy competence at P2 level. The assessment also included an 'eth-no-maths' question that required addition or subtraction in a familiar cultural context.

Figure 5 records the estimated proportions of children at each numeracy level. As in previous assessments, the findings show that most children have not reached P2 numeracy competence until they are in P5. A comparison between the 2018 and 2015 findings shows that, although the proportions of children with competence in P7 are the same, those in P3-P6 have decreased. In this, there is a similarity with the trend in English reading. The level of numeracy competence for P3-P7 overall is down from 52% in 2015 to 45% in 2018.

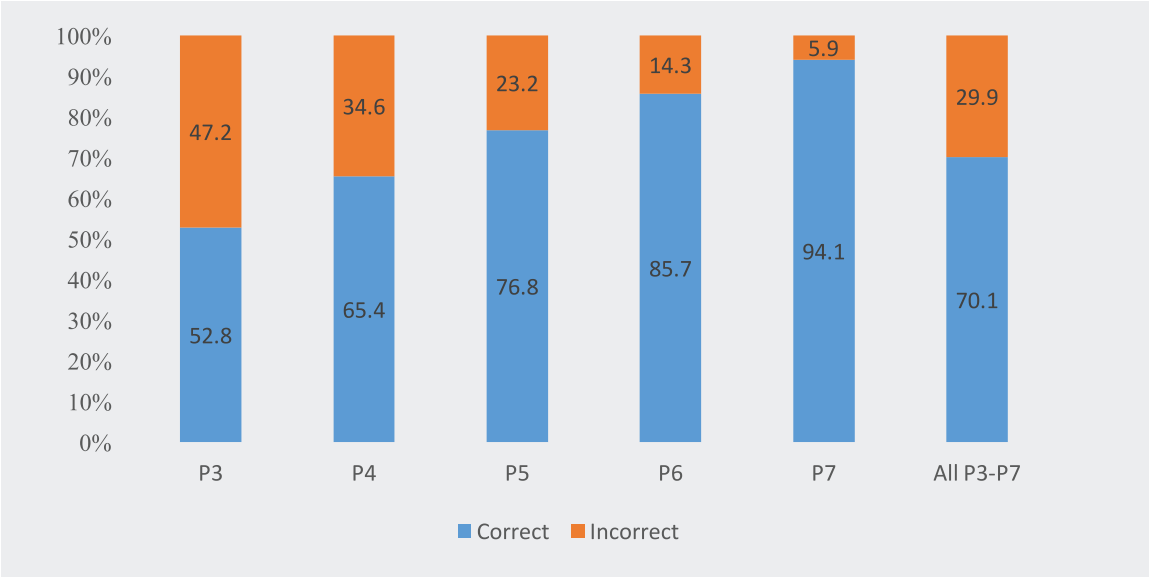
FIGURE 5: LEVELS OF NUMERACY, BY GRADE - NATIONAL ESTIMATES (PERCENTAGES)



Sample size: 13,606

Further evidence of a slight decline in numeracy comes from the responses to the ethno-maths question (see Figure 6). The proportions of correct responses were almost as high for P7 as they were for two equivalent questions in 2015, but substantially lower for other grades. The proportion correct for P3-P7over-all is 70%, compared to 88% and 86% for the 2015 questions.

FIGURE 6: RESPONSES TO ETHNO-MATHEMATICS QUESTION, BY GRADE: NATIONAL ESTIMATES (PERCENTAGES)



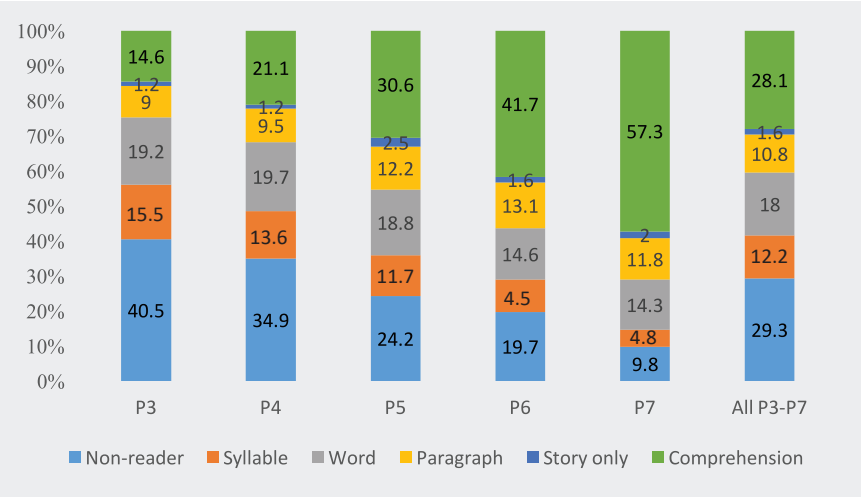
Sample size: 13,325

C. The levels of reading in a local language

The official policy in Uganda since 2007 has been to use a local language, as far as possible, for teaching in P1-3. Just as the linguistic diversity of Uganda makes

this policy hard to implement, it is also challenging for Uwezo to assess this aspect of learning. This accounts for the more limited sample used, from 13 districts. The levels of learning identified are the same as for English, except that syllable recognition replaces letter recognition (See Annex 1c). Figure 7 gives estimates of the proportions of children achieving the various levels in each grade.

FIGURE 7: LEVELS OF READING IN A LOCAL LANGUAGE, BY GRADE - NATIONAL ESTIMATES (PERCENTAGES)



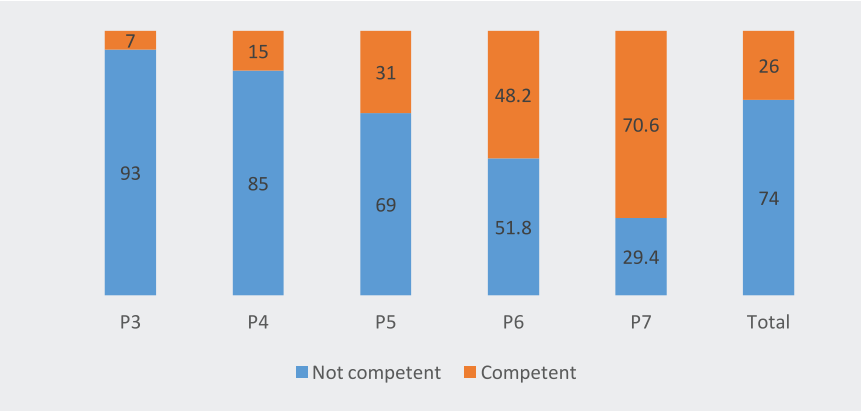
Sample size: 5,179; 13 districts only

As in past assessments, there are large proportions of non-readers and limited proportions of children with full competence (rising to 57% in P7). The results are somewhat poorer than those obtained in 2015, the proportion with full competence in P3-P7overall being 28%, compared to 35% in 2015. But it should be noted that more districts were included in the 2015 assessment, and so the comparison may not be conclusive. In any event, the results underline the need for a careful reconsideration of the local language policy, which has limitations both in efficiency and in equity. These will be discussed further in the sections which follow.

D. Combined competence and problem-solving

For a more complete account of the acquisition of basic skills, we present, in Figure 8, the rates of combined competence, in English reading and numeracy, in the primary grades P3-7.

FIGURE 8: RATES OF COMBINED LITERACY AND NUMERACY COMPETENCE IN P3-7 - NATIONAL ESTIMATES (PERCENTAGES)



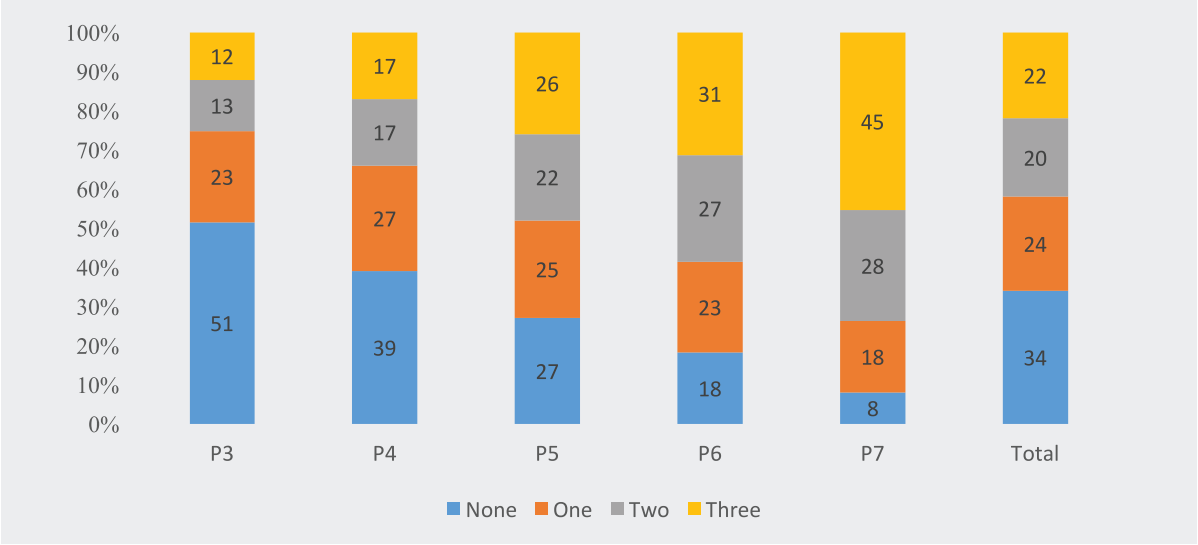
Sample size: 13,410

Note:
*Competent means the child was able to read a story in English with comprehension and was able to perform division using a single-digit number.

It is notable that steady improvement occurs through these grades: most children in the upper primary school seem to learn the basics that they failed to learn in the lower grades. A factor may be that conditions for teaching and learning are better in the upper grades.

In addition to the main literacy and numeracy assessments, we obtained responses to three 'bonus questions' which required some elements of problem-solving. The first was concerned with identification of geometric shapes, the second with deduction of a question from an answer and the third with spatial recognition and logic (See Annex 1d). Figure 9 shows the proportions of children in each grade by number of correct responses.

FIGURE 9: NUMBER OF CORRECT RESPONSES TO BONUS/PROBLEM-SOLVING QUESTIONS IN P3-7: NATIONAL ESTIMATES (PERCENTAGES)



Sample size: 13,309

Once again, correct responses are strongly related to grade. This suggests that our findings on basic reading and numeracy skills do represent a more general pattern of language and numeracy acquisition.

Part III: Levels of Literacy and Numeracy of Children by Age, 6-14

From a perspective of social equity, it is worthwhile to consider learning outcomes by age as well as grade, especially as the primary grades have very wide age ranges in Uganda. This approach also enables us to map the acquisition of skills throughout the age range (6-14) for which the primary cycle is designed. The sample sizes used for this part of the findings are given in Table 3 above. The assessment has not covered the few children aged 13-14 who were attending boarding schools, but this has little effect on the estimates.

Tables 4, 5, 6 and Figure 10 below give estimates of the levels of English reading, numeracy and local language reading achieved nationally in each one-year age cohort.

TABLE 4: LEVELS OF READING IN ENGLISH, BY AGE - NATIONAL ESTIMATES (PERCENTAGES)

Age of the child

Level achieved	6	7	8	9	10	11	12	13	14	Ages 6-14
Non-reader	53.2	41.9	32.8	26.3	21.5	11.7	12.6	8.1	7.6	25.5
Letter	32.1	36.8	34.2	33.3	30.6	28.7	23.2	19.7	15.3	28.7
Word	11.6	14.4	20.1	21.8	22.8	22.3	22.4	21.5	20.1	19.5
Paragraph	2.0	3.3	5.4	7.4	8.6	9.7	11.8	12.5	13.4	7.9
Story only	0.1	0.7	0.8	1.2	1.7	2.4	3.2	3.0	3.4	1.7
Story with compreh.	1.0	2.9	6.8	10.0	14.7	25.2	26.9	25.3	40.2	16.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sample size: 24,787

Excellent progress Delayed learning

Severely delayed learning (more than 2 years behind expectation for age)

TABLE 5: LEVELS OF NUMERACY, BY AGE - NATIONAL ESTIMATES (PERCENTAGES)

Age of the child

Level achieved	6	7	8	9	10	11	12	13	14	Ages 6-14
Non-numerate	44.1	29.6	22.4	15.3	11.5	5.5	7.3	4.1	5.0	17.3
Matching	34.2	34.0	27.2	21.1	18.8	13.0	10.1	7.5	5.5	20.0
Number rec. 10-99	9.4	12.4	12.6	12.5	10.4	6.7	6.4	5.6	3.8	9.1
Addition	5.8	9.2	11.3	13.1	13.0	13.0	13.2	11.0	9.5	10.9
Subtraction	3.4	7.8	11.8	13.7	15.3	16.8	16.0	13.8	12.5	12.1
Multiplication	1.5	1.7	4.3	6.0	7.8	9.5	7.3	9.5	8.7	6.0
Division	1.6	5.4	10.3	18.2	23.3	35.4	39.7	48.6	55.1	24.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

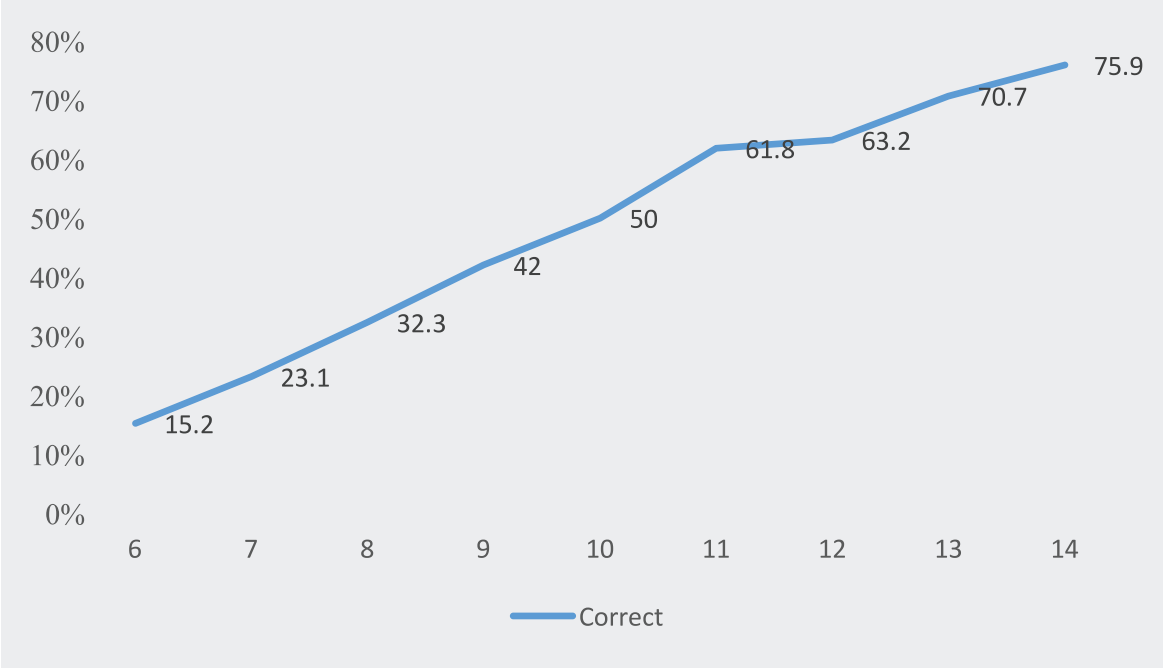
Sample size: 24,690

Excellent progress Delayed learning

Severely delayed learning (more than 2 years behind expectation for age)

Tables 4 and 5 show the extreme inequality of learning outcomes by age. While small minorities of children have already achieved full competence in these basic skills at the age of 6 or 7, barely half of the children aged 14 have achieved full competence in P2 level numeracy and a smaller proportion has done so in English reading (40.2%). For the ages of 9 and 10, the skill ratings have bimodal distributions, both for English reading and for numeracy. Large groups are still at the stage of word or letter recognition and number-matching or non-numeracy, while other groups, of 10-25%, have full competence. For the first groups (those in the lower modes), very delayed learning of basic skills limits the benefits of other parts of the curriculum, such as science and social studies. In the case of the ethno-maths question (see Figure 10), there is an apparently linear relationship between responses and age: but nearly one-quarter of children aged 14 were unable to answer correctly.

FIGURE 10: RESPONSES TO ETHNO-MATHEMATICS QUESTION, BY AGE - NATIONAL ESTIMATES (PERCENTAGES)



Sample size: 23,818

In the case of local language reading (see Table 6), the distribution of skill ratings is bimodal for the ages 11-14. Even by the age of 14, more than one-quarter of the sample still had non-reader status. This finding suggests that the 'mother-tongue' policy is non-functional for many children: possible factors will be considered in Part IV, which is concerned with equity issues.

TABLE 6: LEVELS OF READING IN A LOCAL LANGUAGE, BY AGE - NATIONAL ESTIMATES (PERCENTAGES)

Level achieved	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**Ages 6-14**
Non-reader	77.1	68.1	59.6	48.7	43.0	33.9	29.7	29.6	26.9	47.9
Syllable	12.3	14.8	14.3	15.3	15.1	14.2	12.3	10.7	10.1	13.3
Word	8.3	11.7	13.4	16.7	17.2	17.5	18.2	16.2	14.2	14.6
Paragraph	1.7	2.6	4.8	6.0	8.0	8.5	9.5	11.7	12.9	7.0
Story only	0.1	0.3	0.6	0.6	1.1	0.8	2.0	1.9	2.0	1.0
Story with compreh.	0.5	2.5	7.3	12.8	15.7	25.1	28.3	29.9	33.8	16.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	1000.0

Sample size: 9,355

Excellent progress

Delayed learning

Severely delayed learning (more than 2 years behind expectation for age)

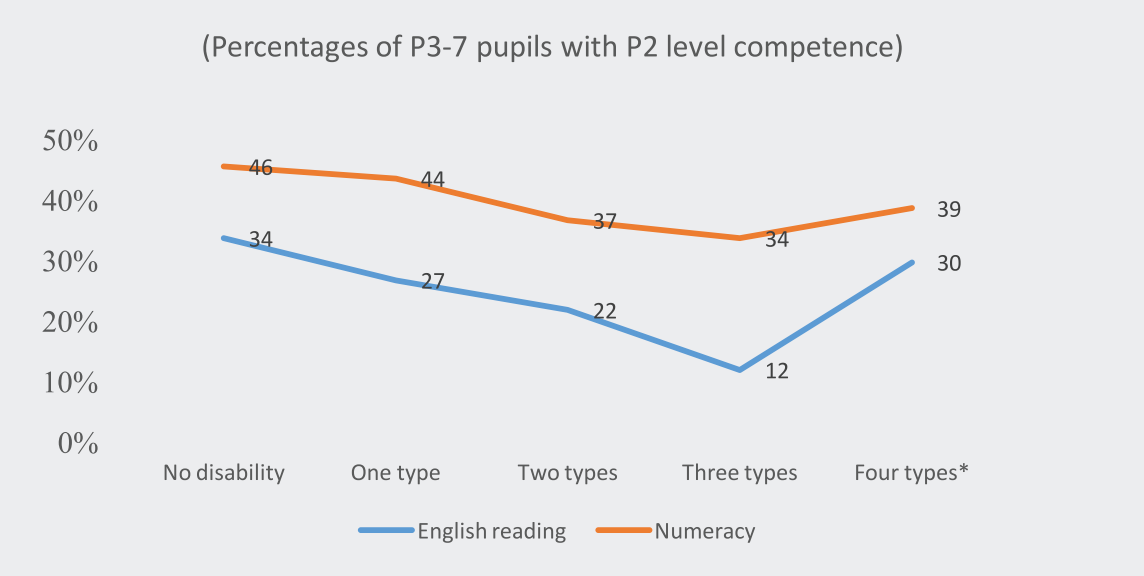
Part IV: Factors Relating to Inequalities of Learning Outcomes

In this section we draw attention to factors other than grade and age which relate to inequalities in learning outcomes. As in previous assessment reports, we consider characteristics of the individual, the household, the child's educational experience and the location. On this occasion we use new types of data obtained on disability and on home language.

A. Individual characteristics

The individual characteristics considered are disability and gender. With data from the Washington Questions, we are able to show some implications of disability by range and by level of severity, as in Figure 11 and Table 7.

FIGURE 11: RATES OF COMPETENCE BY RANGE OF DISABILITIES: COMPARATIVE PERCENTAGES



Sample sizes: 13,563 for English reading; 15,521 for numeracy.

Note:

*In 42 cases the same child was said to have all four types of disability recorded: but such cases need independent verification.

As Figure 11 shows, children in P3-P7 who have multiple disabilities are somewhat less likely than those with one disability to achieve P2 level competence in English reading and numeracy. The findings in Table 8, however, do not support the assumption that the level of a given disability is associated with poorer learning outcomes, except in the cases of (a) those with memory difficulties (the fourth column) and (b) those who cannot perform the function at all (the last row).

TABLE 7: RATES OF COMPETENCE BY TYPE AND LEVEL OF DISABILITY - COMPARATIVE PERCENTAGES

English reading: percentages of P3-7 pupils with P2 level competence

Level of reported disability difficulty:	Competence by type and level of disability:			
	Seeing, even if wearing glasses	Hearing, even if using a hearing aid	Walking or climbing steps	Remembering or concentrating
No difficulty	33	33	33	34
Some difficulty	30	24	27	22
A lot of difficulty	32	27	35	14
Cannot do at all	31	26	24	9

Numeracy: percentages of P3-7 pupils with P2 level competence

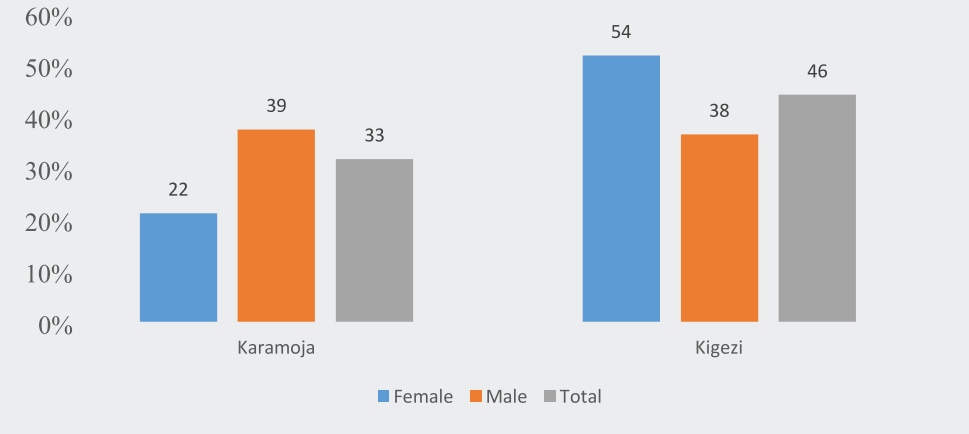
Level of reported disability difficulty:	Competence by type and level of disability			
	Seeing, even if wearing glasses	Hearing, even if using a hearing aid	Walking or climbing steps	Remembering or concentrating
No difficulty	46	46	45	46
Some difficulty	42	40	47	40
A lot of difficulty	50	42	59	31
Cannot do at all	31	26	24	25

Sample sizes: These are in the range, 13,568 to 13,634

These and the findings in Part I (Figure 3) show the educational importance of identifying and responding to the various kinds of health problems and mental and behavioural challenges that may be reflected in a reported 'remembering difficulty'. But there are some grounds for thinking that parents may have over-reported memory difficulties, which do not necessarily indicate mental disabilities.

We now consider the question of gender. At the national level the gender differences in achievement are not significant. The estimates are that 33.8% of girls and 31.1 % of boys in P3-P7 had achieved English reading competence, while 45.6% of girls and 45.3% of boys had achieved numeracy competence. But some sub-regions in Uganda show moderate gender differences in achievement, in different directions. Figure 12 gives two contrasting examples of English reading competence, in Karamoja (Kaabong District) and Kigezi (Rukungiri District).

FIGURE 12: FREQUENCIES OF P3-7 PUPILS, BY ENGLISH READING COMPETENCE AND BY GENDER, IN SELECTED SUB-REGIONS (PERCENTAGES)



Chi-square = 9.185, sig. .002 (2-tailed) *Chi-square = 6.823, sig. .009 (2-tailed)*

The Chi-squared statistic for the frequencies is significant in both cases, showing a clear advantage for boys in Karamoja and for girls in Kigezi. For numeracy competence, the gender differences are in the same direction as for English, but the Chi-squared is not significant. With regard to the causes, the well-known cultural beliefs and practices in Karamoja is likely to contribute to the disadvantage of girls, but the comparative disadvantage of boys in Kigezi and similar areas may need further research.

B. Household characteristics

The survey obtained data on many household characteristics that relate to the concept of socio-economic status. From the data we have constructed three indexes, the most advanced being a wealth index based on a range of eight types of household possessions. The index was developed by polychoric principal components analysis, an approach illustrated by Filmer and Pritchett (2001). Simpler indexes were also developed for (a) building quality and utilities in the home and (b) water and sanitation conditions in the home. Full details of these indexes are given in Annex III.

To provide an overview of the relationships between the learning outcomes, the level of education of the household head and the three indexes, we present a matrix of rank-order correlation coefficients (Spearman's Rho) in Table 8. The matrix is based on the unweighted sample data for children aged 6-14, limited to 28 districts for a good geographical balance.[4] As the learning outcomes (Y variables) are ordinal measures, rank-order correlation is appropriate.

TABLE 8: LEVELS OF READING IN ENGLISH, BY GRADE - NATIONAL ESTIMATES (PERCENTAGES)

	Variable name:	Y1	Y2	X1	X2	X3
Y1	English reading rank	1.000				
Y2	Numeracy rank	.744	1.000			
X1	Household head's level of education	.178	.136	1.000		
X2	Wealth index	.285	.213	.365	1.000	
X3	Building & utilities index	.226	.174	.265	.792	1.000
X4	Water & sanitation index	.259	.179	.191	.394	.327

Sample size: Fixed listwise at 18,337

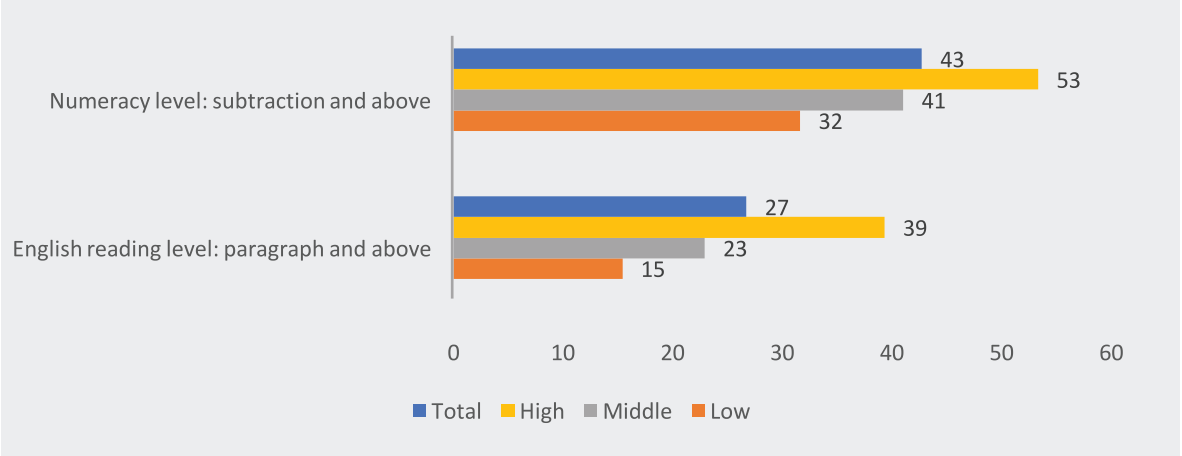
Note:
All the coefficients would be significant at the 1% level (2-tailed) for a simple random sample. The actual sample does not strictly conform to the independence requirements for the tests of significance.

[4] This sample gives national estimates for English and numeracy competence that do not deviate from the weighted estimates by more than 1.1%.

Table 8 shows that, of the independent (X) variables, the wealth index based on household possessions has the strongest association with the learning outcomes (rho[5] = .285 and .213).

The effects of socio-economic status are further illustrated by Figure 13, in which children aged 6-14 are divided into three quantiles of the wealth index. The percentages estimated to have achieved selected levels of learning are shown for each of the quantiles and show a consistent pattern. The gaps between the rich and middle quantiles are larger than those between the middle and the poor.

FIGURE 13: SELECTED LEARNING LEVELS OF CHILDREN AGED 6-14, BY WEALTH GROUPS (PERCENTAGES)



Sample sizes: 24,118 (English reading); 23,917 (numeracy).

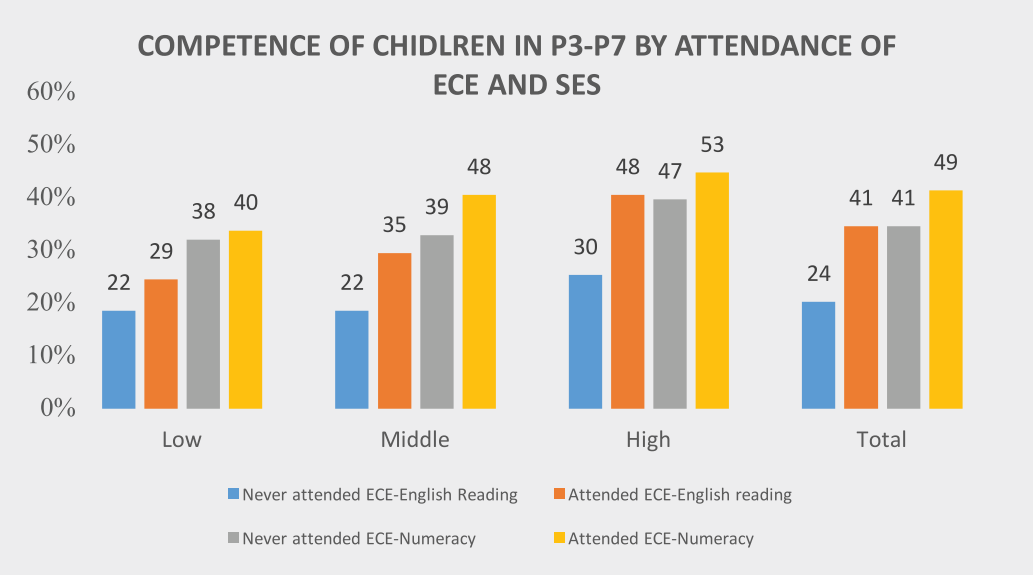
Note:
*The groups are quantiles of the wealth index based on household possessions.

C. Educational experience

The influence of households is mediated to some extent by the extent of the child's attendance in ECE (which some families cannot afford at all) and by the enrolment of a minority of children in private primary school. As in previous assessment reports, we present some evidence about these factors, in Figure 14 and 15. We also present some new evidence about the local languages used by schools.

[5] Rho has values ranging from +1 to -1.

FIGURE 14: RATES OF COMPETENCE OF CHILDREN IN P3-P7 BY LENGTH OF ECE AND BY WEALTH GROUP: NATIONAL ESTIMATES (PERCENTAGES)

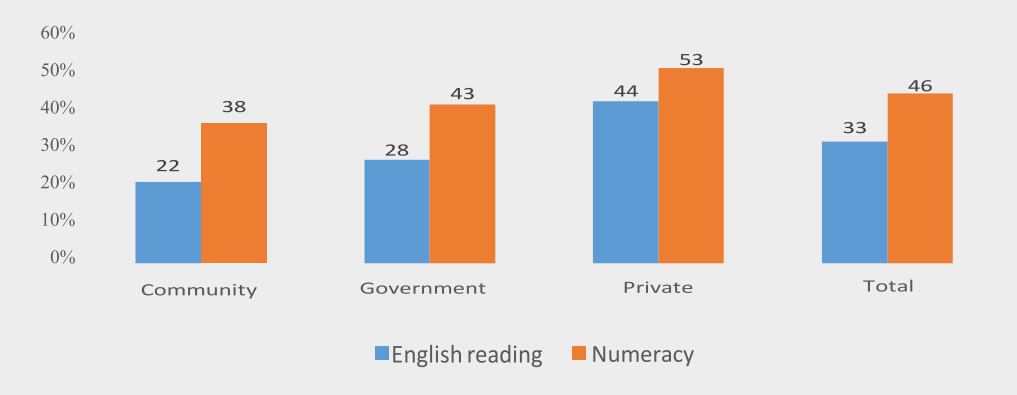


Sample size: 12,705 (English Reading)
Sample size: 12,671 (Numeracy)

Figure 14 shows estimated rates of competence of children in P3-7, for English reading and numeracy, according to whether they have received at least two years of ECE and also according to the wealth groups of Figure 13. The figure shows that, within each wealth group, two years of ECE is associated with higher rates of competence in P3-7. The pattern of findings is consistent with the growing body of evidence that ECE, even when provided at low cost, can have lasting benefits for subsequent education (see Rao et al. 2014).

Figure 15 shows estimated rates of competence of the same sub-sample, according to whether the child was attending a community, government or private school. As in our previous reports, there are considerable differences between the three groups. The gap between private and community schools for English reading is very large, at 22 percentage points, and is the same as in the 2015 Assessment. A cause for concern is that community schools seem to be unable to provide a quality of service equivalent to that of government schools.

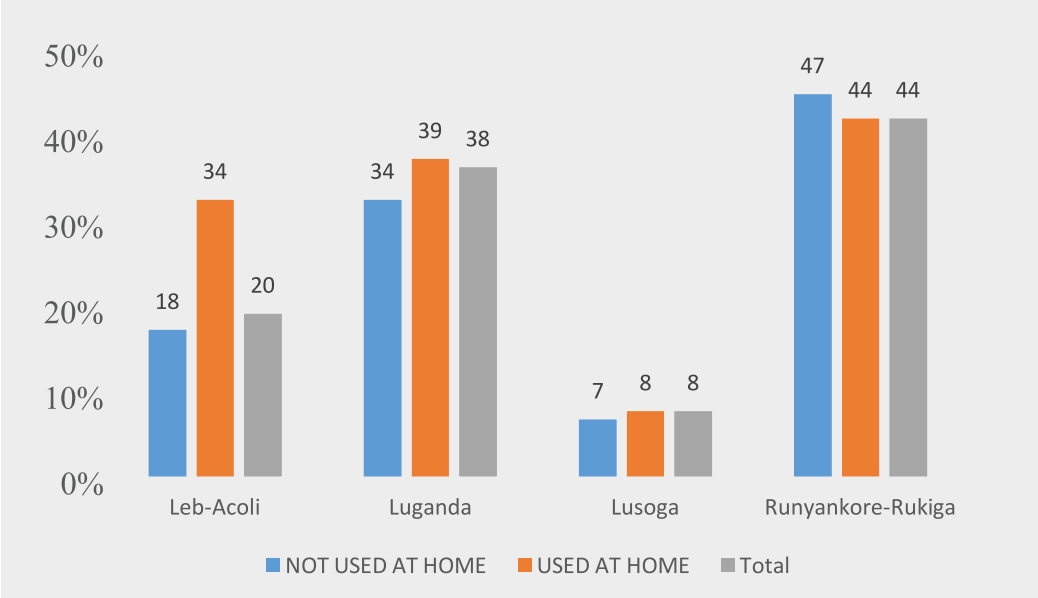
FIGURE 15: RATES OF COMPETENCE OF CHILDREN IN P3-7 BY OWNERSHIP OF SCHOOL ATTENDED - NATIONAL ESTIMATES (PERCENTAGES)



Sample sizes: 13,570 (English reading); 13,526 (numeracy).

Another potentially important factor is the local language used (or partially used) for teaching in P1-3 and as a required subject in P4-7. In principle, this could interact with the varied linguistic backgrounds of pupils. To explore this issue, Figure 16 uses components of the sample for local language learning and shows percentages of competence in local language reading (in P3-7) according to whether the language in which children were assessed was also spoken at home. The results are shown for each of the four local languages used in our assessment. (Runyankore and Rukiga are treated as a single language.)

FIGURE 16: LOCAL LANGUAGE COMPETENCE (P3-7) BY USE OF LANGUAGE AT HOME (PERCENTAGES)



Sample size: 5,228

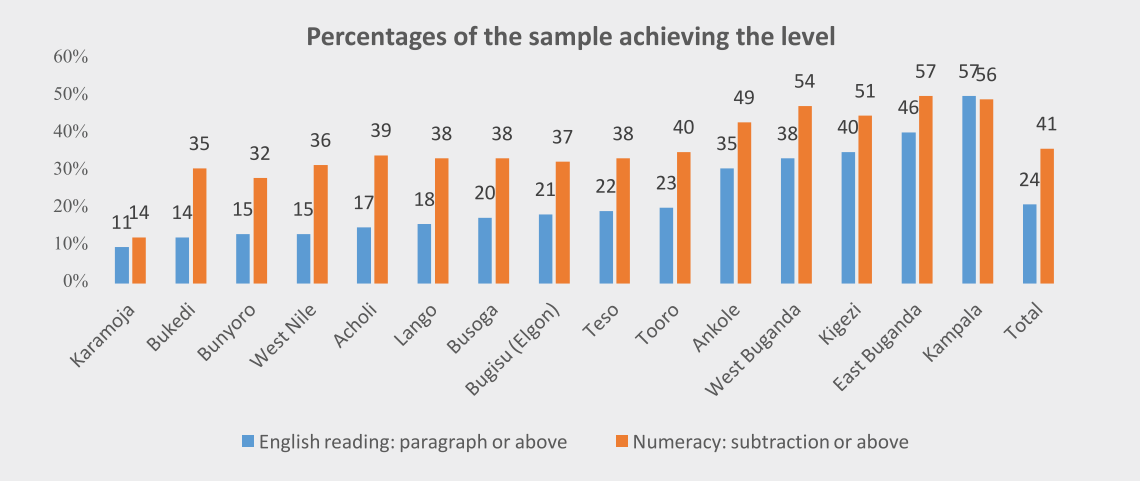
It is important to note that the findings are different for each of the four languages. In the case of Leb-Acoli, P3-P7 children who are from Leb-Acoli-speaking homes are nearly twice as likely to have achieved reading competence as those who are not. The Chi-squared statistic is significant at 1%.

Furthermore, non-native speakers are four-fifths of the sample and this raises an issue about the choice of language. For Luganda, however, there is only a slight difference between native and non-native speakers and the Chi-squared is non-significant. This also applies to Lusoga, but very few of either group are achieving literacy in the language, so the main obstacles are likely to be in the school rather than the home. Lastly, in Runyankore-Rukiga, non-native speakers are reading at least as well as native speakers. Overall, the teaching of Runyankore-Rukiga and of Luganda is considerably more successful than that of the other two languages assessed.

D. Locational factors

Variations in outcomes by type of location and region reflect socio-economic and cultural influences, as well as differences in the quality of educational provision. We note that, as usual, children in urban areas outperform their rural counterparts. The estimated rates of English reading competence in P3-P7 are 42% for urban and 30% for rural children and those of numeracy competence are 50% (urban) and 45% (rural). More importantly, perhaps, regional inequalities in Uganda persist. Figure 17 shows the proportions of the sample of children aged 6-14 in each sub-region who had reached at least the paragraph level in English reading and at least the subtraction level in numeracy.

FIGURE 17: LEARNING LEVELS OF CHILDREN AGED 6-14 BY SUB-REGION (PERCENTAGES)



Sample sizes: 24,892 (English reading); 24,690 (numeracy)

Figure 17 shows some consistency in the rank order of sub-regions for both areas of learning, sub-regions in Ankole, Buganda, Kigezi and Kampala being at an advantage. But the variation is greater in English reading than in numeracy. The resources of schools, discussed in Part V, have some relevance.

Part V: Resources and Practices in Primary Schools

As in previous Uwezo Assessments, we obtained information about school resources and practices in the primary school that was most attended by the children in each selection EA (i.e. village or urban quarter). The school survey illuminates the context in which children are learning and the efforts of the state and other educational agencies to provide for their needs.

A. The school sample

The school survey is based on a sample of 954 schools (generally 30 per district). The ownership of these schools was 13.8% private, 82.6% government, 2.3% local community and 1.3% ownership unreported. About 84% of the schools had just one stream and less than 5% had more than two streams. About 49% of the schools had an ECD (nursery) unit attached. For practical reasons these units had to be included in the general measures of staffing, but they are excluded from other main findings. The survey findings are presented as weighted national estimates unless it is stated otherwise.

B. Level and quality of staffing

Numbers of pupils and teachers were recorded both from official school records and from head counts. Here we use the PTR based on official records (see Table 9). The PTR has a large variance and is moderately correlated with the number of pupils in the school (r = .664, unweighted). In general, therefore, teacher shortages are most evident in the larger schools.

Table 9 shows the weighted means of the PTR and of the percentages of trained teachers and of female teachers, according to school ownership. Private schools tend to have a lower PTR and a higher proportion of female teachers, but government schools have the highest proportion of trained teachers, close to 100%. Schools in urban locations have a slightly higher proportion of female teachers than rural schools but have no advantage on the other two measures.

TABLE 9: MEASURES OF PRIMARY SCHOOL STAFFING, BY OWNERSHIP OF SCHOOL - NATIONAL ESTIMATES (PERCENTAGES)

Means, standard deviations in brackets

School type:	Official PTR*	Percentage of trained teachers	Percentage of female teachers
Community	37.7 (32.4)	59.5 (31.3)	34.6 (15.6)
Government	51.9 (23.5)	95.6 (10.2)	43.2 (19.4)
Private	25.6 (11.6)	77.3 (29.4)	53.1 (15.6)
Total	47.6 (24.4)	91.9 (17.8)	44.5 (19.2)

Sample sizes: 929 (official PTR); 931 (% trained teachers); 938 (% female teachers)

The national mean PTR of 47.6 suggests that the staffing situation has worsened since 2015, when we obtained a figure of 45.8.

C. Basic resources and types of activity in the classroom

Teachers who are present in the school are not necessarily present in the classroom. There is also the question of whether essential learning materials are available to children. In this survey the volunteer assessors recorded whether the teacher was present or absent in each classroom and also whether at least half of the pupils present had a textbook or reading book for the lesson. Table 10 summarises the findings from these observations, which are limited to P1-7. The percentage of teachers present in class is based on the teachers seen in class and the number of classes (i.e. teaching units) in the school, where these records were complete. The percentage of classes meeting the textbook criterion is based on 855 schools in which observations were recorded for at least five classes.

TABLE 10: TEACHERS AND BOOKS PRESENT IN PRIMARY SCHOOL CLASSROOMS - NATIONAL ESTIMATES

Variable	Mean	Standard deviation	No. schools in sample
Percentage of classes with teacher present	78.6	25.4	717
Percentage of classes with textbooks for 50% or more of pupils	37.3	37.1	850

The national estimates in Table 10 have serious implications. On average, 21 per cent of a school's classes had no teacher present and 63 per cent of its classes did not have a minimally adequate provision of textbooks (i.e. one between two pupils). Teacher presence varies by school ownership, private schools having a mean percentage of 88, compared to 79 for government and 65 for community schools. Textbook provision varies by location, urban schools having a mean percentage of 42, compared to 36 for rural schools.

A further aspect observed was the general type of activity in which the teacher was engaged, if he or she was in class. This was an impressionistic measure, using five categories as shown in Table 11. The class was only observed for a short period; nevertheless, some general trends are apparent. For each type of activity, the school's percentage is based on the number of teachers present in class and the statistics are based on the limited numbers of schools for which complete and valid data are available for P1-P7.

TABLE 11: TEACHERS IN CLASS BY TYPE OF ACTIVITY SEEN - SAMPLE STATISTICS

Type of activity:	Mean percentage for school	Standard deviation	Number of schools in sample
Doing nothing	5.0	14.9	418
Marking books	18.5	20.7	400
Instructing learners	59.7	30.1	386
Supervising group work	10.9	16.6	411
Other	5.6	14.1	414

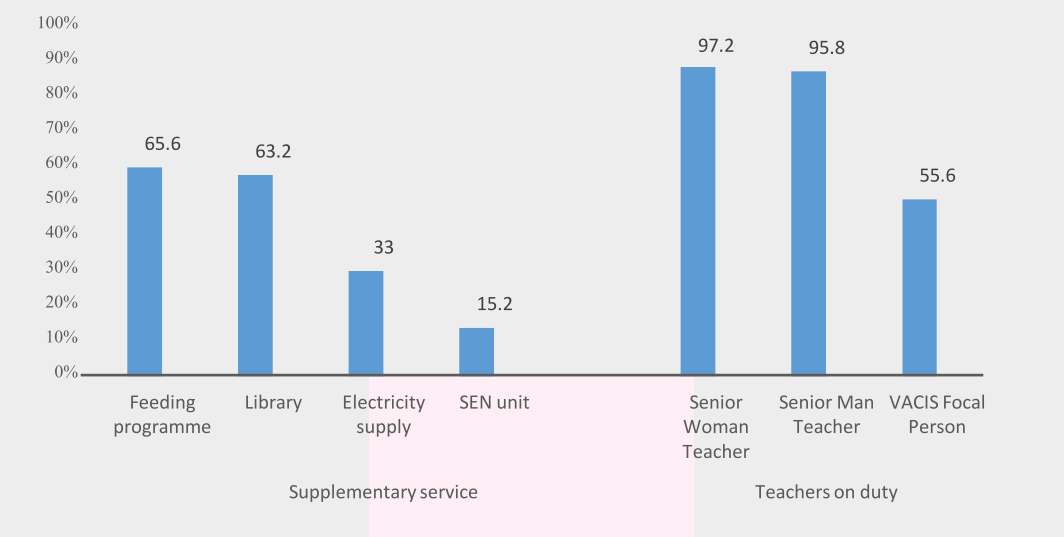
Note:
Because of missing data and the restricted sample sizes, the findings here are not weighted, but they are based on a geographically balanced sample of 28 districts.

Questions arise about why any teachers should have been doing nothing and why such a large proportion should have been marking books. Some teachers would defend the practice of 'instant marking' round the class or even that of marking at a front desk by saying that it can be combined with individual study by pupils and that they lack free time in which to mark. However, it may represent a loss of valuable instructional time, adding to the negative effect of teacher absences.

D. Supplementary facilities and services

Figure 18 shows the extent of supplementary services that schools are encouraged to provide. School meal services are not free but are convenient for many families. Libraries are important for promoting a culture of reading, especially where there is no accessible public library in the community. Only a few schools have special educational needs (SEN) units, but other aspects of provision for SEN will be considered in the next section.

FIGURE 18: PERCENTAGES OF SCHOOLS WITH VARIOUS SUPPLEMENTARY SERVICES AND SPECIAL DUTIES - NATIONAL ESTIMATES



Sample size: 954

Schools are encouraged to appoint Senior Woman and Senior Man Teachers to give advice on gender related issues and take action on problems such as sexual harassment. As most pupils in the upper primary grades are adolescents, these are important roles. As the table shows, most schools have made such appointments. 'VACIS Focal Persons' are teachers with responsibility for investigating and preventing violence against children in school, whoever the perpetrators may be. An encouraging number of schools have now made such an appointment.

E.Provision for special educational needs

Uganda has policy goals of including children with special educational needs (SEN) in mainstream basic education as far as possible, while providing some special classes and schools for those with moderate or severe disabilities.[6] Through the school survey we attempted to record some relevant information about schools and to obtain a count of pupils with specific types of disability. (There are many other types of special need that we could not cover.)

A teacher with training in SEN can provide some specialist support to other teachers in a large school, or in a cluster of small schools: but few such teachers are available. The survey indicates that 75.5% of primary schools have no such teacher on their staff list and that, on average, only 3.5% of a school's teachers have that kind of training.

School representatives were also asked whether the school enrolled children with severe disabilities. The response was positive for just over half of the schools (a national estimate of 54.4%) and for three-quarters of the schools that had a special needs unit (74.9%). These percentages are surprisingly large, as most schools lack the resources to respond to severe disabilities. Only an estimated 7.9% of schools were receiving a subvention grant for any kind of SEN.

Our attempt to obtain counts of pupils with specific types of disability – visual, audio physical and mental – did not yield results that deserve confidence. As Table 12 shows, the rates of disability indicated by the school sample as a whole (for P1-P7) are low in relation to the rates obtained from households through the Washington Group Questions (reported in Part I, Table 5). For example, the household data indicate a visual impairment rate of 3.6% for children in formal education, whereas the school data suggest only 0.8%. The comparison suggests that school representatives considerably under-reported visual, hearing and physical impairments. On mental disabilities they may have been more accurate: parents may have over-reported 'memory difficulties', which are not in any case a good indicator of mental disabilities. However, the school-based statistics in general are too low in relation to international estimates of disability prevalence such as Global Burden of Disease estimates (World Health Organisation and World Bank 2011, 30). The problem underlines the need for better identification and recording of SEN in primary schools.

TABLE 12: COUNTS OF P1-P7 PUPILS WITH DISABILITIES, FROM THE SCHOOL SAMPLE

Visual impairments	Hearing impairments	Physical handicaps	Mental disabilities	Max. total*
Raw totals from the sample, representing about 829 schools**:				
3,127	3,100	2,367	1,620	10,214
Projected totals for 894 schools:				
3,372	3,343	2,553	1,747	11,015
As proportions of the P1-7 pupil head count of 407,945 for 894 schools:				
0.83	0.82	0.63	0.43	2.70

[6] See the Special Needs and Inclusive Education Department at https://www.education.go.ug/data/15/Special Needs and Inclusive Education.html.

*The total here is a maximum, but it is likely that a few pupils had multiple disabilities and were counted more than once.

**The missing cases for cells by grade and gender were fairly consistent and were 125 schools on average

F. Health facilities

The survey obtained a simple record of whether schools had a basic supply of medicines and a first aid kit and also on certain specific arrangements for girls' menstrual hygiene. Table 13 summarises the findings. The estimated proportion of schools with a functional first aid kit was still only 53.6% (compared to 46.8% in 2015), but provision for menstrual hygiene seems to be improving as a result of awareness-raising. Training on this issue had reached about 75% of schools.

TABLE 13. PERCENTAGES OF SCHOOLS WITH VARIOUS TYPES OF HEALTH PROVISION: NATIONAL ESTIMATES

The school has:	Percentage	Number of schools in sample
General:		
A supply of medicines for emergencies	54.9	898
A stocked first aid kit	53.6	898
Provision for menstrual hygiene:		
A supply of sanitary pads for emergencies	68.9	907
Training on menstruation hygiene in the past year	74.9	935
A private room for girls in their menses	47.7	936

G. Water supply

Water supply is a challenge for many primary schools, as there are problems of water availability and quality in the communities where they are located. Water problems can directly affect children's ability to learn as well as their health. The survey obtained information of types of water source used, availability, safety and methods used to make water safe for drinking. Our Uwezo volunteers tested the water available for drinking in each school, using H2S test kits[7]. The findings about water are summarised in Tables 14 and 15 and Figure 19.

[7] https://www.indiamart.com/proddetail/h2s-water-test-kits-2321712191.html

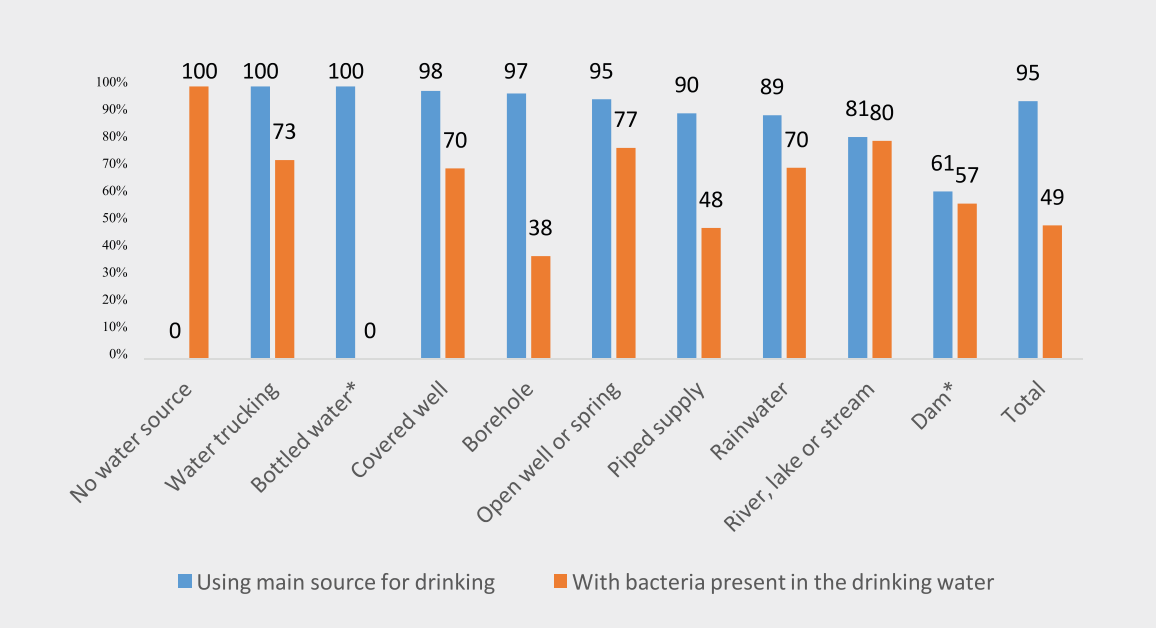
TABLE 14: SCHOOL WATER SUPPLY: TYPES OF SOURCE AND AVAILABILITY - NATIONAL ESTIMATES

Main water source	Percentage of schools using source	Percentage with source available at least 11 months in the year
Safer types of source:		
Borehole	50.5	93.2
Piped supply	22.3	96.4
Covered well	10.7	97.9
Open well or spring	5.3	96.2
Water trucking	1.5	85.2
Bottled water	0.1	100.0
Less safe types of source:		
Rainwater	4.8	54.8
River, lake or stream	3.3	96.1
Dam	0.6	100.0
No source	0.6	0.0
Total	100.0	7.6

Sample sizes: 928 (types of source); 923 (availability)

The general situation is that half the schools are using boreholes and a further 22.3 % are using either a piped supply or covered wells. For all of these sources, the level of availability is quite good. However, nearly 5% of the schools depend mainly on rainwater, which has much lower availability than other types of source (see Table 14).

FIGURE 19: SCHOOL WATER SUPPLY - USE AND TREATMENT FOR DRINKING WATER



The most common problems seem to be ones of quality for drinking water. For example, the covered well water usually contains bacteria, but only half the schools that depend on covered wells are treating the water for drinking (See Figure 19 and Table 15). The treatment rates are no better for those using open wells or rivers. They are, however, better for those using a piped supply or rainwater. A larger proportion of urban schools than of rural schools treat the water (57.4% versus 40.6%).

TABLE 15: SCHOOL WATER SUPPLY - TREATMENT FOR DRINKING WATER BY MAIN SOURCE

Percentages of schools

Main water source:	Types of treatment of drinking water, percentages by school's main source of water*:				
	Boiling	Filtering	Chemical treatment**	None	Total
Borehole	13.4	5.7	8.7	72.1	100.0
Piped supply	27.4	19.5	17.7	35.4	100.0
Covered well	31.5	9.7	6.8	52.0	100.0
Water trucking	36.0	8.2	18.0	37.8	100.0
Bottled water	0.0	0.0	0.0	100.0	100.0
Open well or spring	42.6	7.6	1.7	48.2	100.0
Rainwater	50.3	11.3	12.5	25.9	100.0
River, lake or stream	23.5	9.3	13.3	53.9	100.0
Dam	46.9	17.4	0.0	35.8	100.0
No source	24.0	0.0	16.7	59.3	100.0
Total	22.8	9.8	10.6	56.8	100.0

Sample size: 920

Note:

*The drinking water came from the main source in most, but not all, cases. The schools with no source still provided drinking water.

** Chlorine, Water Guard or Aqua Safe.

H. Sanitation and hygiene

Information was obtained on the provision of toilets for pupils and staff and on the availability of hand-washing facilities. The types of toilet most frequently provided are pit latrines with a slab (59.4%), flush toilets (18.3%) and pit latrines without a slab (17.4%). Less satisfactory types such as hanging and composting toilets are used by less than 2% of the schools. For cost and environmental reasons, the emphasis on pit latrines is appropriate.

The main problem is that of the quantity of toilets. As Table 16 shows, the estimated mean pupil-toilet ratio (for toilet stances only) in 2018 is 58, which is a marked improvement on the mean of 93 that we estimated for 2015. But the standard deviation of 64.11 shows that many schools have a serious shortage.

TABLE 16: BASIC STATISTICS OF TOILET PROVISION - NATIONAL ESTIMATES

Indicator:	Mean	Standard deviation	Sample size
Pupil-toilet ratio, stances only	58.2	64.11	879
Pupil-toilet ratio, including urinals	47.0	46.48	886
Teacher-toilet ratio (staff toilets)	5.5	3.62	799

A pragmatic (rather than ideal) target would be to have a toilet stance for every 40 pupils and some urinals in addition.[8] As Table 17 shows, only about 44% of primary schools in Uganda meet this target. If urinals are added to the toilet

[8] A norm of 1:20 is used in some high- and middle-income countries.

stances, the proportion increases to 58%. The table also shows that there are some extreme cases of large schools with hardly any toilets, having pupil-toilet ratios of 200 or more. Such cases need to be treated as emergency situations.

TABLE 17: EVALUATION OF PROVISION OF PUPIL TOILETS - NATIONAL ESTIMATES

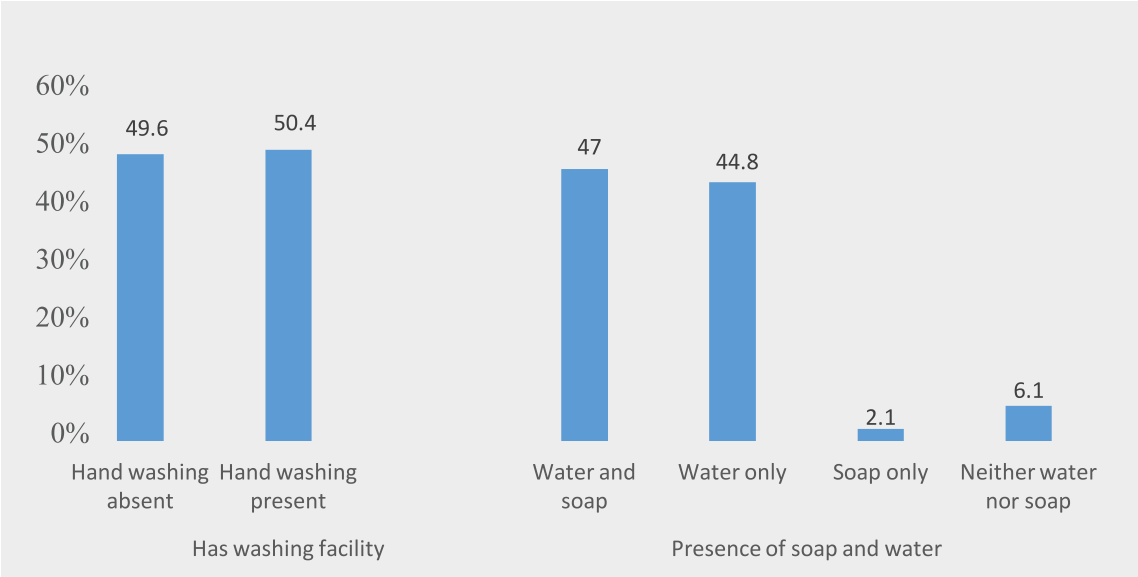
Selected measure:	Calculated for stances only	Calculated with urinals included
Percentage of schools with not more than 40 pupils per toilet	43.9	58.4
Percentage of schools with 200 or more pupils per toilet	2.9 (26 schools in sample)	2.2 (18 schools in sample)

Sample sizes 879 (stances only); 886 (urinals included).

The above statistics do not differentiate between male and female toilets. However, 88% of the schools in the sample do have separate toilets for male and female pupils, in roughly equal quantities. The number of staff toilets is generally sufficient and most are differentiated by gender.

To maintain hygiene, schools are required to have a hand-washing facility near the toilets. In practice, only half the schools do so and, of those, only about half have both water and soap available. Figure 20 shows the national estimates.

FIGURE 20: PROVISION OF HAND-WASHING FACILITIES (PERCENTAGES)



Sample size for whether the school has a functional hand-washing facility = 929
Sample size for whether there is presence of soap and water = 473

In conclusion, much as the situation may have been worse in the past, both district and school authorities have work ahead of them to improve the provision for sanitation and hygiene.

I. Classroom conditions: the example of P2

In every school visited, a P2 classroom was selected randomly for closer observation. The purpose was to provide a 'snapshot' of the learning materials and furniture available to pupils and whether the timetable was being followed.

Table 18 provides a summary of the findings, estimating the proportions of schools at national level that are meeting the various standards. The same observations of furniture, writing materials and visual aids were made in 2015 and the findings on this occasion are broadly similar, to within seven percentage points. The provision of writing materials is generally good, but there are still some shortages of furniture. The level of textbook provision is consistent with the more general findings in Table 11.

TABLE 18: CONDITIONS IN P2 CLASSROOMS - EXAMPLE OF A LESSON

Criterion of quality:	Percentage of schools meeting the criterion (national estimate)	Number of schools in sample
No pupils are sitting on the floor because of furniture shortage	73.9	935
Most pupils (75%) have an exercise book	95.2	931
Most pupils (75%) have a pencil	95.8	932
At least half of the pupils have a text or reading book for the lesson	48.6	927
Visual aids are displayed in the classroom	75.3	921
The timetable is displayed in the classroom	51.7	915
The timetable (if displayed) is being followed in this lesson	85.6	437

More specific details were obtained on textbooks by asking the teacher of the class observed for the numbers of books available to the whole of the P2 year in the core subjects of English, mathematics and local language. The data obtained were then related to the pupil headcount for P2. Table 19 shows estimated proportions of schools achieving (a) more than one book per pupil in each subject, where readers as well as textbooks may have been counted and (b) at least one book to two pupils (a minimal standard). The table also shows the proportions with no books or only one book for the subject (presumably used by the teacher).

TABLE 19: EVALUATION OF TEXTBOOK PROVISION IN P2 YEAR
(Percentages of schools national estimates)

Subject	With more than 1 book per pupil*	With at least 1 book to 2 pupils	With no books or 1 book for the whole year	Number of schools in sample
English	38.4	58.2	17.4	835
Mathematics	12.8	29.7	32.6	797
Local language	40.0	54.1	28.7	802

*In some cases, both textbooks and readers may have been counted.

It is clear that (a) there are great inconsistencies in the distribution of textbooks and (b) textbook provision for mathematics is relatively poor. On the positive side, these findings show a considerable improvement over our findings from 2015, for all the subjects. Because of the well-known importance of textbooks for learning outcomes, we hope that this trend will continue.

CONCLUSIONS & RECOMMENDATIONS FOR POLICY AND RESEARCH

1. INCREASE PARTICIPATION IN PRESCHOOL EDUCATION

Uganda needs to expand participation in preschool education (ECE) by children aged 3-5. This could be achieved through public subsidy of preschools, increased community support for preschools, or both. This will go hand in hand with reducing grade repetition in primary schools, especially in P1. Our findings support the view that preschool education has lasting benefits for learning in school.

2. PRIORITISE QUALITY IMPROVEMENTS IN THE EARLY PRIMARY GRADES

Our findings indicate a decline in the levels of literacy and numeracy achieved in P-3-6, in the period from 2015 to 2018. The levels achieved in P7, however, remain about the same. Quality improvements in the lower primary grades should be prioritised. School quality indicators should include retention rates as well as pass rates. The recent commitment by Government to roll out the Early Reading Programme is commendable. Other initiatives such as SESIL and LARA that are focused on improving learning in early grades should be sustained.

3. LEARN FROM THE CASES OF SUCCESS

Uganda's system of primary education is producing widely disparate learning outcomes for children of the same age. Case studies of 'positive deviance', which illustrate successful teaching and school management, could be a useful form of enquiry.

4. DEVELOP MORE EQUITABLE POLICY ON LANGUAGES OF INSTRUCTION

Among the different local languages used as languages of instruction, disparities of learning outcomes continue to be a major problem. Lack of correspondence between school and home language can also produce inequities. This aspect of teaching needs careful monitoring and, in some cases, adjustment of language choices.

5. PROVIDE SUPPORT FOR SPECIFIC DISABILITIES

Our findings indicate that children in P3-P7who have multiple disabilities, and those who have hearing or memory difficulties, are more at a disadvantage in learning than those who have vision or walking difficulties. Specific interventions for different kinds of disability, including the provision of assistive devices where needed, are important for educational purposes.

6. CONTINUE TO IMPROVE TEACHER AND TEXTBOOK PROVISION

There is some evidence of improvement, between 2015 and 2018, in the quantities of teachers and textbooks in relation to the number of pupils. Yet only about 37% of class-

es have at least one textbook or reading book between two pupils in key subjects, so more improvement is needed. The absence of many teachers from the classroom, even when they are in the school, is also an important issue.

7. REVIEW THE STATUS OF COMMUNITY PRIMARY SCHOOLS

Community primary schools continue to have an underprivileged position, as indicated by their results, proportion of trained teachers and teacher absenteeism. The reasons for the poor functioning of the present community model should be examined. It may be more beneficial for community ownership and management to be focused on preschool education (ECE) rather than the primary level.

8. CONTINUE TO MAKE SCHOOL ENVIRONMENTS MORE HEALTHY

Health care provision, sanitation and hygiene in primary schools are slowly improving. The testing of schools' drinking water, however, showed bacteria to be present in about half the cases. More schools should be treating their drinking water and all should be providing simple hand-washing facilities.

9. RESEARCH THE AREAS OF CHALLENGE

Various research and development initiatives are already focusing on the processes of teaching and learning in the lower primary grades. The above conclusions and recommendations suggest that other suitable areas for further research include: (a) ways of making ECE more accessible, (b) factors in pupil and teacher absenteeism, (c) equity issues in languages of instruction and the teaching of local languages, (d) the status of community primary schools and (e) recognition of, and systematic support for, children with disabilities and other special needs.

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ANNEXES

ANNEX 1a-d: EXAMPLES OF TESTS OF READING AND NUMERACY AND BONUS/ PROBLEM-SOLVING QUESTIONS

Annex Ia: English reading assessment tool

ENGLISH

Sample 1

1. Letter

c	z	p
	i	
t	v	x
a	l	h

- Start here for all children aged 6 -16 years.
- The child should read any FIVE letters/ sounds and at least 4 should be read correctly.
- If the child reads the letters/ sounds correctly, take him/her to word level.
- If the child cannot read at least 4 of the letters/sounds correctly, mark him /her at NON - READER level.

2. Word

foot	take	cup
eye	see	nose
clean	make	run
	nail	

- Give these only to the child who can read the letters/ sounds.
- The child should read any 5 words and at least 4 should be read correctly.
- If the child reads the words correctly, take him/her to paragraph level.
- If the child cannot read at least 4 of the words correctly, mark him /her at letter level.

3. Paragraph

Brenda is a primary two child. She knows how to count. Brenda can count all her fingers. she can also add her toes.

Rose is in her flower garden. She is picking some flowers. The flowers are for her church. She will take them on Sunday.

- Let the child choose to read any of the two paragraphs.
- If the child reads the paragraph correctly, take him/ her to story level.
- If the child cannot read the paragraph correctly or makes more than 2 mistakes, mark him/her at word level.

4. Story

The pot maker

Ben is an old man. His work is to make pots. He makes them out of clay. Ken is his grandson who collects clay. Ben sells his pots at the village market. He does it every Saturday.

People like buying his pots. They are strong and last long. People use his pots for keeping water. Water remains cool the whole day. Ken likes his grandfather very much. The old man pays schools fees for him.

Questions:

1. When does the old man sell his pots?
2. Why is clay important to the old man Ben?

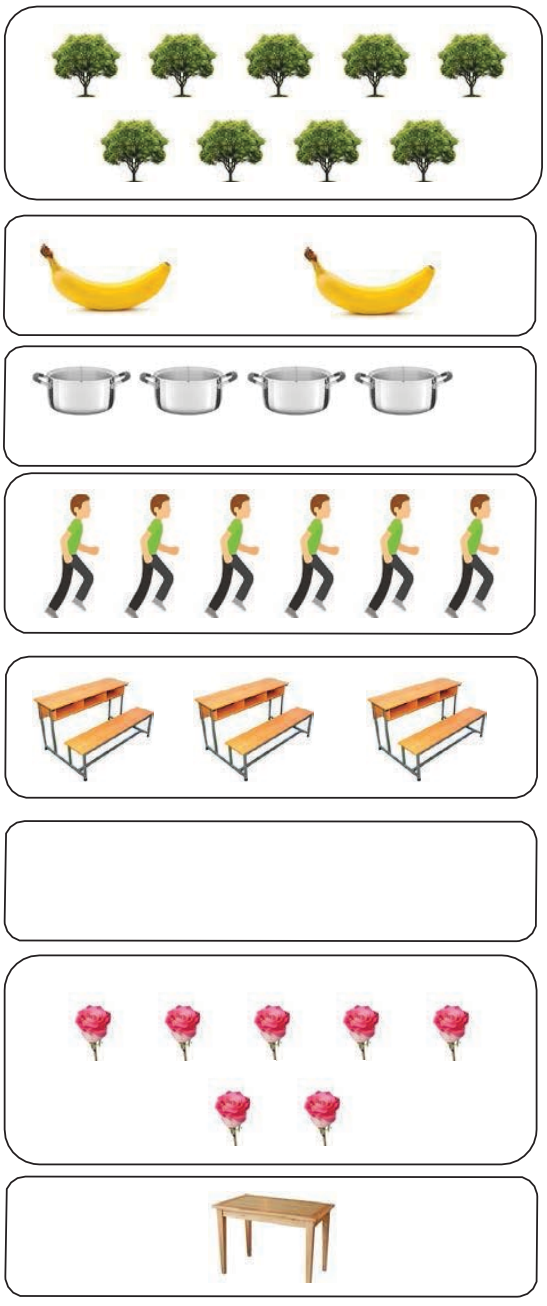
- Only give the story to a child who has read the paragraph correctly.
- If the child cannot read the story correctly or makes more than four (4) mistakes, mark him/her at paragraph level.
- If the child reads the story correctly, mark him/ her at story level. Then take the child to the two comprehension questions.

NUMERACY

Sample 1

1. Count and Match

- Start here for all children aged 6 -16 years.
- Let the child attempt any FIVE sets and match with the number.
- At least FOUR sets must be correct to move the child to NUMBER RECOGNITION.
- If the child does not get at least FOUR sets correct mark him/ her at NON - NUMERATE level.



4

6

9

2

1

7

3

0

NUMERACY

Sample 1

2. Number recognition 10 - 99

24	83	13	98
37	59	63	75

- Give these to the child who has done count and match correctly.
- Let the child choose and recognise any FIVE numbers.
- At least FOUR numbers must be correct to move to ADDITION.
- If the child does not get at least 4 numbers correct, mark him/her at COUNT and MATCH level.

3. Addition

48 + 31 = ___	19 + 40 = ___
31 + 56 = ___	66 + 23 = ___
52 + 17 = ___	75 + 12 = ___

- Give these to the child who has done number recognition correctly.
- Let the child choose and do any THREE tasks.
- At least TWO must be correct to move to SUBTRACTION.
- If the child does not get at least 2 tasks correct, mark him/her at NUMBER RECOGNITION level.

4. Subtraction

36 - 15 = ___	75 - 24 = ___
57 - 13 = ___	84 - 42 = ___
48 - 30 = ___	69 - 21 = ___

- Give these to the child who has done ADDITION correctly.
- Let the child choose and do any THREE tasks.
- At least TWO must be correct to move to MULTIPLICATION.
- If the child does not get at least 2 tasks correct, mark him/her at ADDITION level.

5. Multiplication

2 x 2= ___	5 x 9= ___
4 x 6= ___	2 x 8= ___
5 x 1= ___	3 x 7= ___

- Give these to the child who has done SUBTRACTION correctly.
- Let the child choose and do any THREE tasks.
- At least TWO must be correct to move to DIVISION.
- If the child does not get at least 2 tasks correct, mark him/her at SUBTRACTION level.

LUGANDA

Sample 1

1. Okusoma ennyingo

mu kwe ni
ma bya de
fi mpu lo
nki

- Tandikira wano ku baana bonna abali wakati w'emyaka 6 - 16.
- Omwana alina okusoma ennyingo 5. Ku nnyingo ezo z'asomye ennya (4) alina okuba ng'azituuse.
- Singa amwana abeera asomye ennyingo mweyongereyo ku bigambo.
- Singa omwana abeera tasobodde kusoma nnyingo ziwera 4 mu butuufu ku ezo z'alonzeeko, kitwale nti tasobola kusoma .

2. Okusoma ebigambo

kutu kugulu siga
lugoye leeta tuma
siika kati wera
nsawo

- Bino biwe omwana asobola okusoma ennyingo.
- Omwana asome ebigambo 5. Ku bigambo ebyo 4 alina okuba ng'abisomye mu butuufu.
- Singa omwana asoma ebigambo mweyongereyo ku palagulaafu.
- Singa omwana abeera tasobodde kusoma bigambo biwera 4 mu butuufu ku ebyo by'alonzeeko, mutwale nti akoma ku mutendera gw'okusoma ennyingo.

3. Okusoma palagulaafu

Nakimuli alina emyaka munaana. Maama wa Nakimuli mukozi nnyo. Maamawe akolera mu katale. Atunda amatooke ne muwogo. Abantu bangi bagula amatooke.

Babirye asimba emiti mu nnimiro. Asimba emiyembe ne kkedo bingi. Emiti gituwa ebibala bingi nnyo. Twagala ebibala ebiva ku miti. Ffenna tusimbe emiti mingi.

- Omwana muwe omukisa ku palagulaafu ez'emirundi ebiri alondeko emu gy'aba asoma.
- Singa omwana abeera asomye palagulaafu mweyongereyo ku mboozi.
- Singa omwana abeera tasobodde kusoma palagulaafu (akola ensobi ezisukka mu 2) mugololere ku ddaala lya bigambo.

4. Okusoma emboozi

Entambula

Kojja yagula pikipiki ennene ennyo. Yagigula mu kibuga e Kampala. Kojja atutwalako ku ssomero lyaffe. Tuwulira bulungi nga tuli ku pikipiki. Bwe tugendera ku pikipiki tutuuka mangu. Tutuuka tuli bayonjo era nga tetukooye. Kojja tumwebaza okututwala ku ssomero.

Essomero lyaffe liri walako okuva eka. Essomero lyaffe lirimu abayizi bangi. Abamu bajjira mu mmotoka ku ssomero. Waliwo abayizi abajjira ku bigere. Abayizi abamu bavuga bugaali okuva eka. Obugaali babusimba wansi wa muti. Omusajja akuuma essomero abukuuma bulungi.

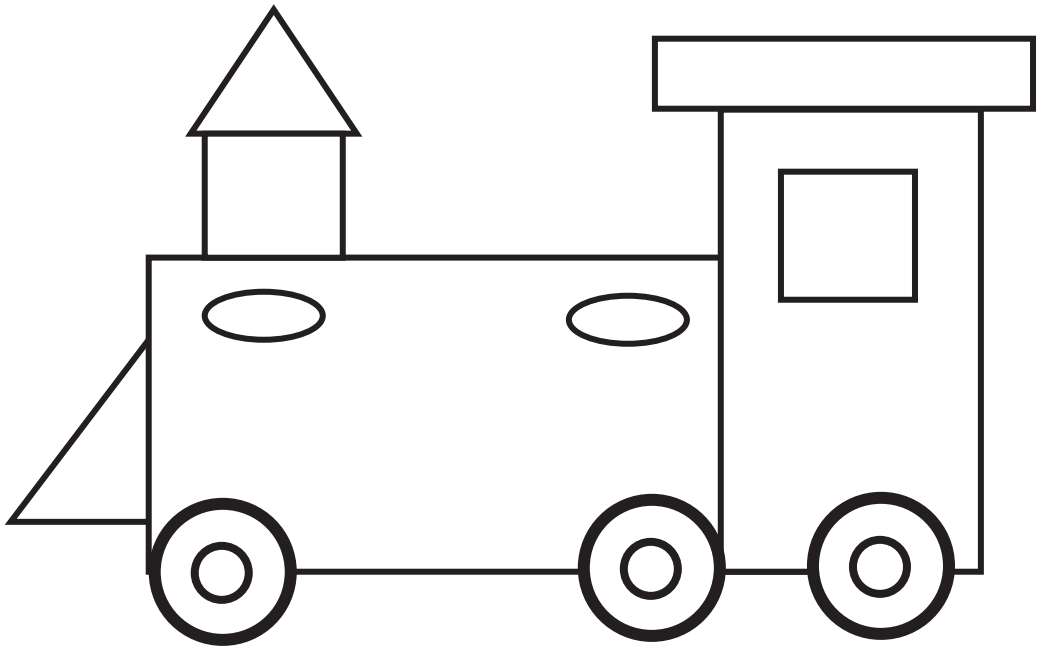
Ebibuuzo:

1. Kojja yagula wa pikipiki?
2. Omuntu bwe bamuyamba akola ki?

- Emboozi giwe abaana abo bokka abasobodde okusoma palagulaafu.
- Singa omwana abeera tasobola kusoma mboozi (akola ensobi ezisukka mu 4) mugololere ku ddaala lya palagulaafu.
- Singa omwana abeera asomye emboozi mugololere ku ddaala lya mboozi.
- Ebibuuzo byombi birina kubuuzibwa mwana ali ku ddala ly'emboozi.

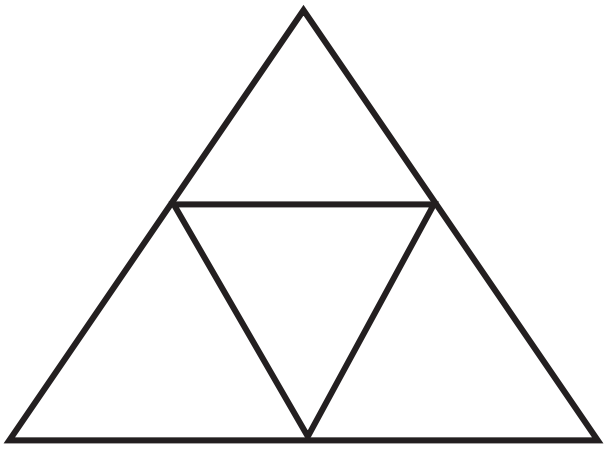
ANNEX 1d: BONUS/PROBLEM SOLVING QUESTIONS

1. Study the picture below and mention any four shapes you can see.



2. A child is asked a question and they response given is; I wake up in the morning, say my prayers then rush to school. What is the question to this answer?

3. How many Triangles can you see in the following diagram? The child must identify all triangles to be graded as 'can do'.



ANNEX II: THE USE OF WEIGHTS FOR NATIONAL ESTIMATES

Most of the findings about the participation of children in education, their learning levels and characteristics of schools are presented as national estimates. For this purpose (except in the case of findings about local language learning), weights are used at the level of the 15 sub-regions. The measure of size (MOS) used for the sub-region is the child population aged 3-14 (a 2015 projection based on the Population and Housing Census of 2014, as this was the best available). Within each sub-region, the sample is approximately self-weighting as explained in the Introduction (except in the case of local language data).

As Parts I, II and III of the findings use different sub-samples of children, defined by age range or by grades, different sub-regional weights are applied for these sub-samples, but the same MOS is used throughout. Thus, for example, a sub-region's weight for children in P3-P7is:

MOS sub-region / Sample of P3-P7children in the sub-region

For the findings on local language learning, only 13 districts are used and not all sub-regions are represented. The weights used therefore reflect the relative sizes of districts within the sample, e.g.

MOS district / Sample of P3-P7children in the district

The MOS of the districts are based on the census in the same way as those of the sub-regions.

For the findings on schools (Part V), sub-regional weights are also applied and the same MOS (child population aged 3-14) is used. This MOS is preferred to the number of enumeration areas (EAs) in the sub-region because the distribution of the EAs deviates considerably from the child population distribution in some sub-regions. A sub-region's weight for schools is:

MOS sub-region / Sample of schools in the sub-region

ANNEX III: CONSTRUCTION OF HOUSEHOLD INDEXES

Wealth index

The household wealth index is based on the reported presence or absence of nine types of possession in the home: a radio, a television, a mobile phone, a computer, a motor vehicle, a motorcycle, a bicycle, cattle and sheep. These simple dichotomies were used to compute a score through the polychoric form of principal components analysis. The scores were scaled to have a range of positive values between 1 and 0. For purposes of cross-tabulation, the scores were divided into three quantiles, representing high, middle and low levels of wealth. This type of index is convenient in a situation where no income or expenditure data are available.

Building quality and utilities index

The household has a minimum score of 1 and receives one point for each of the following:

- Walls constructed of brick, stone or timber.
- An electricity supply (mains or solar).
- A water supply that is currently available (from any source).
- A toilet of any kind.

The range of possible scores is 1-5.

Water and sanitation index

The household has a minimum score of 1 and receives one point for each of the following:

- Water from one of the safer types of source: borehole, pipe, well, spring, water trucking or bottled.
- Treating the water for drinking (boiling, filtering or chemical treatment).
- A toilet of one of the safer types: pit latrine or flush.
- A hand-washing facility with water and soap available.

The range of possible scores is 1-5.

ANNEX IV: RANKING OF DISTRICTS BY PERCENTAGE OF CHILDREN IN P3-P7 WITH COMBINED P2 COMPETENCE IN ENGLISH READING AND NUMERACY TASKS

	District	Sub-region	Percentage
1	Kampala	Kampala	51.9
2	Wakiso	Buganda	48.6
3	Mitooma	Ankole	42.9
4	Luwero	Buganda	41.9
5	Rukungiri	Kigezi	38.3
6	Mukono	Buganda	37.2
7	Mpigi	Buganda	37.0
8	Ntoroko	Tooro	31.1
9	Ntungamo	Ankole	29.1
10	Mityana	Buganda	26.8
11	Adjumani	West Nile	24.4
12	Kaabong	Karamoja	24.4
13	Kasese	Tooro	24.4
14	Bukomansimbi	Buganda	23.1
15	Kumi	Teso	22.1
16	Arua	West Nile	22.0
17	Ngora	Teso	21.8
18	Buliisa	Bunyoro	21.8
19	Amuru	Acholi	21.1
20	Jinja	Busoga	20.8
21	Bududa	Bugisu	19.2
22	Lira	Lango	19.2
23	Moyo	West Nile	18.6
24	Bundibugyo	Tooro	17.8
25	Yumbe	West Nile	17.0
26	Kole	Lango	16.1
27	Luuka	Busoga	16.0
28	Kibuku	Bukedi	14.4
29	Tororo	Bukedi	14.3
30	Zombo	West Nile	13.4
31	Mayuge	Busoga	13.3
32	Bugiri	Busoga	9.3
	Average		**25.0**

ANNEX V: UWEZO UGANDA PARTNERS IN 2018/19

Uwezo Uganda - 2018/19 Partners		
Uwezo Uganda ADVISORY COMMITTEE MEMBERS 2018		
1	Prof. Albert James Lutalo-Bosa	Vice Chancellor, Team Univeristy (Chair, Uwezo Advisory Committee)
2	Assoc. Prof. Joyce Ayikoru Asiimwe	Dean, Faculty of Education, Kyambogo University
3	Dr. Sarah N. Sewanyana	Executive Director, Economic Policy Research Center (EPRC)
4	Mr. Patrick Kaboyo	Executive Director, Coalition of Uganda Private School Teachers Association (COUPSTA)
5	Ms. Grace Kanyiginya Baguma	Executive Director, National Curriculum Development Centre (NCDC)
6	Mr. James Muwonge	Director, Socio economic Surveys, Uganda National Beaural of Statistics (UBOS)
7	Dr. Albert Byamugisha	Senior Consultant, Government of Uganda, Office of the Prime Minister
8	Dr. Ssekamatte-Ssebuliba John B.	Consultant and Former Head of Population and Social Sector Planning, National Planning Authority (NPA)
9	Mr. Filbert Bates Baguma	General Secretary, Uganda National Teachers' Union (UNATU)
10	Mr Tweheyo James	Former General Secretary, Uganda National Teachers' Union (UNATU)
11	Dr. Charles Tony Mukasa-Lusambu	Commissioner, Basic Education, Ministry of Education and Sports, Uganda
12	Dr. Daniel Nkaada	Former Commissioner, Basic Education, Ministry of Education and Sports
13	Dr. Ronald Bisaso	Dean, East African School of Higher Education Studies and Development, Makerere University

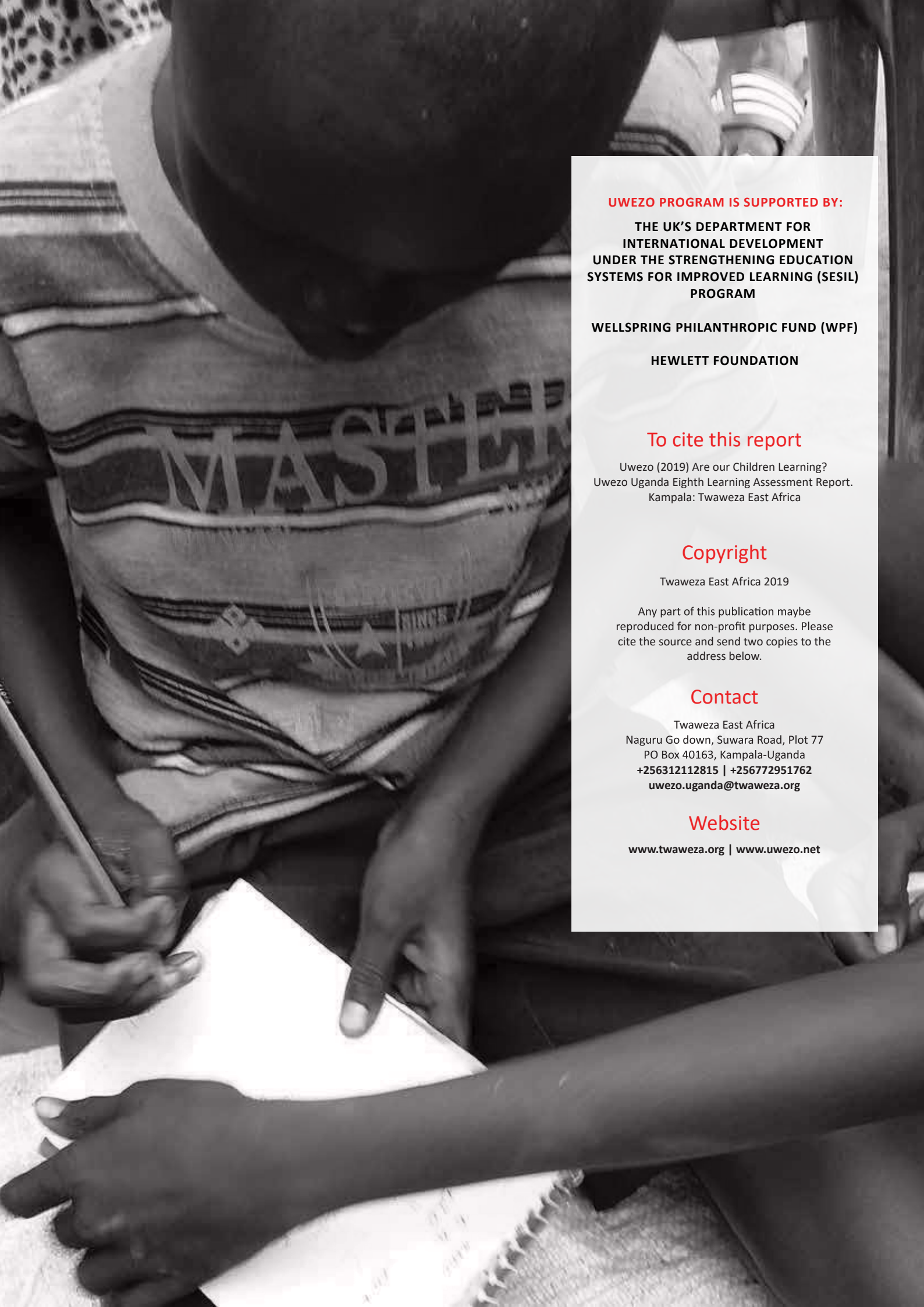
Uwezo Secretariat		
1	Dr. Mary Goretti Nakabugo	Twaweza country lead and Regional Manager Uwezo
2	Faridah Nassereka	Senior Program Officer, Uwezo
3	Judith N. Tumusiime	Assistant Communications Officer, Uwezo
4	David Mugurusi	Program Officer, Research
5	Ismail Sentamu	Assistant Program Officer, Research
6	Judith Nakayima	Program Assistant

Twaweza/Uwezo/PAL Network/RELI/SESIL Fraternity		
1	Aidan Eyakuze	Executive Director, Twaweza East Africa
2	All Staff and Associates of Twaweza and Uwezo in Kenya, Tanzania and Uganda	
3	Dr. Emmanuel Manyasa	Manager, Uwezo Kenya
4	Zaida Mgalla	Manager, Uwezo Tanzania
5	Dr. Sara Ruto	CEO, People's Action for Learning (PAL) Network
6	Dr. Suman Bhattacharjea	Chairperson, PAL Network Board
7	Dr. Baela Raza Jamil	Chairperson, PAL Network Advisory Committee
8	All members of the People's Action for Learning (PAL) Network	
9	All members of the Regional Education Learning Initiative (RELI)	
10	Strengthening Education Systems for Improved Learning (SESIL) Fraternity	

Trainers		
1	Jackson Atria	East African Trainer
2	Robert Mugambwa	National Trainer
3	Kiranda Kizito Richard	National Trainer
4	Sabiiti Fenekansi	National Trainer
5	Joselyn Amongin	National Trainer
6	Isaiah Bagaboine	Master Trainer
7	Mafabi Emmanuel Sabunyo	Master Trainer
8	Sendyose Godfrey	Master Trainer

Test Developers		
1	Dr. Kizza Mukasa	Makerere University
2	Winnie Nakkazi	Ndejje University
3	Namwebya Racheal Namugosa	Retired Educationalist
4	Eve Owembabazi	Sancta Maria PTC, Nkokonjeru
5	Francis Egadu	Retired Educationalist
6	Esther Oyella	Laboye Primary School
7	Kyomukama Phoebe	Kabale University
8	Margret Acuro	Pece Primary School
9	Richard Mutebi Kizito	Jinja Karoli Primary School
10	Gerald Bukenya	National Curriculum Development Centre
11	Gertrude Namubiru	National Curriculum Development Centre
12	Elly Musana Wairagala	National Curriculum Development Centre
13	Charity Karungi	Katabi Primary and Kindergarten
14	Stephen Dhizaala	Kibuli Demonstration School
15	Hatinda Lujja Zaidi	Nakibuvo Primary School

Sno.	District	Uwezo Uganda District Partners 2018/19	Head of Organization	District Contact Person
1	Adjumani	Global Aim	James Addu Idraku	Peter Apidra
2	Amuru	Acholi Education Initiative (AEI)	Allan Nyero Humphrey	Omona Alexi Michael
3	Arua	Approaches to Rural Community Development (ARCOD)	Manasseh Acdri	Onzima Julius
4	Bududa	Pathways for Development Initiatives (PDI)	David Zaale	Maureen Namasaba
5	Bugiri	Uganda Muslim Rural Development Association (UMURDA)	Haji Sulaiman Walugendo	Shamira Mugimba
6	Bukomansimbi	Kirinda Child Development Centre	Ntagagana Fred Victa	Nakasiita Florence
7	Buliisa	Lake Albert Children/Women's Advocacy & Development Organisation	Bigirwenkya Stuart	Kajura Richard
8	Bundibugyo	Child Concern Initiative Organisation	Rev. Kyomuhendo Geofrey	Rev.Isaac Birungi
9	Jinja	Jinja Areas Communities Federation (JIACOFE)	Henry Bazibu	Tayebwa Brian
10	Kaabong	Kaabong Peace and Development Agency (KAPDA)	Lonya John	Lokong Emmanuel
11	Kampala	Uganda Youth Network (UYN)	Ruth Asiimwe Kabugo	Jane Nakawesa
12	Kasese	Karambi Action for Life Improvement (KALI)	Masika Scovia	Kule Obed
13	Kibuku	Kadama Widows Association	Lucy Mary Athieno	Sarah Obore
14	Kole	Kole Intellectual Forum	Obua George	Obua George
15	Kumi	Teso Dioceses Development Office	Egayu Moses	Otai Isaac
16	Lira	Lira NGO Forum	Apio Claudia	Atine Calvin Cranmer
17	Luuka	Bukanga Child Development Centre	Kyebaiga Robert	Tom Musira
18	Luwero	Community Development and Child Welfare Initiative (CODI)	John Segujja	Andrew Lubega
19	Mayuge	Mayuge District Network of Aids Services Organisation (MADINASO)	Fred Mwisani	Fred Mwisani
20	Mitooma	Literacy Action and Development Agency (LADA)	Arthur Mbabazi	Robert Sendegeya
21	Mityana	Giving Children Hope Initiative (GCHI)	Kabogoza Joseph	Bwanika Charles
22	Moyo	Moyo District Farmers Association	Iranya Emmanuel	Ajio Edena
23	Mpigi	Joy Initiatives Uganda (JIU)	Nakaayi Florence	Nabisere Grace
24	Mukono	Ekubo Ministries	Magera George	Lubowa Frank
25	Ngora	Vision Teso Rural Development Organization	Inyangati James Peter	Onyait John Robert
26	Ntoroko	Rwenzori Empowerment Program on Transformation and action (RWEPOTA)	Kairumba Lameck	Kairumba Lameck
27	Ntungamo	Appropriate Revival Initiative for Strategic Empowerment (ARISE)	Beatrice Rwakimari	Mujuzi Dan
28	Rukungiri	Literacy Action and Development Agency (LADA)	Athur Mbabazi	Amanya Charity
29	Tororo	Foundation for Development (FOD)	Peter O. Ekiikina	Peter O. Ekiikina
30	Wakiso	HUYSLINCI Community Initiative	Moses Matovu	Kibirige Ahmed
31	Yumbe	Care Community Education Centre/Child Development	Ajaga Innocent	Ajaga Innocent
32	Zombo	Life Concern	William Anyolitho	Katho Sharon Ocola



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