

Spotlight report series



Association for the
Development of
Education in
Africa



Uganda

Alignment of curricula, textbooks,
teacher guides and assessment
in early grade mathematics

Manos Antoninis, Global Education Monitoring Report

Mary Goretti Nakabugo, Uwezo Uganda

Foundations for Learning conference

18 April 2024



A quick word on the GEM Report

Editorially independent report, hosted and published by UNESCO since **2002**

Received extended mandate in **2015** to monitor:

- ▶ progress on education in the 2030 Agenda
- ▶ implementation of strategies to achieve SDG 4 to hold all partners to account for their commitments

...but much more than a report





National SDG 4 benchmarks



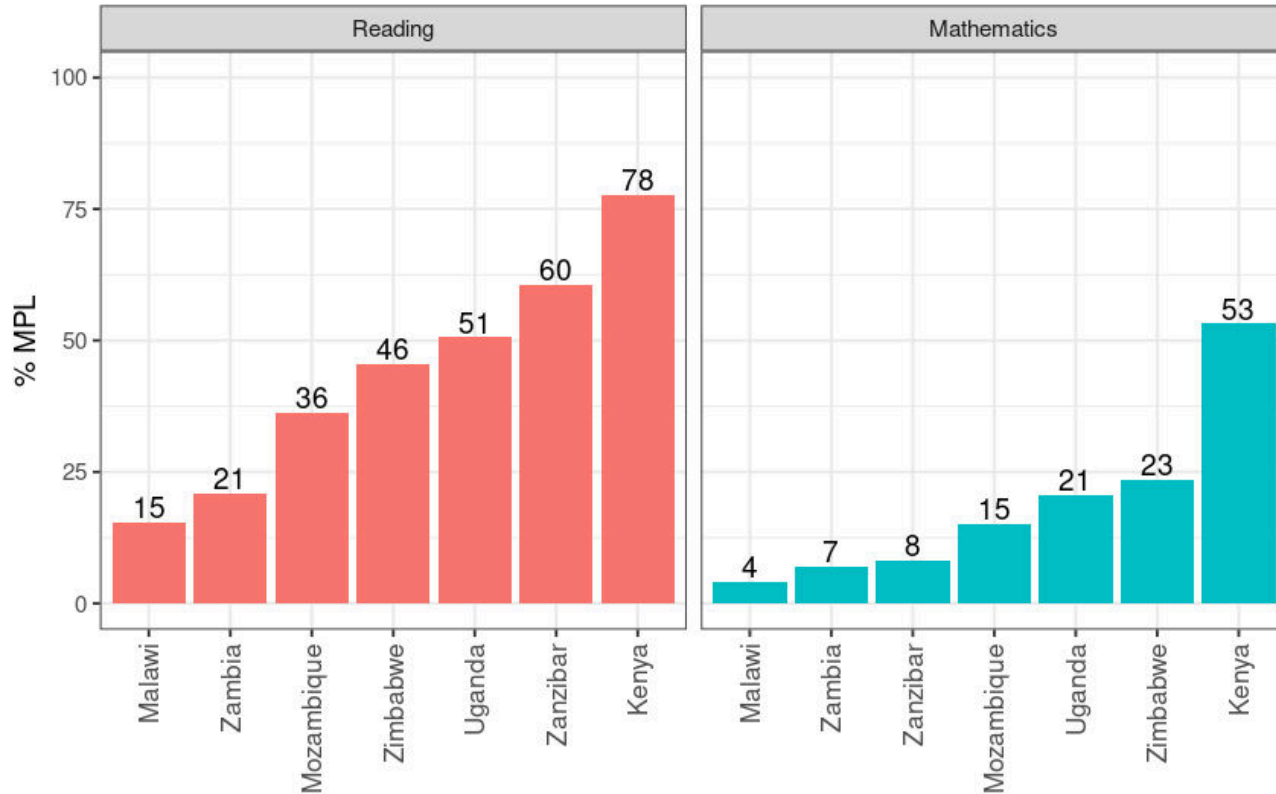
	SDG 4 target	Benchmark indicators
4.1	Basic education	1. Out of school rate [4.1.4] 2. Completion rate [4.1.2] 3. Learning proficiency [4.1.1]
4.2	Early childhood	4. Pre-primary participation [4.2.2]
4.3	TVET/Higher/Adult education	
4.4	Skills for work	
4.5	Equity	5. Gender gap in completion [4.5.1]
4.6	Adult literacy	
4.7	Sustainable development	
4.a	Learning environment	
4.b	Scholarships	
4.c	Teachers	6. Trained teachers [4.c.1]
FFA	Finance	7. Public education spending as (i) %total spending (ii) %GDP [FFA1/2]





Learning in Uganda (1)

Pupils reaching minimum proficiency by the end of primary school (%)



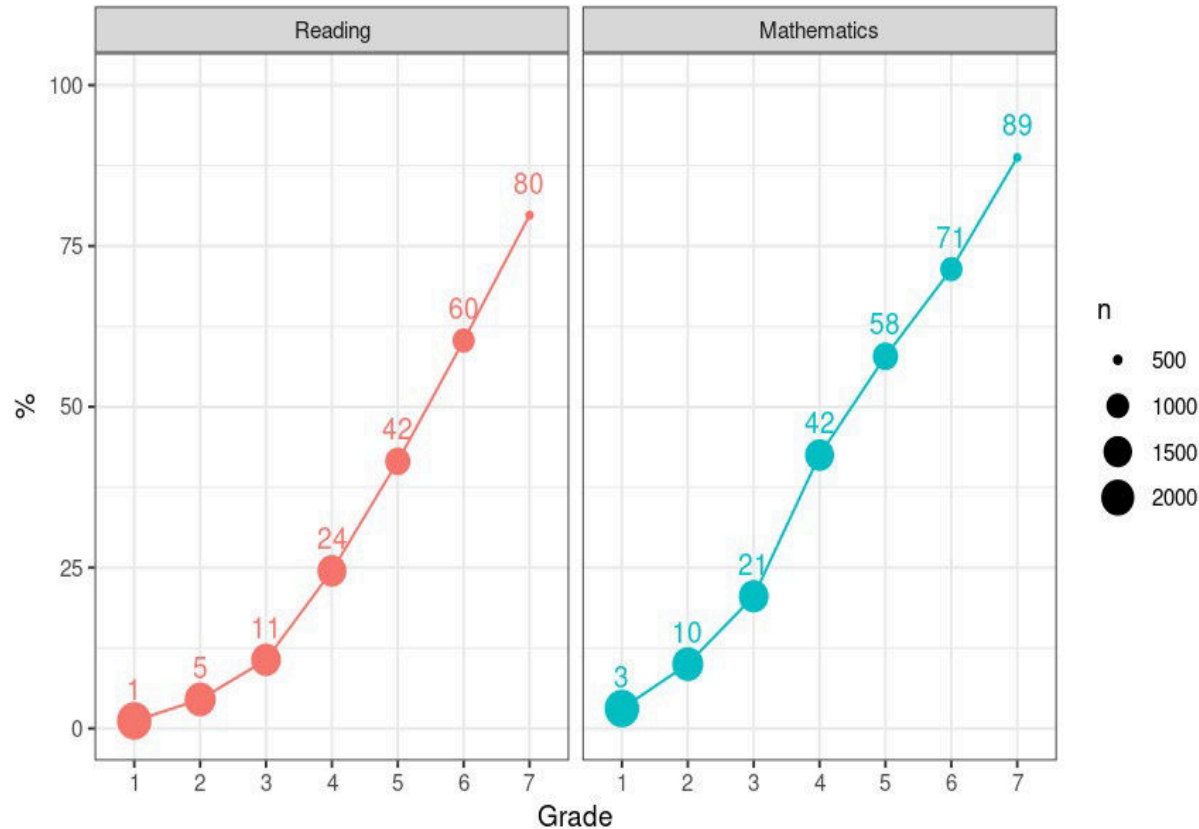
Source: SACMEQ 2013 data.

- ▶ Only 1 out of 5 pupils meet global minimum proficiency standards in numeracy
- ▶ Results corroborated by EGRA/EGMA studies



Learning in Uganda (2)

Pupils performing P2-level tasks, by grade (%)



- ▶ The percentage of pupils reading a P2 text increases from 24% in P4 to 60% in P6.
- ▶ The percentage of pupils able to solve a division problem increases from 21% in P3 to 89% in P7.
- ▶ Children are acquiring reading and numeracy skills late (in P5 or P6).

Source: Uwezo 2021 data.

Spotlight series: rationale

= GEM Report, ADEA and AU **partnership**

To countries

- ▶ Support national policy process with reference to national SDG 4 benchmarks
- ▶ Identify positive education practices that can be shared with peers
- ▶ Reinforce country leadership to hold development partners accountable

To the continent

- ▶ Mobilize interest in primary education
- ▶ Share knowledge through peer learning mechanism

Three cycles envisaged

- ▶ Cycle 1 completed in October 2022
- ▶ Cycle 2 to be completed in May 2024
- ▶ Cycle 3 to start immediately afterwards

In each cycle:

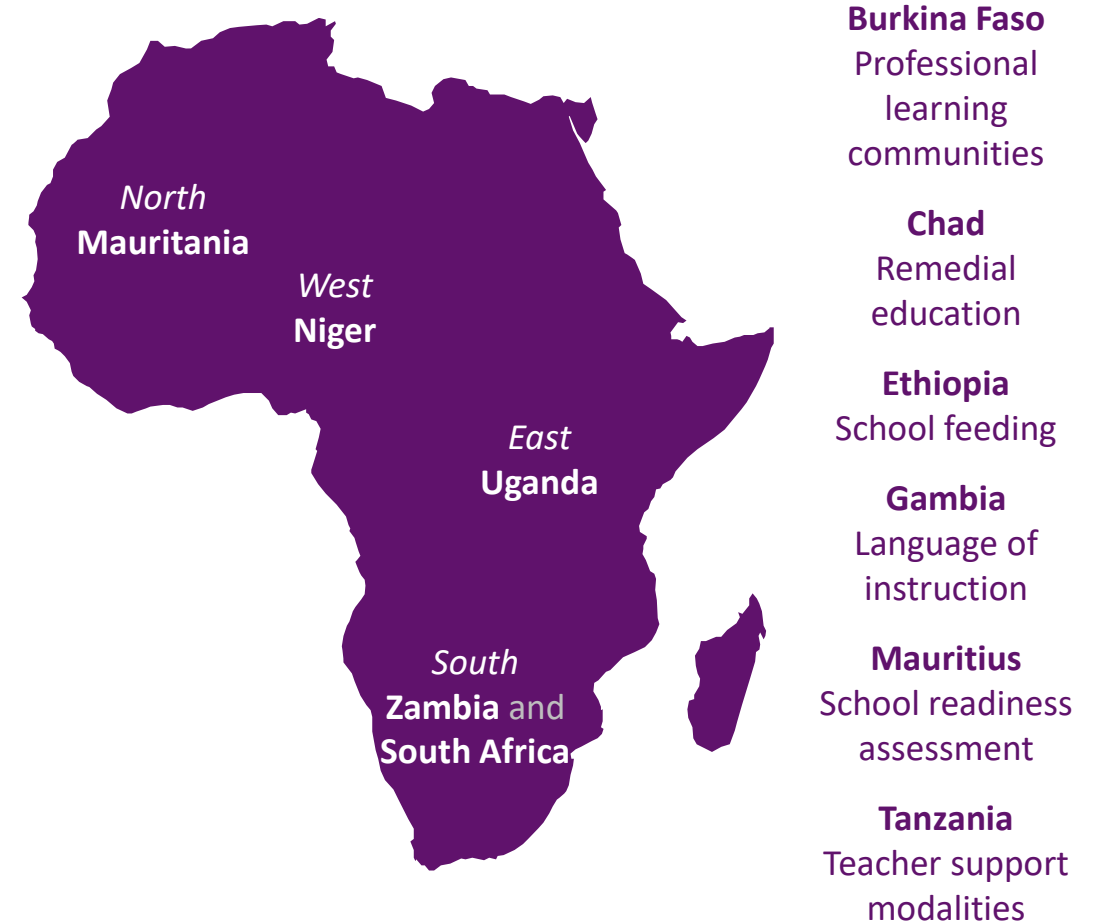
- ▶ Cover about **12 countries**, of which 5 in depth (one per region) and the rest through short case studies
- ▶ Publish **country** reports
- ▶ Publish **continental** report
- ▶ Feed into **AU peer learning** mechanism

Country participation

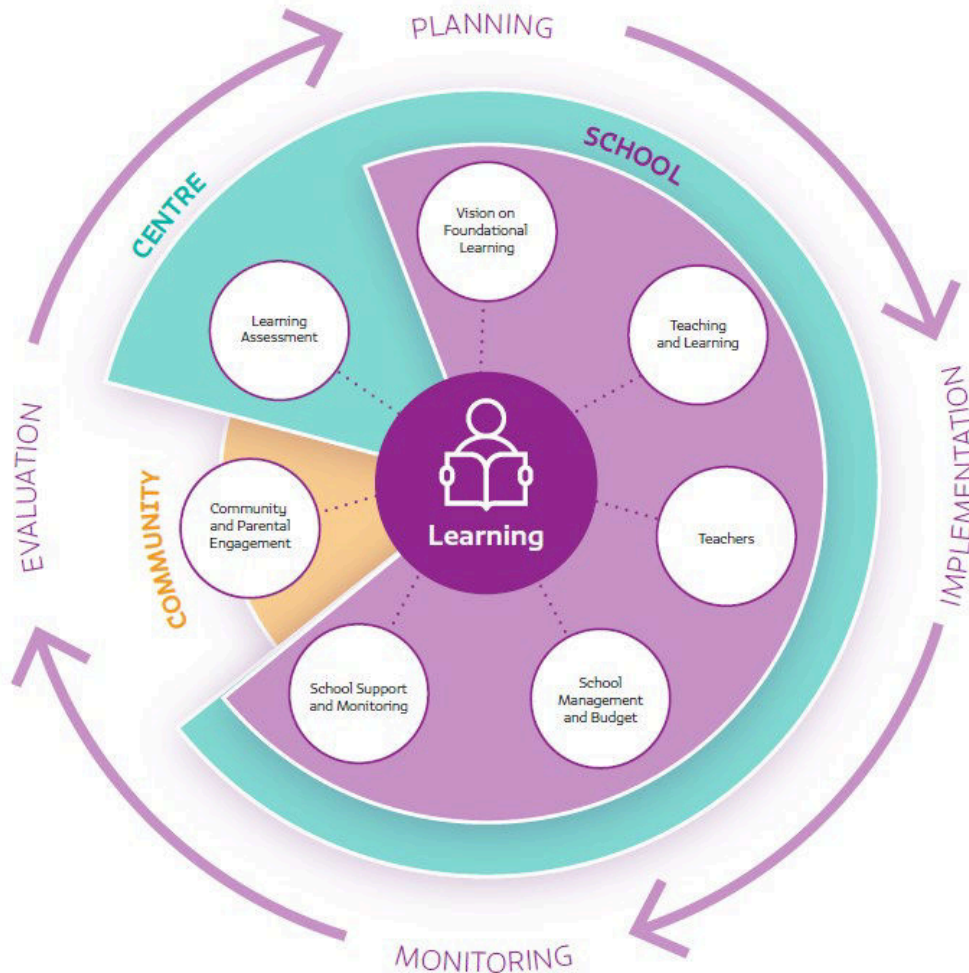
2021/2 cycle



2023/4 cycle

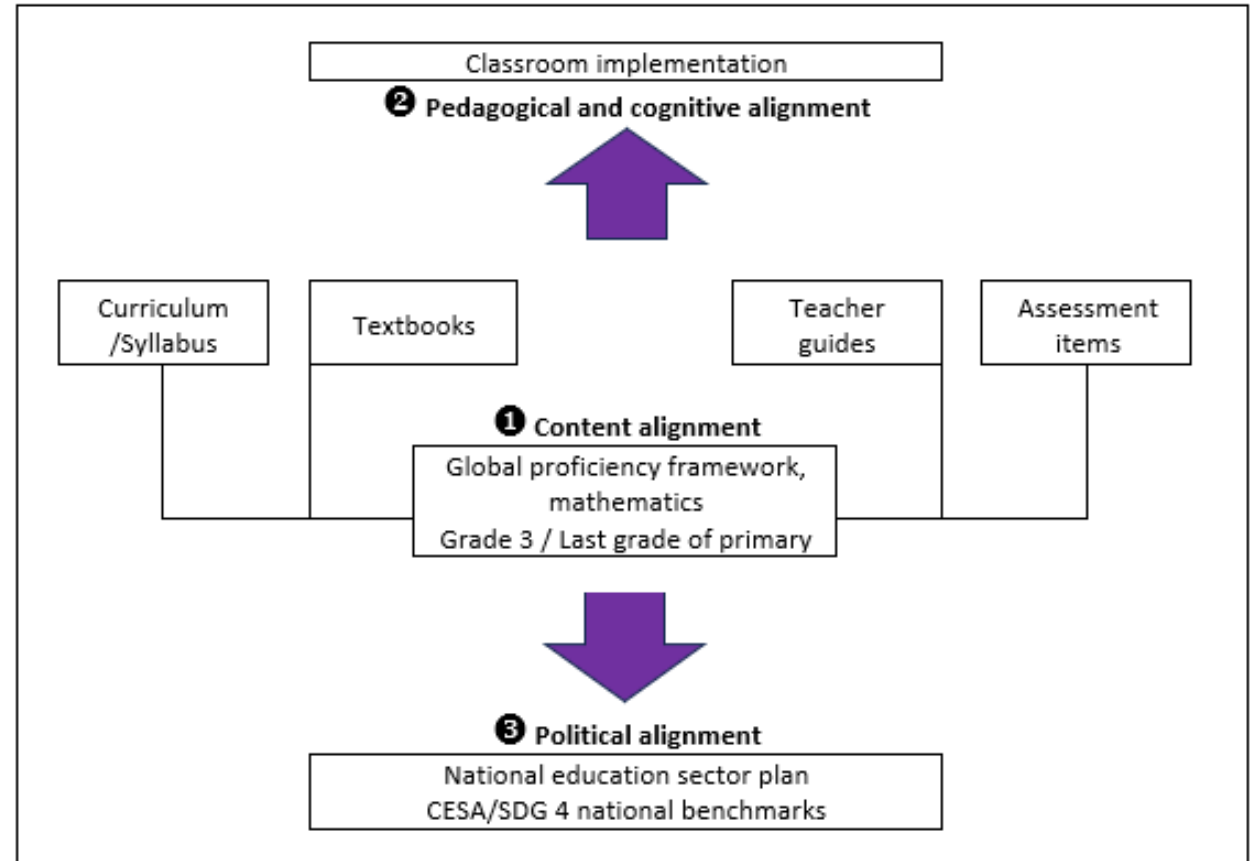
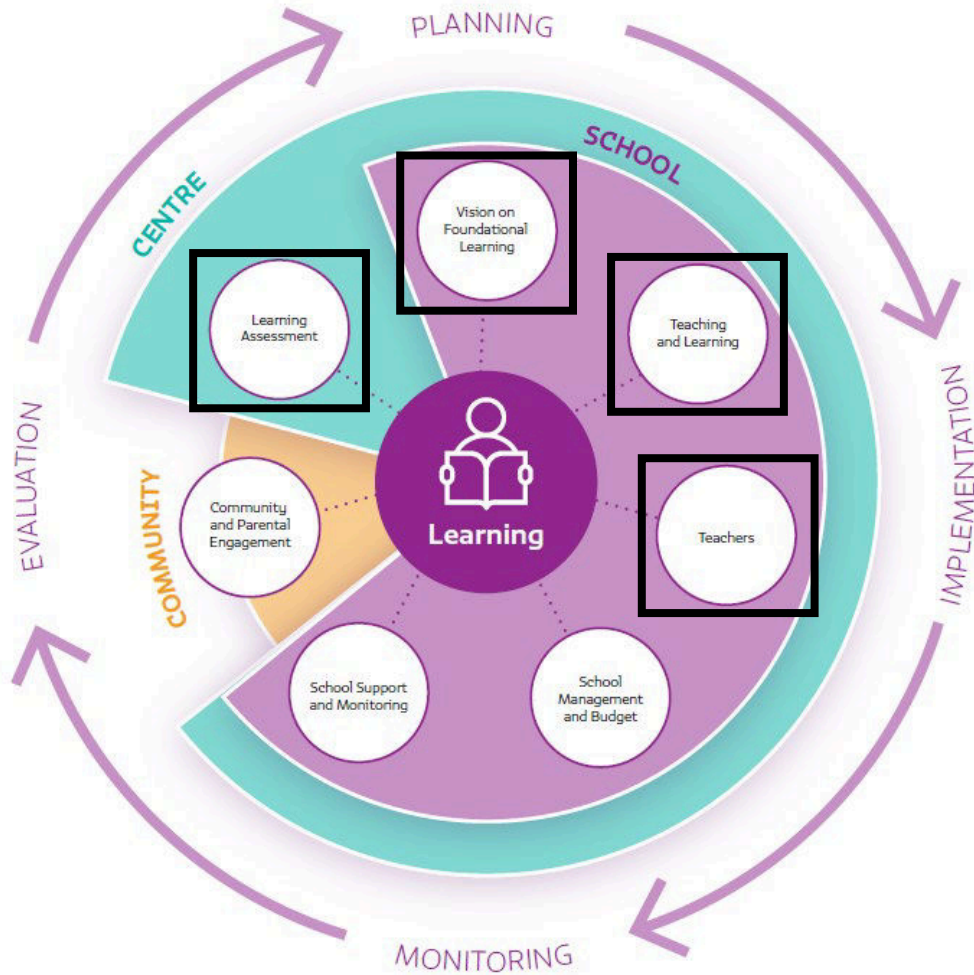


2021/2 analytical focus

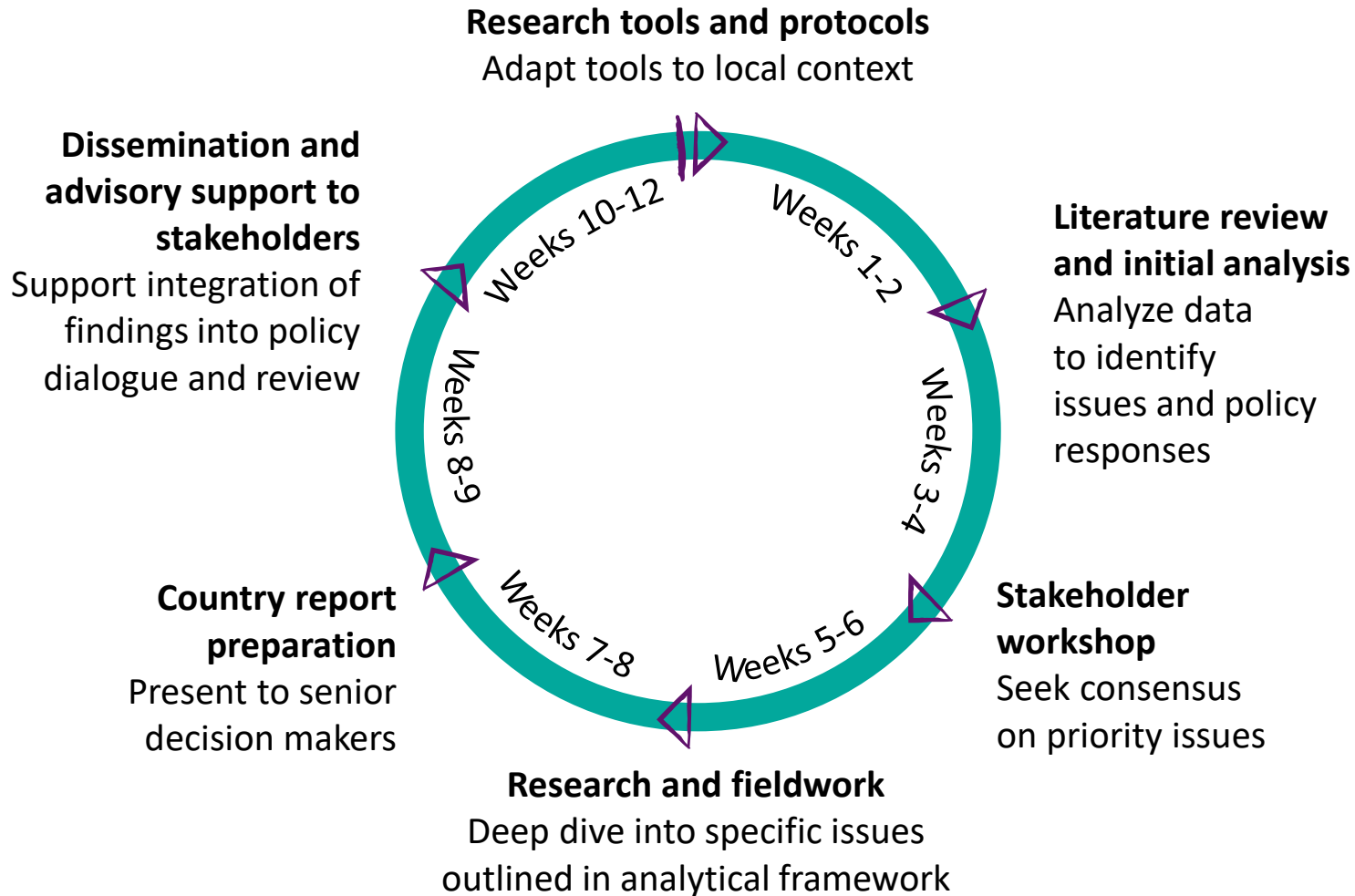


1. Vision and its communication
2. Teaching and learning: curriculum, pedagogy, language, textbooks
3. Teacher education and professional development
4. School leaders as instructional leaders
5. District officers as instructional leaders
6. Parents and communities
7. Assessment system

2023/4 analytical focus



Country research process



Documents analyzed

► P3

Curriculum

Teaching and learning materials:

- P3 Mathematics textbook
- P3 Mathematics teacher guide

► P7

Curriculum

Teaching and learning materials:

- P3 Mathematics textbook
- P3 Mathematics teacher guide

Assessment

+ Observations in 24 classrooms



Policy in Uganda



Association for the
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Africa



Third National
Development Plan
Vision 2040

Establishment of the
National Teachers' Council
responsible for regulating
the profession

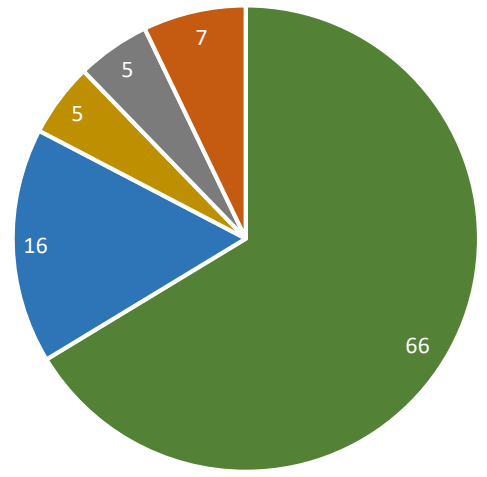
**Monitoring learner
performance**
through National
Assessment for Progress
in Education (NAPE)

Benchmarks and standards
provided by MoES on the
performance of learners

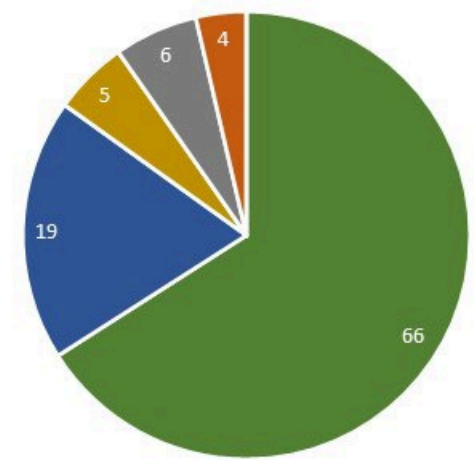


Content alignment: P3

Curriculum



Textbooks



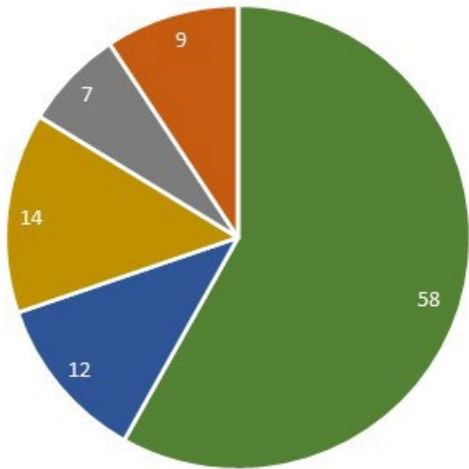
- Numbers and number operations
- Measurement
- Geometry
- Statistics and probability
- Algebra
- Other

There is substantial alignment of curriculum and textbooks in P3

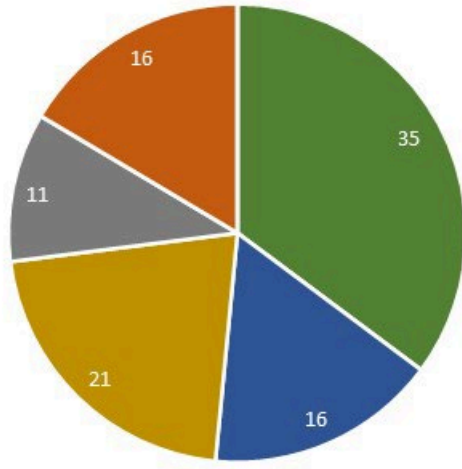


Content alignment: P7

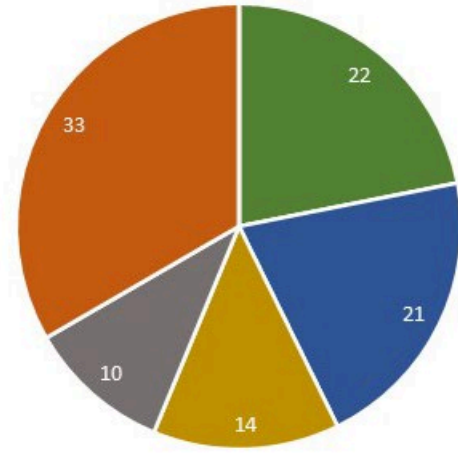
Curriculum



Textbooks



Assessment



- Numbers and number operations
- Measurement
- Geometry
- Statistics and probability
- Algebra
- Other

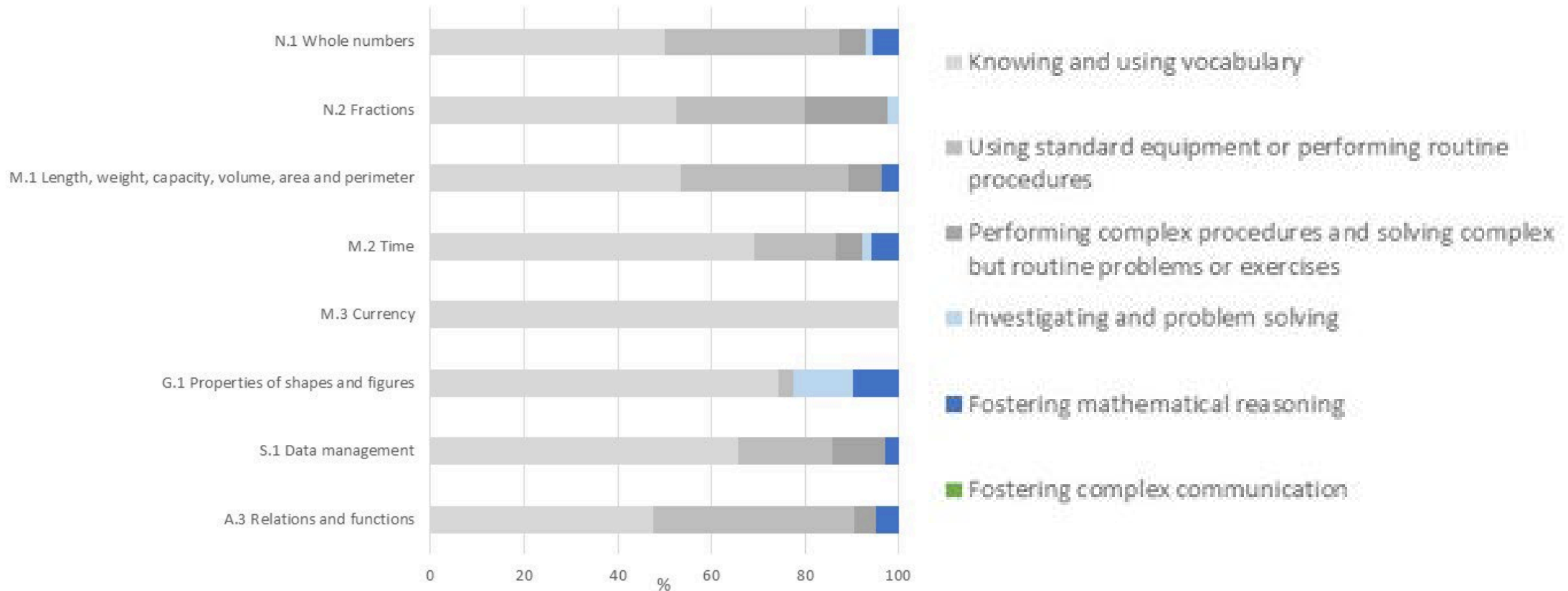
...but what is taught in P7 differs from what is being assessed



Pedagogical alignment P3 – 1



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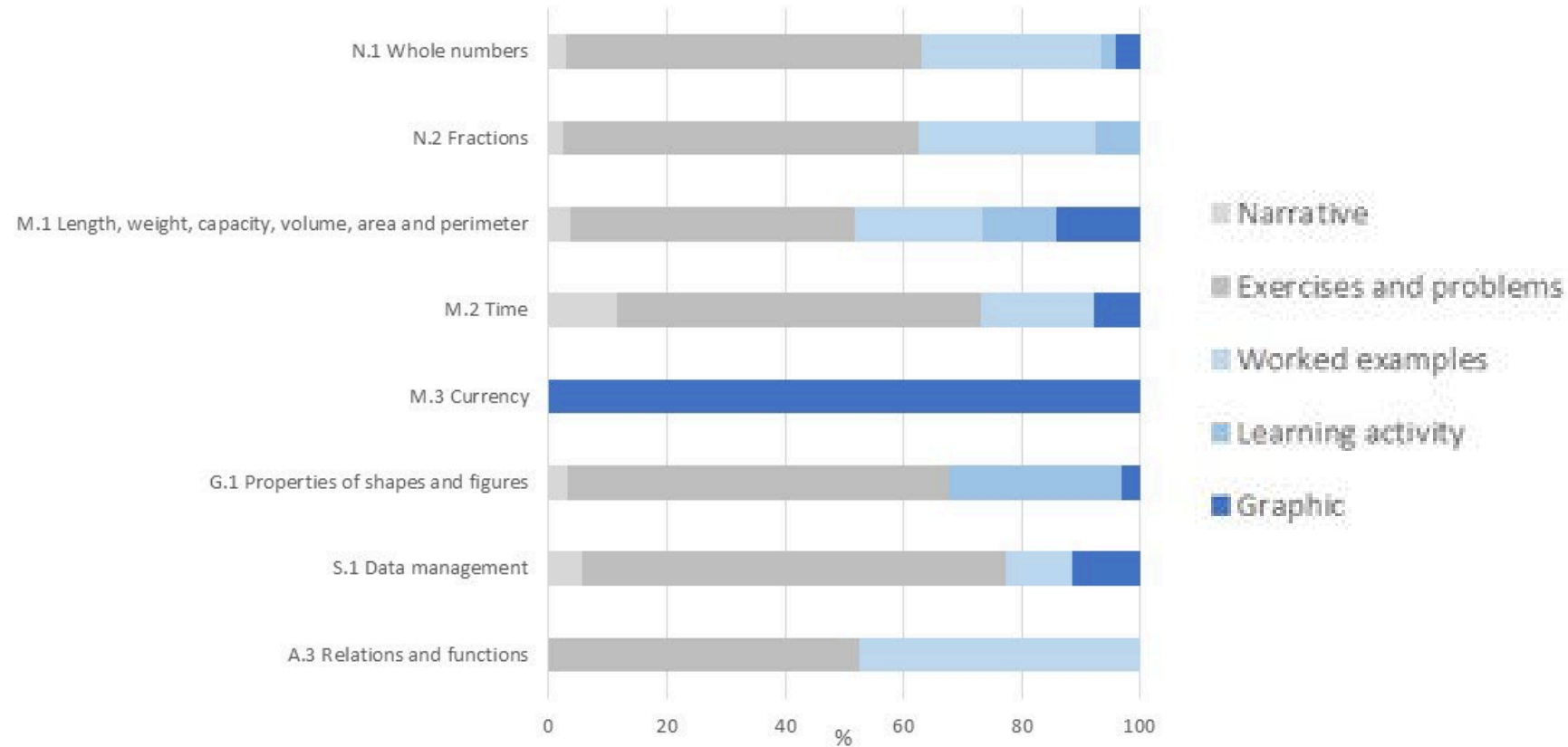




Pedagogical alignment P3 – 2

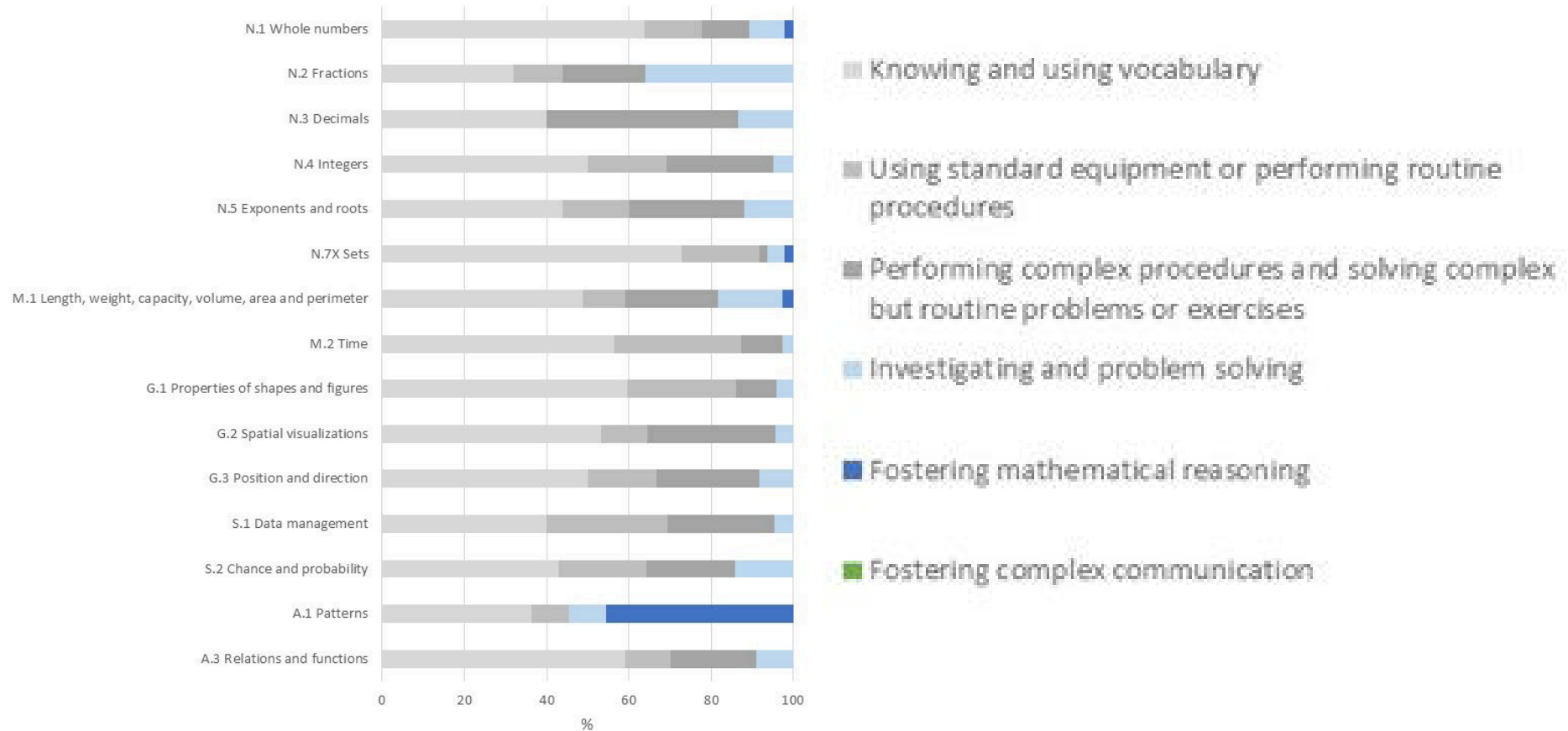


Association for the Development of Education in Africa





Pedagogical alignment P7 – 1



Learning activities in **P7** textbooks also emphasize low-cognitive levels over problem-solving



Political alignment

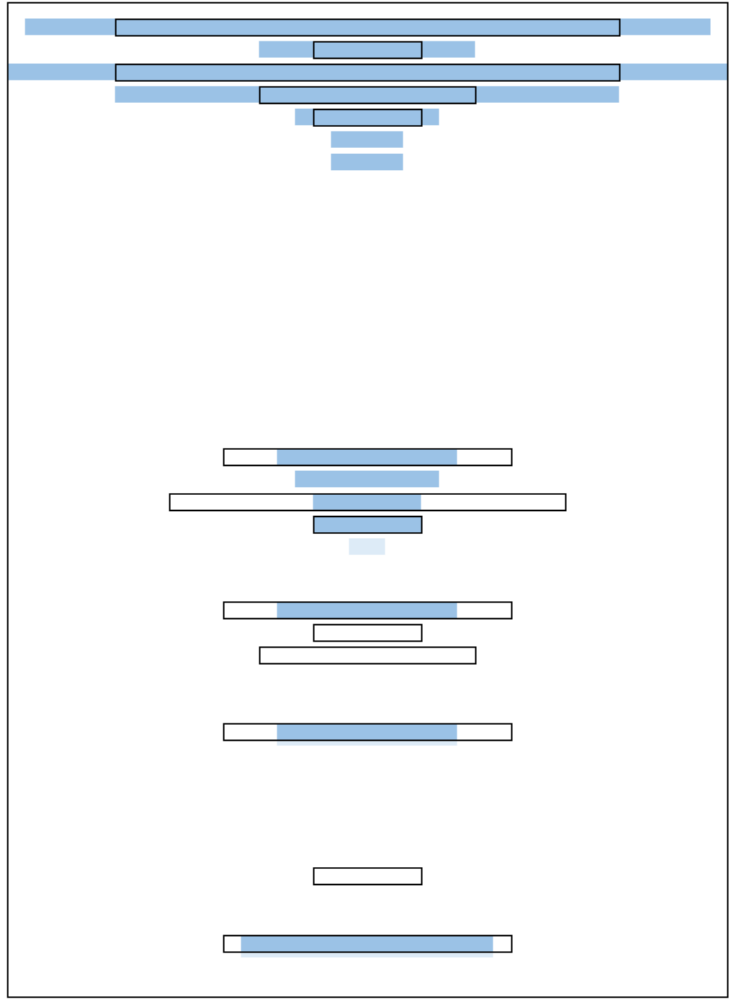
- N.1.1 Identify and count in whole numbers, and identify their relative magnitude
- N.1.2 Represent whole numbers in equivalent ways
- N.1.3 Solve operations using whole numbers
- N.1.4 Solve real-world problems involving whole numbers
- N.2.1 Identify and represent fractions using objects, pictures and symbols, and identify relative magnitude
- N.2.2 Solve operations using fractions
- N.2.3 Solve real-world problems involving fractions
- N.3.1 Identify and represent decimals using objects, pictures and symbols, and identify relative magnitude
- N.3.2 Represent decimals in equivalent ways (including fractions and percentages)
- N.3.3 Solve operations using decimals
- N.3.4 Solve real-world problems involving decimals
- N.4.1 Identify and represent integers using objects, pictures or symbols, and identify relative magnitude
- N.4.2 Solve operations using integers
- N.4.3 Solve real-world problems involving integers
- N.5.1 Identify and represent quantities using exponents and roots, and identify the relative magnitude
- N.5.2 Solve operations involving exponents and roots
- N.6.1 Solve operations involving integers, fractions, decimals, percentages and exponents

- M.1.1 Use non-standard and standard units to measure, compare and order
- M.1.2 Solve problems involving measurement
- M.2.1 Tell time
- M.2.2 Solve problems involving time
- M.3.1 Use different currency units to create amounts

- G.1.1 Recognize and describe shapes and figures
- G.2.1 Compose and decompose shapes and figures
- G.3.1 Describe the position and direction of objects in space

- S.1.1 Retrieve and interpret data presented in displays
- S.1.2 Calculate and interpret central tendency
- S.2.1 Describe the likelihood of events in different ways
- S.2.2 Identify permutations and combinations

- A.1.1 Recognize, describe, extend, and generate patterns
- A.2.1 Evaluate, model, and compute with expressions
- A.3.1 Solve problems involving variation (ratio, proportion, and percentage)
- A.3.2 Demonstrate an understanding of equivalency
- A.3.3 Solve equations and inequalities
- A.3.4 Interpret and evaluate functions



Roughly two-thirds of Uganda's **P3** numeracy curriculum is aligned with global minimum proficiency framework



Political alignment

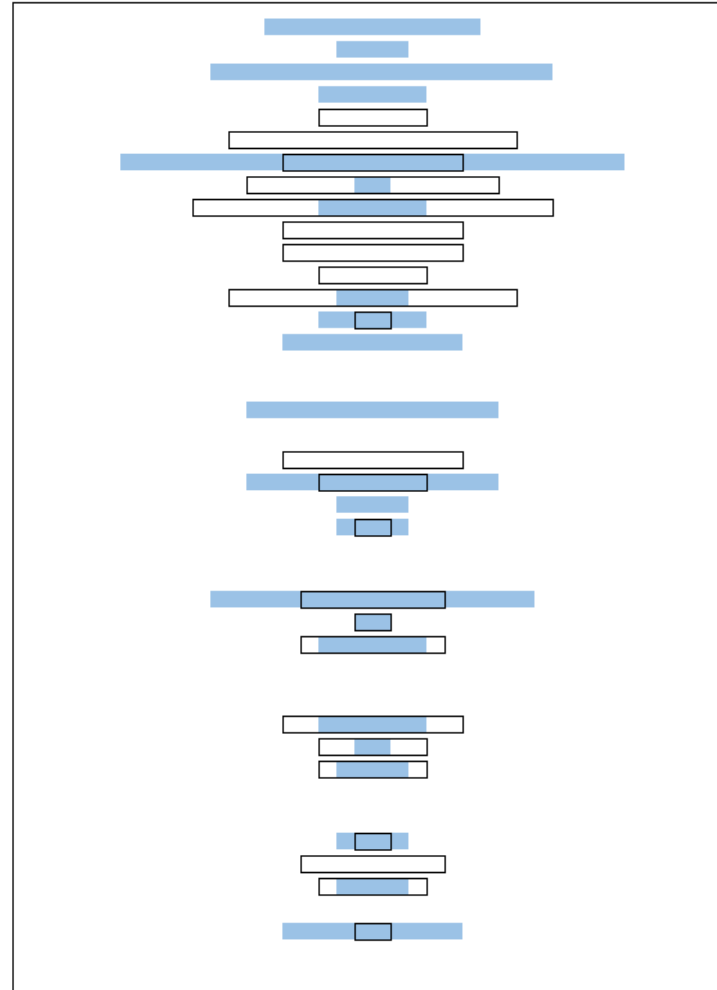
- N.1.1 Identify and count in whole numbers, and identify their relative magnitude
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- N.1.3 Solve operations using whole numbers
- N.1.4 Solve real-world problems involving whole numbers
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- N.2.2 Solve operations using fractions
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- N.4.2 Solve operations using integers
- N.4.3 Solve real-world problems involving integers
- N.5.1 Identify and represent quantities using exponents and roots, and identify the relative magnitude
- N.5.2 Solve operations involving exponents and roots
- N.6.1 Solve operations involving integers, fractions, decimals, percentages and exponents
- N.7.1X Use sets

- M.1.1 Use non-standard and standard units to measure, compare and order
- M.1.2 Solve problems involving measurement
- M.2.1 Tell time
- M.2.2 Solve problems involving time
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- A.3.3 Solve equations and inequalities
- A.3.4 Interpret and evaluate functions



More of Uganda's **P7** numeracy curriculum is aligned with global minimum proficiency framework

Recommendations



Articulate **a clearer vision of foundational literacy and numeracy** in Uganda

Rethink curriculum content/structure and address **problem-solving skills and their application** early on.

Enhance **access to curriculum, teacher's guides and student textbooks** by improving the provision of TLMs and making them available in local languages.

Improve **teacher support** with structured teacher's guides and additional training to implement the curriculum effectively.

Prioritize assessment including formative assessment at school supported by in-service teacher training

Strengthen foundational learning opportunities including by developing strategies for assisting learners who have fallen behind and addressing teacher and classroom shortages in government-funded schools.

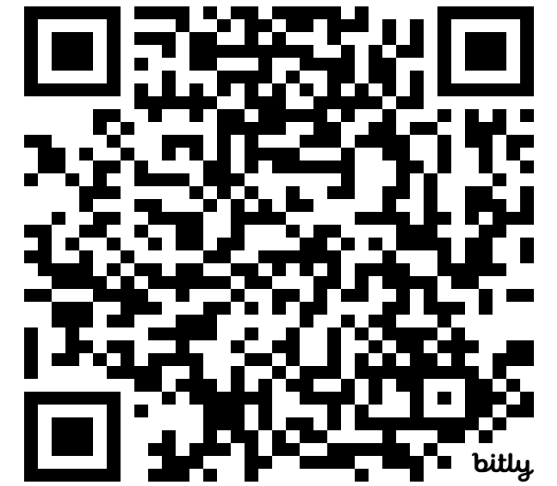
Two positive practices

1. Early Grade Reading Programme

- ▶ **Intervention:** Offers pupils basic skills, which underpin eventual reading comprehension
- ▶ **Implementation:** Covered 80% of public primary schools and 6 million students
- ▶ **Outcome:** 2015 NAPE assessment put P3 proficiency rate in English at 60%, up from 54% in 2012
- ▶ **Looking ahead:** Sustain EGR benefits by including it in the PTE curriculum

2. Teacher Development Management System (TDMS) and Coordinating Centre Tutor (CCT)

- ▶ **Intervention:** Part of Primary Teacher College (PTCs) restructuring
- ▶ **Implementation:** 18 PTCs initially re-designated as 'core' PTCs, later increased to 23
- ▶ **Outcome:** A 2017 evaluation found that the TDMS and CCTs strengthened role of PTCs to offer tailor-made support for teacher training
- ▶ **Looking ahead:** CCTs will be instrumental in supporting teacher trainees on the one-year school-based internship programme recommended in the National Teachers Policy



Thank you
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