Supplementary tables

TABLE C.1 GPF reading domains, constructs and sub-constructs, with constructs included in the AMPL for reading highlighted

Domain	Construct	Sub-construct
Comprehension of spoken or signed language	Retrieve information at word level	Comprehend spoken and signed language at the word or phrase level
		Recognize the meaning of common grade-level words in a short, grade-level continuous text read to or signed for the learner
	Retrieve information at sentence or text level	Retrieve explicit information in a short grade-level continuous text read to or signed for the learner
	Interpret information at sentence or text level	Interpret information in a short grade-level continuous text read to or signed for the learner
Decoding	Precision	Identify symbol-sound/fingerspelling and/or symbol-morpheme correspondences
		Decode isolated words
	Fluency	Speak aloud or sign a grade-level continuous text at pace and with accuracy
Reading comprehension	Retrieve information	Recognize the meaning of common grade-level words
		Retrieve explicit information in a grade-level continuous text by direct- or close-word matching
		Retrieve explicit information in a grade-level continuous text by synonymous matching
	Interpret information	Identify the meaning of unknown words and expressions in a grade-level continuous text
		Make simple inferences in a grade-level continuous text
		Identify the main and secondary ideas in a grade-level continuous text
	Reflect on information	Identify the purpose and audience of a text
		Give an overall evaluation of a text, and justify that evaluation
		Evaluate the status of claims made in a text
		Evaluate the effectiveness of a text

Source: Global Proficiency Framework (USAID et al., 2020a, p.6)

TABLE C.2 GPF mathematics constructs and sub-constructs, with sub-constructs relevant to upper primary marked with an 'x' and sub-constructs included in the AMPL assessment highlighted

Domain	Construct	Sub-construct	Grade 4	Grade 5	Grade 6
Number and operations	Whole numbers	Identify, count in and identify the relative magnitude of whole numbers	x	x	x
		Represent whole numbers in equivalent ways	x	x	x
		Solve operations using whole numbers	x	x	x
		Solve real-world problems involving whole numbers	x	x	x
	Fractions	Identify and represent fractions using objects, pictures and symbols and identify relative magnitude	x	x	x
		Solve operations using fractions	x	x	x
		Solve real-world problems involving fractions	x	x	x
	Decimals	Identify and represent decimals using objects, pictures and symbols and identify relative magnitude		x	x
		Represent decimals in equivalent ways (including fractions and percentages)		x	x
		Solve operations using decimals		x	x
		Solve real-world problems involving decimals			x
	Integers	Identify and represent integers using objects, pictures or symbols and identify relative magnitude			
		Solve operations using integers			
		Solve real-world problems involving integers			
	Exponents and roots	Identify and represent quantities using exponents and roots and identify the relative magnitude			
		Solve operations involving exponents and roots			
	Operations across number	Solve operations involving integers, fractions, decimals, percentages, and exponents			
Measurement	Length, weight, capacity, volume, area and perimeter	Use non-standard and standard units to measure, compare, and order	x	x	x
		Solve problems involving measurement	x	x	x
	Time	Tell time	x	x	x
		Solve problems involving time	x	x	x
	Currency	Use different currency units to create amounts			

Domain	Construct	Sub-construct	Grade 4	Grade 5	Grade 6
Geometry	Spatial visualizations	Compose and decompose shapes and figures	x	x	x
	Properties of shapes and figures	Recognize and describe shapes and figures	x	x	x
	Position and direction	Describe the position and direction of objects in space	x	x	x
Statistics and probability	Data Management	Retrieve and interpret data presented in displays	x	x	x
		Calculate and interpret central tendency			
	Chance and probability	Describe the likelihood of events in different ways		x	x
		Identify permutations and combinations			
Algebra	Patterns	Recognize, describe, extend and generate patterns	x	x	x
	Expressions	Evaluate, model and compute with expressions			
	Relations and functions	Solve problems involving variation (ratio, proportion, and percentage)			
		Demonstrate an understanding of equivalency	x	x	x
		Solve equations and inequalities			
		Interpret and evaluate functions			

Source: Global Proficiency Framework (USAID et al., 2020b, p. 6-7)

TABLE C.3 Proportions of students who met or exceeded SDG-aligned MPLs for reading with standard errors

Country	STUDENTS WHO REACHED OR EXCEEDED MPL IN 2021 AMPL: READING (%)			STUDENTS WHO REACHED OR EXCEEDED MPL IN HISTORICAL ASSESSMENT: READING (%)		
	All	Boys	Girls	All	Boys	Girls
Burkina Faso	9.0 (1.50)	9.3 (1.85)	8.8 (1.50)	5.8 (0.91)	5.6 (1.00)	5.9 (0.98)
Burundi	**0.1 (0.09)**	**0.1 (0.15)**	**0.1 (0.09)**	**0.3 (0.21)**	**0.3 (0.18)**	**0.4 (0.28)**
Côte d'Ivoire	10.8 (1.33)	9.9 (1.38)	11.7 (1.76)	10.4 (1.59)	9.9 (1.70)	10.9 (1.71)
Kenya	46.7 (2.33)	44.9 (2.45)	48.4 (2.56)			
Senegal	13.3 (1.81)	11.6 (1.75)	14.6 (2.22)	14.7 (2.31)	14.1 (2.31)	15.2 (2.65)
Zambia	2.3 (0.81)	2.4 (1.01)	2.2 (0.72)	1.8 (0.41)	**1.5 (0.42)**	2.1 (0.53)

Standard errors (SE) are reported in brackets.
Statistics in bold are from fewer than 30 students and/or 5 schools.

TABLE C.4 Proportions of students who met or exceeded SDG-aligned MPLs for mathematics with standard errors

Country	STUDENTS WHO REACHED OR EXCEEDED MPL IN 2021 AMPL: MATHEMATICS (%)			STUDENTS WHO REACHED OR EXCEEDED MPL IN HISTORICAL ASSESSMENT: MATHEMATICS (%)		
	All	**Boys**	**Girls**	**All**	**Boys**	**Girls**
Burkina Faso	23.7 (1.83)	25.8 (2.23)	22.1 (1.95)	17.9 (1.52)	18.8 (1.70)	17.1 (1.58)
Burundi	13.5 (1.83)	16.5 (2.23)	11.1 (1.91)	17.0 (1.73)	22.0 (2.06)	12.9 (1.66)
Côte d'Ivoire	8.9 (1.24)	8.8 (1.29)	9.1 (1.64)	7.6 (1.27)	8.2 (1.38)	6.9 (1.37)
Kenya	74.1 (1.90)	73.5 (2.08)	74.6 (2.06)	79.7 (3.18)	82.8 (4.06)	78.4 (3.26)
Senegal	34.0 (2.33)	34.1 (2.64)	33.9 (2.55)	34.6 (2.87)	34.6 (3.10)	34.7 (3.07)
Zambia	2.1 (0.78)	**2.0 (0.90)**	2.1 (0.77)	3.5 (0.56)	3.7 (0.61)	3.4 (0.68)

Standard errors (SE) are reported in brackets.
Statistics in bold are from fewer than 30 students and/or 5 schools.

TABLE C.5 Standard error of difference in 2021 AMPL between boys and girls meeting the MPL in reading and mathematics, by country

Country	PROPORTION OF BOYS MEETING MPL – PROPORTION OF GIRLS MEETING MPL	
	Reading	**Mathematics**
Burkina Faso	0.5 (1.47)	3.8 (1.96)
Burundi	0.1 (0.17)	5.3^ (1.85)
Côte d'Ivoire	-1.8 (1.69)	-0.2 (1.57)
Kenya	-3.5 (1.84)	-1.2 (1.64)
Senegal	-3.0 (1.77)	0.2 (2.26)
Zambia	0.2 (0.67)	-0.1 (0.61)

^ indicates statistical significance. A positive differnce in proportion indicates more boys than girls meeting the MPL.
Standard errors (SE) are reported in brackets.

TABLE C.6 Key contributors to the MILO project

MILO Management Team
Silvia Montoya, UIS
Sally Robertson, ACER
Maurice Walker, ACER
Abdel Rahamane Baba-Moussa, CONFEMEN
Ousmane Birba, CONFEMEN
Hilaire Hounkpodoté, CONFEMEN

MILO Country National Project Managers
Massar Diop, Senegal
Joseph Kauphy, Côte d'Ivoire
Serge Kyelem, Burkina Faso
Patrice Manengeri, Burundi
Asumpta Mulila-Matei, Kenya
Shadreck Nkoya, Zambia

Additional ACER contributors
Ammar Aldaoud
Danielle Anzai
Nizar Ashkar
Siham Barakat
Marc Barrett
Alla Berezner
Fei Cain
Emma Camus
Dan Cloney
Kylie Cockle
Louise Courtney
Sofia Damianidis

Alexander Daraganov
Ali Daws
Jorge Fallas
Tim Friedman
Jennifer Halliday
Xi He
Jennifer Hong
David Jeffries
Yan Jiang
Sandra Knowles
Nora Kovarcikova
Renee Kwong
Dulce Lay
Goran Lazendic
Lisa van Beeck
Greg Macaskill
Nina Martinus
Juliette Mendelovits
Kemran Mestan
Vernon Mogol
Pam Munro-Smith
Martin Murphy
Theodora Ntoka
Louise Ockwell
Clare Ozolins
Ray Peck
Dara Ramalingam
Trisha Reimers
Nathanael Reinertsen

Alla Routitsky	Angèle Ouedraogo
Ursula Schwantner	Taguesgo Ouedraogo
Naoko Tabata	Abdoulaye Sankara
Stephanie Templeton	Bénéwindé Bonaventure Segueda
Jessica Thompson	**BURUNDI**
Sue Thomson	Alice Kabarondo
David Weeding	Philbert Kana
Stavroula Zoumboulis	Frédéric Nizigiyimana
	Aline Nshimirimana
Additional UIS contributors	Godelieve Ruratanditse
Georges Boade	**CÔTE D'IVOIRE**
Kim Deslandes	Assemian Aman Hilaire
Adolfo Imhof	Aguido Koffi
Olga Ovsyannikova	Konan Koffi
Nutan Wozencroft	Coulibaly Nakakpanlan
	Koffi Kouakou Aka Urbain
Additional CONFEMEN contributors	**KENYA**
Khady Mbaye Camara	Kennedy Abuje
Amadou Diallo	Doreen Kawira
Labass Lamine Diallo	Musa Kipchirchir
Seydou Garba Hamidou	Edwin Kurgat
Penda Ndiaye	Catherine Masila
Youga Ndiaye	Emmy Mugailwa
Sira Sy Seck	Mike Musisi
Bassile Zavier Tankeu	Kenneth Ombati
	Patricia Omunyang'oli
Additional country contributors	**SENEGAL**
BURKINA FASO	Chérif Ousmane Aidara
Salifou Dierma	Khalil Diarra
Alice Karaga/Tankoano	Alioune Badara Diop
Valentin Kettyetta	Pape Demba Sy
Ali Ouedraogo	

ZAMBIA
Michael Chilala
Moonga Hakalyamba
Joseph Kanswe
Shakazo Mzyece
Akakulubelwa Nalishuwa
Smart Sakala
Simwinga Simwinga

Report reviewers
Luis Crouch, RTI
Silvia Montoya, UIS

Translation and interpretation
cApStAn
Solten Group

AMPL reading items (from the UIS's Global Item Bank)
ACER's GEM Centre
Brunei Darussalam Grade 4 reading assessment 2017
CONFEMEN's PASEC Grade 6 released items 2014
Education Quality and Accountability Office Canada Ontario Grade 3 reading assessment 2018
Ghana Grade 6 reading sample items 2013
Hong Kong Grade 6 reading assessment 2019
Jamaica Ministry of Education, Youth and Information Grade 4 language and arts sample items 2019 (Adapted: Playing with Words Thomas and Prescod)
The Dominica Grade 6 language assessment 2012
The Gambia Grade 5 English language assessment 2016

AMPL mathematics items (from the UIS's Global Item Bank)
ACER's GEM Centre
Alberta Government, Canada Grade 6 mathematics achievement test 2013
Australian Curriculum and Assessment Authority (ACARA) Year 5 National Assessment Program Literacy and Numeracy example items 2012
CONFEMEN's PASEC Grade 6 released items 2014
Examinations Council of Zambia Grade 7 composite examination 2017
Jamaica Ministry of Education, Youth and Information Grade 6 mathematics assessment 2019
Ministry of Education St Vincent and the Grenadines Grade 6 mathematics examination 2011
Ministry of Education, Science and Technology, Antigua and Barbuda Grade 6 mathematics assessment 2015
The West African Examinations Council, Gambia Grade 5 national assessment 2018

MILO contextual item sources
ACER
IEA (REDS/PIRLS)
OECD (Global Crisis Module/PISA)

Note: Within each category, names are listed alphabetically by surname