

Proposed revisions to Minimum Proficiency Levels SDG 4.1.1

7th Meeting
Global Alliance to Monitor Learning (GAML)
21 October 2020

Juliette Mendelovits

Australian Council for Educational Research

Outline

Background

Suggested changes to the SDG 4.1.1 Minimum Proficiency Levels (MPL)

- General
- Mathematics
- Reading

Indicator 4.1.1

Proportion of children and young people

- (a) in Grades 2 /3;
- (b) at the end of primary; and
- (c) at the end of lower secondary

achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

Background (1)

MPL descriptions for mathematics and reading agreed at the expert group meeting, Paris, September 2018 and GAML meeting, Hamburg, October 2018

'GAML 2018 MPLs'

Three levels defined for each learning area, in line with SDG 4.1.1

- 4.1.1(a) grade 2/3 OR grades 2 and 3
- 4.1.1(b) End of primary (grades 4 & 6)
- 4.1.1(c) End of lower secondary (grades 8/9)

GAML 2018 MPLs

4.1.1 terms	Mathematics	Reading
End of Lower Secondary	Students demonstrate skills in computation, application problems, matching tables and graphs, and making use of algebraic representations.	Students establish connections between main ideas on different text types and the author's intentions. They reflect and draw conclusions based on the text.
End of Primary	Students demonstrate skills in number sense and computation, basic measurement, reading, interpreting, and constructing graphs, spatial orientation, and number patterns.	Students interpret and give some explanations about the main and secondary ideas in different types of texts. They establish connections between main ideas on a text and their personal experiences as well as general knowledge.
Grade 2/3	Students demonstrate skills in number sense and computation, shape recognition and spatial orientation.	Grade 3: Students read aloud written words accurately and fluently. They understand the overall meaning of sentences and short texts. Students identify the texts' topic.
		Grade 2: They read and comprehend most of written words, particularly familiar ones, and extract explicit information from sentences.

Background (2)

Work contributing to our suggested modifications to the GAML 2018 MPLs:

- Review of the GAML 2018 MPLs by ACER, March 2019
- Curriculum and Assessment Frameworks for mathematics and reading (International Bureau of Education, UNESCO 2019)
- Learning Progressions for mathematics and reading (ACER, 2014 to present)
- Global Proficiency Framework and Descriptors by content expert working groups (USAID/UIS, April 2019 to present)

MPL revisions proposed by ACER, Sept 2020 (WG/GAML/6) General aims

- Key elements of each learning area represented in the descriptions
- Progression in learning evident in the descriptions, from (a) to (b) to (c),
- Unambiguous wording
- Parallel structure of MPLs for mathematics and reading

GAML 2018 MPLs

4.1.1 terms	Mathematics	Reading
End of Lower Secondary	Students demonstrate skills in computation, application problems, matching tables and graphs, and making use of algebraic representations.	Students establish connections between main ideas on different text types and the author's intentions. They reflect and draw conclusions based on the text.
End of Primary	Students demonstrate skills in number sense and computation, basic measurement, reading, interpreting, and constructing graphs, spatial orientation, and number patterns.	Students interpret and give some explanations about the main and secondary ideas in different types of texts. They establish connections between main ideas on a text and their personal experiences as well as general knowledge.
Grade 2/3	Students demonstrate skills in number sense and computation, shape recognition and spatial orientation.	Grade 3: Students read aloud written words accurately and fluently. They understand the overall meaning of sentences and short texts. Students identify the texts' topic.
		Grade 2: They read and comprehend most of written words, particularly familiar ones, and extract explicit information from sentences.

Key suggested changes to Mathematics MPLs

- Across the three MPLs, distinctions between types of skills and knowledge are made explicit.
- For MPL 4.1.1(a), core content of GPF Grade 2 is reflected.
- For MPL 4.1.1(b), application problems are included
 (not just introduced at End of Lower Secondary).
- For MPL 4.1.1(c), description is extended to include references to measurement and geometry, and there is clearer delineation between algebraic and statistical skills.

Mathematics MPLs comparison

4.1.1 terms	GAML 2018 MPLs	ACER suggested revisions
End of Lower Secondary	Students demonstrate skills in computation, application problems, matching tables and graphs, and making use of algebraic representations.	Students demonstrate skills in computation with fractions, decimals, rates, ratios, percentages and integers. They apply geometric relationships and formulae such as area, surface area and volume, Pythagorean theorem, angle sum of a triangle. They interpret and construct, a variety of data displays and calculate measures of central tendency. They make use of algebraic representations of linear relationships. They can use their mathematics knowledge to solve application problems.
End of Primary	Students demonstrate skills in number sense and computation, basic measurement, reading, interpreting, and constructing graphs, spatial orientation, and number patterns.	Students recognise, read, write, order, compare and calculate with whole numbers, simple fractions and decimals. Students can measure length and weight using standard units, calculate the perimeter of simple 2D shapes and area of rectangles. They read, interpret and construct different types of data displays such as tables, column graphs and pictographs and recognise, describe and extend number patterns. They can solve simple application problems.
Grade 2/3	Students demonstrate skills in number sense and computation, shape recognition and spatial orientation.	Students recognise, read, write, order and compare whole numbers up to 100. They demonstrate computational skills involving the processes of addition, subtraction, doubling and halving for whole numbers within 20. They recognise and name familiar shapes and describe location in a space using simple language.

Key suggested changes to Reading MPLs

- For MPL 4.1.1(a)
 - A single description for 4.1.1(a), parallel with the single mathematics description (both aligned with the GPF Grade 2 'meets minimum proficiency level')
 - includes reference to aural comprehension
- For MPL 4.1.1(b), more specific about text types, reference to fluency, reduced scope of reflection
- For MPL 4.1.1(c), expanded range of texts, expanded repertoire of reading skills:
 - retrieving
 - interpreting
 - reflecting

Reading MPLs comparison

4.1.1 terms	GAML 2018 MPLs	ACER suggested revisions
End of Lower Secondary	Students establish connections between main ideas on different text types and the author's intentions. They reflect and draw conclusions based on the text.	Students retrieve and connect multiple pieces of related information across sections of texts to understand key ideas. They make straightforward inferences when there is some competing information. They reflect and draw conclusions based on a variety of text types.
End of Primary	Students interpret and give some explanations about the main and secondary ideas in different types of texts. They establish connections between main ideas on a text and their personal experiences as well as general knowledge.	Students independently and fluently read simple, short narrative and expository texts. They retrieve explicitly-stated information. They interpret and give some explanation about the main and secondary ideas in different types of texts, and establish connections between main ideas in a text and their personal experiences.
Grade 2/3	Grade 3: Students read aloud written words accurately and fluently. They understand the overall meaning of sentences and short texts. Students identify the texts' topic. Grade 2: They read and comprehend most of written words, particularly familiar ones, and extract explicit information from sentences.	Students accurately read aloud and understand written words from familiar contexts. They retrieve explicit information from very short texts. When listening to slightly longer texts, they make simple inferences.

The GAML working group is asked to

- recognise the collaborative work that has gone into improving the definitions of the MPLs, aligning them more closely to the Global Proficiency Framework
- endorse the revisions to the minimum proficiency levels as updates to the descriptions of SDG4.1.1



Thank you!

Any questions?