Fafo

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Literacy (EGRA) & numeracy (EGMA) results: 2023

Content

Introduction

This document presents the results for all children who took the EGRA (literacy) and EGMA (numeracy) tests in 2023. It provides the results for all tests by grade level. Most children took the exact same tests in 2022 as well. The tests were designed to fit Grade 2 and Grade 4 and were repeated a year later in 2023, to examine progress.

The results are provided as mean and median scores for schools with and without E-lab in a table, and for most tests, the distribution of the actual scores for all children are presented in a graph. The tables also present the results for two different sets of non-E-lab schools: those that have and those that have not received program support from ADRA and other NGOs. Such support would typically be construction of classrooms and toilets, teacher training, school equipment, and support to facilitate the learning of children living with disabilities. All five schools with E-lab have also received such assistance. This document concentrates on the difference between E-lab and non-E-lab schools without referring to variation between the two types of schools lacking E-lab.

The document also summarizes the EGRA and EGMA test scores for each grade level. The number of students categorized by the type of test they took, the type of school, and the grade level are shown in Table 1. Although it varied somewhat across school, for all schools taken together, there was a slightly lower share of boys (46 percent) than girls (54 percent) taking the tests.

Table 1 Number of students tested in 2023. By type of test, type of school, and grade.

	EGRA		EGMA	
Schools	**Grade 3**	**Grade 5**	**Grade 3**	**Grade 5**
With E-lab	470	368	460	369
Without E-lab	372	422	367	426
- No E-lab, program support	299	364	295	368
- No E-lab, no program support	73	58	72	58
Total	838	794	827	795

EGRA results, Grade 3

The EGRA test administered to third graders covered four sub-tasks: reading of letters and syllables, reading of words, reading of a simple sentence, and comprehension.

Table 2 Students who took EGRA in Grade 3. By type of school, school, and gender. Percentage.

Type of school	Name of school	Gender		Number of students
		Male	Female	
E-lab and program support	Agou Koira Tegui	41	59	82
	Balléyara Château	50	50	139
	Jidakmatt I	50	50	101
	Kabé	54	46	52
	Sandiré	48	52	96
No E-lab, program support	Balléyara Centre	43	57	69
	Borgo	56	44	39
	Tabla Quartier	53	47	32
	Jidakmatt II	34	66	136
	Winditane	61	39	23
No E-lab, no program support	Borgo Gorou	42	58	31
	N'Dikitan	45	55	42
All students		46	54	842

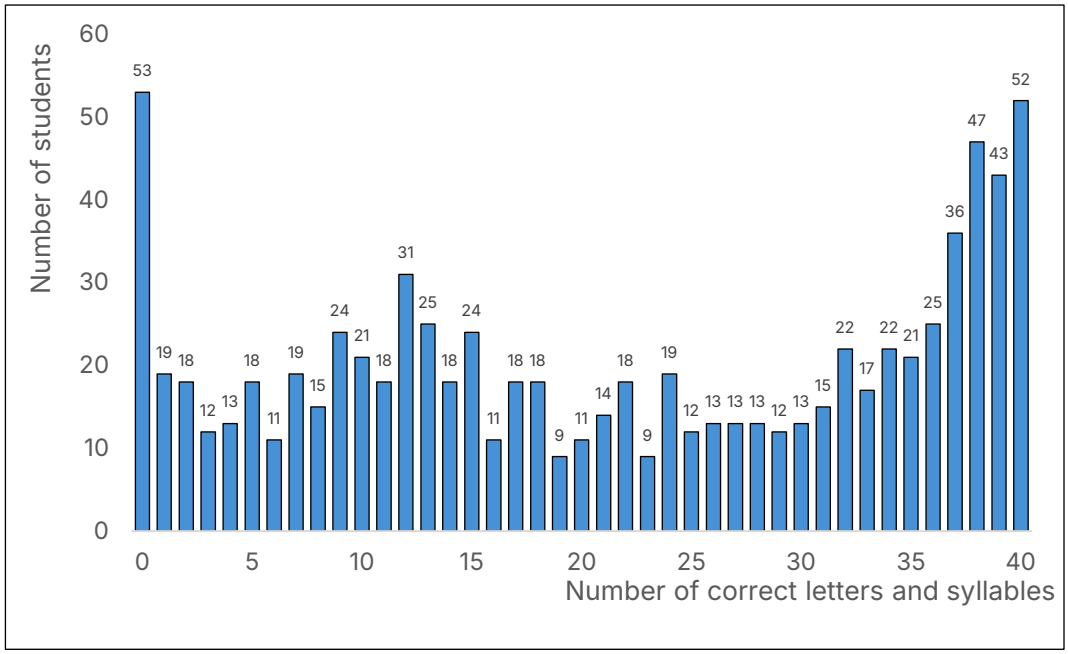
Reading letters and syllables

This sub-task assessed the students' skill in reading letters and syllables. Table 3 presents a comparison of reading performance across the two types of schools. The maximum achievable score is 40. In schools with E-lab, students achieved a mean score of 24 and a median score of 25. In schools without E-lab, the mean score was only 19, and the median score was even lower at 15. This suggests disparity in reading performance between the two types of schools, with those equipped with E-lab exhibiting better reading skills. About one-fourth (24 percent) of all students scored 36 or higher (Figure 1).

Table 3 Mean and median number of correct responses in reading letters (max. score=40).

Type of school	Mean	Median	Number of students
With E-lab	24	25	470
Without E-lab	19	15	372
- No E-lab, program support	18	15	299
- No E-lab, no program support	21	19	73
Total	22	22	842

Figure 1 Results from reading letters and syllables (max. score=40). All students in Grade 3.



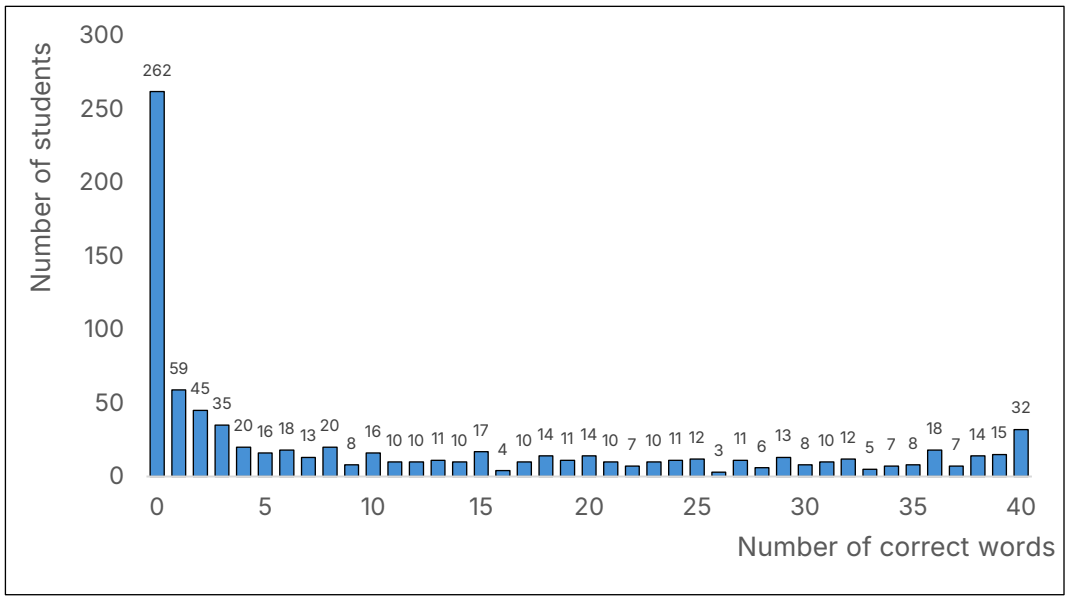
Reading of words

The second sub-task of the EGRA test was the reading of words in two minutes. The results are displayed in Table 4. The maximum score is 40, referring to 40 words. In schools with E-lab, the mean number of words read in two minutes is 13, while the median was notably lower at 8. This suggests substantial variation in individual reading abilities, with some students reading significantly more words than others. The performance of students in schools without E-lab was weaker; the mean score is 9 and the median is 2, indicating an even wider performance gap amongst students there. Overall, when considering all schools, the mean number of words read was 12, with a median of 5, highlighting significant disparities in reading proficiency amongst their students. Only one in ten students accomplished a score of 36 or higher; three in ten (31 percent) did not manage to read even one word correctly (Figure 2).

Table 4 Number of words read in two minutes (max. score=40).

Type of school	Mean	Median	Number of students
With E-lab	13	8	470
Without E-lab	9	2	372
- No E-lab, program support	9	2	299
- No E-lab, no program support	12	4	73
Total	12	5	842

Figure 2 Results from reading words (max. score=40). All students in Grade 3.



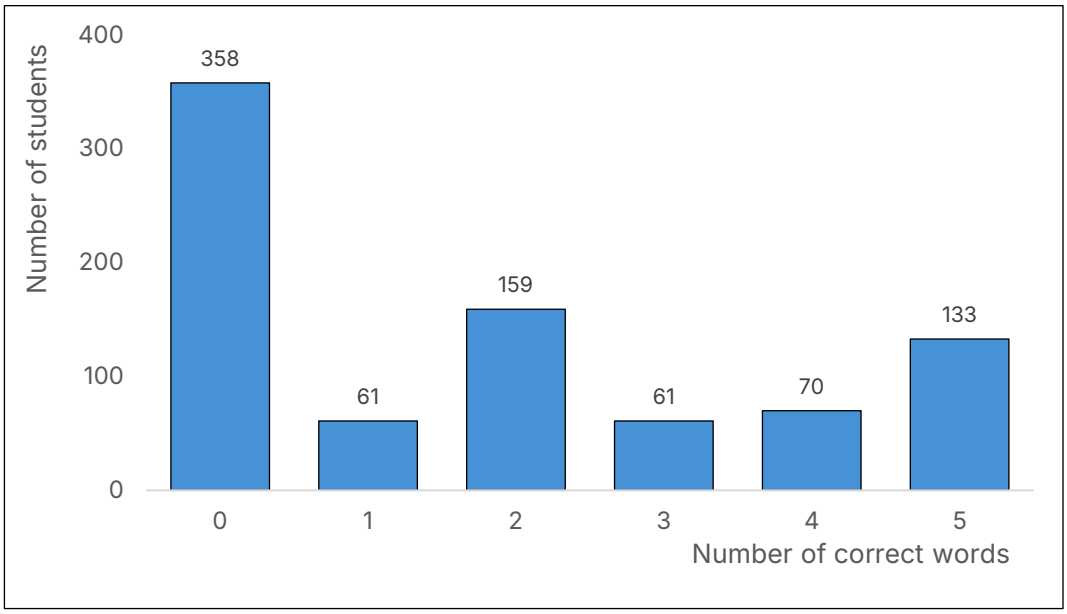
Reading of a single sentence

Table 5 presents the results of a one-minute simple sentence reading test, where reading a five-word sentence correctly would result in the maximum score of 5. One correct word gave a score of 1, two correct words resulted in the score of 2, and so forth. In schools with E-lab, the mean and median scores were both 2. In contrast, in schools without E-lab, the performance was poorer with a mean of 1 and a median of zero. Furthermore, this suggests higher variation in performance at the non-E-lab schools. When considering all schools, the mean and median scores were both 2. Out of all third-grade children tested, 43 percent did not manage to read one single word, whilst 16 percent got the entire sentence correct (Figure 3).

Table 5 Reading of five-word sentence (max. score=5).

Type of school	Mean	Median	Number of students
With E-lab	2	2	470
Without E-lab	1	0	372
- No E-lab, program support	1	0	299
- No E-lab, no program support	2	2	73
Total	2	2	842

Figure 3 Results of the sentence reading (max. score=5). All students in Grade 3.



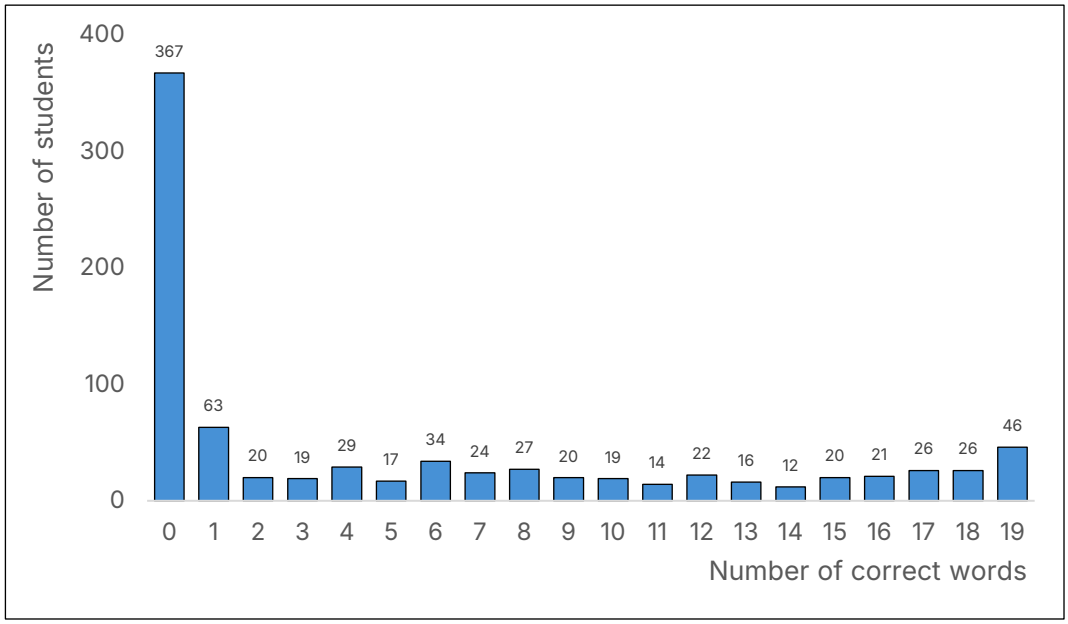
Reading simple sentences

The fourth test comprised reading five sentences containing altogether 19 words. The maximum score is 19, one point for each correct word. In schools with E-lab, the mean score was 6, with a median of 3, whilst the mean and median were significantly lower at 4 and 0, respectively, in schools without E-lab (Table 6). This demonstrates a considerable performance gap among the students, and particularly in schools lacking E-lab, where one-half of the Grade 3 students did not manage to get one single word correct. Consistent with the result of the previous test, 44 percent of the students did not read any word correctly, while 17 percent managed to get 15-19 words right (Figure 4).

Table 6 Total number of correct words (max. score=19).

Type of school	Mean	Median	Number of students
With E-lab	6	3	470
Without E-lab	4	0	372
- No E-lab, program support	4	0	299
- No E-lab, no program support	6	1	73
Total	5	1	842

Figure 4 Results of reading words in sentences (max. score=19). All students in Grade 3.



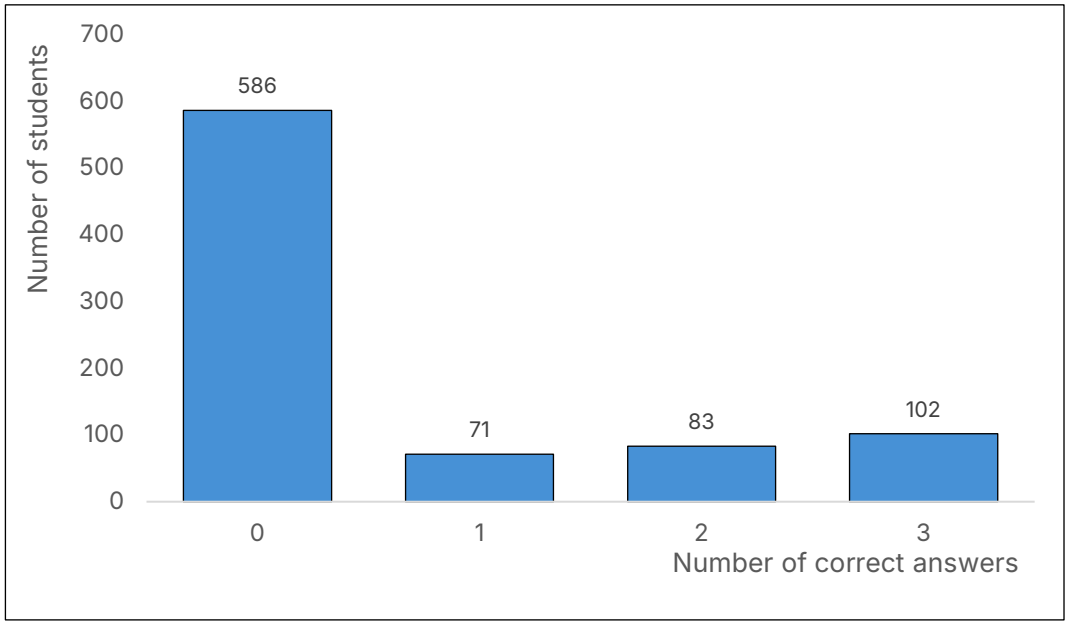
Text comprehension

In the final EGRA test, the Grade 3 students were given three questions designed to investigate their comprehension of the five sentences presented to them in the previous task. The maximum possible score is 3. Since few children achieved well in the previous task, it follows that the result for this task is bad. The result is similarly poor for both types of school (Table 7). Both in schools with and without E-lab, the mean score was 1 and the median score zero. Seven in ten (586 out of 842 children) did not get any answer correct; merely 12 percent (102 out of 842 children) reached the maximum score of 3 (Figure 5).

Table 7 Total score on comprehension (max. score=3).

Type of school	Mean	Median	Number of students
With E-lab	1	0	470
Without E-lab	1	0	372
- No E-lab, program support	0	0	299
- No E-lab, no program support	1	0	73
Total	1	0	842

Figure 5 Scores on comprehension (max. score=3). All students in Grade 3.



Conclusion

Except for comprehension, children attending Grade 3 in schools with E-lab systematically outperformed the children in schools without such resources. When simply adding the scores of all the EGRA tests and comparing the results, this picture becomes very clear (Table 8).

Given that most students did not manage to read the words in the test leading up to the comprehension question, the disappointing result in comprehension is hardly surprising. Nevertheless, since the presence or absence of E-lab does not seem to influence comprehension scores significantly, this poor result points at the need for targeted interventions across the educational system in this area.

Table 8 Mean and median of total EGRA scores (max. score=107). All students in Grade 3.

Type of school	Mean	Median	Number of students
With E-lab	46	39	470
Without E-lab	35	21	372
- No E-lab, program support	33	20	299
- No E-lab, no program support	41	27	73
Total	41	31	842

EGRA results, Grade 5

The EGRA test administered to fifth graders covered four sub-tasks: word reading, simple sentence reading, paragraph reading, and comprehension.

Table 9 Students who took EGRA in Grade 5. By school and gender. Percentage.

Type of school	Name of school	Gender		Number of students
		Male	Female	
E-lab and program support	Agou Koira Tegui	35	65	86
	Balléyara Château	32	68	87
	Jidakmatt I	45	55	91
	Kabé	35	65	37
	Sandiré	46	54	67
No E-lab, program support	Balléyara Centre	47	53	99
	Borgo	49	51	95
	Jidakmatt II	40	60	84
	Tabla Quartier	54	46	48
	Winditane	42	58	38
No E-lab, no program support	Borgo Gorou	65	35	37
	N'Dikitan	38	62	21
All students		44	56	790

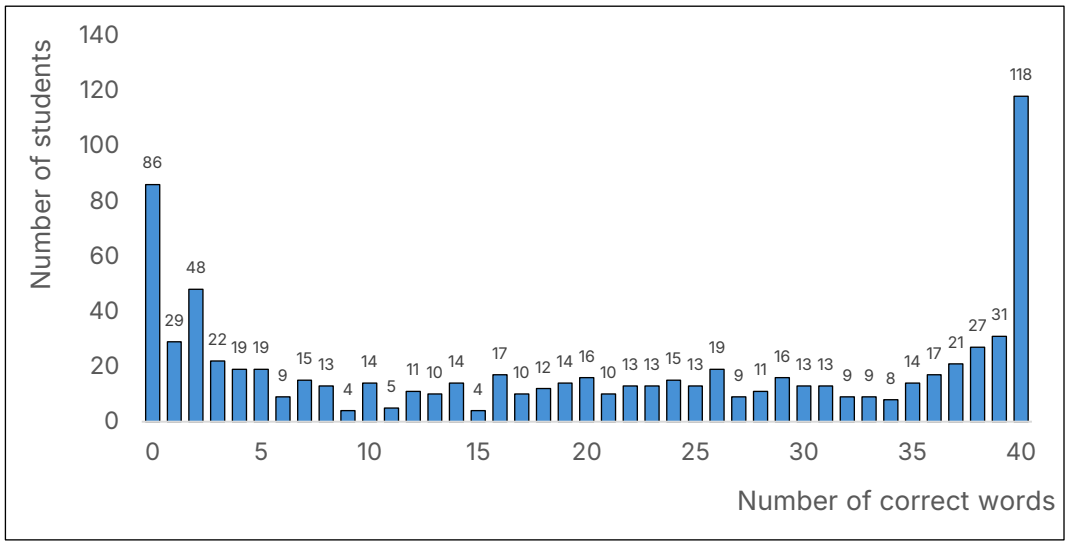
Word reading

The first sub-task is like the second test administered to for the third graders, namely the reading of words in two minutes. The maximum possible score is 40, representing 40 correct words. In schools with E-lab, the mean score is 24, with a median of 26. In schools without E-lab, the mean score is lower at 18, with a median of 16. Ten percent did not get any word right, whereas 15 percent read all words correctly (Figure 6).

Table 10 Number of correct responses in word reading (max. score=40).

Type of school	Mean	Median	Number of students
With E-lab	24	26	368
Without E-lab	18	16	422
- No E-lab, program support	17	15	364
- No E-lab, no program support	19	19	58
Total	20	21	790

Figure 6 Scores in word reading (max. score=40). All students in Grade 5.



Reading of simple sentences

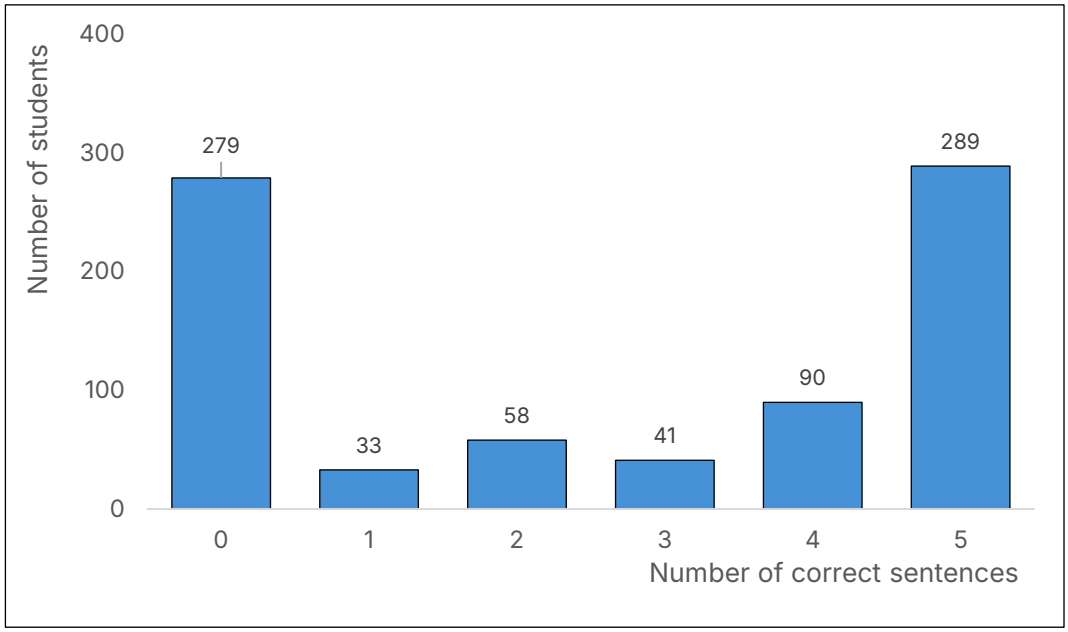
The second EGRA component for children in Grade 5 also resembles one of the sub-tasks used for children in Grade 3: the reading of five simple sentences in two minutes. However, the sentences were not identical, and with one exception had a more complex structure than the sentences used for Grade 3. The maximum score is 5, one point for each correct sentence.

Students in schools with E-lab (mean=3; median=4) do somewhat better than students in schools without E-lab (mean=2; median=2) (Table 11).Thirty-five percent of all students scored zero whilst 37 percent reached the maximum score (Figure 7).

Table 11 Number of correct responses in sentence reading (max. score=5).

Type of school	Mean	Median	Number of students
With E-lab	3	4	368
Without E-lab	2	2	422
- No E-lab, program support	2	2	364
- No E-lab, no program support	2	1	58
Total	3	3	790

Figure 7 Distribution of scores in sentence reading (max. score=5). All students in Grade 5.



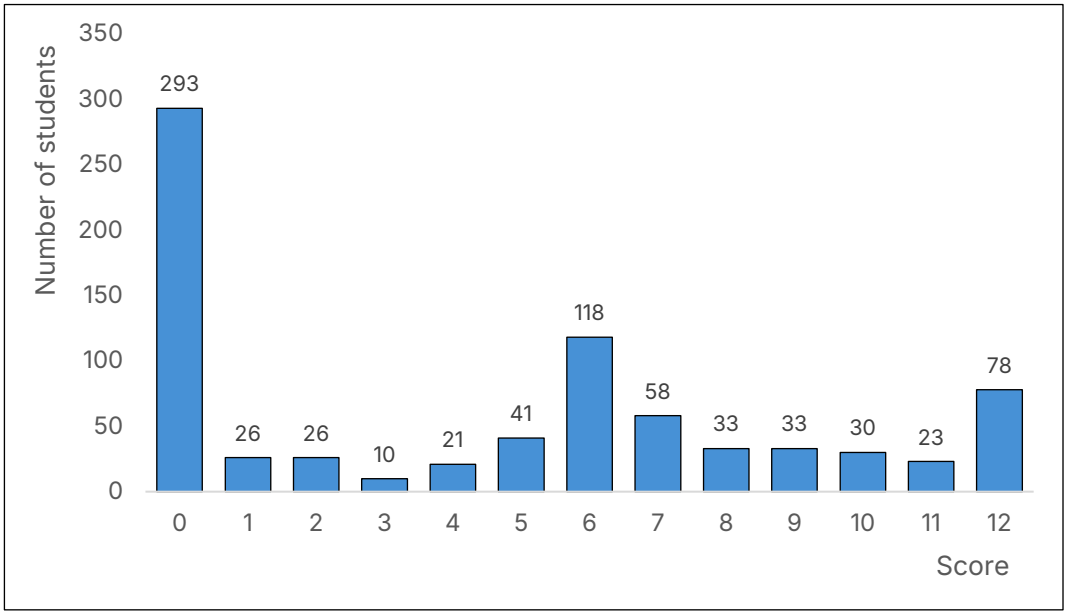
Paragraph reading

The third sub-task of the EGRA for Grade 5 students was an assessment of the ability to read a full paragraph. Again, the time at the disposal of the children was two minutes. The maximum score is 12. Table 12 shows the test result. In schools with E-lab the mean paragraph reading score is 5, with a median of 6. In schools without E-lab, the mean score is lower at 4 and a median of 3. More than a third of the students scored zero whilst 10 percent scored the maximum (Figure 8).

Table 12 The paragraph reading score (max. score=12).

Type of school	Mean	Median	Number of students
With E-lab	5	6	368
Without E-lab	4	3	422
- No E-lab, program support	4	3	364
- No E-lab, no program support	5	5	58
Total	5	5	790

Figure 8 Distribution of paragraph reading scores (max. score=12). All students in Grade 5.



Comprehension

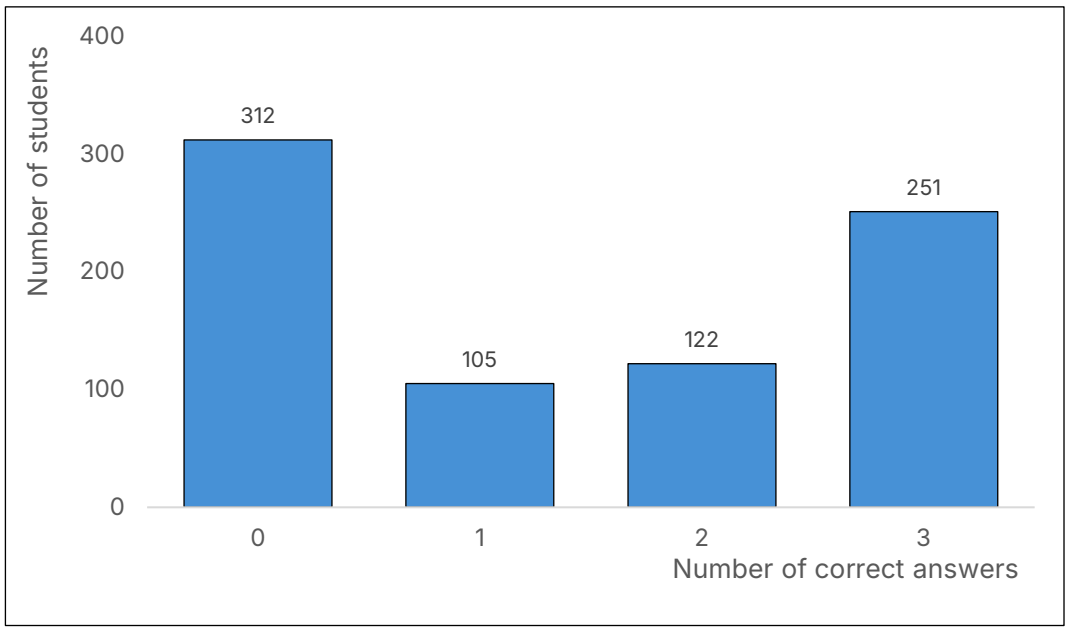
The fourth and final component of the EGRA administered to the fifth graders assessed comprehension as a follow-up to the paragraph reading. The students were asked three questions to find out if they understood the text they had just read — or attempted to read. (The evaluator read the paragraph before asking the questions.) The maximum possible score is 3.

Table 13 provides the results. The mean and median scores for schools with E-lab are 2 whilst they are only 1 for schools without E-lab. Four in ten students did not get any answers correct whilst 32 percent understood the paragraph perfectly (Figure 9).

Table 13 Total correct responses from comprehension (max. score=3).

Type of school	Mean	Median	Number of students
With E-lab	2	2	368
Without E-lab	1	1	422
- No E-lab, program support	1	1	364
- No E-lab, no program support	1	1	58
Total	1	1	790

Figure 9 Distribution of comprehension scores (max. score=3). All students in Grade 5.



Conclusion

As with EGRA for third graders, this section shows that fifth graders in schools with E-lab tend to perform better in literacy than students in schools without E-lab. The result for comprehension was more encouraging than that of third graders, with a slight advantage for schools with E-lab.

The fact that schools with E-lab outperform schools who lack such a lab is demonstrated by Table 14, which has added the scores for each of the EGRA tests and shows the mean and median values for this total score.

Table 14 Mean and median of total EGRA scores (max. score=60). All students in Grade 5.

Type of school	Mean	Median	Number of students
With E-lab	33	37	368
Without E-lab	25	22	422
- No E-lab, program support	25	22	
- No E-lab, no program support	28	25	
Total	29	30	790

EGMA results, Grade 3

The EGMA test for third-grade students includes four sub-tasks: number counting, number identification, number ordering, and addition and subtraction.

Table 15 Students who took EGMA in Grade 3. By school and gender. Percentage.

Type of school	Name of school	Gender		Number of students
		Male	Female	
E-lab and program support	Agou Koira Tegui	42	58	81
	Balléyara Château	50	50	139
	Jidakmatt I	50	50	101
	Kabé	54	46	52
	Sandiré	47	53	97
No E-lab, program support	Balléyara Centre	43	57	69
	Borgo	56	44	39
	Tabla Quartier	53	47	32
	Jidakmatt II	34	66	136
	Winditane	61	39	23
No E-lab, no program support	Borgo Gorou	42	58	31
	N'Dikitan	45	55	42
All students		46	54	842

Number counting

The first EGMA sub-task assessed children's skills in number counting from 0 to 20. The time limit was two minutes and the maximum score 20. The average and median score for both schools with and without E-lab is 20, the maximum (Table 16). This implies that virtually all students knew how to count to 20. Thus, different from the other test results, it is meaningless to present their distribution in a graph.

Table 16 Number counting (max. score=20).

Type of school	Mean	Median	Number of students
With E-lab	20	20	471
Without E-lab	20	20	372
- No E-lab, program support	20	20	299
- No E-lab, no program support	20	20	73
Total	20	20	843

Number identification

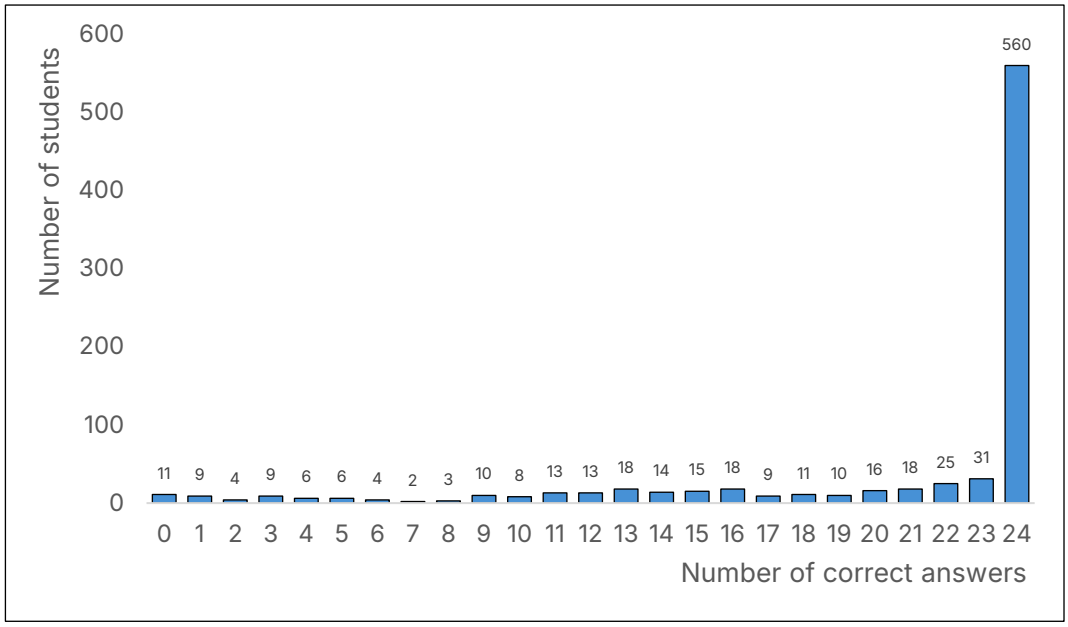
Table 17 provides results on the number identification sub-task of the EGMA test for third graders with a maximum possible score of 24 — which corresponds to the 24 numbers between 0 and 20 that was distributed in a table, and which the students were asked to read out loud.

The median score for both types of schools is 24, the maximum, which implies that one-half or more than one-half, of all students reached the maximum score. In fact, two thirds of all students managed to read out all 24 numbers correctly (Figure 10). The difference in the mean score between schools with and without E-lab is insignificant.

Table 17 Identification of numbers (max. score=24).

Type of school	Mean	Median	Number of students
With E-lab	21	24	471
Without E-lab	20	24	372
- No E-lab, program support	20	24	299
- No E-lab, no program support	20	24	73
Total	21	24	843

Figure 10 Distribution of scores on identification of numbers (max. score=24). All students in Grade 3.



Number ordering

The third sub-task asked the students to order seven numbers from the lowest to the highest value. Table 18 shows the percentage who succeeded in ordering all seven numbers. A somewhat higher proportion of children in E-lab schools (57 percent) than in schools without E-lab (48 percent) managed this task.

Table 18 Students who correctly organized seven numbers in ascending order. By type of school. Percentage.

Type of school	Percent	Number of students
With E-lab	57	470
Without E-lab	48	368
- No E-lab, program support	46	295
- No E-lab, no program support	55	73
Total	53	838

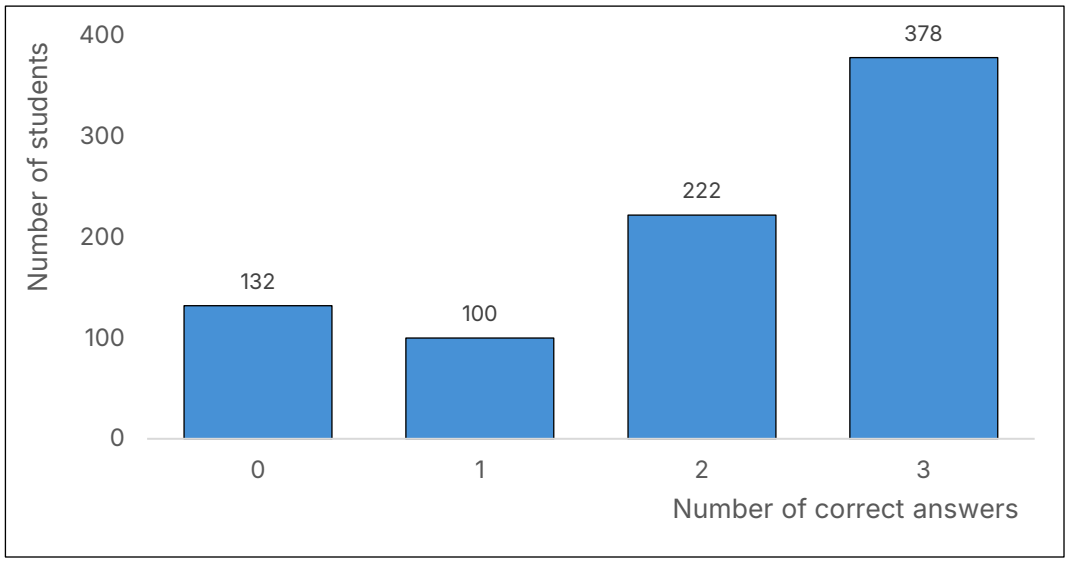
Addition and subtraction

The last component assessed skills in addition and subtraction. The students were requested to solve three math problems (10+3; 5+11; and 17-7), yielding a maximum possible score of 3. The result is the same for both type of schools: both the mean and median score equals 2 (Table 19).

Table 19 Solving three math problems (max. score=3).

Type of school	Mean	Median	Number of students
With E-lab	2	2	461
Without E-lab	2	2	371
- No E-lab, program support	2	2	299
- No E-lab, no program support	2	2	72
Total	2	2	832

Figure 11 Distribution of correct answers to three math problems (max. score=3). All students in Grade 3.



Conclusion

The Grade 3 test results for EGMA are considerably better than those for EGRA in the sense that the scores are much closer to the maximum. A second difference is that for EGMA, as opposed to EGRA, there are or no or minor differences between schools with and without E-lab. This is evident when comparing the mean and median value for the total of scores on EGMA across the two types of schools (Table 20).

Table 20 Mean and median of total EGMA scores (max. score=48). All students in Grade 3.

Type of school	Mean	Median	Number of students
With E-lab	44	47	458
Without E-lab	42	46	367
- No E-lab, program support	42	46	295
- No E-lab, no program support	42	47	72
Total	43	47	825

EGMA results, Grade 5

In fifth grade, the EGMA test was used to assess students' skills in seven sub-tasks: number identification, comparison of two numbers, comparison of multiple numbers, identifying missing numbers, addition, subtraction, and word problems.

Table 21 Students who took EGMA in Grade 5. By school and gender. Percentage.

Type of school	Name of school	Gender		Number of students
		Male	Female	
E-lab and program support	Agou Koira Tegui	34	66	86
	Balléyara Château	32	68	87
	Jidakmatt I	46	54	90
	Kabé	35	65	37
	Sandiré	46	54	67
No E-lab, program support	Balléyara Centre	47	53	99
	Borgo	49	51	95
	Jidakmatt II	40	60	84
	Tabla Quartier	54	46	48
	Winditane	42	58	38
No E-lab, no program support	Borgo Gorou	65	35	37
	N'Dikitan	38	62	21
All students		44	56	790

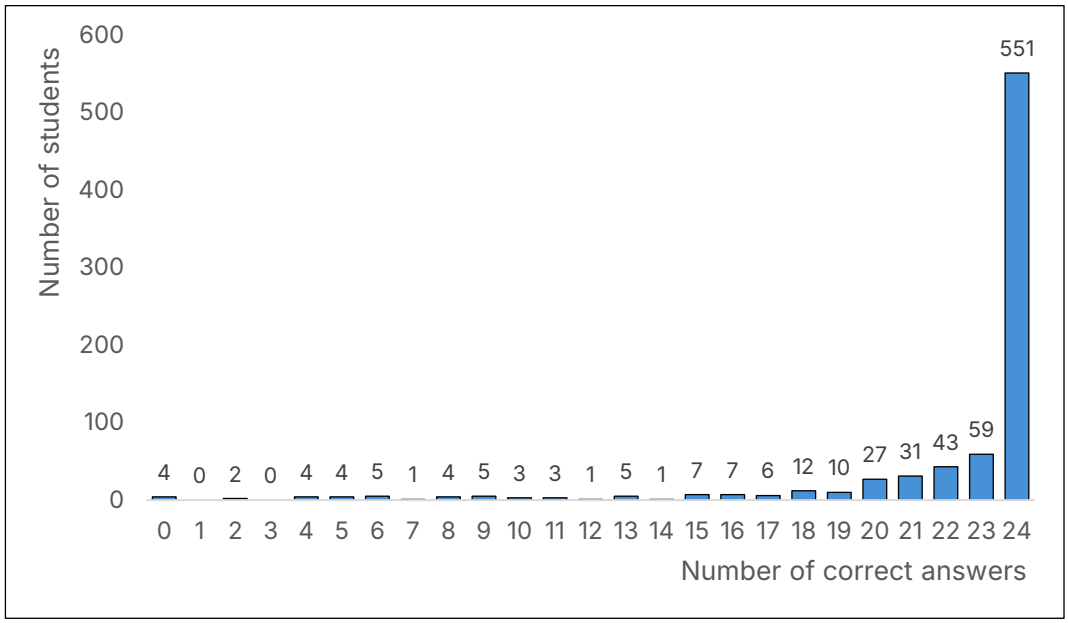
Number identification

The first sub-task was number identification. The maximum possible score is 24 — which corresponds to the 24 numbers between 2 and 286 that were distributed in a table, and which the students were asked to read out loud within a time frame of one minute. Table 22 presents the results. The median equals the maximum of 24 for both types of schools, whereas the mean is moderately lower — 23 for schools with E-lab and 22 for schools without E-lab, an insignificant difference. Sixty-nine percent of the students managed the task to perfection, and most others did nearly as well (Figure 12).

Table 22 Number identification (max. score=24).

Type of school	Mean	Median	Number of students
With E-lab	23	24	369
Without E-lab	22	24	426
- No E-lab, program support	22	24	368
- No E-lab, no program support	22	24	58
Total	22	24	795

Figure 12 Scores on number identifications (max. score=24). All students in Grade 5.



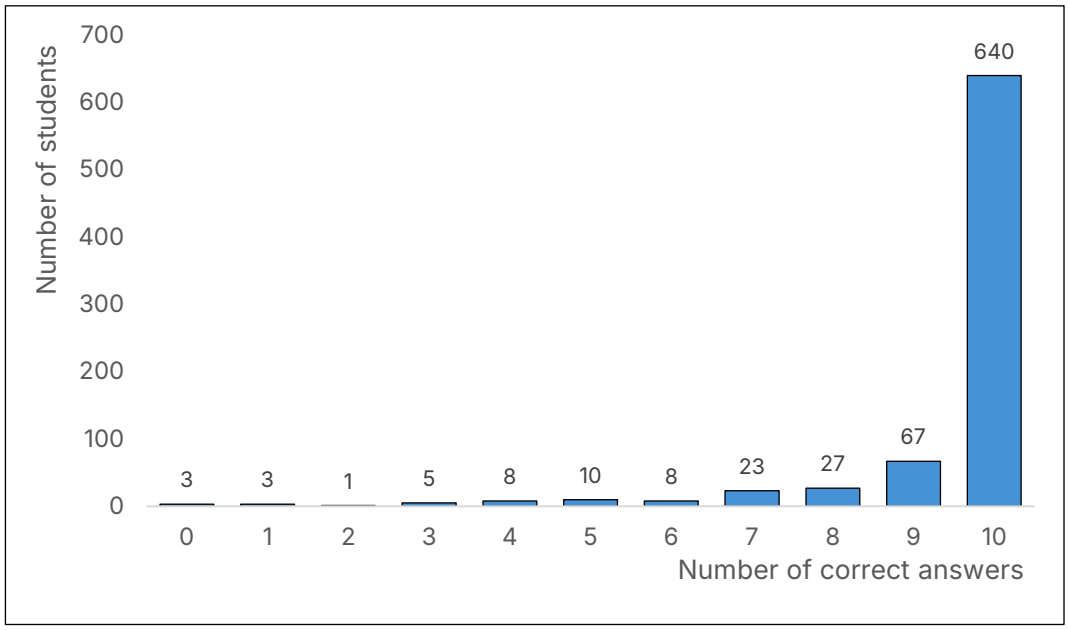
Comparison of two numbers

The next sub-task involved comparison of ten pairs of one and two-digit numbers and identifying the larger one. The children had one minute to complete the task. The maximum score is 10. Table 23 demonstrates that most students reached the maximum score, and that the difference in performance between the E-lab and non-E-lab schools is negligible. Four in five of the fifth graders accomplished the maximum score (Figure 13).

Table 23 Comparison of two numbers (max. score=10).

Type of school	Mean	Median	Number of students
With E-lab	10	10	369
Without E-lab	9	10	426
- No E-lab, program support	9	10	368
- No E-lab, no program support	9	10	58
Total	9	10	795

Figure 13 Scores on comparison of two numbers (max. score=10). All students in Grade 5.



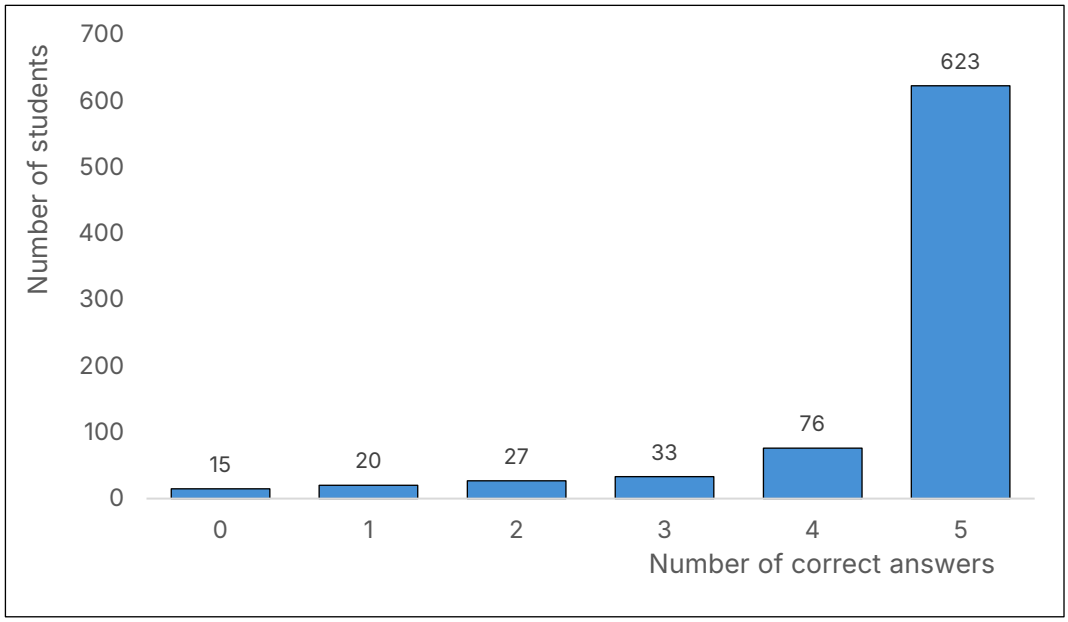
Comparison of multiple numbers

The third sub-task of the EGMA assessed comparison of multiple numbers. The students were presented five sets of four numbers lower than 100 and were asked to pick the highest number in each of the sets. The maximum score is 5. Again, the results are good (Table 24). The schools with E-lab perform slightly better (median and mean=5) than schools without E-lab (median= 5; mean= 4) but the difference is minimal. Seventy-nine percent of the 794 fifth graders who took the test responded correctly to all five questions (Figure 14).

Table 24 Comparison of multiple numbers (max. score=5).

Type of school	Mean	Median	Number of students
With E-lab	5	5	368
Without E-lab	4	5	426
- No E-lab, program support	4	5	368
- No E-lab, no program support	4	5	58
Total	5	5	794

Figure 14 Scores on comparison of multiple numbers (max. score=5). All students in Grade 5.



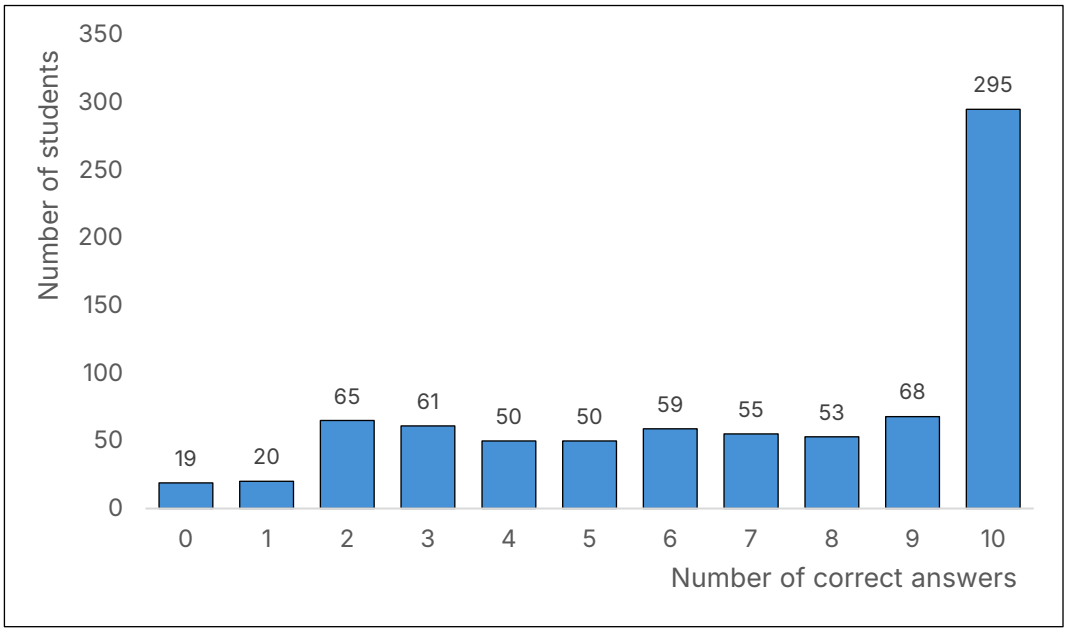
Identifying missing numbers

The fourth sub-task turned out to be slightly more difficult. The children were presented with a table with 10 rows. In each row, one 1 or 2-digit number was missing, and they were asked to identify the missing number. The maximum score is 10. This time, the median and mean figures for both types of schools were identical, but lower than the maximum score (Table 25). Just over one-third of the students (37 percent) achieved the maximum score (Figure 15).

Table 25 Number of correctly identified missing numbers (max. score=10).

Type of school	Mean	Median	Number of students
With E-lab	7	8	369
Without E-lab	7	8	426
- No E-lab, program support	7	7	368
- No E-lab, no program support	7	8	58
Total	7	8	795

Figure 15 Scores on identifying missing numbers (max. score=10). All students in Grade 5.



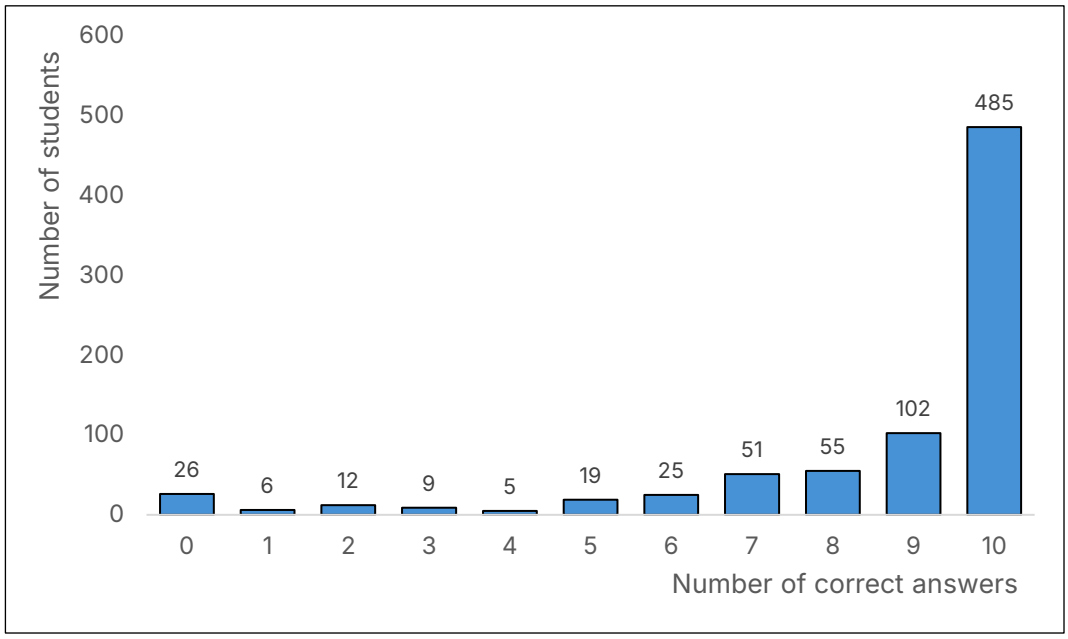
Addition

The fifth component of the EGMA assessment for children in Grade 5 comprised ten addition exercises, where the sum was 20 or lower. The Maximum score was 10. Once more, the result did not vary with school type (Table 26), and 61 percent of the students scored the maximum (Figure 16).

Table 26 Addition (max. score=10).

Type of school	Mean	Median	Number of students
With E-lab	9	10	369
Without E-lab	9	10	426
- No E-lab, program support	9	10	368
- No E-lab, no program support	8	10	58
Total	9	10	795

Figure 16 Scores on additions (max. score=10). All students in Grade 5.



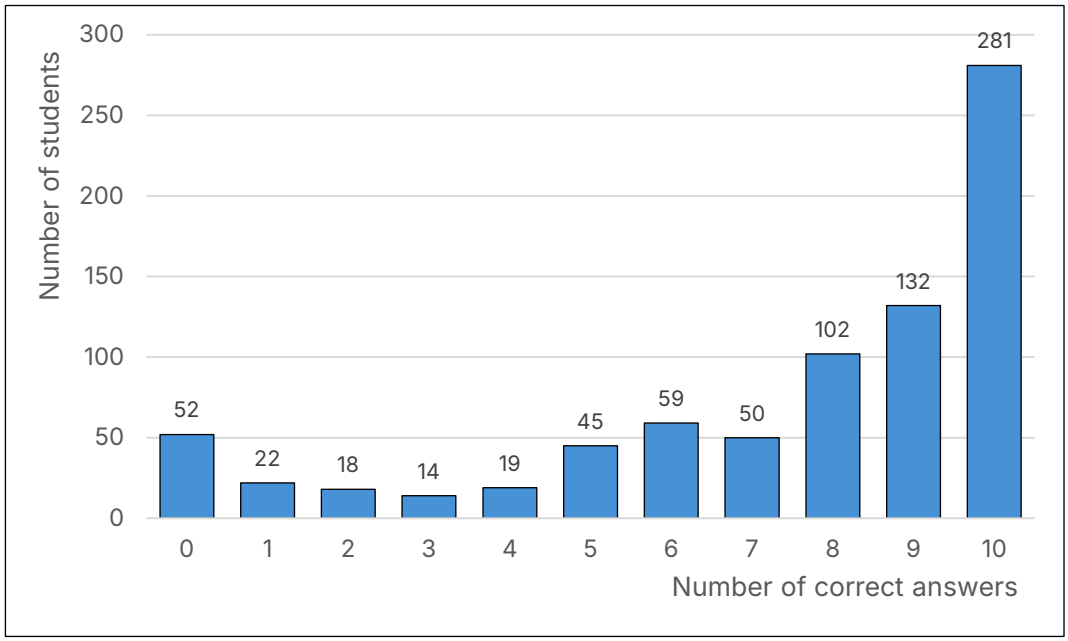
Subtraction

This exercise was designed as the previous one, except that it was about subtraction instead of addition. The maximum possible score is 10. Table 27 shows the result. While the performance was slightly weaker than for addition (35 percent reached the maximum), the difference between the two types of schools was small.

Table 27 Subtraction (max. score=10).

Type of school	Mean	Median	Number of students
With E-lab	8	9	369
Without E-lab	7	9	425
- No E-lab, program support	7	8	367
- No E-lab, no program support	7	9	58
Total	7	9	794

Figure 17 Scores on subtractions (max. score=10). All students in Grade 5.



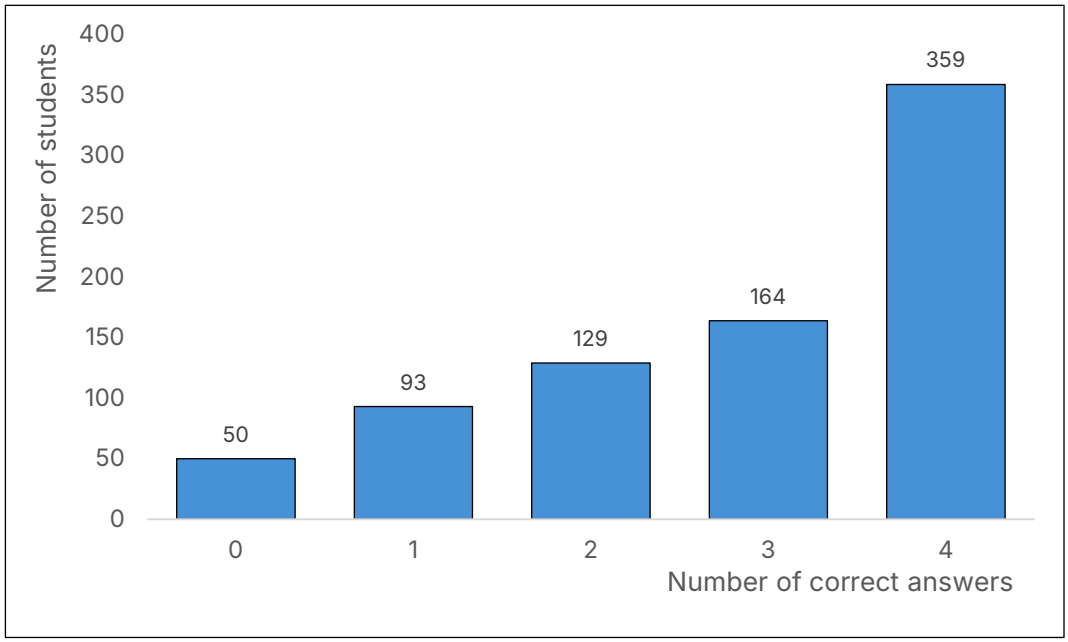
Text problems

The final component of the EGMA test for Grade 5 students assessed skills using text-based mathematical problems involving addition and subtraction, with numbers up to 30. There were four exercises, and the children could use up to one minute to complete each of them. As could be expected, this task proved to be more difficult. Yet the mean and median score for both kinds of schools were a decent 3 (Table 28). Forty-five per-cent achieved the maximum score of 4 (Figure 18).

Table 28 Number of correct responses on text problems (max. score=4).

Type of school	Mean	Median	Number of students
With E-lab	3	3	369
Without E-lab	3	3	426
- No E-lab, program support	3	3	368
- No E-lab, no program support	3	3	58
Total	3	3	795

Figure 18 Scores on text problems (max. score=4) All students in Grade 5.



Conclusion

As with EGMA test scores for third graders, the scores for fifth graders are rather good. Furthermore, like the EGMA results for third graders, there is no significant variation between schools with E-lab and those without E-lab. This is demonstrated by Table 29, which presents the mean and median values for the summarized EGMA score.

Table 29 Mean and median of total EGMA scores (max. score=74). All students in Grade 5.

Type of school	Mean	Median	Number of students
With E-lab	63	67	366
Without E-lab	62	66	420
- No E-lab, program support	61	66	368
- No E-lab, no program support	61	67	58
Total	62	67	786

The opinion of evaluators

Those who conducted the tests, the evaluators, were asked to assess the administration of the tests and the results upon concluding the tests. Their general conclusion was that the students performed better in math than in language. The evaluators found the students' math skills to be at an acceptable level for their age, while their language skills, particularly in French, were identified as an area for improvement. One evaluator noted the importance of reading by stating, "one cannot learn anything without knowing how to read," and another emphasized that "particular emphasis must be placed on reading because reading is the key to learning."