Leh Wi Lan
Sierra Leone Secondary Grade Learning Assessment 2019

Status of pupil learning outcomes in junior & senior secondary schools of Sierra Leone

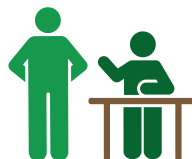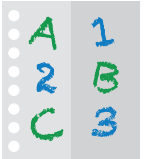**On the 20th of August 2019, Sierra Leone marked the first anniversary of the Free Quality School Education Programme (FQSE).** The past year has seen significant strides in ensuring all Sierra Leonean children have equal access to free quality school education. FQSE has led to more schools and teachers getting approved; improved learning environment through distribution of teaching and learning materials; better school and classroom infrastructure; review of service conditions for teachers; and measures against examination malpractice. Furthermore, by focussing on 'quality' in the FQSE, this ambitious programme is aiming to go beyond simply filling classrooms through increased enrolment. Ultimately, the FQSEP will succeed if children in all parts of Sierra Leone are learning useful skills, whether they are girls, boys, poor or rich.

The Secondary Grade Learning Assessments (SGLAs) play a pivotal role in informing MBSSE, districts and schools on the *quality* of teaching and learning in Sierra Leone. In 2017 and 2018, SGLAs measured English and mathematics skills of JSS2 and SSS2 students in Sierra Leonean schools. The results showed that most pupils only show basic primary-level English and maths skills despite completing eight (JSS2) to 11 (SSS2) years of formal education and passing various exams like the NPSE and BECE. Girls, poorer pupils and those in remote schools tended to do worse.[1] One explanation for why schools are not improving is that enrolment is increasing rapidly: on average, JSS were enrolling 10 per cent more students in 2017 compared to 2015, and SSS 30 per cent more students. Some schools may struggle to cope with the additional students while maintaining or improving quality. School census data for 2019 – which will provide a first glimpse of how much FQSE has increased enrolment – was not available at the time of writing this note. However, it can be hypothesised that the launch of a free universal basic education programme will push enrolment numbers up, with many newly enrolled pupils being first-generation learners, from disadvantaged families, who need closer attention from teachers in order to learn and thrive. This is in addition to historical shocks borne by these pupils back in 2014-15 (when they were at a formative stage of primary education) due to Ebola. These contextual factors should be borne in mind when reading the results discussed below.

With the third year of SGLA, this briefing note reports back on the status of pupil learning outcomes in junior and senior secondary schools by addressing three key questions:

- What are the English and maths skills typically demonstrated by JSS2 and SSS2 pupils? Are these skills in line with what the national curriculum expects from pupils in these grades?
- Are there any noteworthy differences in pupil learning levels vis-à-vis results from the 2018 SGLA survey?
- Are there noteworthy differences in pupil learning outcomes by gender and other background characteristics?

About the Secondary Grade Learning Assessment

5,400
JSS2 and SSS2 pupils tested on English and maths

One-on-one
test administration: each pupil is tested individually by a data collector using a handheld computer device

Approximately
45 minutes per pupil

40
questions per test covering both English and maths

Background
questions on pupils' age, language spoken at home, assets at home, and use of pupil handbooks.

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1   Interested readers can access the 2017 and 2018 SGLA reports on http://www.education.gov.sl/

What is the level of English and maths skills typically demonstrated by JSS2 and SSS2 pupils?

The SGLA III reiterates finding from previous years: pupil learning levels in secondary grades are generally low. There is a wide gap between pupils' actual skills and competencies compared to national curriculum expectations. Moreover, results this year suggest a drop in both maths and English scores compared to 2018, with a much bigger drop in maths scores.

For maths, as demonstrated in the figure below, 72 per cent of JSS2 pupils and 60 per cent of SSS2 pupils are performing at a level expected at P6 or below. These pupils have fallen behind by two and five grades respectively. There is, therefore, a larger proportion of pupils in the lowest band in maths compared to English. Only 3 per cent of JSS2 pupils were able to demonstrate skills expected from a pupil in JSS2. Even though a higher proportion of SSS2 pupils were placed in higher performance bands, most pupils had fallen behind by up to 5 years. In the test, only 6 per cent of SSS2 pupils were able to show skills expected from a student in JSS2 (i.e. fallen behind by three years) and none were able to show skills expected at their level.

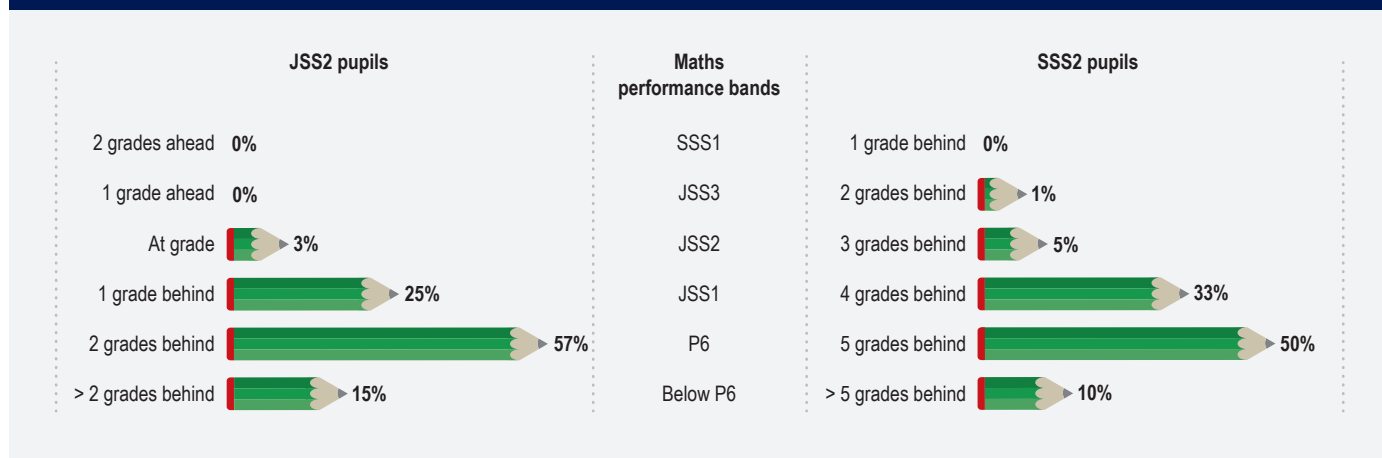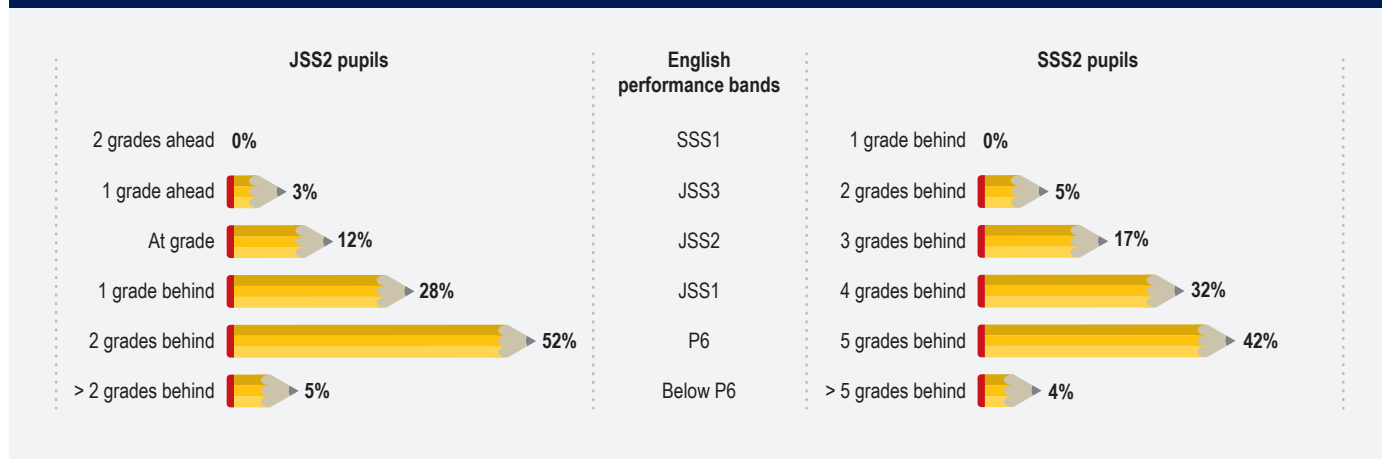**Figure 1: Distribution of JSS2 and SSS2 pupils across maths grade-level performance bands**

JSS2 pupils		Maths performance bands	SSS2 pupils	
2 grades ahead	0%	SSS1	1 grade behind	0%
1 grade ahead	0%	JSS3	2 grades behind	1%
At grade	3%	JSS2	3 grades behind	5%
1 grade behind	25%	JSS1	4 grades behind	33%
2 grades behind	57%	P6	5 grades behind	50%
> 2 grades behind	15%	Below P6	> 5 grades behind	10%

Figure 2: Distribution of JSS2 and SSS2 pupils across English grade-level performance bands

| JSS2 pupils		English performance bands	SSS2 pupils	
2 grades ahead	0%	SSS1	1 grade behind	0%
1 grade ahead	3%	JSS3	2 grades behind	5%
At grade	12%	JSS2	3 grades behind	17%
1 grade behind	28%	JSS1	4 grades behind	32%
2 grades behind	52%	P6	5 grades behind	42%
> 2 grades behind	5%	Below P6	> 5 grades behind	4%

For English, as demonstrated in the figure above, 57 per cent of JSS2 pupils and 46 per cent of SSS2 pupils are performing at a level that is expected from pupils in P6 or below. These pupils are unable to show skills expected at their level and have fallen behind curriculum expectations by 2 and 5 years respectively. Around 12 per cent of pupils were able to exhibit skills that are appropriate for their grade and 3 per cent of pupils demonstrated skills exceeding expectations. A higher proportion of SSS2 pupils were placed in higher performance bands. However, a majority of SSS pupils (54 per cent) are still falling behind by up to 4 years, with no SSS2 pupil exhibiting skills that are expected from pupils at an SSS level.

Are there any notable shifts in pupil performance since previous rounds of SGLA?

There is a significant drop in maths scores compared to last year. In previous years, maths scores had remained relatively stable with small improvement in lower bands. Indeed, we find a significant drop, with more pupils falling within lower performance bands (JSS1 or below), and consequently fewer pupils performing at grade or above (JSS2 or above). This is true across both JSS2 and SSS2 grade, but the drop is larger for JSS2. **For English, we see a continuation of decline in scores from what was observed in 2018.** More pupils now show skills expected at the P6 level or below, and therefore fewer in the higher performance bands. This is true for both JSS2 and SSS2 pupils. However, the drop in English scores is not as stark as the drop in maths scores.

Figure 3: Comparing pupil performance between SGLA II and III results
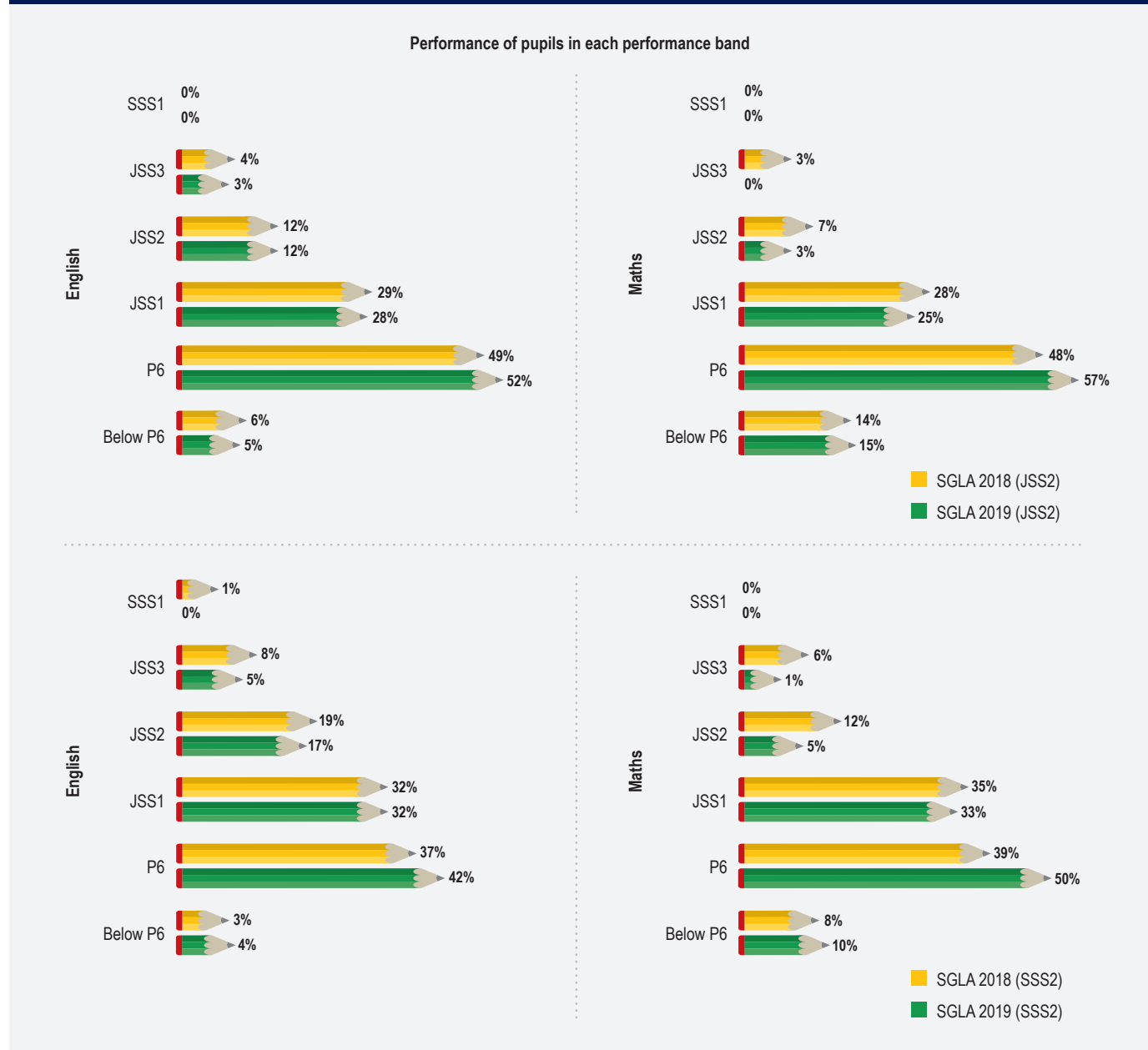
Comparing results for specific questions

It is useful to provide examples of questions where significantly fewer pupils gave correct answers in 2019 than they did in all previous rounds. For English, the example provided refers to questions testing pupils' ability to extract information from the given text. Similarly, for maths, the questions test the ability to use information from a figure. The figures below include the full text of the questions and the graphs show the percentage of pupils who answered these questions correctly.

There are considerable differences in percentage of pupils correctly answering questions on English and maths at the JSS and SSS levels. Performance has significantly declined in SGLA III from SGLA II across both levels and subjects.

Comparing results across SGLA II and III for specific English questions

Item 1:

According to its Facebook page, when is Jobsearch's next free training session? Write your answer here.

_____

Item 2:

Where do you go to get your free training? Write your answer here.

_____

Item 3:

What do you do if you want to take part in this training?

A. Call: +232 44 669199

B. Email: training@jobsearchsl.com

C. Email: training@jobsearchinsierraleone.com

D. Use the comment option under the light bulb

Comparing results across SGLA II and III for specific maths questions

The barplot shows the prices of some foods in June and December. For eggs, the price is the cost of one egg. For the other foods, the prices are the cost of one kilogram (kg) in Leones.

Use information in this barplot to answer the first question, fill in the blanks in the following three sentences and answer two questions.

Item 1:

The price of _____was about the same in both June and December.

Item 2:

_____are the only food that was more expensive in December.

Item 3:

A kilogram of_____is the food with the biggest change in price.

Figure 4: Notable differences in JSS2 pupil performance for specific questions

Percentage of pupils answering correctly

English

Item 1
- 60%
- 50%

Item 2
- 54%
- 33%

Item 3
- 61%
- 54%

Maths

Item 1
- 37%
- 34%

Item 2
- 53%
- 42%

Item 3
- 28%
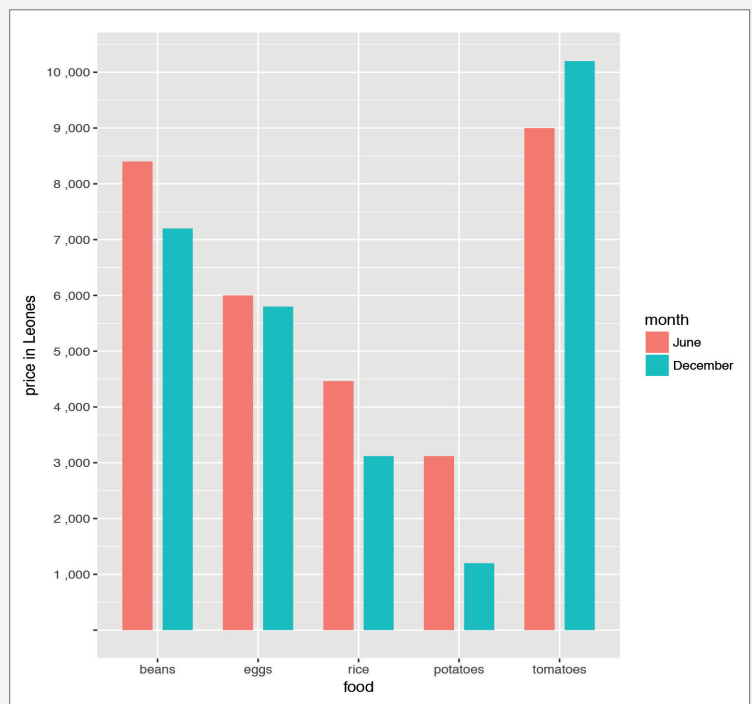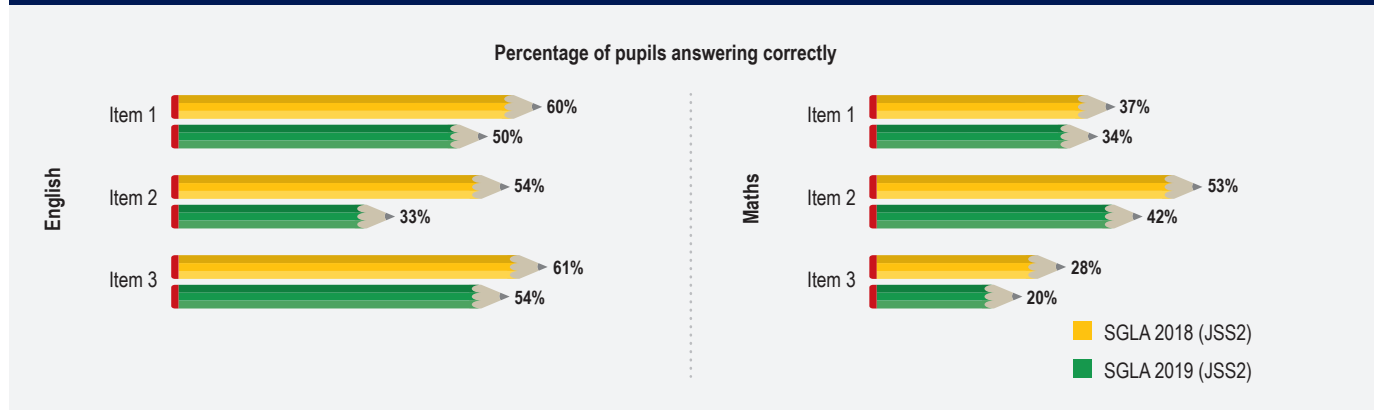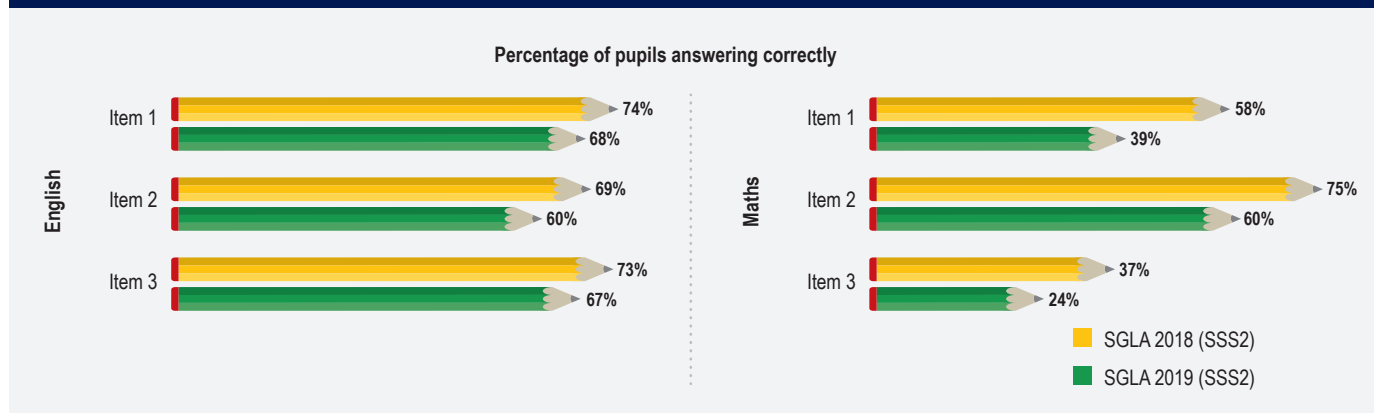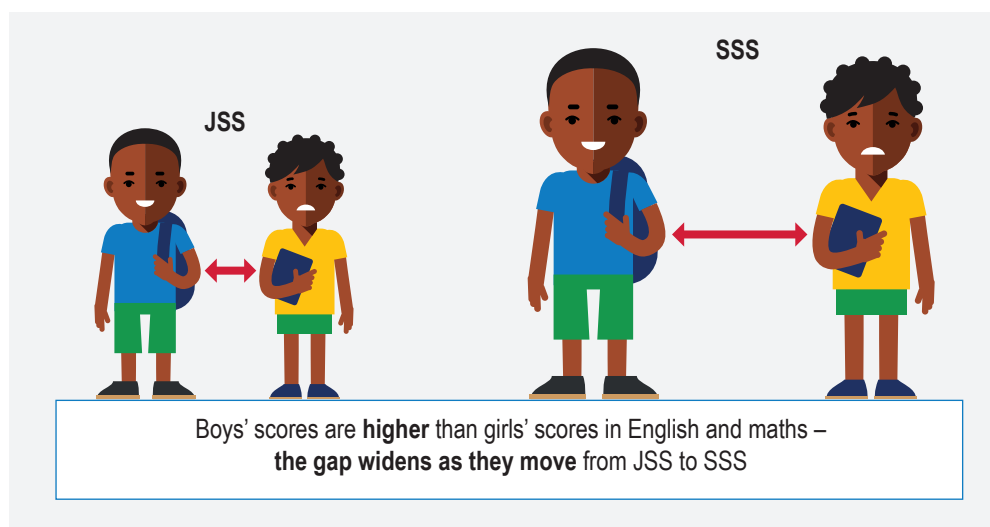- 20%

■ SGLA 2018 (JSS2)
■ SGLA 2019 (JSS2)

Figure 5: Notable differences in SSS2 pupil performance for specific questions

Percentage of pupils answering correctly

English

Item 1
- 74%
- 68%

Item 2
- 69%
- 60%

Item 3
- 73%
- 67%

Maths

Item 1
- 58%
- 39%

Item 2
- 75%
- 60%

Item 3
- 37%
- 24%

■ SGLA 2018 (SSS2)
■ SGLA 2019 (SSS2)

How does pupil learning vary by gender?

Across both JSS2 and SSS2, boys perform better than girls, on average. The gap between boys and girls also widens as they move from JSS2 to SSS2. Girls are more likely to be performing at P6 or below compared to boys for both maths and English. These results are similar to previous rounds of SGLA. Across all three years of the survey, there has b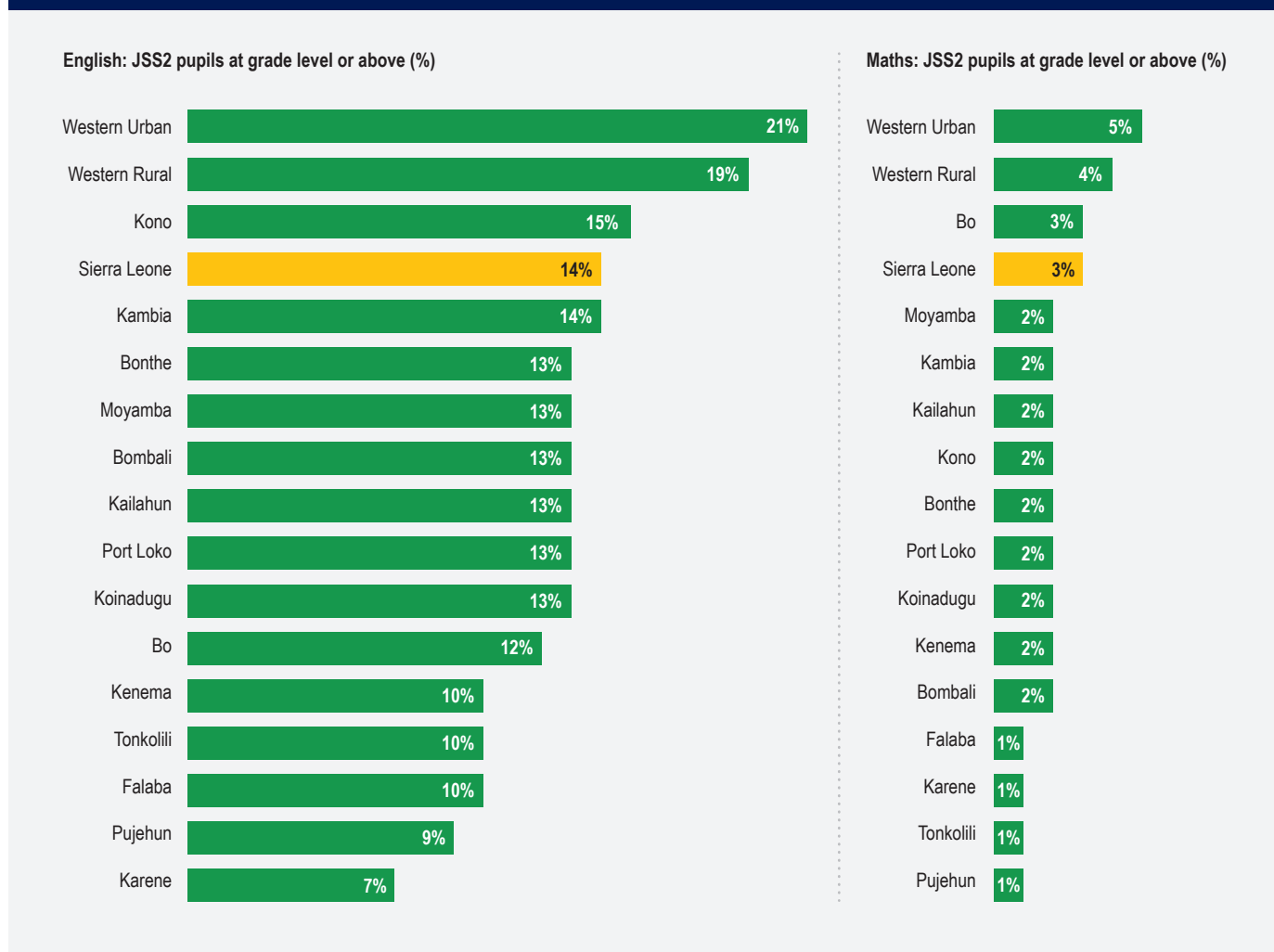een a very small percentage of female teachers in school. In addition to this, about half of the teachers interviewed reported that female students are absent during menstruation. Teachers also reported that girls face harassment on their way to and from the school; receive insults from teachers; and sexual harassment from male pupils and teachers. These factors could influence the performance of girls and could explain why they are lagging behind.

SSS

JSS

Boys' scores are **higher** than girls' scores in English and maths – **the gap widens as they move** from JSS to SSS

How does pupil learning vary across provinces and districts?

There are significant regional differences in pupils' performance – pupils in Western Urban and Western Rural districts continue to score significantly higher than the national average in both subjects. For instance, in JSS2 English, Western urban, Western rural and Kono districts all have higher proportions of JSS2 pupils performing "at grade" compared to the national average. Western region tends to have less pupils in the P6 or below bands and more in the bands associated with higher grades; this is true for both subjects but differences are less pronounced in maths.[2] As observed in previous years, Falaba, Pujehun, and Karene are falling behind with 10 per cent or less pupils performing at grade level or above. For maths, both districts of the Western region have more pupils performing at grade or above than the national average.

Figure 5: District disparities in pupil performance (JSS2 English and maths)

English: JSS2 pupils at grade level or above (%)

District	%
Western Urban	21%
Western Rural	19%
Kono	15%
Sierra Leone	14%
Kambia	14%
Bonthe	13%
Moyamba	13%
Bombali	13%
Kailahun	13%
Port Loko	13%
Koinadugu	13%
Bo	12%
Kenema	10%
Tonkolili	10%
Falaba	10%
Pujehun	9%
Karene	7%

Maths: JSS2 pupils at grade level or above (%)

| District	%
Western Urban	5%
Western Rural	4%
Bo	3%
Sierra Leone	3%
Moyamba	2%
Kambia	2%
Kailahun	2%
Kono	2%
Bonthe	2%
Port Loko	2%
Koinadugu	2%
Kenema	2%
Bombali	2%
Falaba	1%
Karene	1%
Tonkolili	1%
Pujehun	1%

When observing the differences in performance between boys and girls, it is worth mentioning that there exists a large variation across the country, and the picture is quite mixed. The performance gap between boys and girls at the JSS2 level is fairly muted for maths. However, we observe a slightly starker difference for English. In Moyamba, girls outperform boys as 16 per cent exhibit skills at grade level or above against 10 per cent of boys. However, in Koinadugu, Kailahun, Kenema, and Kambia, the gaps are larger with about 10 percentage points more boys performing at grade level or above compared to girls.

2   Readers can access detailed reports for each district in the SGLA III district factsheets.

Are pupils who are using Pupil Handbooks performing better?

Pupil Handbooks were introduced in government-owned and -assisted secondary schools across Sierra Leone in December 2018. These provide textual accompaniment to lessons in the classroom. The pupil handbooks contain overviews of content taught in class and exercises for pupils to complete. Almost 60 per cent of all targeted JSS and SSS pupils said they now use pupil handbooks, with more usage by JSS pupils (64 per cent) as compared to SSS pupils (47 per cent). MBSSE approved schools, at the JSS and SSS level, had much higher handbook uptake compared to unapproved schools.
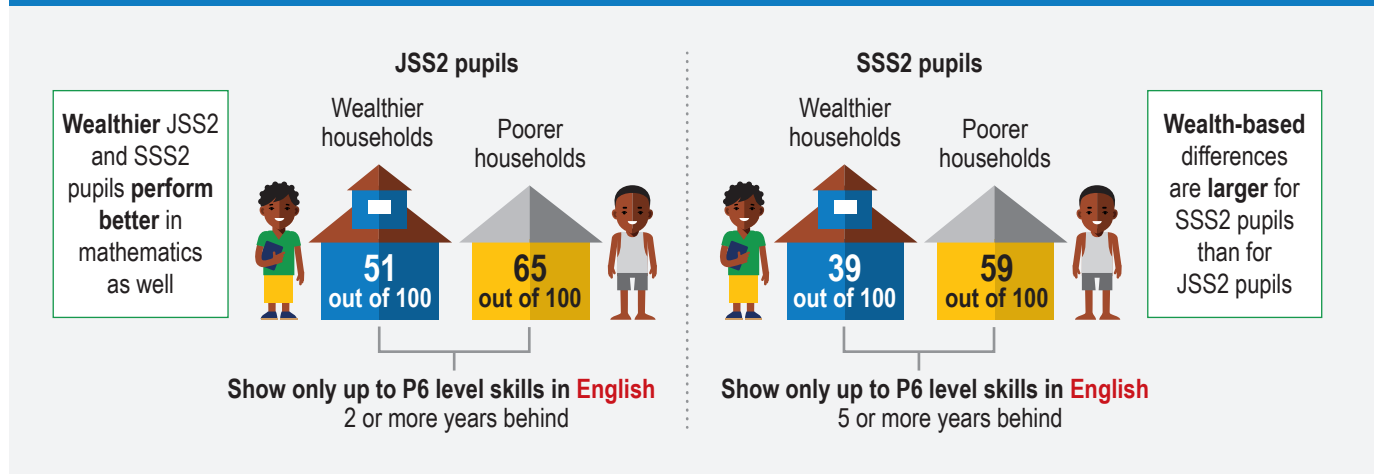
At the JSS level, 66 per cent of pupils studying in MBSSE approved schools reported the use of pupil handbooks compared to 37 per cent in unapproved schools. Pupils at both the JSS and SSS level reporting the use of handbooks were performing slightly better in the pupil test; however, this association does not imply causation. Pupils with disabilities find the handbooks more difficult to use than pupils who report not having any disabilities . Female pupils find the handbooks more difficult to use than male pupils . Pupils from schools which are more remote (further from district centres) also find the handbooks more difficult than pupils in less remote schools. Unsurprisingly, these findings point to the insight that the handbooks are more difficult to use for pupils who are already identified as falling behind. Confirming this assertion is the result that students who use textbooks are more likely to find using the handbook easier to use. Thus, the pupil handbook can be thought of as a resource that is being used widely, by those who receive it, but is most advantageous to those pupils who are not already struggling to keep up with the rest of their class.

64% of JSS
and **47%** of SSS pupils
use Pupil Handbooks
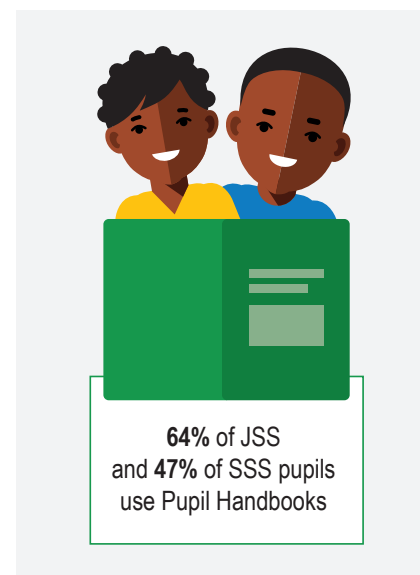
What is the relationship between pupils' test scores and family background?

Pupils' own family background is one of the biggest determinants of their learning level. Across both grades, pupils from the richest households (i.e. top 20 per cent pupils based on a household asset index) perform significantly better than pupils from the poorest 20 per cent of households.

Pupils from wealthier households perform better than pupils from poorer households

Wealthier JSS2 and SSS2 pupils **perform better** in mathematics as well

JSS2 pupils

Wealthier households — **51 out of 100**
Poorer households — **65 out of 100**

Show only up to P6 level skills in **English**
2 or more years behind

SSS2 pupils

Wealthier households — **39 out of 100**
Poorer households — **59 out of 100**

Show only up to P6 level skills in **English**
5 or more years behind

Wealth-based differences are **larger** for SSS2 pupils than for JSS2 pupils

Can school location predict pupil learning?

In both English and maths, there is a significant negative relationship between remoteness of school and pupils' performance. In other words, pupils' learning levels drop as we travel away from schools that are located near the district headquarter town, towards more remote schools.

In both English and maths, there is a **significant negative relationship** between **remoteness of school** and **pupils' performance**

Pupils from remote schools, across both JSS2 and SSS2 grades, are more likely to feature in the lower performance bands (P6 or below). This result is consistent with midline findings from 2018 and baseline findings from 2017. A number of factors could contribute to this relationship. For instance, this survey provides indicative evidence that schools farther away from district headquarter towns are generally not as well-managed as those near the district headquarter towns. More remote schools are significantly worse in terms of their learning environment and overall school management indices. In terms of administration and planning, schools near district capitals are the strongest. The survey finds that schools that are approved by MBSSE are, on average, located closer to the district headquarter (less remote) than unapproved schools.
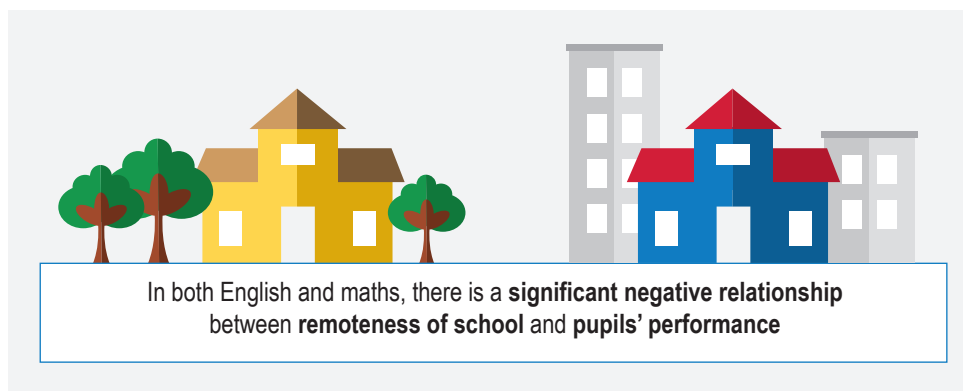
Concluding remarks

The main overarching observation from both rounds of SGLAs is that secondary grade learning levels in Sierra Leone are low. Large proportions of pupils do not demonstrate more than basic English and maths skills despite completing eight (JSS2) to 11 (SSS2) years of formal education and passing the NPSE and BECE. After observing a drop in pupil performance in English from 2017 to 2018, we continue to observe a further drop in both subjects this year, especially maths.

There is very little progression in pupils' learning outcomes as they move up the grades. Starting with a weak foundation in JSS, pupils are understandably unable to capitalise on previous knowledge and therefore progression in learning from JSS to SSS grades is minimal. Despite 8-11 years of schooling and having officially passed the NPSE, a large proportion of pupils in both grades are demonstrating no more than some very basic English and maths skills and will most likely find it very difficult to respond to the pace of the BECE or WASSCE curriculum which makes much more ambitious demands from its exam-takers.

Those who demonstrate some of the more demanding skills are more likely to be male pupils, from wealthier households, whose schools are less remotely located and are typically from the Western or Eastern regions, while those who perform lower on average are more likely to be female pupils, from less wealthy households and remote schools – a combination of these is likely to imply a multiple burden of disadvantage for the pupil.

About the project and contact details

For more details please contact: **Diana Ofori-Owusu at +232 76803741**

MOTT MACDONALD

Oxford Policy Management