Knowledge, evidence and research

The Knowledge, Evidence and Research (KER) component of the Girls’ Education South Sudan (GESS) programme aims to generate increased knowledge and evidence for policymakers of what works to promote girls’ education in South Sudan, about programmatic causality and impact, and to provide lessons learned to inform future programmes and other contexts. The KER develops an evidence base for the project interventions, linking inputs to outcomes and impacts, and gathers broader information about what works in girls’ education. The Programme gathers data continuously through the South Sudan School’s Attendance Monitoring System (SSSAMS), twice yearly through Longitudinal Qualitative Survey, yearly through School Sample Survey, and then has set piece Baseline (2014), Midline (2016), and Endline (2018) survey waves.

The Learning Assessments complement these by providing longitudinal quantitative evidence on what South Sudan’s learners can do in literacy and numeracy at Primary 5 (P5), Primary 8 (P8) and Secondary 2 (S2). Learning Assessments were designed to reach a wide cohort for better comparability of basic skills and to be feasible in a low resource environment where several thousand learners can be tested in a day. The assessments focused on upper Primary and Secondary, the initial focus of GESS, and gave comparisons to the South Sudanese curriculum, rather than international comparisons.

Methodology

Following input from the National Examination Council, Ministry of General Education & Instruction (MoGEI), through the Learning Assessment Technical sub-group, appropriate tests were developed based on the South Sudanese curriculum, with context-appropriate stories and texts by African writers.

Tests were multiple-choice questions with increasingly challenging ‘distractors’, i.e. ‘wrong’ answers, to allow a better understanding of what was and wasn’t achievable by learners at each level. There are six Learning Assessments in total that were designed to identify learners’ understanding of literacy and numeracy at the P5, P8, and S2 grade levels. Each assessment was arranged in two configurations to improve exam security, but for comparability the question content remained identical to the Baseline and Midline assessments.

Schools were selected from a randomised sample across the accessible States at the time of testing, and every learner present that day in P5, P8 and/or S2 was expected to take the tests. Literacy and numeracy tests were administered in May and June 2018 at P5, P8 and S2 grades in a sample of 64 schools, including 44 Primary schools and 20 Secondary schools. This school sample included assessments from 10,266 learners of whom 4,701 were girls, and 5,565 were boys. Where possible, the assessments were repeated in the same schools visited for the Baseline. Due to inaccessibility, some schools from the Baseline and Midline could not be reselected, in these instances replacement schools were found for the Endline using randomised sampling. Learning Assessments were planned to be carried out in 66 schools, insecurity meant that the assessments could only be carried out in 64 schools.
The literacy and numeracy tests for Baseline (2014) and Midline (2016) took place at the same time of year while the Endline (2018) took place 3 months earlier. This time difference will have had a significant impact in the context of a nine month academic year; testing will have taken place after one third, rather than two thirds of the academic year, meaning that some children will not have been taught the full curriculum.

### Learning Assessment Objectives

The Endline Learning Assessment measures attainment of learners in numeracy and literacy across South Sudan, to give insight into the impact of GESS and other interventions.

### Key findings

Overall scores were similar between 2014 and 2016, however there was a drop in scores for both girls and boys in 2018. The continued conflict and uncertainties, the earlier assessment date, and numbers and make-up of learners may have contributed to the lower scores.

In 2014 girls made up 32% of the sample across 48 schools. In 2016 girls made up 40% of the sample across 59 schools, and by 2018 the percentage of girls had increased to 48% across 64 schools. These percentages correspond with the gender ratio in the schools surveyed, but not with total national enrolment growth (928,000 2014 to 1.7m 2018).

The proportion of girls taking assessments has increased across all ages. By 2018 the proportion of girls taking the assessments in S2 in 2018 had increased by 16 percentage points, from 24% to 40%. In P5 more girls sat the literacy and numeracy assessments than boys, this indicates the success of the GESS programme at improving female enrolment and attendance in South Sudan.

Tests were designed to compare a cohort of learners’ performance over time, not the performance of individual learners, schools or States. The assessments are summative (designed to test knowledge), rather than formative (designed to help teachers to address learning needs). Assessments were carried out for P5, P8 and at S2, selected because Cash Transfers commence at P5; P8 shows how learners are prepared for their leaving examinations and provides information at a halfway point; and S2 shows how learners are prepared for Secondary leaving examinations.

In 2014 only seven (former) States carried out the tests. In 2016 and 2018, despite security being certainly no better, tests took place across all ten (former) States. Scores across the original seven States showed a similar pattern to the overall picture, with a slightly smaller drop in 2018.

2014 results indicated a gender gap at all grade levels in both literacy and numeracy. At the Endline there is still a gender gap at each level, but the gap has narrowed in four of the six assessments. Scores increased from the Baseline in P5 numeracy and S2 numeracy. Scores increased from the Midline in S2 literacy and S2 numeracy.

Overall, average scores for girls decreased from 44.2% in 2014 to 42.1% in 2018 (having been 45.7% in 2016). This result is likely influenced by a number of factors. The assessments were carried out three months earlier in the school year than in 2014 and 2016\(^1\) - in a nine month school year this is a significant amount of additional learning time that Baseline and Midline learners received before carrying out their tests. 2018 has also seen significantly higher enrolment numbers. The learners sitting the assessments in 2014 and 2016 were therefore more likely to be from families who prioritised education. Finally, the difficult economic situation and continued insecurity in some regions may have proved distracting for learners and teachers.

### Numeracy scores decreased from Midline in P5 and P8, while increasing for S2.

The overall gap between boys and girls scores across the numeracy Learning Assessments is now 0.6% having been 2.1% at the Baseline. This indicates that the attainment gender gap has narrowed over the course of GESS for numeracy.

In 2016 there was a significant increase in girls’ scores at P5, however scores for both girls and boys dropped in 2018. However while in 2014 the girls’ scores were 6.1% lower than that of the boys, by 2018 their scores had evened out. For P8 the increase in girls’ scores in 2016 was not maintained in 2018 and girls’ scores fell behind that of the boys again. The gap between the girls’ scores and the boys’ scores narrowed to 0.3% in 2018 from 3.1% in 2014, although girls had scored higher than boys in 2016. S2 scores increased significantly from the Baseline and Midline although having achieved

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\(^1\) Research had to be carried out and analysed before the end of the Programme.
better results than boys in 2016, girls slipped behind boys again in 2018.

In P5 and P8 scores were highest for questions involving operations on integers. Questions with fractions scored much less highly. In S2 it was questions involving data interpretation and sequences were the most poorly answered.

**Literacy scores decreased from Baseline in all three assessed year groups however girls marginally narrowed the attainment gap from 3% to 2.6%.

At P5 there was a large gap of 5.7% between boys and girls scores at the Baseline, this decreased to 2.1% at the Endline. Since the Baseline scores have dropped by 10.3% for girls and 13.9% for boys. For P8 in 2014 girls’ scores were not significantly different from that of the boys, this gap widened in 2016 to 2% but narrowed in 2018 to 1.7%. The S2 scores for both girls and boys decreased significantly between 2014 and 2016, but sharply rose in 2018, although not quite to the 2014 level. It is not clear why this is the case but may reflect the fluctuations of a small sample size. The gap between the average girls’ scores dropped from approximately 3% in 2014 and 2016 to 1.9% in 2018.

**Conclusions & Recommendations**

- The five year period covered by these assessments was a time of great uncertainty in South Sudan; the learning assessments were designed in a different context; going forward, it would be preferable to test starting from mastery of basic literacy and numeracy skills.
- In 2014 and 2016 there were fewer learners in school, so these were in effect self-selected from families who were economically able to prioritise education for their families, particularly the girls. In 2018 a larger enrolment means newer learners may be slightly less committed and/or supported than those in 2014 and 2016 were by default, and this may be a factor in the lower scores seen. In 2018 the date for assessments was 3 months earlier than the assessments in 2014 and 2016, giving the learners 3 months less education before the test. The difficult economic situation in 2018 may also have caused distractions for teachers and families with learners spending less time in schools. Continued insecurity results in high levels of disrupted schooling due to displacement and this may also have contributed to the 2018 fall in scores. However, despite difficulties in 2018 in S2 numeracy scores rose above the level of the scores in 2014. The progress indicator for GESS was met in this assessment.
- GESS may have had a positive impact on narrowing the gap between girls and boys, particularly in P5. Numeracy and literacy results at S2 have increased significantly from 2016 however consolidated results for all years in both subjects shows that performance is down in 2018.

A large aspect of this could be down to the assessments being conducted three months earlier in the school year than previously – learners will not have had the same exposure to the curriculum as those in 2014 and 2016 did.

- A key focus for GESS, MoGEI and education partners should now be to support learners returning to Primary education after either a break of some years and/or with uneven foundational skills. Targeted remedial plans and materials should be put in place to support these learners as they rejoin education. As in many contexts, a balance needs to be reached between teaching to ensure mastery, and teaching to ‘cover the syllabus’ – the latter being, in practice, above the current capabilities of many learners.
- Reported enrolment has reached record highs each year that GESS has been operating reaching over 1.7 million in 2018, from 0.9 million in 2014. Evidence from GESS Difference in Difference analyses highlights the impact of GESS enrolment- and attendance-focused interventions. By contrast, the Learning Assessment shows less clear evidence of progress in learning: learner attainment is lower in many of the tests. This could be due to a number of reasons discussed above.

- Going forward, as access is broadened and in context of these results, it will be vital for GESS to check fundamental skills are being learnt, rather than starting to check at P5 against the curriculum. This approach would better protect from the assessment being impacted by the time of year it is conducted.

- There is a new curriculum in South Sudan with effect from 2018, and so GESS2 Learning Assessments would in any case need to be adapted to it if the current curriculum-based approach were to be sustained.

- More of a focus appears to be required on reading and interpreting informational text at all levels of literacy instruction. Classroom materials should expose learners to a range of different question types when interrogating texts. General vocabulary work in the classroom needs to be improved: the use of figurative language is one example.

- At Primary level numeracy, increased classroom time for studying the practical applications of mathematics and applying mathematical skills to real life situations would be likely to deliver results. For Secondary level numeracy more of a focus appears to be needed on interpreting data and spotting patterns.

- These improvements across numeracy and literacy can be led on the advice of MoGEI. GESS2 should include a focus on these fundamental skills in the assessments. Close collaboration with teacher training programmes will be important, to support improvement of the quality of literacy and numeracy teaching in South Sudan.

**Full reports will soon be available on our website:**

www.girlseducationsouthsudan.org
Girls’ Education South Sudan (GESS) is a programme that will transform the lives of a generation of children in South Sudan – especially girls – through education. South Sudan, the newest country in the world, has some of the lowest educational indicators, with education of girls being among the lowest. Very few girls who begin Primary education continue to Secondary school; in 2017, 138,578 girls started Primary school, but only 3,816 completed Secondary school. GESS is determined to change this, so that all girls can go to school, stay in school and achieve in school.

**AIM**

Girls’ Education South Sudan (GESS) is an initiative of the Ministry of General Education and Instruction (MoGEI), Government of the Republic of South Sudan, funded by UK aid from the UK government, and the Government of the Republic of South Sudan. In order to realise its strategic objectives of eliminating barriers to girls’ education and promoting gender equality throughout the education system, MoGEI is supported by a consortium, led by Cambridge Education, and including BBC Media Action, Charlie Goldsmith Associates and Winrock International.

The Programme began in April 2013, and will last until September 2018.

**MANAGEMENT**

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For additional information, contact:

- info@gess-southsudan.org
- Facebook: Girls’ Education South Sudan
- Twitter: @GirlsEdSS