



# RESEARCH BRIEF

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## LEARNING ASSESSMENT: Midline



### Knowledge, Evidence & 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 evidence about what may be scaleable and transferable to 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 Attendance Monitoring System (SSSAMS), twice yearly through LQS, yearly through school sample survey, and then has set piece Baseline (2014), Midline (2016), and Endline (2018) survey waves.



### Learning Assessment Objectives

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



### Methodology

Literacy and numeracy tests were administered in September and October 2016 at Primary 5, Primary 8 and Secondary 2 grades in a sample of 59 schools, including 38 primary schools and 21 secondary schools. This school sample included assessments from 10,042 pupils of whom 3,993 were girls, 5,297 were boys, and 752 had no gender listed. Where possible, the assessments were repeated in the same schools visited for the Baseline. Due to new conflicts in areas such as (former) Central Equatoria and Eastern Equatoria and related inaccessibility, some schools were reselected. For the Midline, assessment was also scaled up into Greater Upper Nile. New locations were randomly selected from the School Survey sample frame (based on the P5, P8 and S2 stratum).

There are 6 learning assessments in total that were designed to identify pupils' understanding of literacy and numeracy at the Primary 5, Primary 8, and Secondary 2 grade levels. For the Midline, the layout of the exam was changed into 2 configurations for each assessment to improve exam security, but the question content remained the same as the 2014 Baseline assessments for comparability.

The assessment is completed and overseen by trained State Anchor enumerators, at a set point in the school year (August/September). This consistent timing is important for year-on-year comparisons; the timeline was generally adhered to for the administration of both the Baseline and Midline learning assessments.

## Overall Results

In 2014, results indicated a significant gender gap at all grade levels in both literacy and numeracy. **While girls' scoring on the Midline learning assessments remains lower than that of their male counterparts at many grades, girls' scores increased between 2014 and 2016, which forms the basis for an overall positive programme effect.**

Overall, average scores decreased from 45.74% in 2014 to 44.70% in 2016. This result is likely influenced by selection effects of the Baseline, in which three States were excluded from the sample due to insecurity. Overall, average scores decreased from 45.74% in 2014 to 44.70% in 2016. This result is likely influenced by selection effects of the Baseline, in which Greater Upper Nile (GUN) States were excluded from the sample due to insecurity. As the insecurity in the Greater Upper Nile (GUN) States of South Sudan affected the education sector, it is reasonable to assume that average scores in 2014 would also have been affected had the GUN States been included in the overall sample. Equally, as the Midline scaled up to all ten (former) States, Midline results including GUN are marginally lower because of effect of conflict on schools there. Excluding GUN, average test scores rose.

**There was a pattern of generally stronger progress at upper primary (particularly girls' numeracy results) than secondary**

Out of all the grade levels, Primary 5 girls made the most significant gains in terms of test score increases. By 2016, Primary 5 girls had closed the gap with boys in terms of numeracy test scores. The largest overall effects are at the Primary 5 level: however, at Primary 8 also, girls' scores have increased greatly since 2014, to a level where they have almost surpassed boys' scores. This is consistent with the pattern of enrolment growth over the same period, which has been stronger at Primary 5 through Primary 8 levels than in the first four years of Secondary school.

**A difference-in-differences (DiD) estimate shows that there is a sizeable positive effect in terms of GESS interventions and, if each grade level and type is considered separately, 4 out of 6 tests show a positive and significant (at least marginally) effect. In the aggregate, the GESS "treatment" has had a positive effect in girls test scores relative to boys.**

Results appear to be largely driven by improvements - relative to boys - in girls' numeracy scores. Girls' average scores increased from an average of 44.2% to 45.7% while boys' average scores decreased from 46.7% in 2014 to 45.3% in 2016.

In terms of a Difference in Difference (DiD) estimate on average scores, there are **strong effects for numeracy**

**scores (at all grade levels), while weak or no effects were found among literacy scores.** Primary 5 is a (positive) exception with regard to literacy, but it fits the overall findings that the effects for literacy are weaker in every grade level when compared to numeracy. Average scores reflected these DiD results. This is consistent with the caution expressed at Baseline regarding literacy findings relative to numeracy.

### Difference in Difference (DiD):

DiD analysis looks at the difference in average outcome in a 'treatment group' before and after treatment against the difference in average outcome in a control group before and after treatment.

For the purposes of this Learning Assessment, girls have been deemed the treatment group, and boys the control. A DiD analysis by GESS intervention can be seen in the GESS Impact analysis.

## Numeracy Results

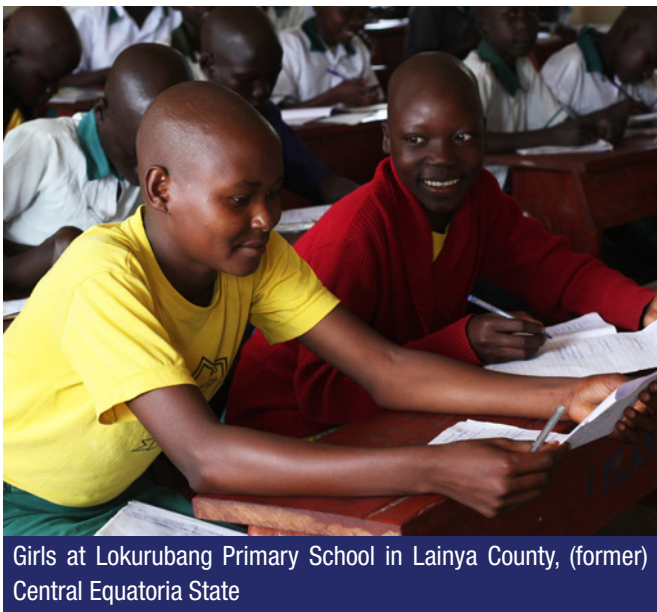
Overall, scores in the numeracy assessments are positive as compared to the Baseline. Across all grades tested, average scores in 2014 were 35.78%; and increased to 40.23% in 2016. In addition, a Difference in Difference analysis suggests a positive and statistically significant effect of the GESS programme in numeracy test scores across all grades. The numeracy scoring gains have been the most drastic among girls in Primary 5 and Primary 8 (with average scores of 48.6% and 43.4%, respectively) where girls closed the scoring gaps that existed in 2014.



## Literacy Results

While Primary 5 literacy scores showed a positive and slightly significant result as compared to the Baseline, other literacy results showed less clear evidence of effect of the programme. The overall trend shows that the effects for literacy are weaker in every grade level when compared to numeracy.

Across all grade groups, average scores of literacy assessments were 55.51% in 2014 and dropped to 49.06% in 2016. Girls' scores remained behind boys' and, in the case of Primary 8, the gap widened and, overall, the Difference in Difference analysis for literacy (across all grades) does not yet show a statistically significant effect of GESS.



Learning Assessment design and analysis by Forcier Consulting, building on earlier work by Education for Change, and working with MoGEI KER Sub-Committee.

Photo credit: Andreea Câmpeanu

## Conclusions and Recommendations

GESS has had a positive impact on attainment, particularly in girls' numeracy at primary level. The focus for GESS, MoGEI and education partners should now be on seeking opportunities to offer additional support to secondary level, in order to ensure that gains are increased, not lost as pupils move up through the school system.

### Addressing the need at secondary level

- Drop-out between primary and secondary is higher than between other year groups, and has an effect on learning outcomes. Supply is part of the problem, particularly for girls. Having access to a secondary school for every area (at least e.g. to the level of the old Counties) – including supporting the organic development of secondary departments at suitable primaries in areas where there is no secondary provision.
- Removing the economic barriers – e.g. GESS plans for 2017 to pivot Capitation Grants and Cash Transfers funding to support secondaries at a higher rate.
- Making the transition to secondary easier – all the way through schools, better links between primaries and secondaries.
- Cost-effective options to improve quality in secondaries: for example:
  - Ensuring a complete set of textbooks for each pupil.
  - Look into the feasibility of solar panels for all secondary schools.
  - Cost-effective Teacher Professional Development approaches.
  - Secondary schools as anchors/facilitators of quality networks of local primaries, to reduce attrition at this transition.
- Work with churches/faith networks, who are the major actors in secondary development, on access and quality, and build up collaboration between churches/faith networks, civil society and government.

### Literacy and numeracy

- Work with MoGEI to assess whether the emphases in curriculum may have resulted in positive gains in numeracy but not in literacy, and whether there is a read-across that can be made.
- Targeted focus on supporting literacy teaching.

### Analytical

- Include conflict-related variable(s) in the DiD model to account for external factor of conflict/insecurity – already in hand.
- Build in comparisons with SSSAMS enrolment and exams data in Learning Assessment structure.

**INSPIRE**

**EDUCATE**

**TRANSFORM**



## AIM

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 2016, 128,000 girls started primary school, but only 2,700 completed secondary school. GESS is determined to change this, so that all girls can go to school, stay in school and achieve in school.

## MANAGEMENT

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 BMB Mott MacDonald/Cambridge Education, and including BBC Media Action, Charlie Goldsmith Associates and Winrock International.

The programme began in 2013, and will last until 2018.