Project Evaluation Report

Report title:	Midline Evaluation Of the Rwandan Girls' Education Advancement Programme, implemented by Health Poverty Action Rwanda (HPA) and funded by the Girls' Education Challenge (GEC-T)
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Notes:

Some annexes listed in the contents page of this document have not been included because of challenges with capturing them as an A4 PDF document or because they are documents intended for programme purposes only. If you would like access to any of these annexes, please enquire about their availability by emailing uk_girls_education_challenge@pwc.com.

Girls' Education Challenge

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Midline Evaluation

Of the Rwandan Girls' Education Advancement Programme, implemented by Health Poverty Action Rwanda (HPA) and funded by the Girls' Education Challenge (GEC-T)

July 2019

Prepared by Andrés Navarrete-Berges and Tariq Omarshah from One South, LLC

This report was produced for the United Kingdom's Department for International Development (DFID) and summarizes the results of the midline evaluation of Rwandan Education Advancement Programme (REAP).). REAP was funded by the Girls' Education Challenge Transitions' fund (GEC-T).

The REAP programme is implemented by a consortia of non-governmental organizations (NGOs) composed of Health Poverty Action (HPA), the Adventist Development and Relief Agency International (ADRA), Link Community Development (LCD), and Future First Global (FFG).

This evaluation was carried out by Andrés O. Navarrete-Berges and Tariq Omarshah on behalf of One South, LLC, and facilitated by Oswald Rutayisire as an independent consultant in-country.

This evaluation tracks a cohort of girls, their households and schools in Nyaruguru, Rwanda. This midline evaluation Midline data collection took place in February 2019. Baseline data collection took place in December 2017.

The evaluation was supported by Riccardo Gavioli, Vincent Bayingana, and Maurice Nizeyimana from Health Poverty Action. However, the views represented in this report are those of the evaluators.

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1.1 List of Acronyms and Abbreviations

ADRA	Adventist Development and Relief Agency International	**MEL**	Monitoring, Evaluation and Learning
C	Control	**MINEDUC**	Ministry of Education
CBO	Community Based Organization	**NGO**	Non-Governmental Organization
CSO	Civil Society Organization	**OOS**	Out-of-school
CSG	Community Study Group	**OS**	One South
DCC	District Continuous Professional Development Committees	**PTA**	Parent-Teacher Association
DEO	District Education Officials	**REAP**	Rwandan Education Advancement Programme
DFID	UK Department for International Development	**SB**	School Business
DID	Difference-in-Difference	**SD**	Standard Deviation
EGRA	Early Grade Reading Assessment	**SDG**	Sustainable Development Goals
EGMA	Early Grade Mathematics Assessment	**SEGMA**	Secondary Grade Mathematics Assessment
ESP	Education Sector Plans (Rwanda)	**SEGRA**	Secondary Grade Reading Assessment
ESSP	Education Sector Strategic Plan (Rwanda)	**SEO**	Sector Education Officer
F	Female	**SGA**	School General Assembly
FFG	Future First Global	**SIP**	School Improvement Plan
GEC	Girls Education Challenge	**SMC**	School Management Committee
GEC-T	Girls' Education Challenge Transition Fund	**SSL**	School Subject Leaders
GBV	Gender-Based Violence	**STWT**	School-to-Work Training
HQ	HPA Headquarters	**T**	Treatment
HHS	Household Survey	**TVET**	Technical and Vocational Education and Training
HPA	Health Poverty Action	**UNESCO**	United Nations Educational, Scientific and Cultural Organization
IO	Intermediate Outcome	**UNICEF**	United Nations Children's Fund
IGA	Income Generating Association	**USAID**	United States Agency for International Development
LCD	Link Community Development	**VTI**	Vocational Training Institute
M	Male	**WASH**	Water, Sanitation and Hygiene
MDC	Mother-Daughter Clubs	**WR**	Work Readiness Training

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Executive Summary

Background to the REAP Project

Marginalized girls face several barriers to their educational attainment and transition in Nyaruguru, Rwanda. These include poor teaching quality, not speaking the language of instruction in upper primary and secondary schools, economic hardship, and low sexual and reproductive health, resulting in poor menstrual management and increased risk of teenage pregnancy.

In response to these barriers, and through funding from the UK Department for International Development's (DFID) Girls Education Challenge (GEC), Health Poverty Action (HPA), the Adventist Relief and Development Agency (ADRA), Link Community Development (LCD) and Future First Global (FFG) adopted a multi-sector, multi-partner approach to promote the learning and transitions of 6,959 marginalised girls across 28 schools. The project is running from April 2017 – March 2020.

The overall objective of the REAP programme is to improve the life chances of the marginalised girls targeted by REAP1 in 28 poor and rural schools in Nyaruguru, Rwanda. REAP 1 was the first phase of the project and ran from 2014 to 2017. At the outcome level the second phase of the project targets improvements in learning (literacy and numeracy) and in transition. The project expects these to be achieved through the following intermediate outcomes:

Improve the attendance of marginalised girls' in schools throughout the life of the project.

Improve the quality of teaching as perceived by parents and students, improvements in teachers' pedagogical practice as well as on the quality of curricula and teaching resources.

Improve the life skills of marginalized girls by building their capacity to save, demonstrate work readiness, and income-generating potential.

Improve the economic empowerment of marginalized girls and ensure the most vulnerable can off-set or cover the associated costs of attending school.

To evaluate the impact of the programme, the evaluation adopts a mixed-methods, hypothesis-driven quasi-experimental design. This method estimates the programme's "additionality" through a Differences-in-Differences technique defined as the difference in outcomes between project participants (treatment girls) and non-participants (control girls) over time.

To understand whether REAP is relevant to the contexts where it operates, the study examined whether the intervention addresses the barriers that most significantly affect educational outcomes and whether project targeting will reach the most marginalized sub-groups of children. This approach is in line with the ethos of the global sustainable development goal of ensuring inclusive and quality education for all, focusing particularly on

those who are most marginalized. The study will also assess if the theory of change is consistent with the outcomes it aims to achieve and the effectiveness of the design process.

Key Findings

Learning Outcome findings

- The project had a statistically significant impact on English literacy outcomes based on the difference in difference model. This is true for both the unadjusted model ($p<0.05$) and for the model accounting for cluster standardized errors and other controls at the 10% significance level ($p=0.065$). The project accounted for an improvement of 3.77% in English literacy aggregate score, on average, between baseline and midline.

- The project did not have an impact on Kinyarwanda literacy outcomes or numeracy outcomes between periods, at statistically significant levels ($p>0.05$).

- A review of barriers and characteristics highlights that the project was successful in supporting girls from households unable to meet basic needs without charity to improve their literacy between baseline and midline, and on reducing the negative effect of a high chore burden on learning in English literacy. No statistically significant relationships were found for these sub-groups on Kinyarwanda or numeracy, further suggesting the project needs to refocus activities on these outcomes, on the whole.

- The project was unable to support girls who have been pregnant to improve their English or Kinyarwanda literacy, on average, between periods. Having been pregnant had a negative effect on English and Kinyarwanda learning in the treatment group at statistically significant levels. Although numeracy levels for pregnant girls, on average, there were no statistically significant differences associated with pregnancy for numeracy outcomes.

- The project was unable to support girls who were originally out of school in learning. On average girls in this group regressed in English, Kinyarwanda and numeracy between baseline and midline.

Transition Outcome findings

To evaluate transition, two transition points were reviewed at midline. This is because two years had passed since the baseline and therefore there were two annualized transitions which could be assessed. The baseline study took place in December 2017 and the midline in February 2019. The academic year in Rwanda begins in January and ends in November. While the midline occurred (1) year and one (1) month after the baseline in absolute terms, transitions could be observed for two academic year periods namely 2018 and 2019.

- By 2018, there was a 1% increase in the proportion of girls successfully transitioning in treatment areas and a 7% decrease in control areas. While the intervention was 7% short in the proportion of girls expected to succeed at transitioning (8% increase target), the change was greater in treatment than in control areas by 6%.

- By 2019, 92% of girls from both treatment and control schools had successfully transitioned. This was 2% over than the agreed target of 90% (+8%). Girls in control areas improved 6% more relative to treatment. Considering tracked cases only, 90.4% of treatment cases successfully transitioned, compared to 90.5% of control cases.

- Results show that being in a treatment school does not significantly alter the odds of being classified as a successful or unsuccessful transition, neither from 2016 to 2017, nor from 2017 to 2018, or from 2018 to 2019. However, when only the tracked cohort is considered, 50% of girls eligible to transition into vocational opportunities did so.

- Results show that being in a treatment school does not significantly alter the odds of successfully or unsuccessfully transition from 2017 to 2018, or from 2018 to 2019.

- Many out-of-school girls interviewed regretted their decision of dropping out from school to pursue other activities, suggesting that enrolling back to school is their preferred transition pathway. When considering transition to TVET, one girl mentioned that they do not have identity cards, and many seem to think that these are required to enrol in TVET. The project has reported that these are not officially required and are easy to obtain. Girls should be given this information so they may formally enrol into TVET.

- It was more common for out of schoolgirls in the control group to be active at midline transition points than treatment OOS girls. In 2018, 25% of treatment OOS girls went back to secondary school and 53% of control OOS girls went back to either primary or secondary school. However, 75% of treatment OOS girls and 47% of control OOS girls remained inactive or in domestic activity. In 2019, 25% of treatment OOS girls were still secondary school though none were found to have completed vocational training or in employment.

- Girls more successfully progress to the next grade-level, transition to secondary school or complete vocational training opportunities as time passes. A very small number of girls transitioned into employment, whether paid or unpaid. There was also an overall decrease in the proportion of girls repeating a grade level, going from 11% to 6% in treatment schools, and from 12% to 4% in control schools.

- Binary logistic regressions suggest that age is not a predictor of repeating a grade level but being in an early grade does predict whether a girl repeats a grade. This suggests that girls in upper primary school are at a higher risk of repeating grade levels than girls in secondary school.

- The highest rates of drop-out occur in S3, S4 and S5. While the drop-out rate of the overall sample is approximately 1% (similar to the baseline benchmark rate of 2), the rate can increase up to 3 from S3 onwards.

- Of those that dropped out in 2018 (n= 18), 11% (17 in treatment and 8 in control) transitioned to vocational training options and the rest remained inactive. Of those that dropped out in 2019 (n=10), 30% transitioned to vocational training (25 in treatment and 33 in control) and 10% into paid employment (16 in control but none in treatment).

- So far, the dominant reasons of why girls drop out from school is their inability to cover the associated costs (materials or uniforms), as well as a lack of parental engagement. While the project aims to address barriers associated with economic hardship, fewer activities target parental engagement.

Sustainability Outcome findings

- The external evaluator scored the project's sustainability as 'emerging' (2). This indicates that there is evidence of improvements and support for these improvements, and that this support is extending. However, this is not universal and a critical mass of stakeholders at each level (community, school and system) do not yet have the capacity to deliver changes independently.

- According to project data, by midline, 61% of school businesses are operating at a profit compared to 45% that did so at baseline.

- According to project data, 89% of target teachers stated their intention to continue teaching using child-centred gender inclusive, responsive pedagogy after the project has ended.

- According to project data, at midline 100% of teachers are holding remedial learning sessions without direct financial transfers from REAP2.

- According to project data, 100% of saving groups are operational.

- At midline, 43% of marginalised girls have experienced reduced school costs / covered by other sources (ex. SB, MDC, scholarships).

- The project has reported that since the baseline, three REAP 2 approaches have been adopted by the government. The project's approach to School Improvement Planning (SIP) and School Performance Reviews has been adopted by the government. Additionally, the project is currently in process of integrating school business into district management and by the end of the project, the school businesses will be supervised by the district.

Project delivery of transformational change in GESI

- The project is actively seeking to transform inequalities in the long term for all children despite gender, disability or other characteristics and barriers. The project has recruited an inclusion specialist to evaluate the design of the project in terms of inclusion and are aiming to transform inequalities accordingly.

- The project had a positive impact on the English literacy and numeracy levels of girls with disabilities, based on additional difference in difference analyses conducted as part of this study. The project was able to account for an improvement of 29.2% on English literacy aggregate score and 0.118-point increase on Numeracy standardized score for girls with disabilities between baseline and midline. The project should continue to support lessons to adopt inclusive practices based on reports from teachers that they need more support engaging learners that have cognitive or intellectual disabilities.

Attendance

- The project exceeded its target average attendance level of 97% with girls in the treatment group attending school 97.16% of the time, on average. However, there was no visible relationship between reduced costs of schooling in the past year and increases in attendance, contradicting a core project assumption. The control group experienced similar aggregate attendance improvements between periods. Project staff explained that these improvements could be due to a new government campaign focused on attendance.

- Due to the high aggregate attendance scores to begin with and the little variance in attendance data, it is difficult to observe project influenced changes in attendance at the aggregate level.

- A review of relevant barriers affecting attendance highlighted that the project may have had a role in mitigating the negative effects of a high chore burden on attendance, and on the negative effect not feeling safe in school has on attendance.

Teaching Quality

- The project had a statistically significant impact on each of the three dimensions of teaching quality (cognitive activation, supportive climate, and classroom management) based on a series of DiD models conducted on each of these domains.
- Improvements in the extent to which lessons are interesting and engaging to girls' (cognitively activating) successfully predicted improvements in English oral reading fluency levels.
- A series of linear regressions also finds that supporting teachers to create a supportive climate, to manage their classes, and to make their lessons interesting and engaging, improves the extent to which girls feel confident participating in class.
- The project met its target (80%) for the proportion of girls who believe their teachers create a supportive climate (81.5% of girls). However, the project did not meet its target (80%) for the proportion of girls who believe their lessons are engaging (73.6%; target: 80%), and for the proportion of girls who believe their lessons are well managed (79.9%; target: 80%),).
- The project did not meet its targets (50% of lessons) for the adoption of gender-responsive teaching practices, with only 24.4% of lessons' adopting gender-responsive practices. Lessons observed in control schools were more gender-responsive and had adopted a wider array of best instructional practices, reviewed by the study. This included the use of lesson plans, summarizing learning outcomes at the beginning of a lesson, and providing space for reflection and discussion amongst children at the conclusion of the lesson.
- Although a majority of teachers report that themes covered in teacher training could be applied to their work (88.9%), and that the trainer was easy to understand (88.9%), a majority of teachers also report that the time for training was insufficient for the themes covered (80.8%) and that training was insufficient to prepare them to integrate new approaches into their lessons (69.2%). This could partially explain the lack of adoption of gender-responsive teaching and other improved instructional practices.

Life Skills

- 65% of girls in project areas interviewed can give an example of using newly gained life skills in the process of transitioning to STWT, TVET or WR.
- By midline 67% of REAP girls had high planning skills (compared to 57% at baseline and 17% above the target), 75% of girls had high interpersonal skills (compared to 48% at baseline and 13% above the target) and 74% had high self-esteem (compared to 52% at baseline and 8% above the target). Life skills targets were met and exceeded across the three dimensions studied.
- Schools are perceived by girls to be the places to obtain relevant skills.
- Parents play a key role in girls' transition pathways and in the development of their aspirations. When girls lack role models or support at home, they tend to feel that they have lower chances and cannot plan for the future.
- Boys have greater support from parents to transition into vocational training.
- Boys tend to aspire to leadership roles more than girls, based on reports from qualitative sessions.
- Sexual and Reproductive Health attitudes and behaviours are considered important by parents and girls to be able to complete school.

Economic Opportunities

- There are presently no girls receiving a regular income from a safe employer, and many out-of-school girls remained out of school. There is therefore room for improvement across this outcome for the project.

- 10% of target girls (out of school girls and upper secondary school girls) report having improved their livelihoods through securing jobs /income as a result of completing work readiness trainings, TVET curriculum and STWT

- Most out of school girls choose work-based tracks out of necessity, as the majority prefers going back to school.

- Perceived administrative hurdles, such as not having an identity card, prevents girls from enrolling into vocational training. The project should clarify these requirements with out of school girls to ensure they can access these transition pathways.

- Qualitative evidence suggests that boys may have more favourable employment opportunities and tend to be better supported by parents to transition into income generation activities than girls.

Conclusions

Evidence largely confirms the profile of the beneficiary targeted by REAP and the various barriers to learning and transitions addressed by intervention activities. Over 50% of the sample faces some form of hardship and 34% of heads of households have no formal education. Households are also likely to engage children in housework or income generation in parallel to school. Boys also tend to have higher literacy skills than girls and 6% of the

sample cannot speak the language of instruction (a reduction since baseline in both treatment and control areas).

The most prevalent barriers found by the study are addressed also by the intervention. These are: (1) Not being able to afford school-related costs; (2) Teenage pregnancy and poor sexual and reproductive health; (3) Not speaking LOI (prevalence reduced since basline) (4) Being too “embarrassed” to return to school; (5) Poor Teaching Quality and Use of Physical Punishment in schools, and (6) Lack of textbooks and school materials. The study also identified two additional barriers currently not addressed by the project:(1) Lack of parental support for girls to succeed in school and (2) students being hungry during school time -making it hard for them to focus whilst at school. In terms of key intersections, girls who are out of school have a higher chore burden and find it more difficult to attend school. Girls with disabilities tend to have less support than needed from parents and find it more difficult to afford schooling due to the associated cost of being disabled (e.g. assistive devices, transport, and medicines).

Although the project had a statistically significant impact on English literacy levels between baseline and midline, this was primarily driven by improvements experienced by in-school girls rather than out-of-school girls. Between grade levels, a review of performance against expected curriculum competencies demonstrates that teachers face difficulties delivering the English language curriculum in P5 and from S2 through S6. In P5 no girls meet the curriculum expectation of proficient competency in short passage reading or basic reading comprehension. P5 is the second year in which English is the language of instruction, and these poor results are likely due to the fact that children are not properly equipped to transition to an English medium environment by the end of P3. In S2, S3, S4, and S5 a minority of children meet the curriculum expectations for the written comprehension task. The project should review teacher training activities and assess the extent to which these areas are fully addressed, to ensure improvements can be sustained. On the whole, poor performance against expected curriculum competencies suggest that the Rwanda English language curriculum may not be closely aligned with current English literacy levels, and despite project impact on English literacy, the majority of children in these grade levels still fail to meet core expectations. There is likely a tension for teachers, between supporting children where they are, at their current English literacy levels, and bringing children to where they need to be, with regards to the curriculum. The project should further consider how best it can support teachers to navigate this.

The project did not have an impact on numeracy outcomes at statistically significant levels. Aggregate grade level results indicate that girls in the treatment group, on average, improved in numeracy between periods but that these improvements did not exceed changes experienced by the control group. Specific skills gaps were identified in girls’ ability to identify patterns (missing number) and solve word problems, despite these being relatively lower order skills which do not form part of expected curriculum competencies in target grade levels. The project should ensure remedial lessons and Community Study Groups are able to address these foundational skills gaps.

With regards to Kinyarwanda, on average, children regressed in Kinyarwanda literacy between periods. This is likely because Kinyarwanda not the language of instruction in any

target grade levels sampled at Midline and, despite being a taught subject, is less relevant to girls in these grade levels. This was true for both the control and treatment group. As Kinyarwanda is less relevant in these grade levels, the project should consider dropping it as the third learning outcome.

Binary logistic regression models show that that being in a treatment or control school did not significantly alter the chances of successful transition. However, both treatment and control cases improved their rates of transition between Baseline and Midline. This is likely the result of government wide efforts to improve the attendance and feeding of girls and boys in school. Regression analyses show that school feeding, in addition to self-esteem and planning skills lead to higher transition rates. Most girls in the sample chose the in-school transition pathway over work-based pathways, but we expect this latter pathway to become more popular as more girls become aware of the increased utility in expanding vocational skills. However, 75% of out-of-school girls are inactive or in domestic activity by midline, meaning this particular group should be targeted specifically between midline and endline. FGD and survey data showed that failed transitions are likely the result of not being able to afford the cost of schooling, illnesses, pregnancy and lack of parental support to stay and succeed in school. All these barriers (except parental support) are mitigated by REAP activities. The project may therefore seek ways to engage caregivers to improve the transition rates of its beneficiaries.

In FGDs, some girls mentioned that they were tempted to engage in sexual activities through gifts and favours, and then drop-out from school. While these instances have never been explicitly reported in schools, the project has created structures for girls to report these incidences such as Health Corners and through a project-appointed teacher at each school who acts as a child-safeguarding focal point and works closely with community-level structures.

In terms of the sustainability of these outcomes, the study found that mechanisms for sustainability are emerging in schools, with the majority of school business operating under profit and making investments towards girls' education (though more guidance and closer monitoring to unprofitable businesses is needed), and most teachers stating their intentions to continue teaching using child-centred gender-inclusive teaching. Teachers admit that more coaching and mentoring and possibly a refresher training could be organized to cover knowledge gaps left by the original training. At midline most tutors hold remedial lessons without direct financial transfers, though in FGDs, some teachers mentioned that incentives could be necessary in the long-term to compensate for an increased workload. In communities, all saving groups are operational but fewer girls are able to save between baseline and midline (which goes in accordance with the midline finding that hardship increased for most the sample between periods). Community Study Groups meet regularly though tutors have admitted that they need to engage extra tutors to accommodate for the needs of the larger groups. The sustainability of CSGs will therefore depend on ensuring CSG group sizes are manageable and on ensuring tutors have access to learning forums. Changes at the system-level are latent because SEOs and DEOs are expected to monitor the SIP process, the quality of instruction and potentially offer coaching and mentoring support though they are only preparing to do so by midline. Meetings have been organized and results shared with a number of stakeholders, which could materialise at endline into an actual use of REAP principles and practices.

With regards to attendance, the project had little role in improving attendance outcomes between periods. However, attendance levels were already high to begin with. Regression analyses find that improved attendance leads to more successful transitions, indicating that that attending school is necessary to pass the grade. Additionally, attendance was a predictor of English aggregate literacy outcomes at Midline, suggesting tha the more girls attend school, the higher their English literacy proficiency levels. On the whole these findings indicate that the project is correctly improving attendance outcomes as they lead to both improvements in learning and transition. With regards to the quality of instruction, the project had an influence on the three teaching quality dimensions reviewed, from the perspective of girls, namely, the extent to which girls feel their learning climate is supportive, the extent to which teachers are able to manage their lessons, and the extent to which lessons are interesting and engaging. Regression results suggest that improvements in the extent to which girls find lessons interesting and engaging led to improvements in English oral reading fluency. Furthermore, improvements in all three domains were shown to improve the extent to which girls feel confident participating in class. This suggests that these improvements will encourage girls to more actively participate in their lessons.

The project's impact on transitions was inconclusive. While improvements in the rates of transition existed between baseline and midline, these were not very different to rates of transition in control. The preferred transition pathway remains to be in-school, even for out-of-school girls who usually regret having dropped out from school. The project seems to be tackling the main barriers to transitions, which stem from lack of income to cover school costs. The emphasis on the project on SRH skills is also well placed. However, parents were found to be important facilitating agents in a girl's transition, and they are not currently being targeted by the project. Future versions of REAP should further consider how to engage parents more effectively.

Life skills targets were met and exceeded across the three dimensions studied. 67% of REAP girls have high self-esteem (8% above target), 75% have high planning skills (17% above target) and 74% have high interpersonal skills (13% above target). Girls who transitioned into TVET are motivated to keep on learning vocational skills as they are perceived as productive. Out-of-school girls also mentioned that they would use their skills to generate their own incomes and “buy many things for myself”, but they are yet to enrol into vocational training. However, it is uncertain for them if this would lead them to success in the long term because they lack information on how to obtain employment or turn their vocation into an income generating activity. Findings confirm the expectation that skills are interrelated though the relationship with learning outcomes and transitions is less clear. The project may therefore need to closely review the packages of skills that can strengthen core outcome objectives and consider targeting those with demonstrable evidence that can affect learning outcomes.

In terms of economic empowerment, none of the girls in the sample were generating their own income through employment and self-employment though various girls are looking to improve their skills to make this happen. Success will depend on their ability to find a safe and paid job or in their capacity to create their own business and sustain them. This will be reviewed further at Endline.

2 . Background to Project

2.1 Project Theory of Change and Beneficiaries

Marginalized girls face several barriers to their educational attainment and transition in Nyaruguru, Rwanda. These include poor teaching quality, not speaking the language of instruction in upper primary and secondary schools, economic hardship, and low sexual and reproductive health resulting in poor menstrual management and increased risk of teenage pregnancy.

In response to these barriers, and through funding from the UK Department for International Development's (DFID) Girls Education Challenge[1] (GEC), Health Poverty Action (HPA), the Adventist Relief and Development Agency (ADRA), Link Community Development (LCD) and Future First Global (FFG) adopted a multi-sector, multi-partner approach to promote the learning and transitions of 6,959 marginalised girls across 28 schools. The project is running from April 2017 – March 2020.

REAP2 targets marginalized girls across 28 schools in Nyaruguru District. The poorest performing schools in attendance and tests scores in Nyaruguru were selected to participate in REAP 1. Intervention schools were selected in close cooperation with government stakeholders and other NGOs, seeking to provide services where other education interventions did not exist. Girls attending those schools are therefore assumed to experience one or multiple forms of marginalization.

The overall objective of the REAP programme is to improve *the life chances of the marginalised girls targeted by REAP1 in 28 poor and rural schools in Nyaruguru, Rwanda*. REAP 1 was the first phase of the project and ran from 2014 to 2017.

At the outcome level the second phase of the project targets improvements in learning (literacy and numeracy) and in transition. The project expects these to be achieved through the following intermediate outcomes:

1. Improve the *attendance* of marginalised girls' in schools throughout the life of the project.
2. Improve the *quality of teaching* as perceived by parents and students, improvements in teachers' pedagogical practice as well as on the quality of curricula and teaching resources[2].
3. Improve the *life skills* of marginalized girls by building their capacity to save, demonstrate work readiness, and income-generating potential.

[1] For more information about the Girls' Education Challenge, please visit: https://www.gov.uk/international-development-funding/girls-education-challenge

[2] Due to the timing of the baseline study, this study presently excludes classroom observations.

4. Improve the *economic empowerment* of marginalized girls and ensure the most vulnerable can off-set or cover the associated costs of attending school.

To evaluate the impact of the programme, the evaluation adopts a mixed-methods, hypothesis-driven quasi-experimental design. This method estimates the programme's "additionality" through a Differences-in-Differences technique defined as the difference in outcomes between project participants (treatment girls) and non-participants (control girls) over time. It follows the midline phase of data collection (February 2019), continuation of a longitudinal study whose baseline was carried out one year and one month before, in December 2017.

For this study, two midline points were observed since the baseline. This is because the baseline study took place in December 2017 and the midline in February 2019 and the academic year in Rwanda begins in January and ends in November. While the midline occurred (1) year and one (1) month after the baseline in absolute terms, transitions could be observed for three academic year periods (2017, 2018 and 2019). See below:

Table 1 Beneficiaries' Grades and Ages

Baseline Grade (November 2017)	Midline Point 1 (November 2018)	Midline Point 2 (February 2019)	Endline (February 2020)
Grades			
Primary P4	P5	P6	S1
P5	P6	S1	S2
P6	S1	S2	S3
Secondary S1	S2	S3	S4
S2	S3	S4	S5
S3	S4	S5	S6
S3	TVET or Work	TVET, or Work	TVET, or Work
S4	S5	S6	TVET, Work, or University
Out-of-school	School (any grade), TVET or Work	School (any grade), TVET or Work	School (any grade), TVET or Work
Ages			
7-8	7-9	8-10	9-11
9-12	9-13	10-14	11-15
13-15	14-16	15-17	16-18
16-17	17-18	18-19	19-20
18-20	19-20	20+	20+
20+	20+	20+	20+

The project specifically targets an overall of 7,975 girls[3] in upper primary or secondary school, with the following sub-group characteristics:

1. *7,656 (96%)[4] are* In-*school girls* will be supported through key transition points from primary school to secondary school, from lower to upper secondary school, and from

[3] Navarrete-Berges, A. & Omarshah, T. (2017) *REAP GEC-T Baseline Report* (unpublished).

[4] Op cit., **Error! Bookmark not defined.**.

secondary school to TVET / tertiary / employment / or profit-making income generation activities[5].

2. *293 (4%)[6] Out- of-school (OOS)* girls will be supported into primary or secondary school or into TVET, employment or livelihoods based on the girls' own preferences and constraints[7]. REAP2 works with the same out-of-school girls who did not wish to return to school at the REAP1 project's conclusion. The transition and learning of girls will be supported from early primary school through to secondary school, as well as to vocational training institutions, where relevant.

The project places special emphasis on reaching the most marginalised girls who are often out-of-school and need additional support to return to school or generate their own incomes. These girls are enrolled in remedial learning and economic resilience opportunities through the MDCs. The most marginalized are identified by communities through local community processes such as *Ubudehe*[8] or by MDC mothers whose work takes place in the communities surrounding project schools.

At midline, 45% of the sample is expected to suffer from moderate hardship and 12% from extreme hardship[9].

Through its activities, the project also aims to have an impact on:

1. 252 teachers trained by the project.
2. 4,545 (57%) **children living under low to extreme hardship** (irregular access to food, cash, medicine, and water).
3. *7,138* **boys** will be reached with educational improvements and community study groups and will therefore have improved learning[10].
4. 399 **children with a disability** (0.5%)[11] according to the standard cut-off of the Washington Group Consensus questionnaire. The prevalence of disabled populations across periods has diminished across time (from 3.1% at baseline to 0.5% at baseline), though the number of girls reporting to face '*some'* difficulties has increased from 7% at basline to 10% at midline. Having difficulties seeing or remembering things are the most prevalent forms of impairment.

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[5] HPA (2016) REAP GEC-T Project Proposal (unpublished).

[6] Op cit., **Error! Bookmark not defined.**.

[7] Op cit., 5.

[8] *Ubudehe* was reintroduced into Rwandan life in 2001 and it is a cultural practice dating back to at least one century. Ubudehe refers to a community practice where members come together to solve problems of collective action within a community. It is a process whereby the community comes together to assess their current situation and decide on the ways to most effectively and efficiently promote participatory development, democracy, reconciliation and unity.

[9] Hardship was assessed through a 4-item scale, with respondents being asked the items shown in Table 20. Responses were averaged to create a mean hardship score. Households with average scores of 3 or more (Many days / Most days) were categorized as facing extreme hardship. Households with average scores of 2 (A few days) or more, but less than 3 (Most days), were categorized as facing moderate hardship. C.f. Navarrete-Berges, A. & Omarshah, T. (2016) *REAP GEC Endline Study Report*, p.31.

[10] Op cit., 5.

[11] Op cit., **Error! Bookmark not defined.**. Figures are estimations obtained from REAP 1 Endline demographic statistics and school population data. See for reference, Navarrete-Berges, A. & Omarshah, T. (2016) *REAP GEC Endline Study Report*, p.31.

Table 2 Percentage Beneficiaries with an Impairment

Disability Group (Girls' Survey)		Midline				Baseline			
		Control		Treatment		Control		Treatment	
		N	%	N	%	N	%	N	%
Difficulty Group	*A lot of difficulty / cannot do at all*	3	.7%	2	.5%	19	4.1%	14	3.1%
	Some Difficulty	33	7.3%	39	10.2%	57	12.3%	31	6.9%
	No Difficulty	417	92.1%	342	89.3%	387	83.6%	403	90.0%
Difficulty seeing	*A lot of difficulty / cannot do at all*	8	1.8%	8	2.1%	3	0.7%	10	2.3%
	Some Difficulty	18	4.0%	24	6.3%	17	3.9%	4	0.9%
	No Difficulty	427	94.3%	350	91.6%	411	95.4%	418	96.8%
Difficulty hearing	*A lot of difficulty / cannot do at all*	6	1.3%	2	.5%	6	1.3%	2	0.5%
	Some Difficulty	3	.7%	1	.3%	6	1.3%	6	1.4%
	No Difficulty	444	98.0%	380	99.2%	444	97.4%	430	98.2%
Difficulty walking	*A lot of difficulty / cannot do at all*	6	1.3%	4	1.0%	5	1.1%	4	0.9%
	Some Difficulty	3	.7%	3	.8%	6	1.3%	3	0.7%
	No Difficulty	444	98.0%	376	98.2%	447	97.6%	437	98.4%
Difficulty remembering or concentrating	*A lot of difficulty / cannot do at all*	8	1.8%	3	.8%	6	1.3%	6	1.4%
	Some Difficulty	14	3.1%	18	4.7%	22	4.8%	19	4.3%
	No Difficulty	431	95.1%	361	94.5%	428	93.9%	415	94.3%
Difficulty with self-care	*A lot of difficulty / cannot do at all*	6	1.3%	2	.5%	3	0.7%	3	0.7%
	Some Difficulty	5	1.1%	2	.5%	14	3.1%	8	1.8%
	No Difficulty	442	97.6%	379	99.0%	429	96.2%	429	97.5%
Difficulty communicating	*A lot of difficulty / cannot do at all*	5	1.1%	3	.8%	1	0.2%	3	0.7%
	Some Difficulty	4	.9%	3	.8%	18	4.1%	3	0.7%
	No Difficulty	443	98.0%	377	98.4%	420	95.7%	433	98.6%

Section 1.2 and Annex 4 shows the prevalence of these and other sub-groups in the data. Treatment and control regions are compared, to see if there is a higher concentration of these sub-groups in in the area.

According to chi-square tests, the only difference between treatment and control areas is that a greater proportion of treatment areas have electricity compared to control areas. The prevalence of sub-groups is otherwise even between treatment and control areas, validating the parallel-trend assumption of the DID model.

Findings show that the prevalence of the groups in the sample have remained similar across time and matches project expectations. See Annex 4 for these and other disaggregations.

Midline significant results include:

- At baseline 3% of the sample was out-of-school, which changed to 6% of the sample. In control areas, this went up by 4%.
- 30% of the sample cannot meet basic ends without charity, and 42% finds it difficult to afford schooling.
- 0.5% of girls have some form of disability.
- 6% of girls do not speak the language of instruction.

- 1% is married or living with a man as if married, 2% has been pregnant, and 2.1% is a mother[12].
- 65% of head of households have no formal education or only some years of primary school but not completed.
- Only 25% come from female-headed households.
- 30% work for cash or kind, suggesting that girls work in parallel to school.

The table following displays the estimated beneficiary numbers based on project records: 6,959[13]. The tables following detail the composition of the tracked cohort at Midline and Baseline.

Table 3 **Midline Sample Composition (Stage at Midline 2019) Treatment and Control**

Stage	Control		Treatment		Total		Est. Beneficiary #[14]
	n	%	n	%	n	%	
P1	0	0.0%	0	0.0%	0	0.0%	**0**
P2	0	0.0%	0	0.0%	0	0.0%	**0**
P3	0	0.0%	0	0.0%	0	0.0%	**0**
P4	3	.7%	1	.3%	4	.5%	**18**
P5	16	3.5%	14	3.7%	30	3.6%	**254**
P6	93	20.5%	100	26.1%	193	23.1%	**1817**
S1	97	21.4%	83	21.7%	180	21.5%	**1508**
S2	102	22.5%	74	19.3%	176	21.0%	**1345**
S3	37	8.1%	31	8.1%	68	8.1%	**563**
S4	32	7.0%	28	7.3%	60	7.2%	**509**
S5	24	5.3%	19	5.0%	43	5.1%	**345**
S6	14	3.1%	13	3.4%	27	3.2%	**236**
Subtotal In-School Girls	**418**	**92.1%**	**363**	**94.8%**	**781**	**93.3%**	**6596**
Vocational Training	6	1.3%	2	.5%	8	1.0%	**36**
Employed (paid)	1	.2%	0	0.0%	1	.1%	**0**
Employed (unpaid)	0	0.0%	0	0.0%	0	0.0%	**0**
Subtotal TVET/Work	**7**	**1.5%**	**2**	**.5%**	**9**	**1.1%**	**36**
Inactive	7	1.5%	7	1.8%	14	1.7%	**127**
Nursing Child	2	.4%	2	.5%	4	.5%	**36**
Domestic Activity	20	4.4%	9	22.3%	29	3.5%	**164**
Subtotal Out-of-School	**29**	**6.4%**	**18**	**4.7%**	**47**	**5.6%**	**327**
Total	**454**	**100.0%**	**383**	**100.0%**	**837**	**100.0%**	**6959**

[12] While this is a low prevalence, having originally sampled in-school meant that girls who are pregnant and not school did not have an equal chance of being selected by the study and there is therefore a selection bias with this indicator. More accurate figures from SRH groups are obtained from household-sampling designs.

[13] HPA (2016) GEC-T REAP 2 MEL Plan p.59

[14] This is based on 6,959 estimated total reported at baseline and the % calculation in the treatment sample.

Table 4. Tracked Learning Sample at Baseline & Midline

Original Cohort Membership (Grade at Baseline Nov 2017)	Baseline Treatment N	Midline Treatment N	Baseline Control N	Midline Control N	Baseline Total N	Midline Total N	Baseline Sample Distribution (% from Total)	Midline Sample Distribution (% from Total)
Tracked Cohort								
OOS	17	7	27	14	44	21	5%	4%
P4	103	83	96	75	199	158	23%	27%
P5	103	65	93	70	196	135	23%	23%
P6	97	58	95	79	192	137	23%	23%
S1	28	24	35	27	63	51	7%	9%
S2	36	14	28	22	64	36	8%	6%
S3	36	14	33	26	69	40	8%	7%
S4	11	5	15	10	26	15	3%	3%
Total Sampled	**431**	**270**	**422**	**323**	**853**	**593**	**100%**	**100%**

Table 5 Sample by Age (Midline)

Age		Control		Treatment		Total	
		N	%	N	%	N	%
	10	0	0.0%	1	.3%	1	.2%
	11	7	2.2%	9	3.1%	16	2.7%
	12	19	6.1%	27	9.4%	46	7.6%
	13	35	11.1%	42	14.6%	77	12.8%
	14	48	15.3%	43	14.9%	91	15.1%
	15	53	16.9%	47	16.3%	100	16.6%
	16	51	16.2%	34	11.8%	85	14.1%
	17	28	8.9%	29	10.1%	57	9.5%
	18	27	8.6%	17	5.9%	44	7.3%
	19	17	5.4%	23	8.0%	40	6.6%
	20	8	2.5%	4	1.4%	12	2.0%
	21	8	2.5%	1	.3%	9	1.5%
	22	6	1.9%	6	2.1%	12	2.0%
	23	3	1.0%	3	1.0%	6	1.0%
	24	3	1.0%	1	.3%	4	.7%
	25	1	.3%	1	.3%	2	.3%
	All	314	100.0%	288	100.0%	602	100.0%

2.2 Project Context

2.2.1 Socio-Economic Context

Rwanda, with 12 million inhabitants[15] living in an area of 26,340 Km^2, is one of the smallest countries of the African mainland. More than 70% of the population of Rwanda live in rural areas and work mainly in agriculture, mining, or forestry. 41% of the population is aged between 0 and 14 and women are in the majority[16]. Rwanda ranks 158th in the Human Development Index[17] (of 189 ranked countries) and spends 5% of its GDP on education[18].

Nyaruguru district, where REAP is implemented, is in the Southern Province, hosts 3% of Rwanda's population[19] and is among the poorest districts in Rwanda[20]. In Nyaruguru, 81% of the population aged 16 and above work in agriculture[21].

In Nyaruguru, 71% of the population live in rural cluster settlements known as *Umudugudus (*50% of Rwanda lives in similar settlements)[22]*,* and 78% live in houses made of wood or mud (36% of Rwandan houses are made of similar materials)[23]. In Nyaruguru, only 3% of households have electricity (compared to 18% nationwide). 65% of the treatment sample and 72% of the control sample do not have electricity at home.

By midline, 27% of treatment sample cannot meet basic needs without charity (compared to 31% in control cases). 12% of the treatment households faces extreme hardship (that is, goes many or most days without food, cash, medicines or clean water - compared to 10% in control) and 45% of them face moderate hardship compared to 51% of control (going some days without them).

By 2019, there was a reduction in the number of caregivers who reported it was difficult to afford school. At baseline, 79% of caregivers reported it was difficult to afford schooling for their girl compared to 42% at midline. In control areas, a similar reduction occurred, going from 80% at baseline to 45% at midline.

Low income households are also more likely to have children working. Presently, 30% of the treatment girls work for cash or kind compared 34% of the control sample. Since the baseline, however, there was a reduction in the number of girls reporting spending half a day or more doing chores going from 32% at baseline to 14% at midline. In control areas, girls spending

[15]United Nations Population Division (2017) World Population Prospects.

[16]World Bank staff estimates based on age distributions of United Nations Population Division's World Population Prospects.

[17] HDI by UNDP

[18] Education Index

[19] National Institute of Statistics (2012) District Profile Nyaruguru [Available at: http://www.statistics.gov.rw/publication/phc-2012-district-profile-nyaruguru]

[20] Government Statistics, Nyaruguru's GDP-per capita.

[21] National Institute of Statistics of Rwanda (2011) EICV3 DISTRICT PROFILE Nyaruguru.

[22]National Institute of Statistics (2012) District Profile Nyaruguru [Available at: http://www.statistics.gov.rw/publication/phc-2012-district-profile-nyaruguru]

[23]Ibid.

half a day or more in chores went from 29% to 12%. 15% of girls in treatment areas and 17% of girls in control areas think that chores make it difficult to complete schoolwork.

10% of girls in treatment areas and 14% of those in control areas believe that she does not get the support she needs from family to stay and perform well in school. 31% of girls report that an adult at home does not help with homework. 32% of treatment caregivers have not been informed of their child's progress in school.

This may be, in part, due to low education in the household. Similar proportions across periods exist for households whose head has no formal education, with 34% at midline and 36% at baseline (treatment). Control households went from 37% to 40%. These differences are not significant according to chi-square tests.

2.2.2 Gender Context

Rwanda has been internationally recognized as a world leader in promoting women's empowerment. In the aftermath of the 1994 genocide, the Government undertook numerous reforms to address the political, social, legal and economic status of women. These included legal reforms that gave women property and inheritance rights. The constitution adopted in 2003, promotes gender equality, and outlaws any form of gender discrimination, going as far as enshrining the principle of equality within marriages[24].

While the country does not officially recognize child marriage[25], UNICEF reports that 8% of girls marry before reaching the age of 18 and the majority drop-out from school[26]. In Nyaruguru, only 1.7% of boys between the ages of 12-19 are married compared to 32.4% of girls of the same age[27].

Currently, the literacy rate of females aged 25-64 years is 63% compared to 72% of males suggesting that gender imposes additional barriers that affect educational outcomes. In rural Nyaruguru, 3.4% of active females aged 16 years and above are unemployed compared to 2.7% of males.

In terms of SHR groups, the sample did not capture many mothers, or pregnant girls and yet these are frequently mentioned in FGDs as reasons girls drop out from school. Currently, 2% of the sample has been pregnant and 2% are mothers (similar to control).

2.2.3 Education Context and Language of Instruction

Rwanda has a 6-3-3 formal education structure. Primary school has an official entry age of seven and a duration of six grades (from P1 to P6). Secondary school is divided into two cycles: lower secondary consists of grades 7 – 9 (from S1 to S3), and upper secondary consists of grades 10 – 12 (from S4 to S6). Lower secondary education is referred to as "tronc

[24]http://pdf.usaid.gov/pdf_docs/pnadz185.pdf

[25]Child marriage reference.

[26]UNICEF, State of the World's Children, 2016

[27]National Institute of Statistics (2012) District Profile Nyaruguru [Available at: http://www.statistics.gov.rw/publication/phc-2012-district-profile-nyaruguru]

commun" or "cycle d'orientation." In principle, school is free and primary school is compulsory through lower secondary. Students sit for the Certificat d Études Primaires at the end of P6, the Certificat de Fin de Tronc Commun at the end of S3, and the Diplôme de Fin des Études Secondaires at the end S6[28].Currently 20% of girls of the target grades of REAP do not progress onto secondary school because they do not pass the state achievement test[29]. Kinyarwanda continues to be taught in primary schools, and the other language of instruction was recently changed from French to English.

Girls are increasingly able to speak the language of instruction. By midline, there was a reduction in the proportion of girls who could not speak the language of instruction of school (according to caregivers), going from 24% at baseline to 6% at midline.

With the aim to make Rwandan graduates more competitive in and outside the East Africa region, the department of curriculum and pedagogical materials started to revise the old education curriculum in July 2013[30], a project that lasted for two years and resulted in the competence-based curriculum that came into force in February 2015[31]. Studies have demonstrated that the old curriculum lacked contents relevant to the expectations of the labour market, due to the dearth of transferrable skills such as problem-solving and critical thinking[32]. The competence-based curriculum aims to elevate learning by offering challenging and engaging learning experiences that demand deep-thinking instead of just rote memory[33]. According to the Rwanda Education Board (REB), the competences can be divided into two broad categories: basic and generic[34].

2.2.4 School and Classroom Context

REAP2 works with the same schools targeted in REAP1. These schools were selected in close collaboration with government stakeholders and other NGOs. Emphasis was placed on

[28] Education Policy and Data Centre: http://www.epdc.org/country/rwanda

[29]HPA (2013) GEC Application Form [unpublished]

[30]Mbarushimana, N., & Kuboja, J. M. (2016, Feb - April). A paradigm shift towards competence based curriculum: The Experience of Rwanda. *Saudi Journal of Business and Management Studies, 1*(1), 6 - 17.

[31]Republic of Rwanda. (2015, April 23). *Rwanda unveils competence-based curriculum to guarantee a better quality of education*. Retrieved July 3, 2017, from http://www.gov.rw/news_detail/?tx_ttnews%5Btt_news%5D=1162&cHash=2eb4ec079e9cef10a276c58b67074406

[32]NewTimes. (2015). *Rwanda Education Board: New competence based curriculum is aligned to national development goals*. Retrieved July 03, 2017, from NewTimes: http://www.newtimes.co.rw/section/advertorial/744/

[33]Ngendahayo, E., & Askell-Williams, H. (2016). *Rwanda's New Competence-Based School Curriculum New Approaches to Assessing Student Learning Needed.* Publishing Higher Degree Research.

[34]Rwanda Education Board, Ministry of Education. (2015). *SUMMARY OF CURRICULUM FRAMEWORK PRE-PRIMARY TO UPPER SECONDARY 2015.*Basic: literacy, numeracy, ICT, citizenship and national identity, entrepreneurship and business development, science and technology, communication in the official language. Generic: critical thinking, creativity and innovation, research and problem solving, communication, cooperation and interpersonal relations and life skills, life-long learning. Literacy: Read a variety of texts accurately and fast. Express ideas, messages and events through writing legible texts in good hand-writing with correctly spelt words. Communicate ideas effectively through speaking using correct phonetics of words. Listen carefully for understanding and seeking clarification when necessary. Numeracy: Compute accurately using the four mathematical operations. Manipulate numbers, mathematical symbols, quantities, shapes and figures to accomplish a task involving calculations, measurements and estimations. Use numerical patterns and relations to solve problems related to everyday activities like commercial context and financial management. Interpret basic statistical data using tables, diagrams, charts and graphs.

selecting schools which were not receiving any other intervention, and which were particularly marginalized with regards to the access and attainment of girls.

Schools are in rural areas often resulting in increased travel time for students. On average 18% of parents in intervention areas report that the closest primary school is more than a 1 hour walk away. On average 42.3% of parents report that the closes secondary school is more than a 1 hour walk away. For 13% of treatment girls and 12% of control girls, it takes 1hr or more to get to school, suggesting that most children are able to reach school within one hour of walking distance.

The 28 project schools are spread across 7 sectors of Nyaruguru: Munini, Muganza, Rusenge, Ngera, Ngoma, Nyabimata, and Nyagisozi.

In almost all sectors mean student to teacher ratios in project schools exceeded wider sector means. Means across intervention sectors ranged from 62 students per teacher to 68 students per teacher.

In terms of school facilities, 11% of girls in treatment schools mentioned they do not have access to computers at school she cased compared to 17% of girls in control. 6% in both treatment and control think there are not enough seats for every student in class. 7% do not use the drinking water facilities at school (compared 10% of girls in control schools), 97% of girls reported to use the play areas at school.

Caregivers have generally good perceptions of how schools are managed. Only 1% of caregivers from treatment schools rated the teaching quality at school as poor, 3% think that the school is not well managed and 4% rate the performance of the HT as poor.

2.2.5 Education Policy & Governance Context

The Government of Rwanda is committed to providing universal basic education for all. This is a central component of the Rwanda's Vision 2020. The Constitution of Rwanda further asserts that, "every person has the right to education"[35].

In 2003 the Government of Rwanda issued the Education Sector Policy. The policy's mission is to "reduce poverty and in turn improve the well-being of the population. Within this context, the aim of education is to combat ignorance and illiteracy and to provide human resources useful for the socio-economic development of Rwanda through its educational system"[36].

The following general objectives were defined in the Education Sector Policy[37]:

1. To educate a free citizen who is liberated from all kinds of discrimination, including gender-based discrimination, exclusion and favouritism;

[35] Ibid, 29

[36] Rwanda Education Sector Policy (2003)

[37] Rwanda Education Sector Policy (2003)

2. To contribute to the promotion of a culture of peace and to emphasise Rwandese and universal values of justice, peace, tolerance, respect for human rights, gender equality, solidarity and democracy;

3. To dispense a holistic moral, intellectual, social, physical and professional education through the promotion of individual competencies and aptitudes in the service of national reconstruction and the sustainable development of the country;

4. To promote science and technology with special attention to ICT;

5. To develop in the Rwandese citizen an autonomy of thought, patriotic spirit, and a sense of civic pride, a love of work well done and global awareness;

6. To transform the Rwandese population into human capital for development through acquisition of development skills;

7. To eliminate all the causes and obstacles which can lead to disparity in education be it by gender, disability, geographical or social group;

At the national level there are two key actors responsible for realizing Rwanda's education sector objectives: the Ministry of Education (MINEDUC) who is tasked with developing policy, norms and standards for the education sector and undertaking planning, monitoring and evaluation activities at the national level, and the Rwanda Education Board tasked with providing quality education to all Rwandans and implementing national initiatives and coordinating other education sector actors under the supervision of MINEDUC.

To universal access to education, the Nine-Year Basic Education Policy was introduced in 2006, which expanded free and compulsory education from 6 years (P1-P6) to 9 years (P1-S3)[38]. This was expanded once more in 2011 with the Twelve-Year Basic Education Policy which ensured the provision of free 12-year basic education.

These initiatives resulted in dramatic increases in enrolment[39].The overall Gross Enrolment Ratio increased from 123.2% in 2012 to 138.5% in 2013, for example, with more girls being enrolled than boys[40]. Similar progress has been observed in secondary schools. The construction of secondary education establishments and classrooms served as the cornerstone of student enrolments at both lower and upper secondary levels[41], while the 9YBE program increased more equitable access to lower secondary education, which dramatically decreased dropout rates[42].

With a gross enrolment ratio of 133.5 (140.9 for Nyaruguru)[43], Rwanda sees a high portion of students enrolling late in primary school where multi-age classes are common[44]. The situation

[38]Ibid, 29

[39]MINEDUC. (2014). 2013 Education Statistics Yearbook. Kigali: Ministry of Education.

[40]

[41] See 23.

[42]MINEDUC. (2008). *Nine Years Basic Education.* Kigali: Ministry of Education .

[43]4th Rwanda Population and Housing Census, 2012(NISR)

[44]Gross enrolment ratio, 2014

changes in secondary school, where the enrolment ratio drops to 39.11 (36.5 in Nyaruguru)[45] demonstrating the significant number of dropouts when children reach secondary school. Schools also experience high fluctuations in student composition; while roughly 96% of students of school age are enrolled in primary school[46], Rwanda has one of the highest drop-out rates in the region, currently at a cumulative average of 65% (61% for females and 69% for males)[47]. In lower secondary school, 20% of boys and 25% of girls are enrolled compared to 20% and 22% respectively in upper secondary school.

At the national level the inclusion of women has been the hallmark of Rwandan's program for post-genocide reconstruction. Studies show that Rwanda has achieved the gender parity targets at the primary level earlier this century due to the implementation of policies and initiatives such as the Vision 2020, various National sensitization programmes, Girls' Education Policy and EFA action Plan etc. However, gender disparities persist, especially at public and private higher education institutions[48]. Subsequently, has also been a shift of focus from academic performance to transition rate of girls, which lags than that of the boys[49].

Increases in girls' enrolment are also due to increased emphasis on girls' education through national initiatives. The Girls' Education Task Force of the Ministry of Education (GETF), established in 2004 under the UNGEI framework, consists of MINEDUC, Ministry of Gender and Family Promotion, DFID, UNICEF, FAWE, National Women Council, National Youth Council and Pro-femmes. It has implemented the Girls' Education Action Plan: which included activities focused on adapting school curricula to focus on life skills, establishing minimum standards within the Child-Friendly Schools Framework, forming children's peer support groups by using participatory "Tuseme" clubs, and initiating 'catch-up' programmes to help vulnerable children and girls previously excluded from the school[50].

In 2013 Rwanda issued a revised Education Sector Strategic Plan. The plan sets policy strategies and objectives for the period between 2014 and 2018 and is up update to the ESSP issued in 2010. At its core the plan aims to "provide a planning framework that will enable the education sector to improve the provision of education, including skills development, in order to better meet the requirements of the diverse labour market, by increasing the coverage and the quality of 12YBE. In addition, to strengthening TVET and higher education provision, the plan also aims to improve pre-primary education, teacher education and adult literacy provision"[51]. The plan aims to reflect the strategies and objectives set out in 12 previous national policies:

- Girls Education Policy (2008)
- Higher Education Policy (2008)
- Quality Standards in Education (2008)

[45] 4th Rwanda Population and Housing Census, 2012(NISR)

[46] Adjusted net enrolment ratio

[47] Cumulative dropout rate

[48] See 30.

[49] Ministry of Education. (2013). *Education sector strategic plan 2013/14-2017/18.* Kigali.

[50] UNGEI. (2007). *United Nations Girls' Education Initiative: Regional Updates.* New York.

[51] ESSP 2013 available at https://ictedupolicy.org/system/files/education_sector_strategic_plan_2013_-_2018_small.pdf

- Special Needs Education Policy (2008)
- ICT in Education Policy (2008, and reviewed in 2014)
- Technical and Vocational Education and Training (TVET) Policy (2008)
- Teacher Development and Management Policy (revised 2011)
- Early Childhood Development Policy and Strategic Plan (2011)
- Youth and Adult Literacy Strategic Plan
- School Health Policy (in development)
- Policy on Teacher Incentives (in development)
- National Science, Technology and Innovation Policy (2005 and reviewed in 2014)

The plan therefore targets ten sector outcomes[52]:

1. Increased equitable access to 9 years of basic education for all children and expanding access to 12 years of basic education.
2. Increased equitable access to education for students with special educational needs within mainstream and special schools.
3. Improved quality and learning outcomes across primary and secondary education.
4. Qualified, suitably skilled and motivated teachers and trainers to meet demands of expanding education access.
5. Increased equitable access to relevant, high quality, demand driven TVET programmes.
6. Increased equitable access to affordable, relevant, academically excellent higher education that also delivers quality research outputs.
7. Improved access to school readiness programmes by 2018, accompanied by expanded access to three years of early learning for four to six-year olds.
8. Strengthened performance in science, technology and innovation at all levels of education, and application of science, technology and innovation in relevant sectors of the economy.
9. Increased access to Adult Basic Education to improve adult literacy and numeracy.
10. Improved administrative and management support services, including the management of policy, information, finances, and human resources across the education sector.

2.3 Key Evaluation Questions and Role of the Midline

The table following summarises the key programme-level evaluation questions relevant to the midline study. This phase will concentrate in outlining changes between both periods and drawing lessons for mid-life project adaptations. Findings from the study are obtained from a variety of quantitative and qualitative sources are used to answer these questions through the various section of the report.

Table 6. Key Evaluation Questions and Sub-questions of the Midline Evaluation

[52] ibid

Programme-Level Question	Sub-questions	Section in Midline Report
Was the GEC project successfully designed, implemented and GESI appropriate? **[Relevance]**	What are the characteristics of marginalised girls targeted by the project, and how have these changed between baseline and midline?	1
	What are the most significant barriers experienced by marginalised girls targeted by the project, and how have these changed between baseline and midline?	2
	How do barriers and characteristics determined by the project intersect and create new forms of marginalization?	2
	What implications do these results have on project activities? What is the project doing to "transform" gender and social inequalities? Is it working?	2
What impact did REAP have on improving the learning and transitions of marginalised girls? **[Impact]**	How have the learning outcomes of marginalised girls changed between baseline and midline?	3.1.1
	To what extent has the project contributed to improvements in the literacy and numeracy outcomes of marginalized girls?	3.1.1
	What literacy and numeracy skills gaps can be identified for marginalised girls?	3.1.2
	How do marginalised girls perform against expected curriculum competencies?	3.1.3
	How do barriers and characteristics influence marginalised girls' learning outcomes and learning improvements between baseline and midline?	3.2.1
	To what extent has the project supported different sub-groups of marginalised girls to improve their learning between Baseline and Midline?	3.2.1
	How have the transition rates of marginalised girls changed between baseline and Midline? Are transition pathways still relevant?	4.1.1
	To what extent has the project contributed to improving the transitions of marginalised girls?	4.3.1
	How do barriers and characteristics influence the transitions of marginalised between baseline and midline? What are the gender and social inequalities identified as per project design and quantitative and qualitative data?	4.3.3
	Which project features produces successes in transitions?	4.3.3
Sustainability	How did the project perform against sustainability targets at the school-, community- and system-levels? Are project	5.2.1-4

Programme-Level Question	Sub-questions	Section in Midline Report
How sustainable were the activities funded by the GEC and was the program successful in leveraging additional investment?	activities self-reliant? What lessons can be drawn?	
	What are the changes needed to enhance the project's sustainability?	5.2.5
What works to facilitate the learning and transition of marginalised girls?	How did the project perform against its intermediate outcome targets?	6.1.2
	What supported the project to meet these targets?	6.1.2
[Effectiveness]	What barriers inhibited intermediate outcome improvements?	6.1.3
	Are the selected indicators and targets appropriate?	6.1.4
	How do intermediate outcomes relate to outcome-level achievements in learning and transition?	6.1.5
What are the lessons learnt?	What can be recommended to the project to enhance its relevance, impact, sustainability or effectiveness?	7

Programme-Level Question	Sub-questions	Section in Midline Report
Relevance	What are the characteristics of marginalised girls targeted by the project, and how have these changed between baseline and midline?	1
Was the GEC project successfully designed, implemented and GESI appropriate?	What are the most significant barriers experienced by marginalised girls targeted by the project, and how have these changed between baseline and midline?	2
	How do barriers and characteristics determined by the project intersect and create new forms of marginalization?	2
	What implications do these results have on project activities? What is the project doing to "transform" gender and social inequalities? Is it working?	2
Impact	How have the learning outcomes of marginalised girls changed between baseline and midline?	3.1.1
	To what extent has the project contributed to improvements in the literacy and numeracy outcomes of marginalized girls?	3.1.1
	What literacy and numeracy skills gaps can be identified for marginalised girls?	3.1.2
	How do marginalised girls perform against expected curriculum competencies?	3.1.3
What impact did REAP have on improving the learning and transitions of marginalised girls?	How do barriers and characteristics influence marginalised girls' learning outcomes and learning improvements between baseline and midline?	3.2.1
	To what extent has the project supported different sub-groups of marginalised girls to improve their learning between Baseline and Midline?	3.2.1
	How have the transition rates of marginalised girls changed between baseline and Midline? Are transition pathways still relevant?	4.1.1
	To what extent has the project contributed to improving the transitions of marginalised girls?	4.3.1
	How do barriers and characteristics influence the transitions of marginalised between baseline and midline? What are the gender and social inequalities	4.3.3

Programme-Level Question	Sub-questions	Section in Midline Report
	identified as per project design and quantitative and qualitative data?	
	Which project features produces successes in transitions?	4.3.3
Sustainability ***How sustainable were the activities funded by the GEC and was the program successful in leveraging additional investment?***	How did the project perform against sustainability targets at the school-, community- and system-levels? Are project activities self-reliant? What lessons can be drawn?	5.2.1-4
	What are the changes needed to enhance the project's sustainability?	5.2.5
Effectiveness ***What works to facilitate the learning and transition of marginalised girls?***	How did the project perform against its intermediate outcome targets?	6.1-4
	What supported the project to meet these targets?	
	What barriers inhibited intermediate outcome improvements?	
	Are the selected indicators and targets appropriate?	
	How do intermediate outcomes relate to outcome-level achievements in learning and transition?	
Learning ***What are the lessons learnt?***	What can be recommended to the project to enhance its relevance, impact, sustainability or effectiveness?	7

3 . Context, Educational Marginalisation and Intersection between Barriers and Characteristics

This section aims to validate the Theory of Change. The evaluation process aims to understand which girls are educationally marginalised in this project context; the barriers to their learning and transition, and their experience of learning and transition. This section presents disaggregated results based on various characteristics or subgroups, enabling the project and the wider GEC programme to understand the results and challenges for marginalised girls in a more nuanced way.

To understand whether REAP is relevant to the contexts where it operates, the study will examine whether the intervention addresses the barriers that most significantly affect educational outcomes and whether project targeting will reach the most marginalized sub-groups of children. This approach is in line with the ethos of the global sustainable development goal of ensuring inclusive and quality education for all, focusing particularly on those who are most marginalized. The study will also assess if the theory of change is consistent with the outcomes it aims to achieve and the effectiveness of the design process.

Educational marginalization needs to be understood through girls' inherent **characteristics** as well as **barriers** preventing girls accessing and learning in school. Characteristics are understood as the fixed aspects and girls' identities and barriers are understood as the specific barriers preventing girls from accessing and learning in school at the home, school, and system level. Barriers and characteristics will be reported and discussed at all points of the

external evaluation. Emphasis has been placed on understanding these dimensions through both qualitative and quantitative methods. Educational marginalization can be understood as a form of acute and persistent disadvantage rooted in underlying social inequality[53].

This section discussed the main barriers to learning and transition outcomes as signalled by the project and the baseline report.

To measure the prevalence of barriers, we make use of the multiple surveys of the endline and calculate aggregate percentage proportions across periods of time. We use all the sample for both periods (as opposed to only tracked cases), because we want to gauge the prevalence of a phenomenon for the entire population of the treatment areas, not only for tracked cases. We also study if there are differences in the changes of the prevalence of these barriers between treatment and control samples, to reveal possible ways the intervention can be tailored to the specific contexts of the intervention.

The main barriers of the intervention as determined by the intervention in the proposal and found through baseline and midline, are summarised in the table and discussed below:

Table 7 Summary of Barriers to Learning and Transitions

Barrier	Description
Not being able to afford school-related costs	Most caregivers face moderate hardship and need financial support or a reduction in school-associated costs to be able to send their boys and girls to school.
Teenage pregnancy and poor sexual and reproductive health are barriers affecting the access and learning of girls in schools	Girls who are pregnant seldom return to school.
Not speaking LOI	Kinyarwanda is the official language of instruction up to P3, from then on it is English but many girls still do not speak it fluently.
Being too "embarrassed" to return to school	Girls who dropped out from school are embarrassed to return to school and have classmates of a younger age there.
Poor Teaching Quality and Use of Physical Punishment in schools	Classrooms are not very gender sensitive and physical punishment is still used in school.
Lack of textbooks and school materials:	Most teachers agree that there are not enough materials children can use to learn at school.
Lack of parental support for girls to succeed in school can lead to poor transitions:	About a third of the sample mentioned they do not get the support with homework or school from their caregivers.
Students could be hungry during school time and this makes it hard for them to focus:	Many students go to school hungry and teachers discussed challenges teaching children "with an empty belly".

1. **Not being able to afford school-related costs:**

[53] UNESCO (2009) Educational Marginalization in National Education Plans: definition available at: http://unesdoc.unesco.org/images/0018/001866/186608e.pdf

The Rwanda Education Policy 2013-2018 commits to basic primary education for all by 2015 and primary education is free of fees. However, economic hardship was the most prevalent barrier reported across sessions with project stakeholders, with several girls and parents citing the fact that poverty results in them not being able to afford school materials and other associated costs such as books or uniforms. Many could not transition to TVET or higher levels of education due to inability to pay the fees, and few scholarship opportunities exists currently. At baseline, parents and girls also reported stigma associated with poverty. This included teachers treating poor students differently, with girls reporting that boos and other materials were usually provided to wealthy girls, and parents reporting discrimination from peers of children who could not afford school uniforms or soap. Through MDCs, IGAs, school business, and active budgeting to support girls to enrol in school, the project aims to address this barrier.

Findings at midline show that parents are becoming more increasingly able to afford their child school (in both treatment and control areas) since the baseline, possibly as an overall decrease in their level of hardship. Additionally, by midline, there was a reduction in the number of caregivers who reported it was difficult to afford school. At baseline, 79% of caregivers reported it was difficult to afford schooling for their girl compared to 42% at midline. In control areas, a similar reduction occurred, going from 80% at baseline to 45% at midline.

In terms of changes of hardship experienced between baseline and midline 21% of caregivers in treatment areas had an increase in their hardship mean score (compared to 9% in control areas), 21% remained the same and 58% had a reduction in their hardship score (compared to 69% in control areas). This shows that hardship might be a barrier to school that has become more prevalent in treatment when compared to control areas.

Table 8 Changes in the Level of Hardship between Midline and Baseline

Hardship Change	Control		Treatment		Total	
	n	%	n	%	n	%
Hardship Increased	23	9.3%	40	20.8%	63	14.4%
Hardship Remained the same	53	21.5%	40	20.8%	93	21.2%
Hardship was reduced	171	69.2%	112	58.3%	283	64.5%
Total	247	100.0%	192	100.0%	439	100.0%

However, most of the sample experiences hardship still at midline, which shows that this barrier is still prevalent and therefore relevantly targeted b REAP's 2 Theory of change. Presently, 12% of the treatment sample faces extreme hardship and 51% moderate hardship[54]. 70% goes without cash income for many or most days. 36% of

[54] Hardship was assessed through a 4-item scale, with respondents being asked the item: *"Over the past year, how many days, if ever, have you or anyone in your family experienced the following…? (1) hh_q223 Gone to sleep at night feeling hungry? (2) hh_q224 Gone without enough clean water for home use? (3) hh_q225 Gone without medicines or medical treatment? (4) hh_q226 Gone without cash income?".* Responses were averaged to create

the households have no electricity (significantly more than in control areas with 28% without it) and 58% of caregivers report that it is difficult to afford schooling for girl. 34% of the heads of households have no formal education. See Annex 4 for comparisons against control areas.

REAP2 is addresses these barriers through school businesses (SB) that raise money for the school budget to fund school related cost for vulnerable girls (and boys in some cases). SB have been successful for the most part, some are still struggling to make profit and require further support to become completely successful and sustainable without outside support.

2. **Teenage pregnancy and poor sexual and reproductive health are barriers affecting the access and learning of girls in schools.** Poor sexual and reproductive health was the fourth most prevalent barrier mentioned by project stakeholders at baseline preventing girls from accessing school. In FGDs, girls mentioned that one of the biggest risks of dropping out from school was to become pregnant. Qualitative discussions confirmed that many OOS girls were staying at home caring for their baby/babies without involvement in income generation or employment. Teenage pregnancy has been addressed by behaviour change communications, youth friendly sexual health service corners, and Community Health Workers (CHW) trained on family planning, HIV/STIs case management. Through SRH corners the project aims to improve menstrual management and provide girls with access to SRH knowledge and advice.

   Caregivers were asked if their girl had ever been pregnant. In treatment areas, 9 girls were reported to have been pregnant at midline (2.3% of the sample) by their caregivers. Of these 9 girls, 2 (22%) were new cases and 7 were tracked cases (78%). None of these tracked cases mentioned to have had been pregnant at baseline, which suggests either that they did not respond accurately then or that they became pregnant between evaluation periods. In control areas, 8 girls were found to be pregnant (2.4% of the sample) and these all were tracked cases. Of these 8 girls, 2 mentioned that they were pregnant at baseline, suggesting that 6 girls became pregnant between periods.

   75% of girls who have been pregnant are out-of-school in control areas. In treatment areas, 56% of them are out-of-school. This suggests that the incidence of pregnancy as a barrier to return to school is lower in treatment than in control areas.

   At baseline, 0.7% of girls were reported to be pregnant by treatment caregivers and 2.6% by control. If we count only cases tracked, this suggests that 1.8% of the treatment sample (n=7) became pregnant between periods.

a mean hardship score and compared to midline values. Households with average scores of 3 or more (Many days / Most days) were categorized as facing extreme hardship. Households with average scores of 2 (A few days) or more, but less than 3 (Most days), were categorized as facing moderate hardship.

3. **Not speaking LOI:** Kinyarwanda is used as the language of instruction in P1-P3, while English is used from P4-S6[55]. In later years of primary school, teachers report that they sometimes use Kinyarwanda to help learners understand their lessons. Rwanda has been characterized as having undergone several radical shifts in language of instruction[56]. Most students speak Kinyarwanda at home, and it is likely that those who do not speak English well, will struggle to keep up with lessons, especially as they progress through school.

   Caregivers of girls of the study were asked whether their girl study could speak the language of instruction at school (English). There was a reduction in the proportion of parents saying that their girls who could not speak the language of instruction of school, going from 24% at baseline to 6% at midline.

5. **Being too "embarrassed" to return to school:** The Endline report of the REAP 1 project found that many out of schoolgirls were too embarrassed to return to school as they were far older than their classmates. OOS girls at midline mentioned that their peers who did re-enrol had now better English than they did and they "can see a difference" [57] Many commented that they preferred accelerated learning, TVET, employment, or income generation support. REAP2 will therefore continue supporting MDCs, but also offer remedial learning for OOS girls, and link them to TVET, employers and income opportunities through internships.

4. **Poor Teaching Quality and Use of Physical Punishment in schools:** Kinyarwanda continues to be taught in schools, and the other language of instruction was recently changed from French to English. Many teachers lack English skills and still resort to French or Kinyarwanda, which creates a language gap among students. Furthermore, the Ministry of Education (MINEDUC) introduced a competence-based curriculum which has been implemented since March 2016, but teachers still do not know how to implement it in class. There is also a lack of formalized training in quality gender-sensitive pedagogy leading to girls feeling they cannot participate in class enough. The baseline study found that 72.3% of girls in the intervention group report that their teacher uses physical punishments on students if they get something wrong in a lesson. Although corporal punishment is technically not condoned in schools, according to the Global Initiative to End Corporal Punishment of Children (2015), this is still not enforced. Government policy allows the Discipline Board of the School to enforce appropriate punishments in the interest of "*educating the student*"[58]. The literature agrees that corporal punishment in schools has adverse effects on students' educational attainment, access, and psychological well-being[59]. Furthermore, children

[55] Nzabalirwa, 2014

[56] Samuelson and Freedman, 2010; World Bank, 2011

[57] FGD with OOS Girls on Vocational Training 2

[58] Op cit., 5.

[59] Society for Adolescent Medicine, Position Paper: Corporal Punishment in Schools, 32:5 J. Adolescent Health 385, 388 (2003).

learn through challenge, and by making mistakes[60]. With regards to the learning environment and teaching quality, 11.1% of girls in the intervention group reports that their teachers are often absent from lessons and 8.3% of girls in the intervention group report that there are not enough seats for all students in class.

Fewer teachers are absent from class between periods. At baseline, 11% of treatment girls reported that their teachers were often absent from class compared to 8% of them at midline. In terms control girls thinking their teacher is often absent from class, it went from 14% to 6%.

Similarly, fewer teachers are using physical punishment as a form of discipline and poor classroom management though 61% of treatment girls at midline report that physical punishment is was used in the classroom or school grounds in the week previous to the survey (Compared to 72% at baseline). In control areas the proportion of girls saying their teacher uses physical punishment is similar, decreasing also from 75% of girls reporting use of physical punishment at baseline to 59% at midline. While there is a downward trend in the use of physical punishment in schools, their use is still highlight prevalent both treatment and control areas.

At midline, 34% of girls witnessed corporal punishment used in school, 17% was physically punished by the teacher during the week of the survey, 61% mentions that their teacher uses caning or hitting as a discipline method, 16% shouts in class and 18% of them treat girls and boys differently in the classroom.

5. **Lack of textbooks and school materials:** HPA's 2016 detailed assessment to every REAP1 treatment and control group found that only 40% had so far received one "Teacher's Guide" textbook per class. Students' textbooks/reader as per the new competence-based curriculum had only been delivered so far in 9% of these schools. In these schools, each class had received 4 new students readers per subject (4 math, 4 Kinyarwanda, 4 English, 4 Science) and these were shared among students during class hours at a ratio of around 10 students to 1 textbook, and afterwards handed over to the teacher to use with the next shift of students (in the schools that have two shifts per day) or locked overnight. In all the schools visited, none reported that readers were available to be taken home for after-school study, making it difficult for children to read at home or use them for reference in their homework. HPA's 2016 detailed assessment found teaching / learning materials in 49% of the REAP1 treatment and control schools which were distributed by the government in 2002, however they were only being used in 15% of the schools. Under REAP2, LCD will apply its successful model used in its Family Literacy Programme in Malawi of creating locally made learning materials with locally available and low-cost materials such as cloth and chalk (TALULAR) and making text-books available to children though CSGs.

[60] Chaiklin, S. (2003). "The Zone of Proximal Development in Vygotsky's analysis of learning and instruction." In Kozulin, A., Gindis, B., Ageyev, V. & Miller, S. (Eds.) Vygotsky's educational theory and practice in cultural context. 39-64. Cambridge: Cambridge University.

At midline, there is a significant difference in the number of treatment and control teachers who think that students in their class *'have access to the necessary teaching and learning materials'*. 73% of treatment teachers thought their students lacked access to books and materials compared to 88% of control cases[61].

In midline FGDs, teachers mentioned this was a problem because students have nowhere to make their homework or write notes: "*it is very difficult to teach, especially to those without enough school materials, one day you find that students don't have anything to take notes… another day, when you ask a question, the student will fail automatically because they don't have their notes. This is very discouraging feedback from students."*[62]

Additional barriers found at midline show that (significant differences signalled):

- **Lack of parental support for girls to succeed in school**: As the report will later show, when girls do not receive the support they need from their parents to stay school, they are less likely to transition. Presently, 13.6% think they have a high chore burden and 15% think that chores make it difficult to complete school. This went down from the baseline phase, where 32% of girls mentioned they would spend half a day or more doing chores. 9.7% feel they do not get the support they need from their family to stay and succeed in school. 31% of caregivers do not offer help with homework to their children. This is lower than in control areas at significant levels as per chi-square tests (p.<05 for both). 32% of parents claimed they have not been informed of their child's progress in school. This is a higher proportion than in control areas, according to chi-square tests (p<.05). 35% of girls feel they cannot choose if they can stay or not in school.
- **Students could be hungry during school time and this makes it hard for them to focus:** Teachers in FGDs mentioned that "*it is difficult to teach students with a hungry belly*"[63]. At midline, 16% of treatment households that they go to bed feeling hungry many or most days (compared to 24% of them at baseline). 77% of girls still do not receive a meal in school.

This confirms the barriers expected by the project, particularly those pertaining to poor teaching quality and the objective of reducing corporal punishment at school. How barriers may be affecting different outcomes is discussed in each of the outcomes' sections. See Annex 4 for the full table with the prevalence of barriers.

In terms of the intersection between barriers and characteristics, findings largely confirm the assumptions of the theory of change.

Girls who are out of school have a heavier burden from house chores than their peers (48% and 11% respectively). A higher proportion of them believe that it is not important to go to

[61] The teachers survey was introduced at midline so changes in this barrier will be observed between midline and endline.

[62] FGD with teachers on teaching quality and remedial learning opportunities.

[63] FGD on Teaching Quality and Remedial Lessons

school (4.3% vs 1%), and 52% of them cannot choose whether to attend or stay in school compared to 33% of in-school girls.

This might be due to low support at home to continue with school. 39% of them mentioned that they do not get support they need from family to stay in and perform well in school (compared to 7% in the in-school group).

A smaller proportion of in-school girls find it difficult to afford school. This might be expected as girls who are out-of-school do not incur school costs. 48% of households who face moderate or extreme hardship find it difficult to afford school and girls in these household tend to have a higher chore burden. Parents from the poorest households tend be disengaged, as 37% of them do not ask about homework (compared to 21% in the non-hardship group).

Girls who are pregnant have a considerably higher burden of chores (56% compared to 13% of non-pregnant girls). They also feel they have less control over their lives as 56% of them claim that they cannot choose whether to attend or stay in school (compared to 34% of non-pregnant girls). Pregnant girls have also disengaged parents with 67% of them not asking about homework (compared to 20% in the non-pregnant group) and 67% do not offer help with it (compared to 30% in the non-pregnant group).

In terms of the intersection between disability and barriers, girls who experience “some” difficulties in any of items the Washington Group set of questions face additional barriers compared to their non-disabled peers. 23% of them claim that they do not receive the support they need from their caregivers to succeed in school (compared to 8% of non-disabled girls), 54% report that it is difficult to afford schooling (compared to 41% of non-disabled girls). 10% do not speak the language of instruction (compared 6% of non-disabled girls).

When evaluating the participation of girls in project activities, we see that they are participating in equal proportion than their non-disabled peers. The only project activity where there is a difference are MDC clubs, where proportionally more disabled girls claim to be members of MDCs (21%) compared to their non-disabled peers (12%).

While the barriers of the project have been confirmed by results, the Theory of Change does not presently aim to raise awareness among caregivers on the importance of their involvement in their children’s education. Project activities that include improvement parental engagement in children’s education could diminish the effect of these barriers on the outcomes of the main target groups.

Project's Response & Contribution

The project does not have any additional comments on the barrier's section as the data collected by the EEs confirm the barriers expected by the project, particularly those pertaining to poor teaching quality and the objective of reducing corporal punishment at school. The main barriers to learning and transition are: not being able to afford school-related costs; teenage pregnancy and poor sexual and reproductive health; not speaking LOI; being too "embarrassed" to return to school; poor Teaching Quality; lack of textbooks. In terms of the intersection between barriers and characteristics, findings largely confirm the assumptions of the theory of change.

As discussed in more detail within the project management response, the consortium members are considering to include more specific activities to further involve parent's in their children education, as this has been identified as a barrier to transition which was not previously considered.

4 Key Outcome Findings

4.1 Learning Outcomes

4.1.1 **Overall Results**

The project aims to improve marginalized girls' learning outcomes in English Literacy, Kinyarwanda Literacy, and Numeracy. The project expects to achieve this through improved teaching quality, enhanced community support for learning, extended learning opportunities, increased access to gender-sensitive teaching and learning materials, and a reduction in barriers to attendance and enrolment.

How were learning tests designed?

Learning assessments were designed, piloted and calibrated, during the baseline, after a review of the Rwandan national curriculum and in consultation with the Fund Manager.

For evaluative purposes, literacy was assessed in primary grade levels through the English and Kinyarwanda Early Grade Reading Assessment (EGRA), and in secondary grade levels through the English and Kinyarwanda Secondary Grade Reading Assessment (SeGRA).

Numeracy in primary levels was assessed through the Early Grade Mathematics Assessment (EGMA) and, in secondary levels, through the Secondary Grade Mathematics Assessment (SeGMA).

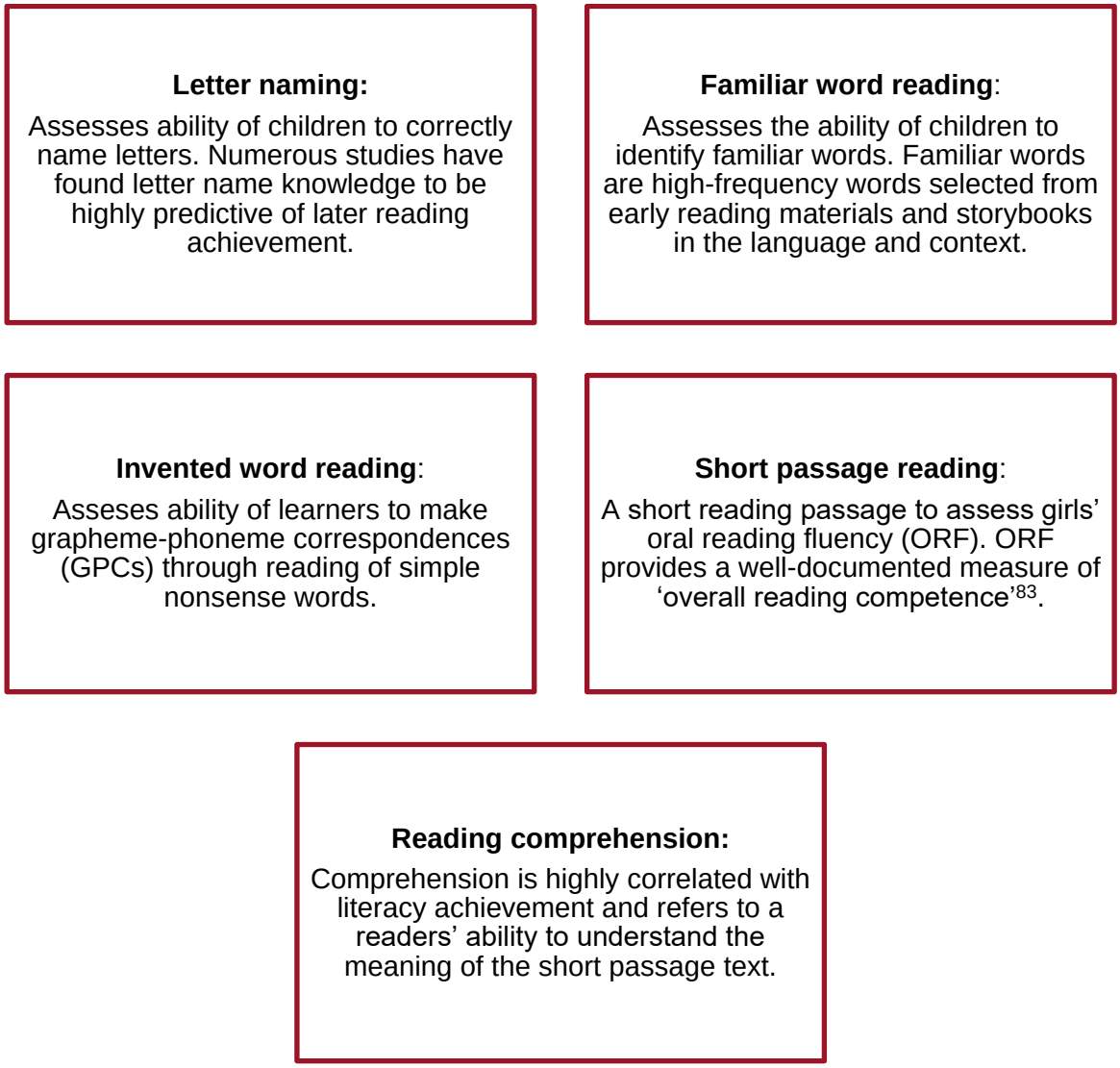
Learning assessments were developed at baseline after a review of the national curriculum in Rwanda. Four versions of each assessment type were designed and piloted to a sample of girls in 5 primary and secondary schools. Results on each subtask of the assessment were analyzed to identify potential floor and ceiling effects, and to ensure test types were of similar levels of difficulty. After a calibration exercise was conducted in collaboration with the Fund Manager, final tools were selected for each period. The full pilot report is included as an Annex to the project's Baseline Report and provides additional details on this process.

As per the evaluation design, girls in the treatment and control group were tracked at both periods. Girls in both cohorts were administered learning assessments of similar difficulty to assessments used at baseline.

Learning assessments included several subtasks, each assessing relevant sub-domains of literacy and numeracy acquisition.

The core EGRA assessment in both Kinyarwanda and English was composed of the subtasks shown in **Error! Reference source not found.** .

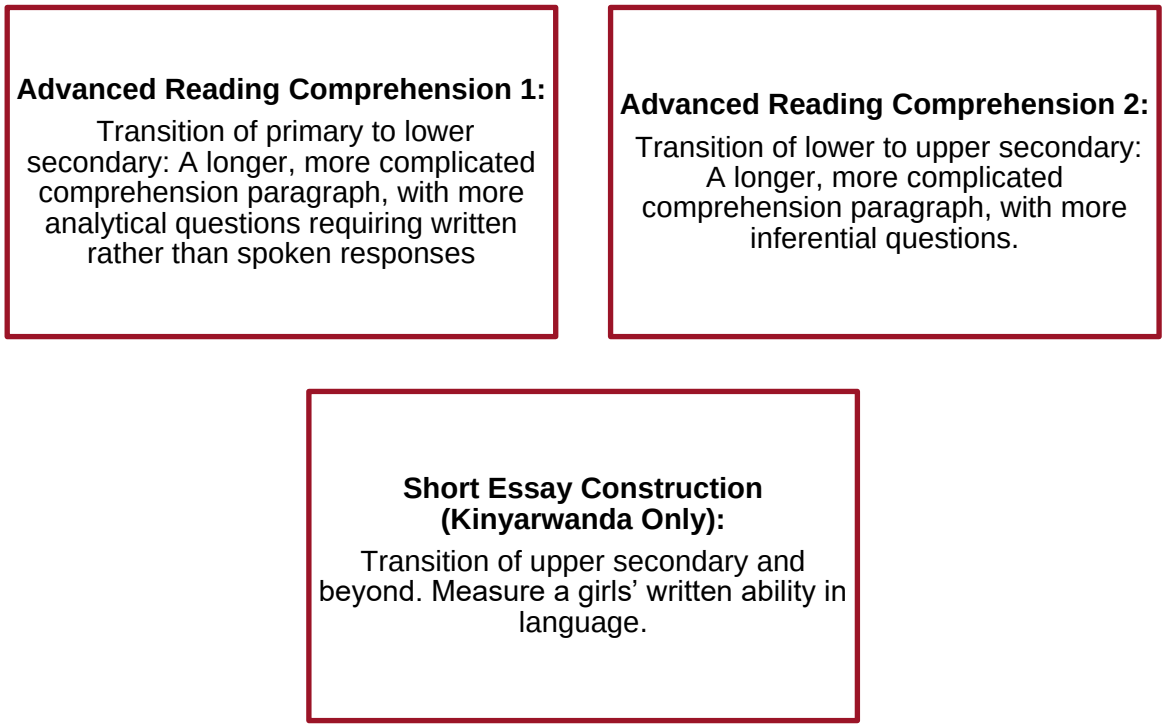
Figure 1. Measuring Literacy at the Primary Level: EGRA Subtasks Assessed in Kinyarwanda and English



The core SeGRA assessment included the subtasks shown in **Error! Reference source not found.**.

To ensure a reasonable number of subtasks overlapped for girls who progress from primary to secondary schools between periods, in order to calculate on aggregate score which is comparable, all SeGRA assessments included the short passage reading task from EGRA, and all EGRA assessments included both Advanced Reading Comprehension 1 and 2 from SeGRA.

Figure 2. Measuring Literacy at the Secondary Level: SeGRA Subtasks Assessed in Kinyarwanda and English



The core EGMA assessment included the subtasks shown in **Error! Reference source not found.**. The core SeGMA included two subtasks, summarized in **Error! Reference source not found.**.

To ensure a reasonable number of subtasks overlapped for girls who progress from primary to secondary schools between periods, in order to calculate on aggregate score which is comparable, all SeGMA assessments at Midline included the Multiplication and Division task from EGMA, and all EGMA assessments at Midline included both of the advanced tasks included in SeGMA.

What activities are expected to *directly* contribute to improved learning outcomes?

- **Teacher training**: the project has trained 252 teachers in improved literacy and numeracy instructional practices, and child-centred and gender-responsive pedagogy. This is expected to lead to improvements in girls' learning in school.
- **Child Study Groups (CSGs)**: the project runs 75 CSGs where community tutors provide extended learning opportunities in literacy and numeracy as well as access to additional teaching and learning materials.
- **Remedial Lessons**: the project provides remedial lessons to girls who are behind in school to reinforce learning for girls who are behind in school.

Figure 3. Measuring Numeracy at the Primary Level: EGMA Subtasks Assessed

Number identification:

Number competence is reflected in counting procedures, fact retrieval, and accurate computation . The ability to identify numbers is a basic skill necessary for advanced numeracy.

Quantity Discrimination:

Quantity discrimination describes the ability to distinguish the magnitude of various numbers. Performance on comparisons of numerical magnitude are predictive of later mathematical achievement .

Missing Numbers (Pattern Recognition):

For this subtask, children are asked to fill in missing numbers in a series of numbers forming a pattern. The ability to detect is an important early skill that can support later mathematical skills such as multiplication and algebraic thinking .

Word Problems:

Basic mathematics problems with increasing difficulty phrased as word problems based on real life math applications.

Addition and Subtraction:

Addition problems aim to test the extent to which learners can combine numbers. Subtraction problems aim to assess the extent to which learners can subtract one number from another. Arithmetic (addition, subtraction, multiplication and division) serves as the foundation for the skills necessary in later mathematics and science education .

Multiplication and Division:

In the multiplication and division subtask learners are required to answer a series of multiplication and division questions of varying difficulty.

Figure 4. Measuring Numeracy at the Secondary Level: SeGMA Subtasks Assessed

Longer Multiplications of integers and fractions, divisions, and order of operations problems:

Mathematic skills expected for girls transitioning from primary to lower secondary school.

Fraction addition, area and volume problems, equations with unknowns, simultaneous equations:

Mathematical proficiency expected for girls progressing from lower to upper secondary school.

Distributions of aggregate English Literacy scores, for both the treatment and control group do not exhibit any floor or ceiling effects, suggesting that the aggregate score is an appropriate measure to assess changes in English literacy over time.

The two figures following display the distribution of English literacy aggregate scores between periods for both the treatment and control groups. Although both groups exhibit an on average improvement, there is a slightly higher average change in the treatment group between periods than in the control group.

Figure 5. English Literacy (Aggregate Score, %) Distribution for the Treatment Group between Periods

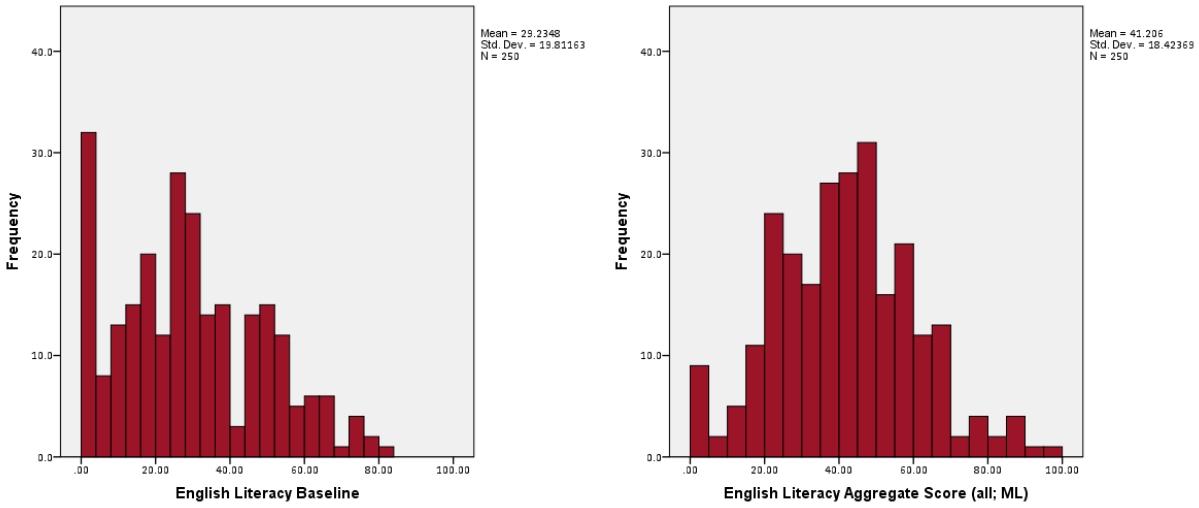
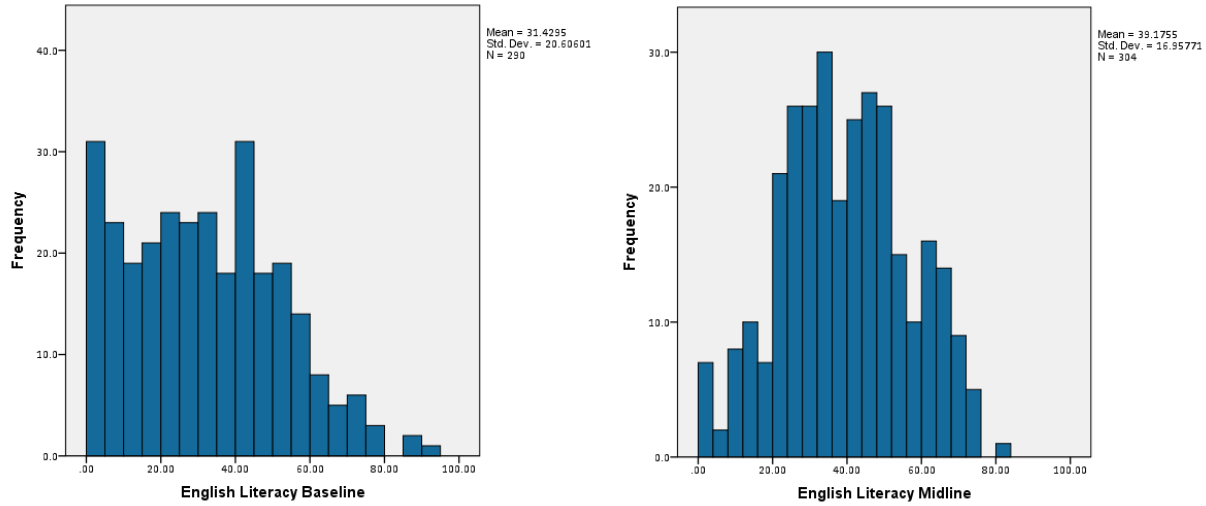


Figure 6. English Literacy (Aggregate Score, %) Distribution for the Control Group



How were aggregate scores calculated?

Aggregate scores were calculated for each learning outcome, in order to measure overall changes between periods, and to determine project impact on learning.

In order to assess progress on Kinyarwanda and English literacy and project impact on these outcomes, the study created an aggregate literacy score using tasks which all girls took, regardless of grade level, at both baseline and midline. This included the short passage reading task (ORF) and the advanced reading comprehension 1 task.

For the advanced reading comprehension subtask, an overall percentage correct was calculated based on the maximum total of 10 marks on the subtask. For the oral reading fluency subtask, which is measured in words per minute (wpm), an arbitrary cap of 100wpm was used to convert the score into a percentage, as per GEC FM guidance. This was decided upon as it reflects the expectation that by the end of primary school, all students should be able to read 90-120 words per minute (wpm). Both subtasks percentage correct scores were then averaged, weighted equally, to generate an overall Kinyarwanda and English aggregate literacy score.

For numeracy, following the same approach, we calculated an original aggregate score based on the single subtask that overlapped between periods on EGMA and SeGMA (i.e. Longer Multiplications of integers and fractions, divisions, and order of operations problems).

However, a review of the distributions of this score, highlighted than in both groups and across periods there was a high proportion of girls who scored 0%, suggesting this measure had insufficient variance to capture changes in numeracy overtime.

Due to these floor effects and after consultation with the FM, the EE decided to adopt a standardized scoring approach to assess numeracy. This approach followed FM guidance and calculated a standardized score using mean data at baseline for each test group. Additional details on this are shown in Annex 3 but the formula applied to create a standardized numeracy score is as follows:

$$y=(x-\mu)/\sigma$$

Where μ and σ are respectively the baseline mean for the test group and the standard deviation of x.

The table following reports aggregate English literacy scores at Midline for the treatment and control group by their original cohort membership.

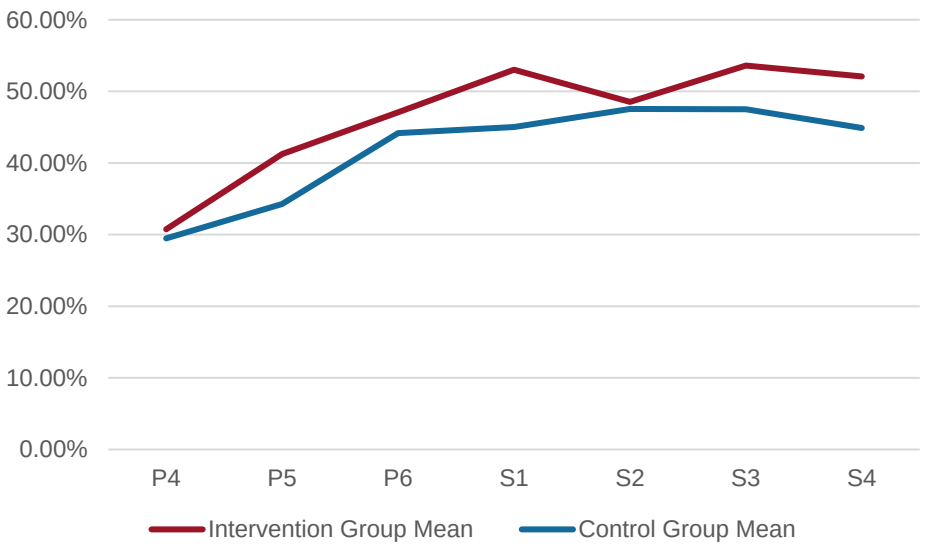
As grade level increases, for both groups, there is a general progression in English literacy scores, supporting the validity of the measure.

At midline, girls in the treatment group overall, have slightly higher average literacy scores than girls in the control group. However, girls' who were originally out of school in the control group have higher aggregate scores at Midline than their peers in the treatment group, on average.

Table 9. Midline English Literacy (EGRA/SeGRA) - Aggregate Score (%)

Cohort Grade at Baseline	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
P4	30.75%	29.48%	16.07%
P5	41.26%	34.28%	18.26%
P6	47.08%	44.17%	13.24%
S1	53.02%	45.02%	16.70%
S2	48.54%	47.55%	25.20%
S3	53.61%	47.50%	14.30%
S4	52.10%	44.90%	10.45%
Out of School Girl	20.50%	44.19%	15.89%
Overall	41.21%	39.18%	18.42%

Figure 7. Mean English Literacy Aggregate Score by Grade Level at ML and Evaluation Group



The difference-in-difference model determined that the project had a statistically significant impact on English literacy outcomes. The project accounted for an improvement of 3.77% in English literacy, on average, between baseline and midline.

For the standard model, with no controls and not accounting for cluster standard errors, treatment was a statistically significant predictor of changes in English literacy (the first difference) between baseline and midline ((R^2=0.01, F (1,514) =5.297, p<0.05).

However, due to the attrition experienced the Fund Manager suggested the study utilize an adjusted model, which accounts for cluster standardized errors, and controls for baseline literacy levels, grade level, age, and area type (rural-urban). This model was significant at the 10% level with treatment accounting for an average change of 3.77% on English literacy aggregate scores between baseline and midline (Beta=3.77) (p=0.065).

Figure 8. English Literacy (%) Mean Changes between Baseline and Midline

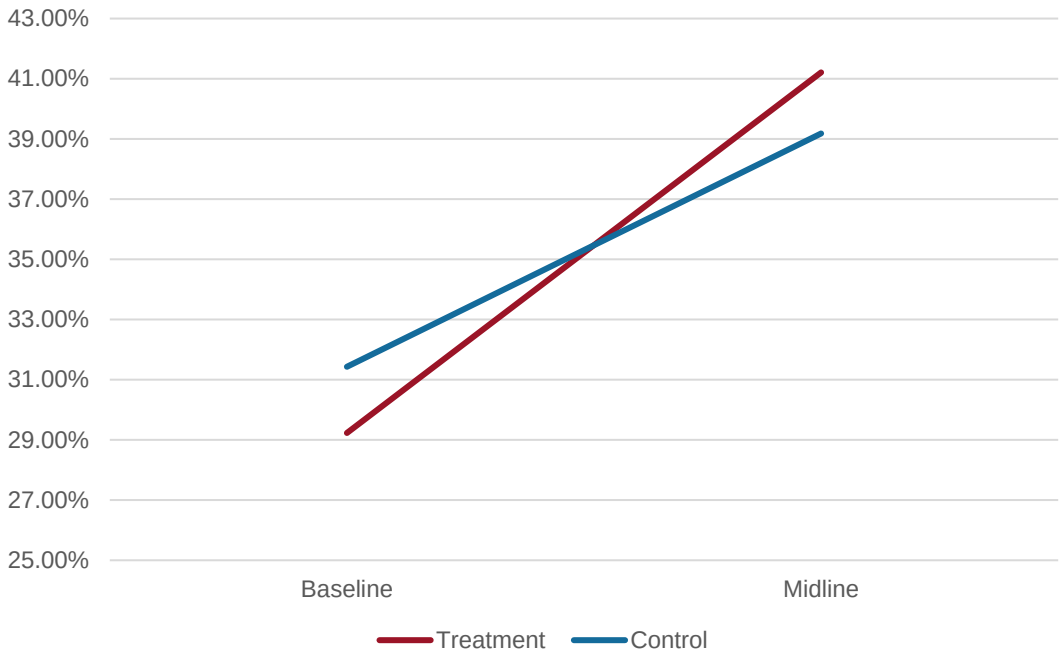


Table 10 following outlines the project's weighted achievement against targets and was generated through the outcome spreadsheet.

Weighted performance against the target suggest that 72% of project beneficiaries were able to improve their English literacy outcomes.

Unweighted results, based on the first difference, indicate that 74.5% of tracked girls improved their English literacy scores between periods in the treatment group, compared to 67.2% in the control group.

Table 10. English Literacy results

Result	Details	Comments
Literacy Baseline - Midline	Beta = 3.77 p-value = 0.065	The project had an impact on the English literacy. Based on the DiD regression model accounting for cluster standardized errors and various controls, the project accounted for an average increase of 3.77% on English literacy aggregate score. Based on the weighted target and performance,

Result	Details	Comments
	Target = 5.27 Performance against target = 72%	72% of project beneficiaries improved their English literacy scores between periods.

To further understand project impact, mean results for oral reading fluency and for Advanced Reading Comprehension 1 are shown **Error! Reference source not found.** and **Error! Reference source not found.**, between periods for each group.

Figure 9. Mean Oral Reading Fluency (wpm) by Evaluation Group between Baseline and Midline

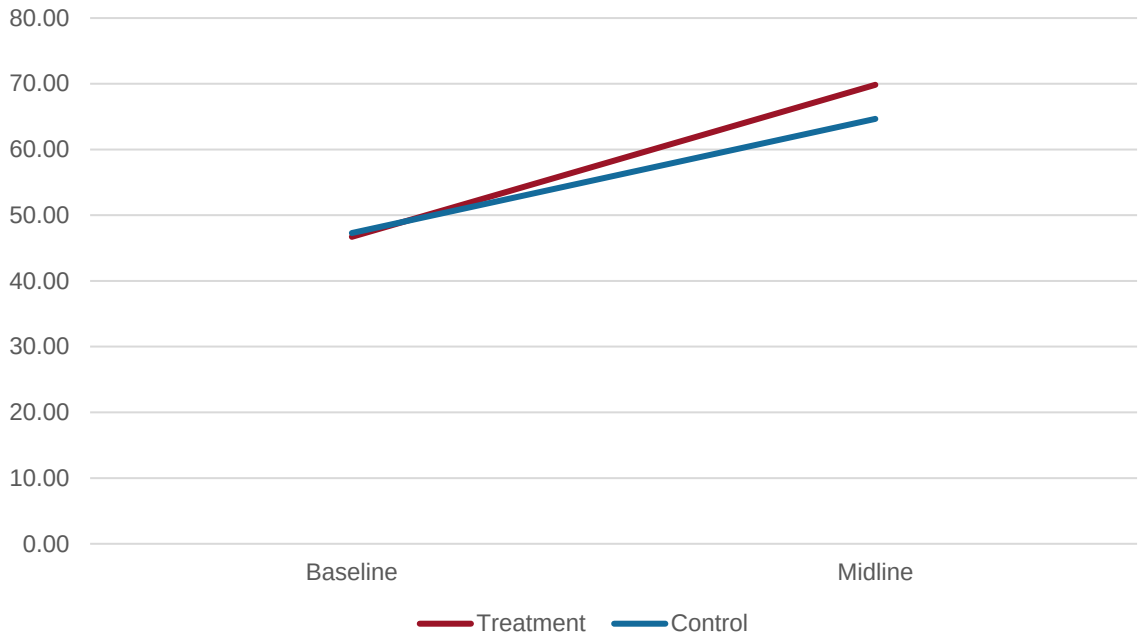
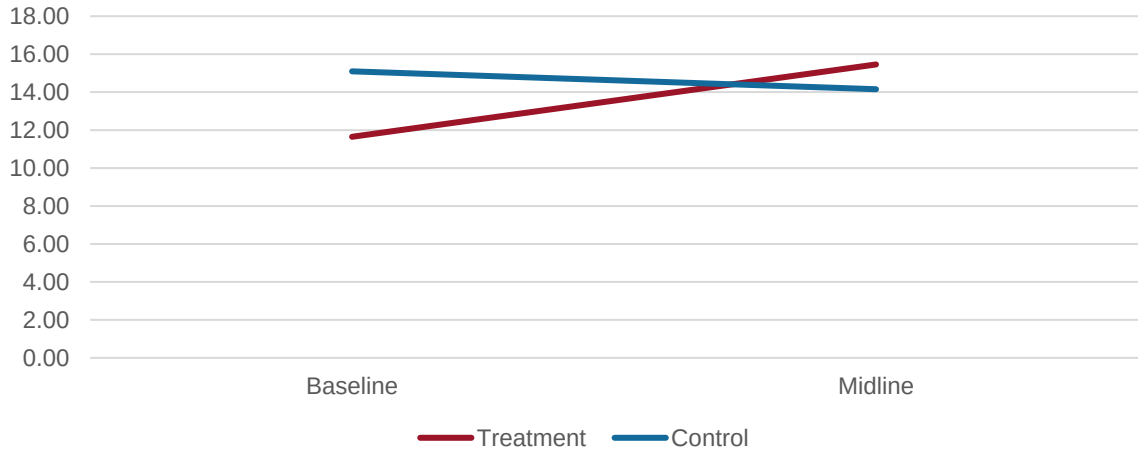


Figure 10. Mean Advanced Comprehension 1 by Evaluation Group between Baseline and Midline



A review of changes in oral reading fluency and advanced reading comprehension results between periods, for both the treatment and control group, suggests that project impact was largely driven by improvements in oral reading fluency.

Both the treatment and control group exhibited increases in average scores in oral reading fluency, although the treatment group exhibited greater improvements between periods on average.

For Advanced Reading Comprehension, the treatment group improved on average between periods, while the mean percentage correct on this subtask decreased on average for girls in the control group. However, as changes in advanced reading comprehension were relatively slight for the treatment group, this review would suggest that project impact on English literacy was primarily driven by improvements in oral reading fluency, which is widely accepted as the standard measure of literacy acquisition in the literature and between contexts.

Error! Reference source not found. displays the average improvements for each evaluation group, by original cohort membership, and against the improvements experienced by their corresponding control group.

Mean findings suggest that the project had its largest impact, between periods, on girls who were in S3 and S1 at baseline.

Girls in S3 at baseline, in the treatment group, outperformed improvements experienced by their peers in the control group by an average of 16.64%. Across grade levels, this was the highest improvement over and above control experienced in the treatment group.

The second largest improvement over and above the control group was exhibited by girls in S1 at baseline. This group outperformed their control group peers by an average of 16.45% between baseline and midline.

Mean findings suggest that the project did not have an impact on the English literacy of girls who were out-of-school, in S4 or in S2 at Baseline.

For each of these grade levels, the control group outperformed improvements experienced in the treatment group, as shown in the table and figure following.

Table 11. English Literacy Aggregate Scores from Baseline to Midline

Cohort	Baseline literacy treatment	Midline literacy treatment	Difference baseline to midline	Baseline literacy control	Midline literacy control	Difference baseline to midline	Difference in difference (treatment – control difference)
P4	18.69%	30.75%	**+12.06**%	*18.48*%	*29.48*%	**+11.00**%	**+1.07**%
P5	26.19%	41.26%	**+15.07**%	*25.04*%	*34.28*%	**+9.24**%	**+5.83**%
P6	36.93%	47.08%	**+10.15**%	*35.09*%	*44.17*%	**+9.08**%	**+1.07**%
S1	35.86%	53.02%	**+17.17**%	*44.30*%	*45.02*%	**+0.72**%	**+16.45**%
S2	45.34%	48.54%	**+3.21**%	*37.58*%	*47.55*%	**+9.97**%	**-6.76**%
S3	40.68%	53.61%	**+12.93**%	*51.21*%	*47.50*%	**-3.71**%	**+16.64**%
S4	46.60%	52.10%	**+5.50**%	*33.17*%	*44.90*%	**+11.73**%	**-6.23**%

Cohort	Baseline literacy treatment	Midline literacy treatment	Difference baseline to midline	Baseline literacy control	Midline literacy control	Difference baseline to midline	Difference in difference (treatment – control difference)
Out of School Girl	26.17%	20.50%	**-5.67**%	*34.63*%	*44.19*%	**+9.57**%	**-15.24**%
Overall	29.23%	41.21%	**+11.98**%	*31.43*%	*39.18*%	**+7.75**%	**+4.23**%

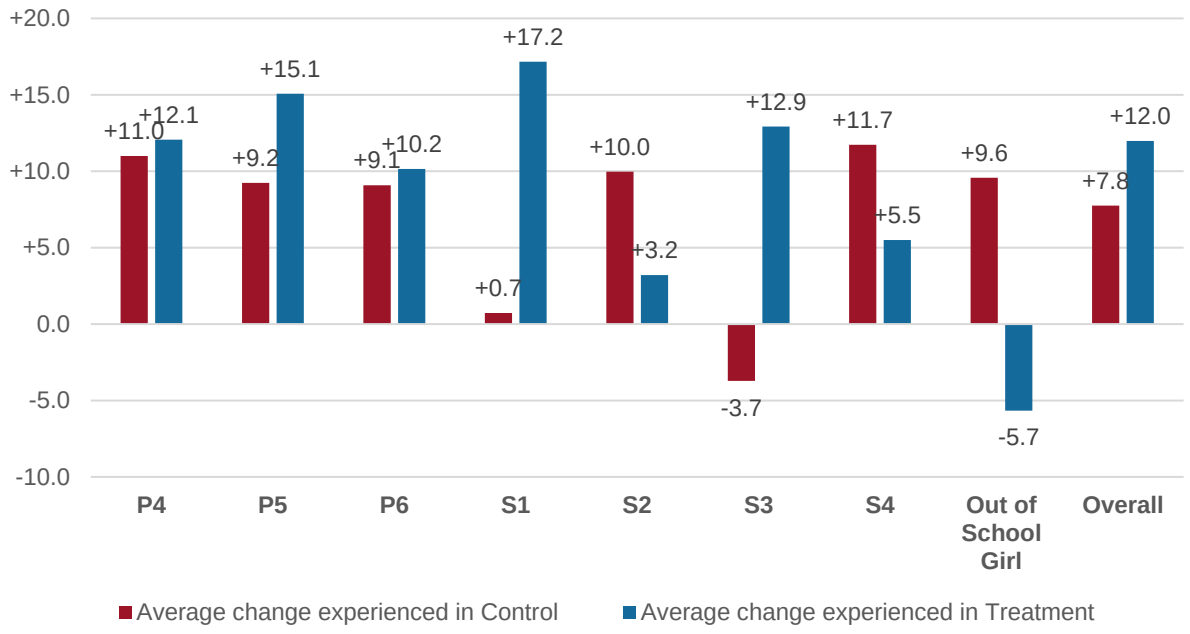
To further understand changes overtime, the figure following displays average changes experienced by each group by evaluation status.

Girls who were out of school at Baseline, in the treatment group, decreased their English literacy levels between baseline and midline, on average, based on mean results.

There were 7 out-of-school girls at baseline who were tracked at Midline in the treatment group and 14 in the control group. In the treatment group 28.6% of these cases (2 girls) re-enrolled in school, while 71.4% remained inactive. In the control group 50% of out-of-school girls re-enrolled in school, while 50% remained inactive. This could explain differences in results, as a higher proportion of out-of-school girls in the control group re-enrolled in school and therefore had greater access to learning opportunities.

Additionally, none of the 7 girls in the treatment group who were out of school at baseline (0%) participate in Community Study Groups or Remedial lessons.

Figure 11. Changes in English Literacy Aggregate Scores between Periods by Evaluation Group and Original Cohort Membership

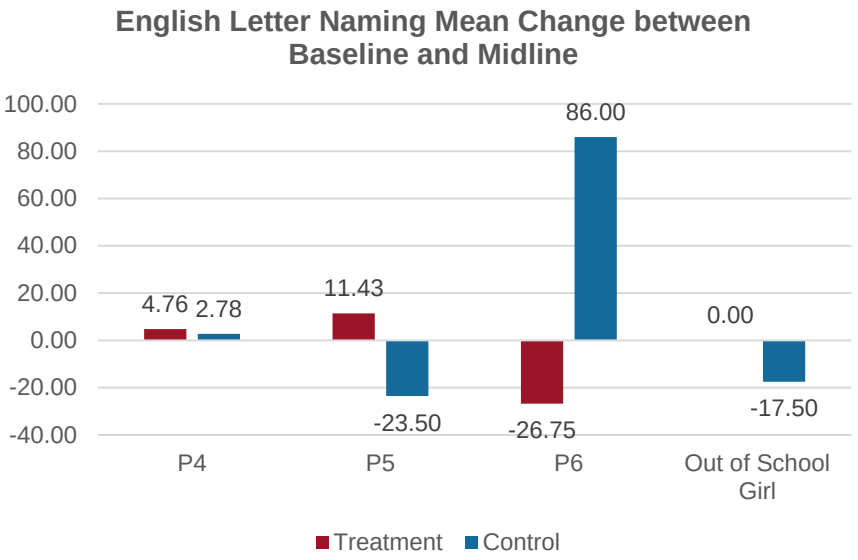


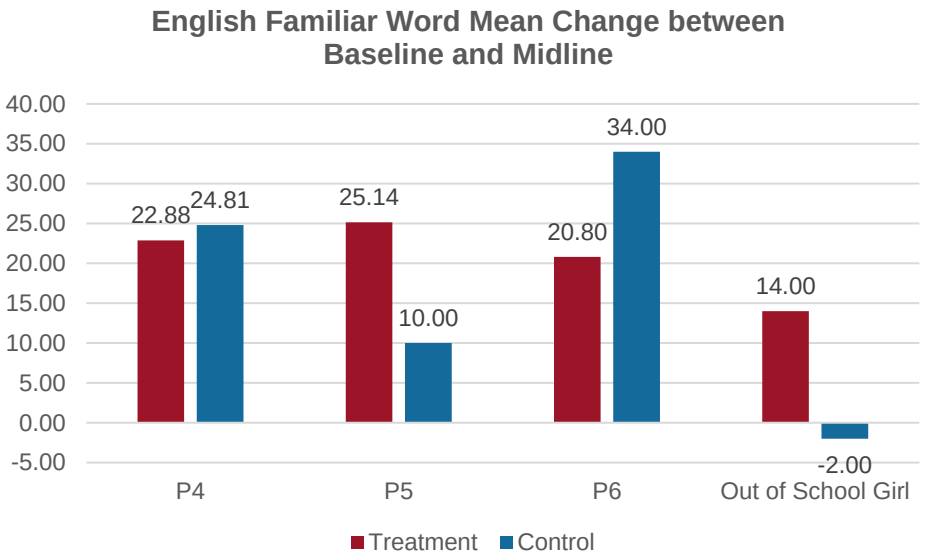
Performance between baseline and midline for other English literacy subtasks are shown in the figures on the following page. These display the difference between midline and baseline

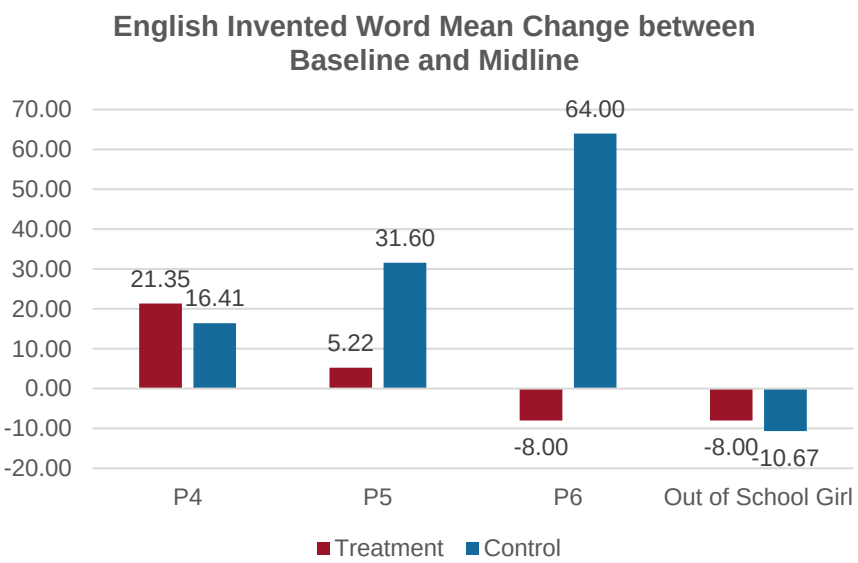
scores, with a positive number indicating an on average increase between periods, and a negative number indicating an on average decrease between periods.

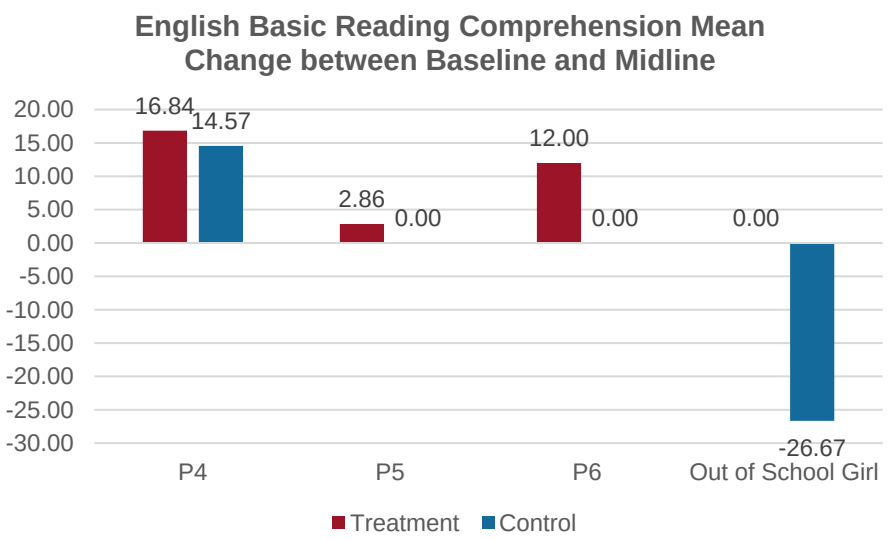
Based on this review, girls who were out of school at baseline, regressed in English literacy across all subtasks, on average.

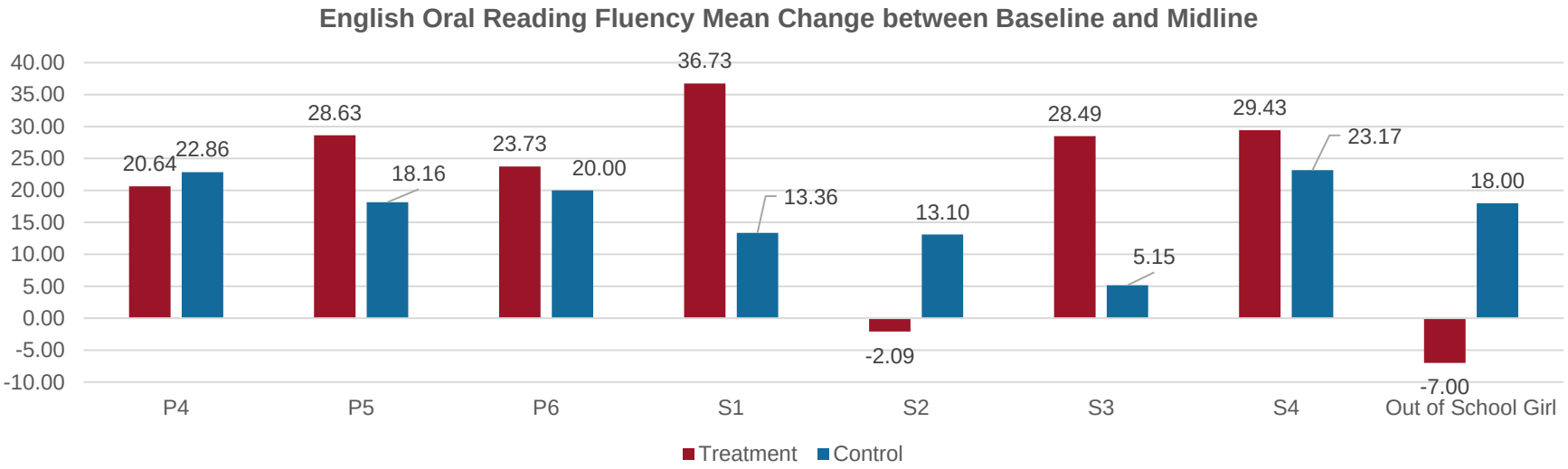
Regressions for each subtask independently, using treatment to predict the first difference, highlight that the project had an impact on oral reading fluency and advanced reading comprehension. The project accounted for an improvement of 6 words per minute ($p<0.05$; Beta=6.128) in ORF and 4.1% improvement in advanced reading comprehension ($p<0.05$; Beta=4.1). All other subtask regressions, using treatment to predict the first difference were insignificant suggesting that the project did not have an impact on these domains.

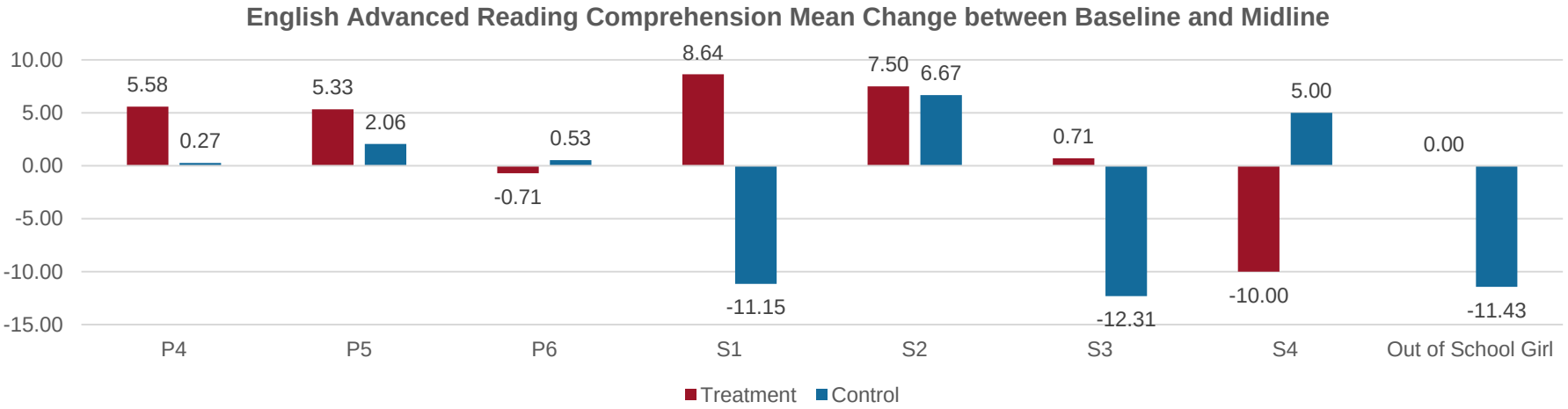

English Letter Naming Mean Change between Baseline and Midline
100.00
80.00
60.00
40.00
20.00
0.00
-20.00
-40.00
4.76
2.78
11.43
-23.50
-26.75
86.00
0.00
-17.50
P4
P5
P6
Out of School Girl
Treatment
Control


English Familiar Word Mean Change between Baseline and Midline
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
22.88
24.81
25.14
10.00
20.80
34.00
14.00
-2.00
P4
P5
P6
Out of School Girl
Treatment
Control


English Invented Word Mean Change between Baseline and Midline
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
-20.00
21.35
16.41
5.22
31.60
-8.00
64.00
-8.00
-10.67
P4
P5
P6
Out of School Girl
Treatment
Control


English Basic Reading Comprehension Mean Change between Baseline and Midline
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
16.84
14.57
2.86
0.00
12.00
0.00
0.00
-26.67
P4
P5
P6
Out of School Girl
Treatment
Control


English Oral Reading Fluency Mean Change between Baseline and Midline
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
20.64
22.86
28.63
18.16
23.73
20.00
36.73
13.36
-2.09
13.10
28.49
5.15
29.43
23.17
-7.00
18.00
P4
P5
P6
S1
S2
S3
S4
Out of School Girl
Treatment
Control


English Advanced Reading Comprehension Mean Change between Baseline and Midline
10.00
5.00
0.00
-5.00
-10.00
-15.00
5.58
0.27
5.33
2.06
-0.71
0.53
8.64
-11.15
7.50
6.67
0.71
-12.31
-10.00
5.00
0.00
-11.43
P4
P5
P6
S1
S2
S3
S4
Out of School Girl
Treatment
Control

Distributions of aggregate Kinyarwanda Literacy scores, for both the treatment and control group do not exhibit any floor or ceiling effects, suggesting that the aggregate score is an appropriate measure to assess changes in Kinyarwanda literacy over time.

The two figures following display the distribution of Kinyarwanda literacy aggregate scores between periods for both the treatment and control groups. For both evaluation groups, there is only a slight average increase in Kinyarwanda literacy scores between periods. This may be explained by the fact that as girls progress in school, Kinyarwanda becomes less relevant, as it is no longer the language of instruction starting in upper primary.

Figure 12. Kinyarwanda Literacy (Aggregate Score, %) Overtime for the Treatment

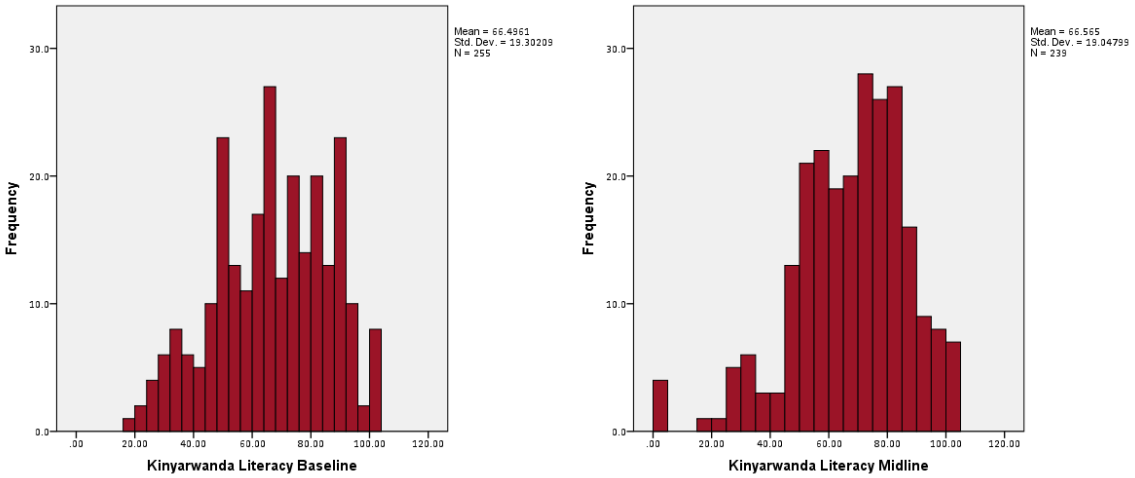


Figure 13. Kinyarwanda Literacy (Aggregate Score, %) Overtime for the Control Group

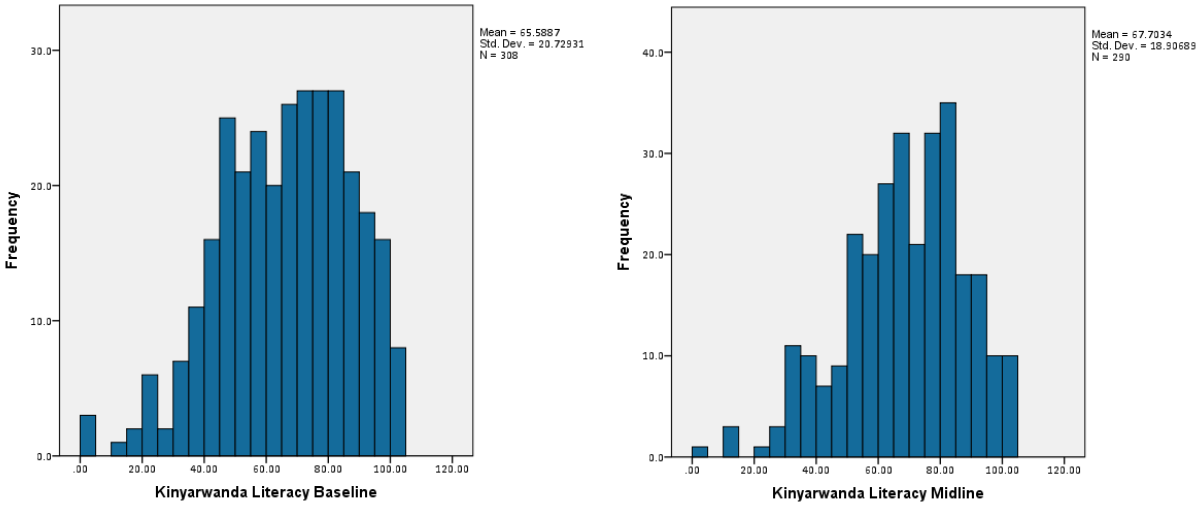


Table 12 reports aggregate Kinyarwanda literacy scores at Midline for the treatment and control group by their original cohort membership. As grade level increases, for both groups, there is a general progression in Kinyarwanda literacy scores.

At midline, Kinyarwanda aggregate results per grade level are largely comparable between both the treatment and control groups. However, as with English literacy, girls' who were originally out of school in the control group outperform girls in the treatment group on average.

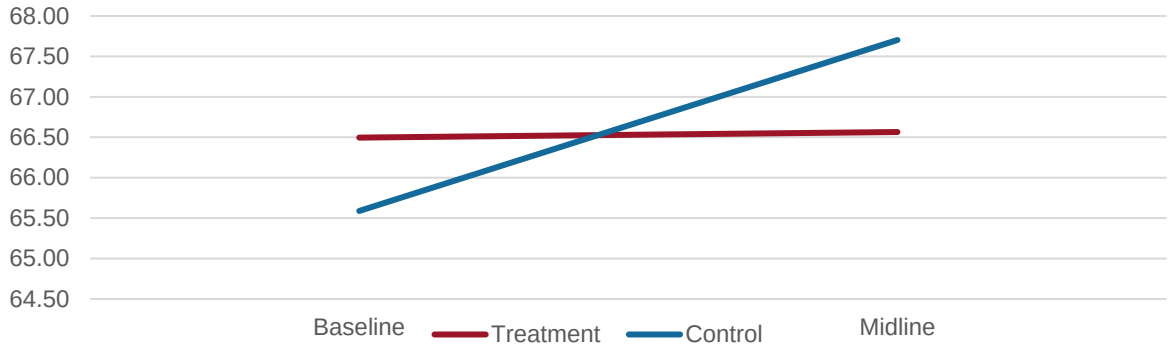
Table 12. Kinyarwanda Literacy Aggregate Scores from Baseline to Midline

Cohort Grade at Baseline	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
P4	55.91%	54.22%	18.95%
P5	65.10%	65.36%	20.74%
P6	72.82%	72.37%	14.01%
S1	75.25%	73.56%	14.98%
S2	74.69%	74.43%	14.44%
S3	72.43%	77.12%	13.52%
S4	81.60%	81.50%	4.29%
Out of School Girl	51.60%	62.38%	28.50%
Overall	66.56%	67.70%	19.05%

The project did not have a statistically significant impact on Kinyarwanda literacy results between baseline and midline.

Treatment was unable to predict changes in Kinyarwanda scores between periods at statistically significant levels ($p>0.05$). This suggests that the project did not have a visible impact on Kinyarwanda literacy outcomes. **Error! Reference source not found.** displays changes in mean Kinyarwanda aggregate score between periods for both evaluation groups. While the average Kinyarwanda literacy level increased for girls in the control group between baseline and midline, the average change in the treatment group was marginal.

Figure 14. Kinyarwanda Literacy (%) Mean Changes between Baseline and Midline



Results of the regression model are summarized in the table following. The table also outlines the project's weighted achievement against targets.

Performance against the weighted target suggest that 0% of project beneficiaries were able to improve their Kinyarwanda literacy outcomes.

Unweighted results, based on the first difference, indicate that 46% of tracked girls improved their Kinyarwanda literacy scores between periods in the treatment group, compared to 51.1% in the control group.

Table 13. Kinyarwanda Literacy results

Result	Details	Comments
Literacy Baseline - Midline	Beta = -0.440 p-value = 0.848 Target = 4.4 Performance against target = 0%	The project did not have a visible impact on Kinyarwanda outcomes at statistically significant levels. This was true for both an unadjusted model and a model accounting for cluster standardized errors and including controls.

Error! Reference source not found. reports differences in Kinyarwanda literacy aggregate scores between periods by evaluation group and original cohort membership.

In most original cohort grade levels, changes in the control group between periods exceeded changes experienced in the treatment group.

With the exceptions of girls who were in P5, and S2 at baseline, average changes between periods in the control group outpaced average changes exhibited by the treatment group. The greatest average improvement between periods was experienced by girls in the control group who were in P6 at baseline.

For both the treatment and control group however, improvements in Kinyarwanda literacy were far less than improvements experienced in English literacy. This is likely because, although Kinyarwanda remains a taught subject in secondary schools, it is not the language of instruction and therefore is less relevant to wider learning as English.

Table 14. Kinyarwanda Literacy Aggregate Scores from Baseline to Midline

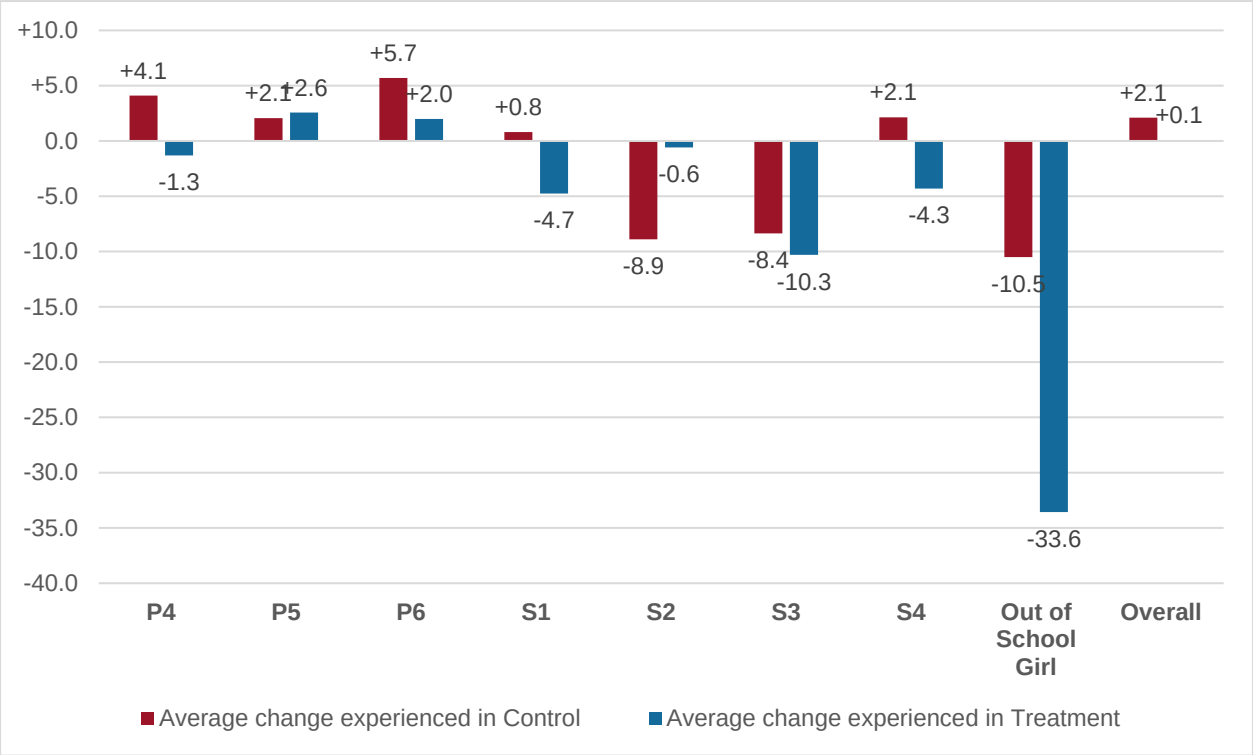
Cohort	Baseline literacy treatment	Midline literacy treatment	Difference baseline to midline	Baseline literacy control	Midline literacy control	Difference baseline to midline	Difference in difference (treatment – control difference)
P4	57.22%	55.91%	**-1.31%**	*50.11%*	*54.22%*	**+4.11%**	**-5.42%**
P5	62.54%	65.10%	**+2.57%**	*63.30%*	*65.36%*	**+2.07%**	**+0.50%**
P6	70.83%	72.82%	**+1.99%**	*66.68%*	*72.37%*	**+5.69%**	**-3.70%**
S1	80.00%	75.25%	**-4.75%**	*72.76%*	*73.56%*	**+0.80%**	**-5.55%**
S2	75.27%	74.69%	**-0.58%**	*83.33%*	*74.43%*	**-8.90%**	**+8.32%**
S3	82.73%	72.43%	**-10.30%**	*85.48%*	*77.12%*	**-8.37%**	**-1.94%**
S4	85.90%	81.60%	**-4.30%**	*79.36%*	*81.50%*	**+2.14%**	**-6.44%**
Out of School Girl	85.17%	51.60%	**-33.57%**	*72.88%*	*62.38%*	**-10.50%**	**-23.07%**
Overall	66.50%	66.56%	**+0.06%**	*65.59%*	*67.70%*	**+2.11%**	**-2.05%**

Error! Reference source not found. visually depicts average changes between periods for both groups by original cohort membership.

As with English literacy, the largest decrease between periods was exhibited by girls who were out of school in the treatment group at Baseline.

Girls in this group on average decreased their Kinyarwanda literacy levels by 33.6%. This suggests that girls who were originally out of school required additional support from the project to improve their literacy learning overall. It's important to note that most of these girls (71.4%) in the treatment group did not re-enrol in school and remained inactive. Additionally, none (0%) of these girls that were out of school at baseline in the treatment group were members of Community Study Groups or Remedial Learning activities.

Figure 15. Changes in Kinyarwanda Literacy Aggregate Scores between Periods by Evaluation Group and Original Cohort Membership



The study consulted project staff regarding the poor performance, and in some cases, average decrease in Kinyarwanda levels between baseline and midline. Project staff believe that this is since Kinyarwanda is no longer the LOI from P4 through secondary school, and even though it is a taught subject, it is therefore less relevant for girls. While girls continue to speak Kinyarwanda, they are less likely to read in Kinyarwanda or write in Kinyarwanda as they progress in school.

Distributions of standardized numeracy scores, for both the treatment and control group do not exhibit any floor or ceiling effects, suggesting that the score is an appropriate measure to assess changes in numeracy over time.

The two figures following display the distribution of numeracy standardized scores between periods for both the treatment and control groups. For both evaluation groups, there is an average increase in numeracy scores between periods.

Figure 16. Numeracy (Standardized Score) Overtime for the Treatment Group

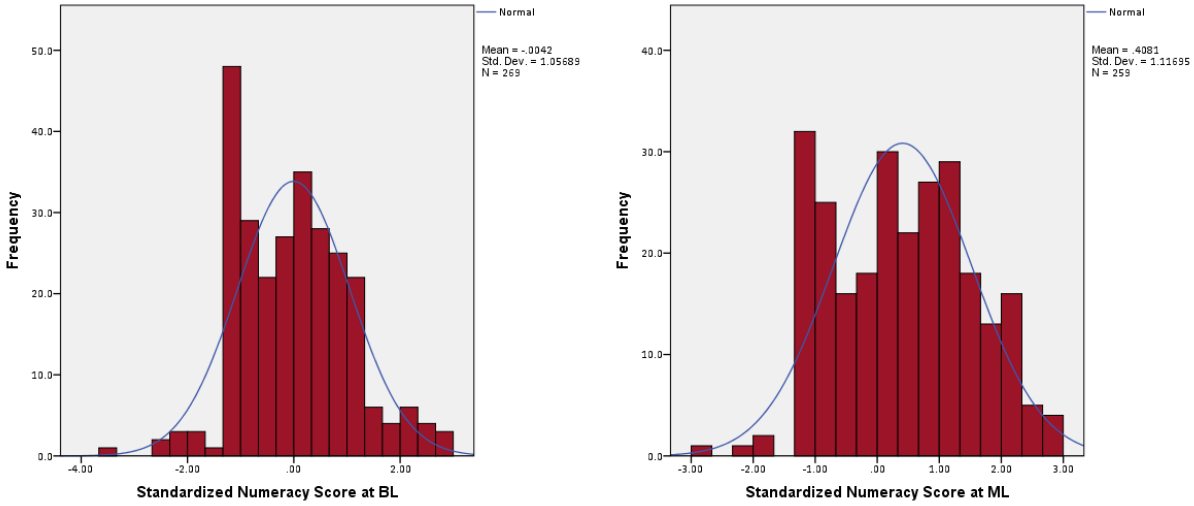
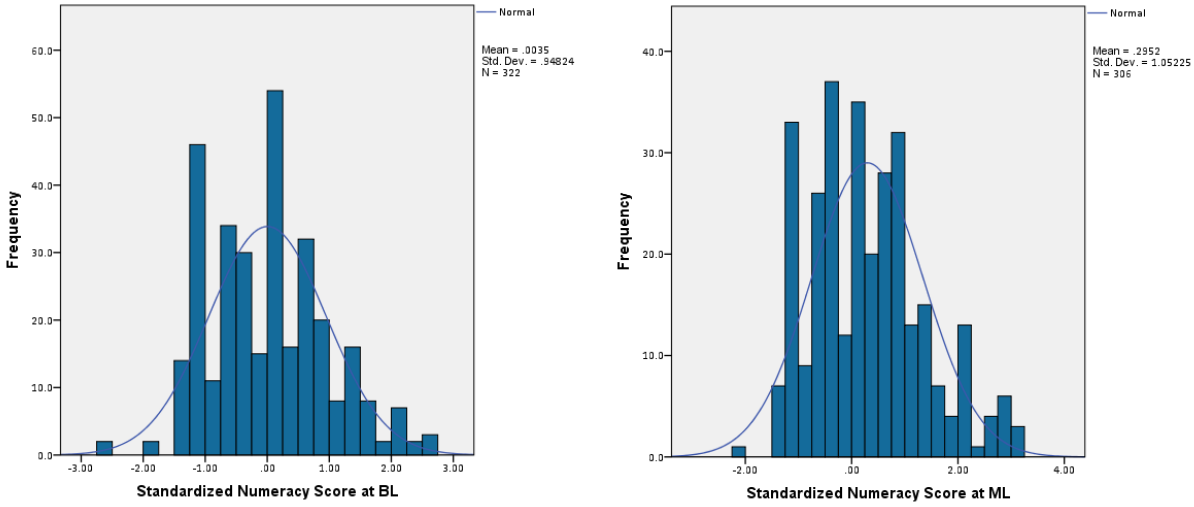


Figure 17. Numeracy (Standardized Score) Overtime for the Control Group



There is a general progression in numeracy standardized scores for both the treatment and control groups as grade level increases.

At midline, on the average, the treatment group has slightly higher aggregate numeracy scores than the control group based on this review. This is with the exception of girls who were originally in S4 and originally out of school, who have higher aggregate scores in the control group.

Table 15. Numeracy Aggregate Scores from Baseline to Midline

Cohort Grade at Baseline	Intervention Group Mean	Control Group Mean	Standard Deviation in the intervention group
P4	0.33	0.44	0.99
P5	0.11	-0.09	1.17
P6	0.71	0.42	1.14
S1	0.65	0.09	0.93
S2	0.84	0.51	1.27
S3	0.36	0.54	1.37
S4	0.10	0.73	1.17
Out of School Girl	0.02	*0.10*	0.81
Overall	0.41	*0.30*	1.12

The project did not have a visible impact on numeracy at statistically significant levels.

Treatment was unable to predict changes in numeracy scores between periods indicating that the project did not have a visible impact on numeracy outcomes (p>0.05).

Figure 18. Numeracy Standardized Score Mean Changes between Baseline and Midline

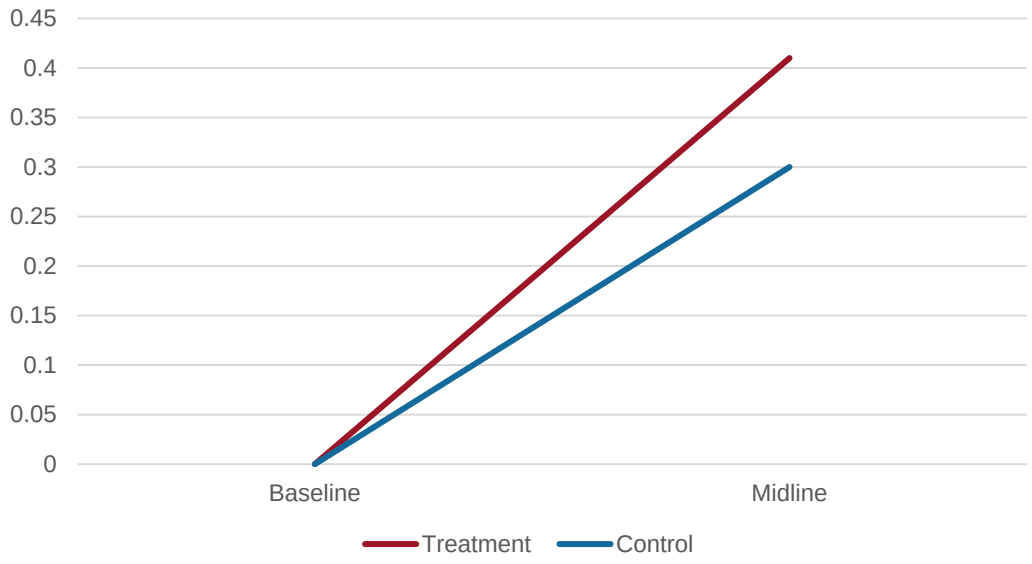


Table 16. Numeracy results

Result	Details	Comments
Numeracy Baseline - Midline	Beta = 0.136 p-value = 0.346 Target =0.25 Performance against target = 54.4%	The project did not have a visible impact on numeracy outcomes at statistically significant levels. This was true for both an unadjusted model and a model accounting for cluster standardized errors and including controls.

Error! Reference source not found. displays results between periods by evaluation group and original cohort membership.

Across original cohort grade levels, results are mixed between treatment and control for numeracy, on average.

The treatment group outperforms average changes experienced by the control group in P5, S1, S2, and for out of schoolgirls, and the control group outperforms average changes experienced by the treatment group in P4, P6, S3, and S4 on average.

The largest change between periods was exhibited by girls who were originally out of school at the baseline in the treatment group.

This is an intriguing finding, given that a large proportion of these girls did not re-enrol in school, and that girls' who were originally out of school at baseline, performed worse than their peers in the control group between periods in both Kinyarwanda and English literacy.

This suggests that numeracy skills may be more relevant to girls who did not re-enrol than literacy skills, and these girls may have better access to continuing to learn mathematical skills in day to day life despite not being enrolled in school.

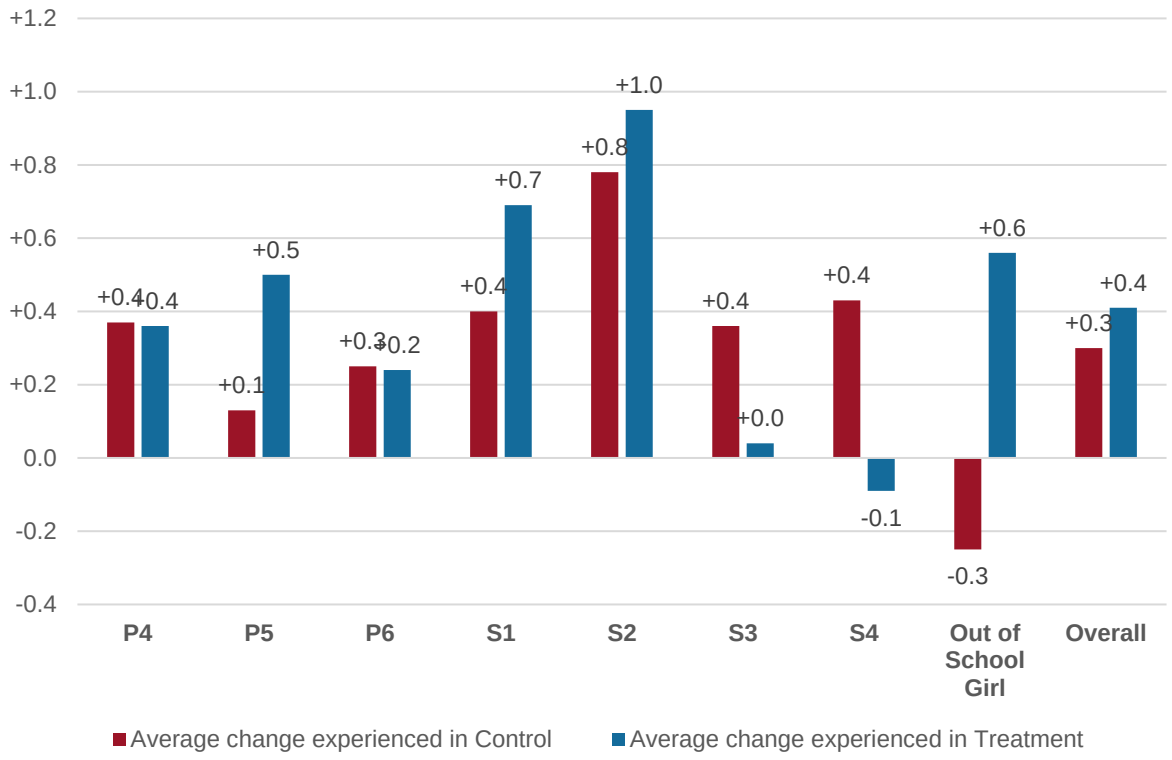
Table 17. Numeracy Aggregate Scores from Baseline to Midline

Cohort	Baseline numeracy treatment	Midline numeracy treatment	Difference baseline to midline	Baseline numeracy control	Midline numeracy control	Difference baseline to midline	Difference in difference (treatment – control difference)
P4	-0.03	*0.33*	***+0.36***	*0.07*	*0.44*	***+0.37***	***-0.01***
P5	-0.39	*0.11*	***+0.50***	*-0.22*	*-0.09*	***+0.13***	***+0.37***
P6	0.47	*0.71*	***+0.24***	*0.17*	*0.42*	***+0.25***	***-0.01***
S1	-0.04	*0.65*	***+0.69***	*-0.31*	*0.09*	***+0.40***	***+0.29***
S2	-0.11	*0.84*	***+0.95***	*-0.27*	*0.51*	***+0.78***	***+0.17***
S3	0.32	*0.36*	***+0.04***	*0.18*	*0.54*	***+0.36***	***-0.32***
S4	0.19	*0.10*	***-0.09***	*0.30*	*0.73*	***+0.43***	***-0.52***
Out of School Girl	-0.54	*0.02*	***+0.56***	*0.35*	*0.10*	***-0.25***	***+0.81***
Overall	0.0	*0.41*	***+0.41***	*0.0*	*0.30*	***+0.30***	***+0.11***

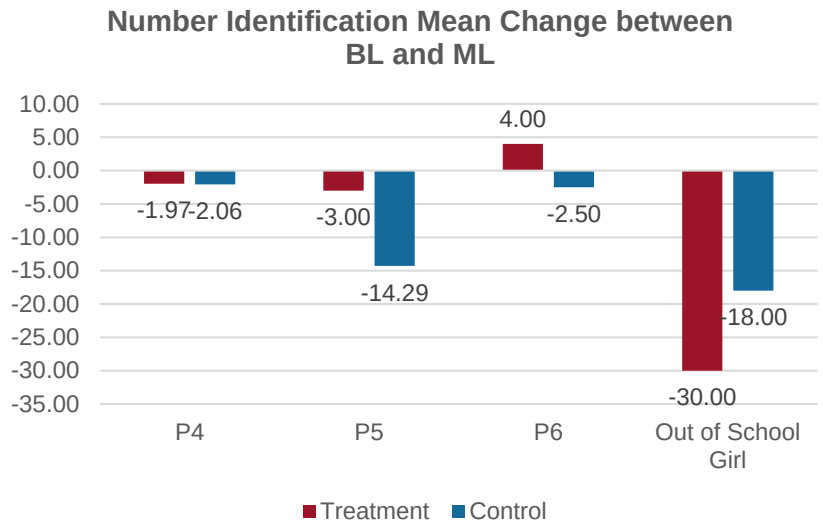
The figure following displays changes per cohort for both groups.

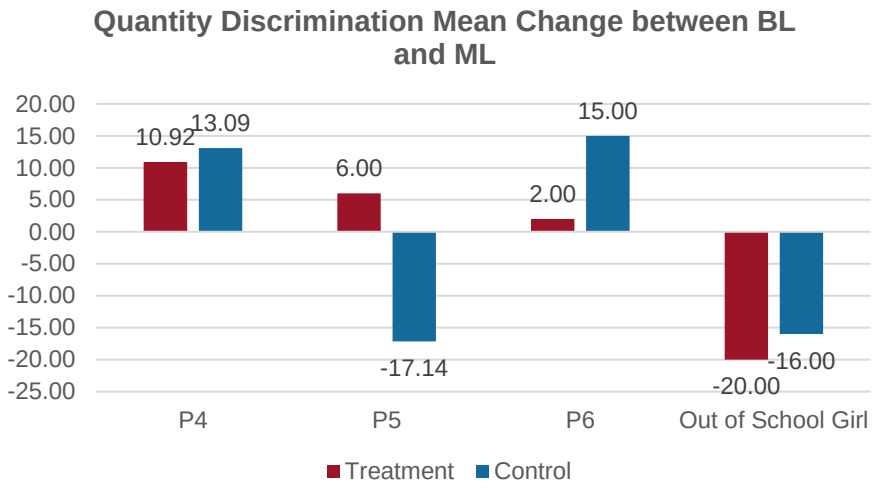
For both the treatment and control group, girls in S2 at baseline had the largest average improvement in numeracy between periods.

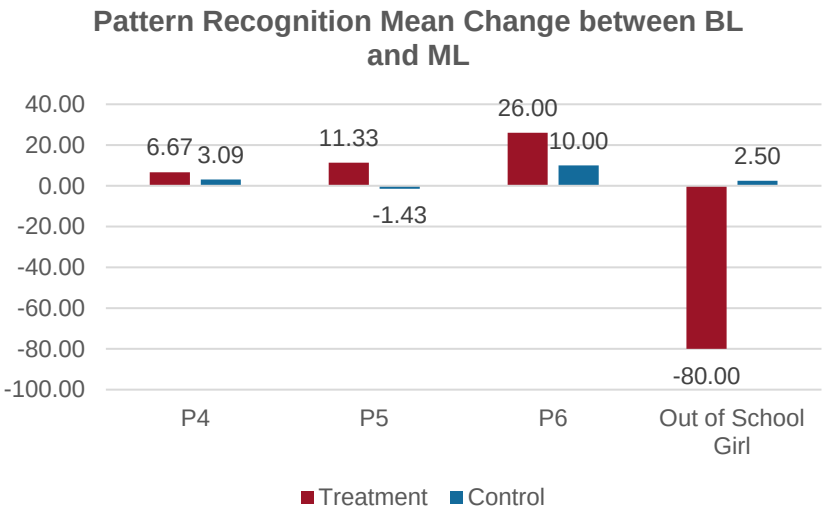
Figure 19. Changes in Numeracy Aggregate Scores between Periods by Evaluation Group and Original Cohort Membership

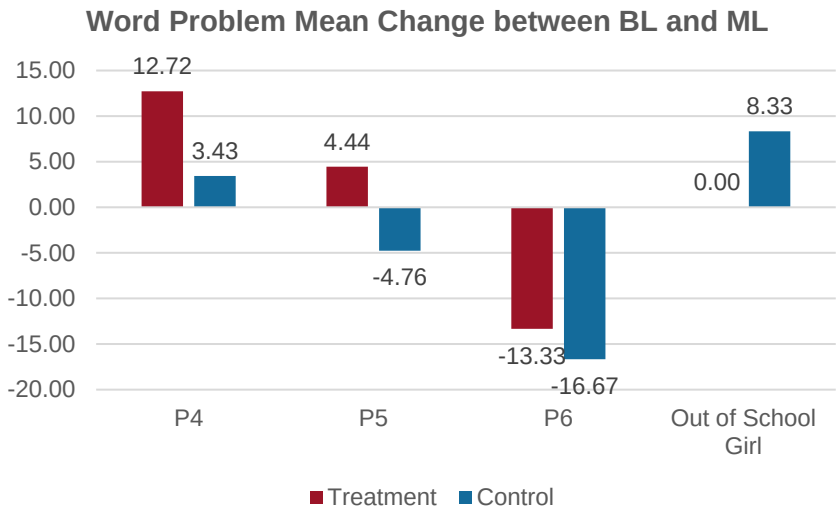


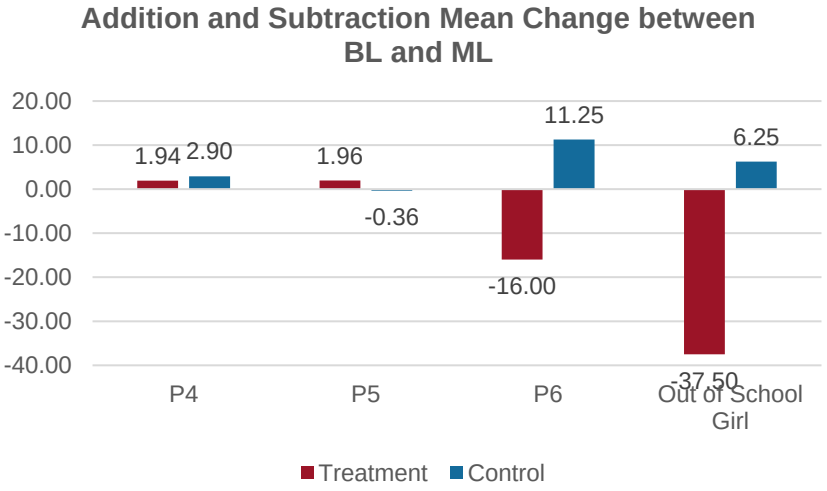
The figures following display the mean changes over time for all numeracy subtasks assessed. Regressions, using evaluation status to predict the first difference in each subtask, find that the project did not have an impact on any subtask independently between baseline and midline.

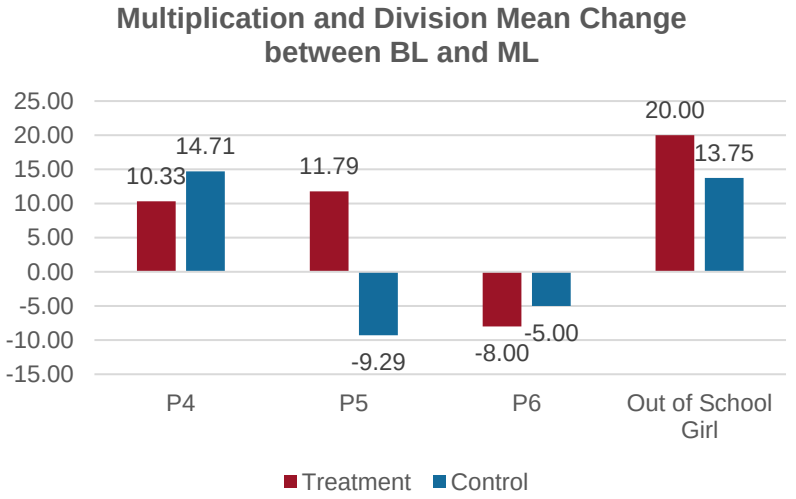

Number Identification Mean Change between BL and ML
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
-1.97
-2.06
-3.00
-14.29
4.00
-2.50
-30.00
-18.00
P4
P5
P6
Out of School Girl
Treatment
Control

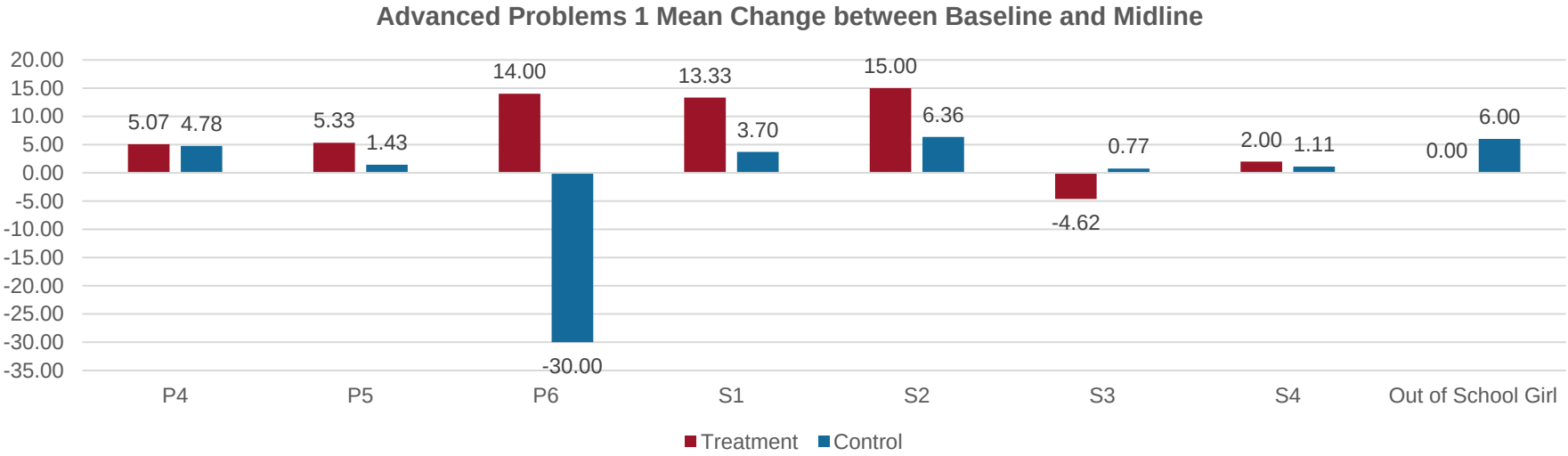

Quantity Discrimination Mean Change between BL and ML
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
10.92
13.09
6.00
-17.14
2.00
15.00
-20.00
-16.00
P4
P5
P6
Out of School Girl
Treatment
Control


Pattern Recognition Mean Change between BL and ML
40.00
20.00
0.00
-20.00
-40.00
-60.00
-80.00
-100.00
6.67
3.09
11.33
-1.43
26.00
10.00
-80.00
2.50
P4
P5
P6
Out of School Girl
Treatment
Control


Word Problem Mean Change between BL and ML
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
12.72
3.43
4.44
-4.76
-13.33
-16.67
0.00
8.33
P4
P5
P6
Out of School Girl
Treatment
Control


Addition and Subtraction Mean Change between BL and ML
20.00
10.00
0.00
-10.00
-20.00
-30.00
-40.00
1.94
2.90
1.96
-0.36
-16.00
11.25
-37.50
6.25
P4
P5
P6
Out of School Girl
Treatment
Control


Multiplication and Division Mean Change between BL and ML
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
10.33
14.71
11.79
-9.29
-8.00
-5.00
20.00
13.75
P4
P5
P6
Out of School Girl
Treatment
Control


Advanced Problems 1 Mean Change between Baseline and Midline
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
5.07
4.78
5.33
1.43
14.00
-30.00
13.33
3.70
15.00
6.36
-4.62
0.77
2.00
1.11
0.00
6.00
P4
P5
P6
S1
S2
S3
S4
Out of School Girl
Treatment
Control

4.1.2 Foundational Skills Gaps

To better understand in what specific domains of literacy and numeracy girls improved between periods, **Error! Reference source not found.** - **Error! Reference source not found.** reports the proportion of girls categorized into different score bands per subtask. These bands were established following FM guidance and have been applied across all GEC-T projects.

The figure displayed in parenthesis is the proportion change in that category between baseline and midline. A positive number represents an increase in the proportion of girls who fall in that category, between periods, while a negative number indicates a decrease in the proportion of girls who fall into that category, between periods.

For both number identification and quantity discrimination, girls generally improved between baseline and midline.

For number identification, whilst the proportion of established learners increased, the proportion of learners categorized as being proficient in the skill decreased between periods. This is difficult to explain as number identification is the most basic of the subtasks assessed. However, despite these changes the majority of girls assessed could be categorized as being proficient in naming numbers.

For quantity discrimination, girls largely improved in their skills, with the proportion of proficient learners increasing by 19.5% between periods.

Results suggest that girls' lack skills in pattern recognition and in responding to word problems, and that this did not improve between periods.

With regards to missing numbers task and word problems task, results largely remained the same with no major increases in the proportion of children categorized into higher categories or lower categories. This suggests that girls need additional support to improve their ability to recognize patterns and respond to word problems.

Girls exhibited improvements in multiplication and division but regressed in addition and subtraction and in the first advanced problems task.

For the addition and subtraction subtasks, children slightly decreased their skills between periods with less girls being categorized as established and proficient learners in these domains.

However, for multiplication and division, girls generally improved their skills, as 12.1% more girls were categorized as proficient learners at midline than at baseline.

The advanced problems task (1) remained difficult at Midline, with slightly more girls' being categorized in the lower two categories at Midline.

Table 18. Foundational Numeracy Skills Gaps in the Treatment Group (EGMA)

Subtask	Categories			
	Non-learner 0%	**Emergent learner 1%-40%**	**Established learner 41%-80%**	**Proficient learner 81%-100%**
Subtask 1 *Number Identification*	2.1% (+1.6%)	3.1% (+2.6%)	30.9% (+5.5%)	63.9% (-9.8%)
Subtask 2 *Quantity Discrimination*	2.1% (+1.1%)	2.1% (-2.7%)	17.5% (-17.9%)	78.4% (+19.5%)
Subtask 3 *Missing Numbers*	4.1% (-0.7%)	26.8% (-2.0%)	54.6% (+1.7%)	14.4% (+1.1%)
Subtask 4 Word Problems	2.1% (-5.6%)	15.5% (-0.3%)	32% (+4.2%)	50.5% (-0.2%)
Subtask 5 Addition & *Subtraction*	0% (-1.0%)	10.4% (+4.7%)	43.8% (-3.6%)	45.8% (-0.1%)
Subtask 6 *Multiplication and Division*	5.2% (+1.4%)	35.4% (+1.7%)	38.5% (-15.3%)	20.8% (+12.1%)
Subtask 7: Advanced Problems (Same as SeGMA 2)	40.6% (+2.3%)	44.8% (+2.2%)	14.6% (-2.6%)	0% (-1.9%)

Results for the first advanced problems task at the secondary level suggest girls' results have polarized, with more girls being categorized in both the lowest and highest categories.

At the secondary level, results for advanced problems 1 were mixed, with a higher proportion of girls being categorized in the lowest two categories and a higher proportion of girls being categorized in the highest category. This task measured the extent to which children could answer longer multiplications of integers and fractions, divisions, and order of operations problems.

However, results for the second advanced problem task which measures girls' ability to conduct basic operations with fractions, solve geometry problems, and solve simultaneous equations, suggest girls improved in these areas.

For the second advanced problems task, girls on the whole improved, with a higher proportion of girls moving from non-learners to emergent learners, and emergent learners to established learners.

Table 19. Foundational Numeracy Skills Gaps (SeGMA)

Subtask	Categories			
	Non-learner 0%	**Emergent learner 1%-40%**	**Established learner 41%-80%**	**Proficient learner 81%-100%**
Subtask 1: Multiplication and Division (Same as EGMA 6)	1.2% (N/A)	11.6% (N/A)	32.3% (NA)	54.9% (N/A)
Subtask 2: Advanced Problems 1	14.5% (+1.39%)	37% (+5.62%)	37.6% (-3.38%)	10.9% (+7.62%)
Subtask 3: Advanced Problems 2	21.8% (-27.4%)	49.1% (+9.8%)	25.5% (+17.3%)	3.6% (+0.3%)

Score band results for EGRA English are shown in the table following.

Results for letter identification suggest mixed results with some girls demonstrating improvements and others moving from upper to middle categories.

As with number identification, some girls lost ground in letter naming knowledge with more girls moving from proficient learners to established learners. The proportion of non-learners however decreased suggesting some girls also developed their skills in this competency.

In familiar and invented word reading girls improved between baseline and midline.

For both familiar and invented word reading, more girls moved from emergent learners to established and proficient learners suggesting general improvement in these skills.

Girls at midline could read at higher levels of fluency than at baseline, based on this review.

For oral reading fluency, girls tended to move from emergent to established readers or from established to proficient readers. Gains were similarly made for basic reading comprehension, with a higher proportion of girls falling into the upper two categories than the lower two.

Girls ability to decode meaning from a written text also improved based on a review of advanced reading comprehension scores.

For the first advanced reading comprehension task, at the primary level, girls tended to move from being non-learners to being emergent learners, suggesting a general improvement in skills in this task, although the proportion proficient learners did not increase from baseline.

Table 20. Foundational English Literacy Skills Gaps (EGRA)

Subtask	Categories			
	Non-learner 0%	**Emergent learner 1%-40%**	**Established learner 41%-80%**	**Proficient learner 81%-100%**
Subtask 1 *Letter Naming Knowledge*	17.5% (-5.11%)	51.5% (+9.29%)	25.8% (+1.68%)	5.2% (-5.86%)
Subtask 2 Familiar Word	7.2% (-2.21%)	23.7% (-16.40%)	48.5% (+14.84%)	20.6% (+3.7%)
Subtask 3 *Invented Word*	12.4% (-4.35%)	21.6% (-10.94%)	42.3% (+7.37%)	23.7% (+7.91%)
Subtask 4: Short Passage (Oral Reading Fluency)	9.4% (-6.5%)	31.3% (-8.7%)	46.9% (+16.13%)	12.5% (-0.83%)
Subtask 5 Reading Comprehension	41.7% (-9.02%)	34.4% (-3.4%)	19.8% (+11.19%)	4.2% (+1.33%)
Subtask 6 *Advanced Reading Comprehension 1 (Same as SeGRA 2)*	48.5% (-11.31%)	47.4% (+12.47%)	4.1% (-1.16%)	0% (+0%)

Girls in secondary schools exhibited improvements in both oral reading fluency and advanced reading comprehension.

At the secondary level, for the short passage reading task, the proportion of girls in the upper two categories increased, and the proportion of non-readers decreased. As with girls in the primary level, girls in secondary improved their ability to read at higher levels of fluency.

For advanced reading comprehension 1, girls tended to move from being non-leaners to emergent learners. A small proportion of girls became proficient learners, whereas no girls fell in this category at baseline.

Table 21. Foundational English Literacy Skills Gaps (SeGRA)

Subtask	Categories			
	Non-learner 0%	**Emergent learner 1%-40%**	**Established learner 41%-80%**	**Proficient learner 81%-100%**
Subtask 1: Short Passage (Oral Reading Fluency; same as EGRA 4)	1.3% (-6.1%)	5.1% (-13.08%)	48.7% (+6.88%)	44.9% (+12.17%)
Subtask 2: Advanced Reading Comprehension 1 (Same as EGRA 6)	35.3% (-5.7%)	54.5% (+5.3%)	9.6% (-0.20%)	0.6% (+0.6%)
Subtask 3: Advanced Reading Comprehension 2	21.8% (N/A)	59% (N/A)	17.9% (N/A)	1.3% (N/A)

In Kinyarwanda, for letter naming and familiar word reading, girls tended to perform worse at Midline than at baseline.

For Kinyarwanda, letter naming, the proportion of girls who were proficient in this skill decreased between baseline and midline. For familiar word reading, results were similarly negative with more children being categorized in the lower two bands at midline than at baseline.

Kinyarwanda results became more polarized for oral reading fluency, with more girls categorized as proficient readers and more girls being categorized as non-readers at midline than at baseline.

For invented word reading and oral reading fluency results were mixed, with more girls categorized as proficient learners by midline but more also being categorized as non-learners.

For reading comprehension based on the oral reading passage, comprehension results tended to improve. However, for reading comprehension of the more advanced written passage comprehension tended to worsen between baseline and midline.

For reading comprehension children generally improved their comprehension with 10.6% more girls being categorized as proficient learners by Midline. However, for the advanced reading comprehension task a large number of children moved from being emergent to non-learners (14.6%) at Midline, suggesting that the decreased in their capacity to read and understand written Kinyarwanda between periods.

As discussed earlier, this may be because Kinyarwanda is less relevant as girls progress in school, as it is no longer the language of instruction in upper primary and secondary school, despite it still being a taught subject.

Table 22. Foundational Kinyarwanda Literacy Skills Gaps (EGRA)

Subtask	Categories			
	Non-learner 0%	**Emergent learner 1%-40%**	**Established learner 41%-80%**	**Proficient learner 81%-100%**
Subtask 1 *Letter Naming Knowledge*	0% (-0.48%)	11.2% (+4.92%)	46.1% (+5.52%)	42.7% (-9.9%)
Subtask 2 Familiar Word	3.4% (+3.37%)	5.6% (+2.67)	39.32% (-6.53%)	51.6% (+0.47%)
Subtask 3 *Invented Word*	4.49% (+3.03%)	13.48% (-1.15%)	49.43% (-8.12%)	32.58% (+6.24%)
Subtask 4: Short Passage (Oral Reading Fluency)	4.49% (+3.51%)	6.74% (-1.59%)	41.57% (-5.98%)	47.19% (+4.05%)
Subtask 5 Reading Comprehension	6.74% (+3.87%)	2.25% (-3.49%)	25.84% (-11.00%)	65.17% (+10.62%)
Subtask 6 *Advanced Reading Comprehension 1 (Same as SeGRA 2)*	22.22% (+14.57%)	30.86% (+0.24%)	45.68% (-5.04%)	1.23% (-9.77%)

At the secondary level, for Kinyarwanda, girls on the whole tended to perform worse at Midline than at baseline.

At the secondary level, girls largely regressed in Kinyarwanda reading fluency falling from being proficient leaners to established learners. As discussed previously in the report, this may be due to the fact that the LOI in upper primary and secondary school is English and Kinyarwanda is therefore less relevant in secondary school than in earlier primary years. Results are similar for both advanced reading comprehension tasks with demonstrable movement to lower score bands between periods.

Table 23. Foundational Kinyarwanda Literacy Skills Gaps (SeGRA)

Subtask	Categories			
	Non-learner 0%	**Emergent learner 1%-40%**	**Established learner 41%-80%**	**Proficient learner 81%-100%**
Subtask 1: Short Passage (Oral Reading Fluency; same as EGRA 4)	0% (+0%)	1.88% (+1.88%)	21.88% (+8.68%)	76.25% (-10.55%)
Subtask 2: Advanced Reading Comprehension 1 (Same as EGRA 6)	5.52% (+2.22%)	19.63% (13.03%)	64.42% (+8.72%)	10.43% (-23.97%)
Subtask 3: Advanced Reading Comprehension 2	5.52% (+5.98%)	19.63% (+13.03%)	64.42% (+23.42%)	10.43% (-30.57%)

4.1.3 Performance Against Expected Curriculum Competencies

To understand achievements against expected curriculum competencies the national curriculum was mapped against subtasks included in study's learning assessments. Results are summarized in Table 24 and Table 25.

0% of girls in P5 met the expected curriculum competency for English, suggesting teachers need additional support delivering the P5 curriculum.

Children in P5 should have proficient skills in oral reading fluency and reading comprehension according to the national curriculum (REB). However, 0% of girls met this competency at

Midline. The project should explore how to better support teachers to deliver the P5 curriculum. This was the case for both the treatment and control group.

This is likely because girls in P5 have only been exposed to 1 year of English language instruction (P4). As the curriculum expects more advanced levels of fluency by P5, additional supports need to be put in place both in P5 and earlier, to enable girls to meet this competency.

More than double the proportion of girls in the intervention group in P6 met the curriculum competency in Oral Reading Fluency than in the control group.

18.3% of girls in the treatment group in P6 were categorized as proficient readers compared to 7% in the control group. This suggests that treatment schools may be better at delivering the P6 English curriculum than control schools.

However, this remains a minority of girls, with the majority of 81.7% in P6 in treatment schools not reaching a proficient level of oral reading fluency by P6.

Similar proportions of treatment and control girls in S1 and S2 met the curriculum competency in Advanced reading comprehension.

Around the same proportion of girls in S1 and S2 met the expected curriculum competency in the treatment and control groups.

0% of girls in both the treatment and control group can be categorized as proficient leaners in the first advanced comprehension task in S3 and 0% of girls in both the treatment and control groups could be considered proficient learners in the second advanced reading comprehension task in S6. This finding suggests teachers in S3 and in S6 need additional support to deliver the English language curriculum, particularly with regards to decoding meaning of more advanced written texts.

Project staff have suggested that failure to meet expected curriculum competencies in English may be due to the fact that the best performing students are transferred to other schools, outside of the project area, at the end of primary school. Additionally, secondary schools targeted by the project are overcrowded with up to 90 students per class and this likely has an effect on the ability of teachers to deliver the curriculum in these settings. Finally, it is important to recognize that the expected competencies in the national curriculum may not be well aligned with the actual levels of girls' English literacy levels.

Table 24. English Literacy Achievement against Expected Curriculum Competencies

Grade at Midline	Relevant Subtasks based on National Curriculum [Minimum Level Required]	Evaluation Group		Intervention Performance compared to Control
		Treatment	Control	
P5	**Short Passage Reading – Oral Reading Fluency [Proficient]; Reading Comprehension [Proficient]**	0.0%	0.0%	**0.0%**
P6	**Oral Reading Fluency [Proficient];**	18.3%	7.0%	**+11.30%**
S1	**Advanced Reading Comprehension 1 [Emergent]**	55.0%	55.8%	**-0.80%**
S2	**Advanced Reading Comprehension 1 [Established]**	13.9%	11.0%	**+2.90%**
S3	**Advanced Reading Comprehension 1 [Proficient]**	0.0%	0.0%	**0%**
S4	**Advanced Reading Comprehension 2 [Established]**	37.5%	35.3%	**+2.20%**
S5	**Reading Comprehension 2 [Established]**	45%	25%	**+20.00%**
S6	**Reading Comprehension 2 [Proficient]**	0.0%	0.0%	**0%**

A higher proportion of girls in P5 in the control group met the expected curriculum competency in multiplication and division than in the treatment group.

This finding suggests that teachers in P5 in intervention schools may need additional support delivering the mathematics curriculum. However, by P6, a higher proportion of children in the treatment group (+6.6%) had met the expected curriculum competency in this same domain.

A higher proportion of girls in the treatment group in S1, S2, S3, S5, S6 met the expected curriculum competencies than in the control group. The control group outperformed the treatment group in S4.

Across grade levels however, only a majority of girls met the expected curriculum competency in S2 and S4. This suggests that the expected curriculum competencies are too high a standard for girls to achieve and that teachers need additional support to support girls to learn how to solve geometry problems, simultaneous equations, longer multiplication problems, equations with unknowns and longer multiplication problems.

Table 25. Numeracy Achievement against Expected Curriculum Competencies

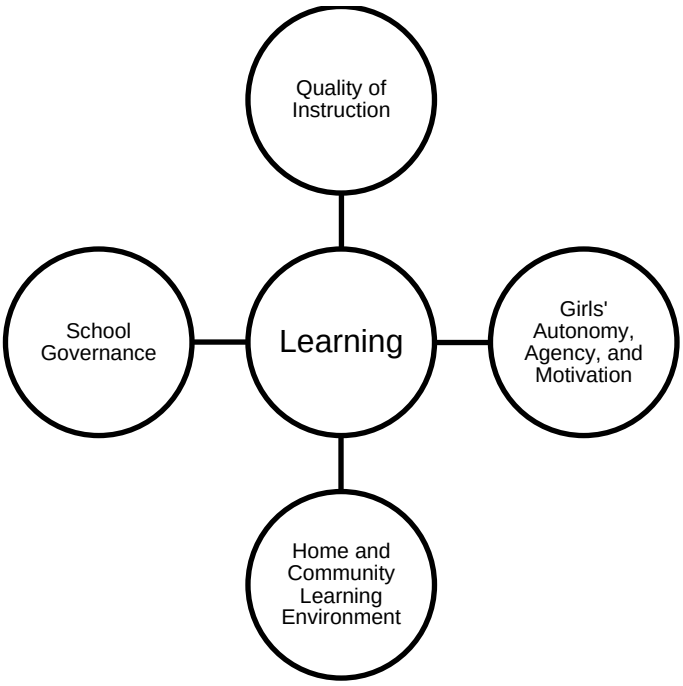
Grade at Midline	Relevant Subtask(s) based on National Curriculum [Level Required]	Evaluation Group		Intervention Performance compared to Control
		Treatment	Control	
P5	**Multiplication and Division [Proficient]**	7.1%	13.3%	**-6.20%**
P6	**Multiplication and Division [Proficient]**	24.2%	17.6%	**+6.60%**
S1	**Advanced Problems 1 [Established]**	42.7%	24.7%	**+18.00%**
S2	**Advanced Problems 1 [Established]**	56.7%	34%	**+22.70%**
S3	**Advanced Problems 1 [Proficient]**	16.1%	13.50%	**+2.60%**
S4	**Advanced Problems 2 [Established]**	50.0%	52.9%	**-2.90%**
S5	**Advanced Problems 2 [Established]**	36.8%	29.2%	**+7.60%**
S6	**Advanced Problems 2 [Proficient]**	15.4%	8.3%	**+7.10%**

4.1.4 What influences learning outcomes?

At midline, the evaluation should provide a clear answer as to what supports learning improvements. An overview of the factors expected to influence learning is shown in the figure following.

Several of these are addressed through the project's intermediate outcomes and are discussed later in this report. Quality of instruction is targeted through improvements in teaching quality. Girls agency, autonomy, and motivation are targeted through improvements in girls' life skills. The role of a girls' home and community learning environment, and her school's governance, is explored and discussed in this section of the report.

Figure 20. Expected Drivers of Learning Improvements



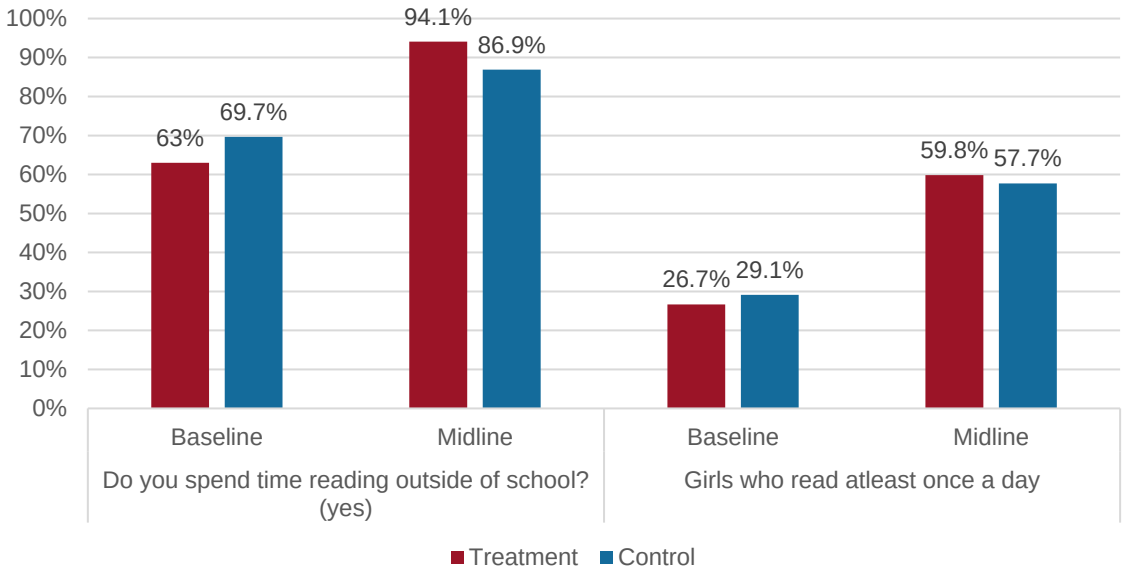
A positive home learning environment supports girls to learn at home and practice and further skills covered in school. Significant literature supports the role this has, particularly in the early years in supporting a child's social and cognitive development. For the purposes of this evaluation, we understand a supportive home learning environment as a safe and stimulating setting that includes implicit and explicit support for learning from caregivers. Beyond physical provisions, such as a safe space and access to learning materials and learning experiences, this should also include the active interest and engagement of parents in the learning process.

Girls were asked whether they read outside of school and how often they read. Results are summarized in the figure following.

Between baseline and midline, for both the treatment and control group, the proportion of girls who read outside of school increased. However, improvements in the treatment group exceeded improvements in the control group.

Girls were also asked how often they read. This also exhibited clear increases in both evaluation groups, with the majority of girls reporting they read at least once per day by midline compared to a minority at baseline.

Neither the time spent reading nor whether a girl reads at home or not could predict literacy improvements between periods at statistically significant levels. This does not mean that these changes do not play a role in supporting literacy improvements but rather that the relationship is not visible and may be mediated by other variables.



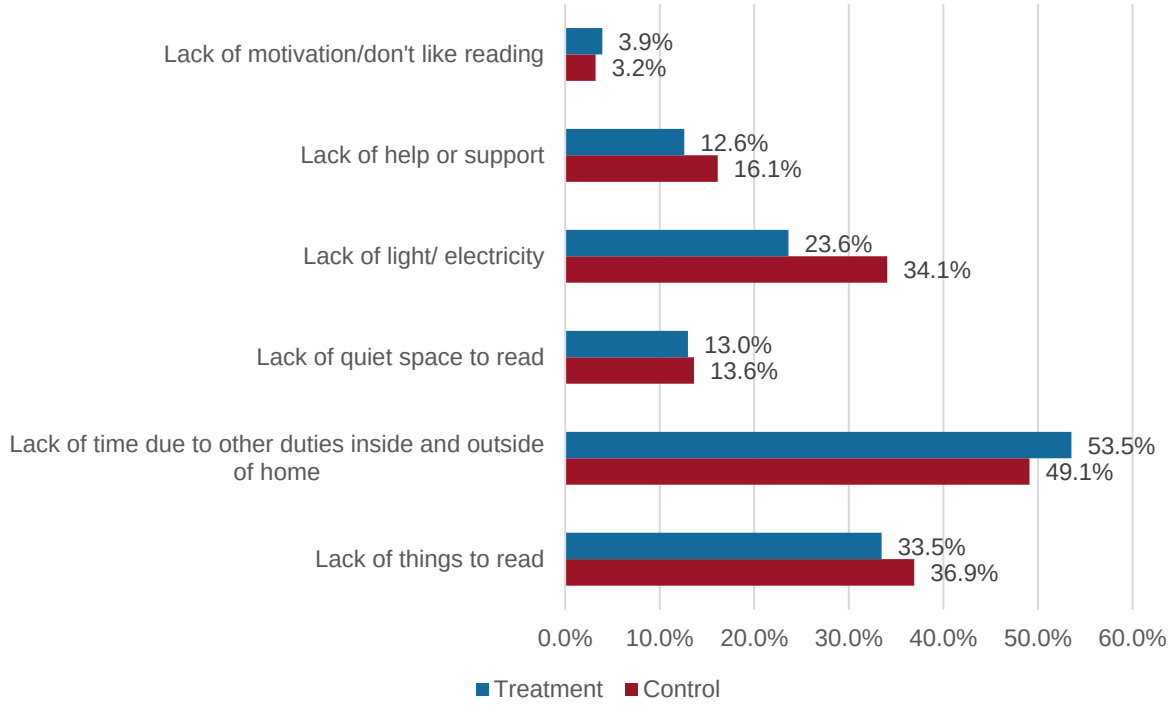
To further understand the quality of the home learning environment, girls were also asked what barriers prevent them from reading when they want to. Girls were allowed to list up to three barriers.

The most frequent barrier reported by girls to their ability to read at home in both the treatment and control groups, was the lack of time due to household chores and other duties.

This finding suggests that the project should further consider additional sensitization activities with parents and caregivers on the negative consequences of a high chore burden and other household duties.

This was followed by a lack of materials to read, and the lack of electricity or light to read at home.

Figure 21. What prevents you from reading when you want to?



Several girls, mothers, and teachers in qualitative sessions highlighted the role of caregiver and parental engagement in supporting girls to learn in school.

As girls commented:

"*Our parents help us to read and help us to write";*

"For example, I am student and my parents do not care on what I am studying but if an older person can take care of me and follow the courses, it would be helpful to my overall performance";

"Our parents encourage us to read to remember texts or stories leant to school so that we become able to read the assignments given by our teachers at school";

"I live with my cousin and he cares for my studies because he asks me about studies and when I am not doing the homework he helps and reminds me to do it".

A mother interviewed as part of the midline agreed with this, summarizing the general sentiment by stating:

"My support to study is first of all to know her behaviour, Parents have to make sure that their children really go to school because some girls are sent to school and do not go there. Parents have to attend meeting organized at school level in order to make a follow-up of the children at school. For example, for parents who have children in clubs have opportunity to attend many meetings organized at school level and we gain information out their studies and support them to succeed accordingly".

A teacher in another session similarly commented:

"The children who are performing very well in class are those who are helped by their parents, those whose parents visit them at school and with good living family conditions. If a child comes without hanger and there are no family misunderstandings, if the teacher teaches correctly, the child follows and performs without any problem".

These findings suggest the project should conduct additional sensitization activities to support parental engagement, an area not currently targeted by project activities.

Other girls emphasized the role of older siblings in helping them to understand difficult concepts.

As girls stated:

"*Our elder siblings support us while reading when we are not able to read ourselves, when we have known to read, we read on ourselves";*

"when thing is difficult, we request to our sibling";

"We continue asking more explanation to teacher or elder brothers".

Based on these findings, it may be of interest to the project to consider engaging older siblings in CSGs or as peer mentors to support younger children's learning.

Two activities aim to increase learning opportunities for girls at the community level: remedial lessons and community study groups.

26.6% of girls surveyed at midline are members of Community Study Groups. 52.1% of these girls attend CSGs every time activities take place, 12.5% attend most group meetings, 31.3% report attending sometimes, and 4.2% report not attending in group meetings. 81.3% of CSG members report that what they learn in CSG clubs is "very useful" and 77.1% report that it has helped them succeed in school.

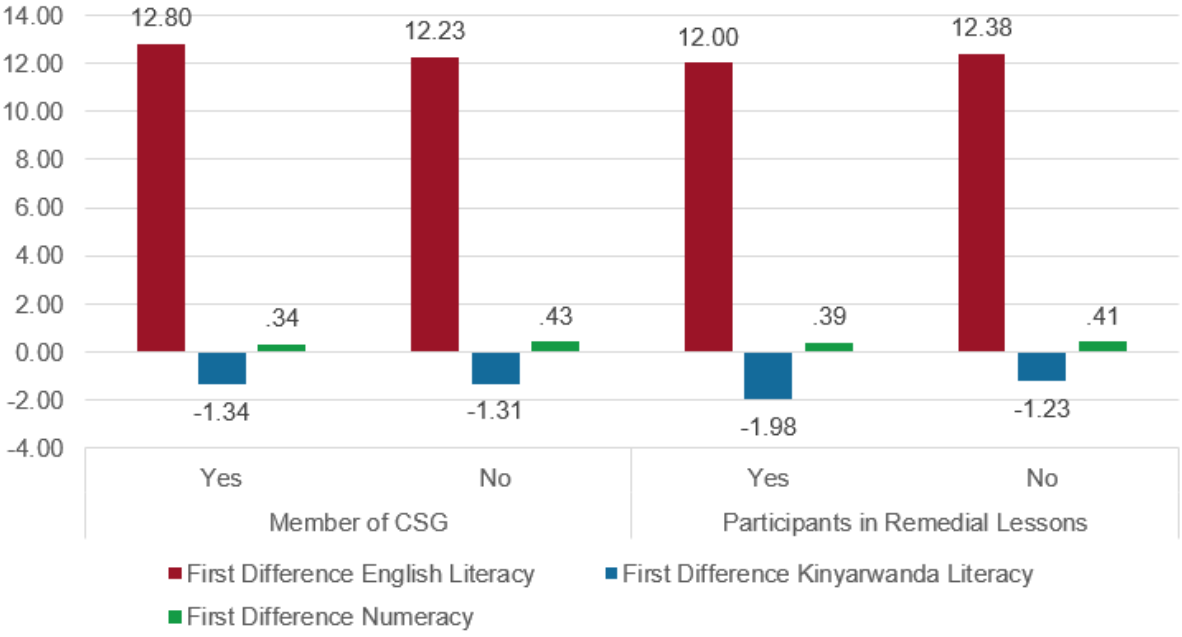
Being a member of a Community Study Groups or attending remedial lessons does not have a direct impact on learning improvements between Baseline and Midline.

26.6% of girls in the treatment group are members of Community Study Groups (CSGs) and 14.4% attend remedial lessons. The project expects girls participating in remedial lessons and girls who are members of community study groups to improve their learning. The study reviewed mean first difference scores across learning outcomes for these girls.

Mean changes between baseline and midline are shown in the figure following. T-tests determine that no mean differences were statistically significant. Additionally, linear regressions found no visible relationship at statistically significant levels between participating in these activities and improvements in learning between periods.

As shown in the figure following, mean changes over time were relatively similar whether a girl participated in these activities or not. This suggests that participation in these activities do not have a direct effect on learning improvements, indicating there may be other variables that play a role in mediating the relationship.

Figure 22. Role of CSG and Remedial Lessons on Learning



Anecdotal evidence from project staff suggest that remedial learning has led to improvements in girls' ability to read. The study has requested additional data from the project to verify these findings.

Despite these results for CSGs, qualitative evidence, suggests that Community Study Groups may have supported some girls to improve their learning.

Several girls in FGDs report that attending CSG activities led to improvements in their learning in school, despite the lack of quantitative evidence to support this.

Several girls mentioned that the CSG allowed them to go over concepts they may not have understood in class. As one girl commented:

"*For me when we have not understood well a subject from the school, the mentor helps us to revise and internalize that particular subject*"[64].

Others mentioned that that for them it led to improvements in English and other subjects:

"*I see that it improves my English language ability in reading and understanding*"[65].

[64] FGD with CSG Members 1

[65] ibid

"It is good, we learn English, Mathematics, Kinyarwanda and social studies, and we learn new vocabularies that help us to respond in classes"[66].

However, based on the lack of quantitative evidence to support these claims and additional qualitative evidence reviewed, these views may be from a minority of girls, who may already be at the middle or top of the class.

A number of girls also highlighted that they felt attending CSG sessions had led to improvements in their class ranking:

"It has boosted my performance and consequently I come in the first ranking numbers in school. I have been coming at the fifth place but now I get closer to the first ranking in our class"[67];

"I used to be the tenth but now I have turned to be the first"[68];

"I used to be the thirteenth but after joining the Community Study Group I have improved and performed well my exam which resulted in me coming at the eighth raking in our class"[69].

Girls who mentioned improvements in class ranking were already fairly highly ranked.

This could mean that the CSG is particularly well suited to improving the learning of girls who are average or above average to begin with and may not be well suited for those at more nascent skill levels.

To further understand this quantitatively, we categorized girls into quartiles based on their oral reading fluency scores in English at baseline. Oral reading fluency (ORF) provides a well-documented measure of 'overall reading competence' [70].

Tests for association suggest that CSGs were better suited to support English oral reading fluency improvements between baseline and midline for girls with higher levels of oral reading fluency to begin with.

22% of girls in CSGs were in the lowest quartile at baseline, reading 22 words per minute.

Chi-square tests for association find that there is a statistically significant association for girls in CSGs, between being in the lowest quartile of oral reading fluency at baseline and regressing or staying the same in English oral reading fluency between baseline and midline ($p<0.05$).

This finding suggests that CSGs are better able to support the English literacy fluency of girls who have higher levels of fluency to begin with.

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[66] FGD with CSG Members 2

[67] ibid

[68] ibid

[69] ibid

[70] Hasbrouck & Tindal. Oral Reading Fluency: 90 Years of Measurement. 2006

Why are girls with low levels of attainment facing difficulties in improving their fluency levels after attending CSGs? Qualitative evidence suggests several possible reasons why CSGs may face difficulties in supporting girls to improve their learning.

Girls mentioned that CSG activities should be divided into different skill level groupings.

Several girls highlighted that attending a CSG targeting girls of all grade levels, often dilutes their learning experience. As girls stated:

"*Students should not be mixed in our group, it should be a separate group for grade 4, a group for grade 5 and a group for grade 6 as we have different needs. For grade six students, they can be prepared to national examination"*[71]*;*

"Grade Six students should study more compared to other students so that they can improve their performance in the National examination"[72]*.*

Project staff report that there may be challenges with differentiating instruction in CSGs due to the limit time for the groups. However, this should be further explored based on this feedback and the lack of clear quantitative evidence linking participating in CSGs to learning improvements.

CSG tutors report needing additional support implementing the games they are taught in training, and with accessing teaching and learning materials.

Several CSG tutors interviewed as part of the study suggested that they needed additional support practicing the games discussed during training:

"There are games they tell us to use, as with teaching materials, they are giving it in theoretical way without practicing those games ourselves… in order to fully use it while teaching. They only provide drawn materials, such as dice. When I got home, I was confused. I feel in the next training, I suggest, we practice those games in order to get used to it while teaching."[73]

"They should teach us practical games because learning it in a theoretical way confuses us and we found it difficult to replicate it in front of the children. I ask that they should practice next time to facilitate the replication"[74]*.*

CSG tutors also expressed that they lacked materials to support them to implement games they were taught to implement, as well as notebooks and other supplies to support children who attend activities to fully engage:

"I think in the next training they can provide some of the materials and help us all ways of making use of those materials."[75]

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[71] FGD with CSG Members 2

[72] ibid

[73] Interview with CSG Tutor 3

[74] FGD with CSG Tutors 3

[75] ibid

"We have challenges of having insufficient teaching materials."[76]

"What can be improved is to provide enough materials, such as a game manual and story books for children so they can practice more."[77]

"We should put emphasis on the availability of materials for boys, such as a ball to help boys also to feel included into the program."[78]

CSG tutors mentioned the need for additional sensitization activities involving both schools and parents.

To support CSG recruitment by girls in the community and the participation of all girls who could benefit, several tutors mentioned that it would be helpful if the project conducted additional sensitization activities with parents and schools:

"I also suggest that parents should be approached and make them aware of the CSG because when they understand it is easy for them to send children."[79]

"What can be changed is to mobilize parents and guardians on this program to send their children"[80].

Some CSG Tutors report benefits of engaging more closely with schools in their area.

According to some tutors, heavy rains often lead to reduced attendance due to a lack of a covered area to meet. However, several report that they have agreed with their local school to hold CSG meetings in empty classrooms on weekends and this has supported attendance:

"We requested permission to work inside the school and have finally been granted permission to meet in school classrooms"[81].

"We found this place very safe especially regarding the teaching materials, rainy season, and other security issues"[82].

Another CSG tutor reported that collaborating with the school allowed them to access textbooks to support teaching activities:

"We have taken textbooks from the school which we use to plan on the lessons we teach in the CSG.[83]*"*

[76] FGD with CSG Tutors 1
[77] FGD with CSG Tutors 2
[78] FGD with CSG Tutors 4
[79] FGD with CSG Tutors 2
[80] FGD with CSG Tutors 3
[81] ibid
[82] FGD with CSG Tutors 2
[83] FGD with CSG Tutors 4

Good school governance and administration ensures that every child, including those at risk of being marginalized, have access to school and a quality teaching and learning environment.

As part of REAP II, the project engaged school stakeholders to develop a School Improvement Plan. 24 of these plans were reviewed at Midline

As part of each SIP, schools were required to select three priority areas. These were grouped thematically by the study and results are displayed in the figure following.

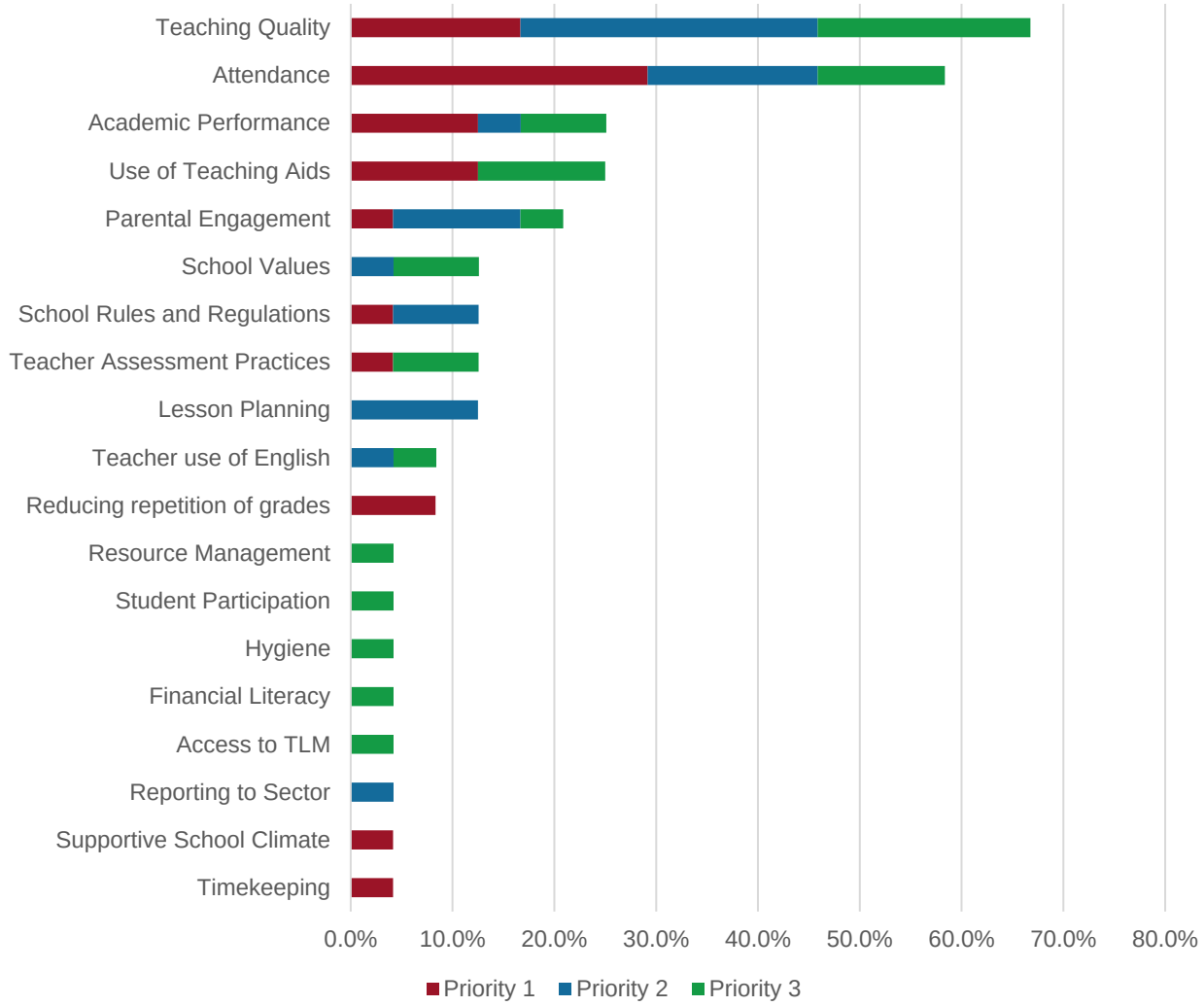
SIPs tend to prioritize improvements in teaching quality, followed by attendance, followed by academic performance.

Teaching quality was the most common area for SIPs to prioritize with 66.8% of SIPs targeting teaching quality generally. Several SIPs additionally targeted specific teaching quality areas including: the use of teaching aids (25%), teacher's assessment practices (12.6%), lesson planning (12.5%), and teacher's use of English (8.4%).

58.4% of SIPs prioritized attendance improvements. However, based on attendance data, discussed later in this report, attendance levels at both baseline and midline are already fairly high. This suggests that school stakeholders may have differing opinions on attendance levels than that expected based on the high attendance data.

25.1% of SIPs prioritized improved academic achievement. SIPs tended to prioritize exam results as the main indicator of academic achievement. An additional 8.2% of SIPs explicitly targeted literacy outcomes. This suggests that a large proportion of schools would like to improve learning directly and are focusing on this area through the school improvement process.

Figure 23. SIP Priority Areas



Stakeholders who participated in the SIP process report that it was inclusive and allowed different views from different groups of participants to be considered.

Several stakeholders interviewed appreciated how participatory and inclusive the SIP process was:

"*We first all understood the SIP very well and on the day of its elaboration, everyone expressed openly his/her opinion.*"[84]

"[Participation] had a great important because a teacher might blame a parent or vis versa for a student to fail performing. And the child might even blame one or the part. So, sitting together and clarifying everyone's responsibility made people accountable."[85]

[84] FGD with Stakeholders who Participated in the SIP Process 1

[85] ibid

Some stakeholder went further to state that the SIP process supported new partnerships between different parents and teachers:

"We solved the problem of the parents and teachers to blame each other. We identified the responsibilities that a teacher must fulfil on one hand and did same for parents on the other hand. Before, it seemed like teachers couldn't educate children together with parents and vis versa. But a partnership between parents and teachers has now developed."[86]

"The partnership has developed between us like it has been said. Before a child could drop out and teachers couldn't find him/her but today, if he/she drops out we call parents to bring him/her back to us and finally we try to find out the reason of that drop out. If a child doesn't attend, parents participate in bring the child to school."[87]

Some stakeholders reported that how participants were selected to participate in the SIP small groups was not clear and that to ensure everyone feels included and consulted, the participation process should be made transparent.

Some stakeholders reported that they were not directly involved in the SIP process and that a wider group of teachers and parents should be engaged:

"All people didn't participate. We weren't all trained, and the message is always transformed as it passes through different transmitters and it loses its purpose"[88].

These limitations in the participation of school stakeholders may be due to resource constraints. However, the project should consider making the participation process transparent to ensure that stakeholders remain committed to the SIP process, even if they specifically did not take part in the initial training.

Some stakeholders also reported that other community members should be invited. Specifically, in this case, the school had chosen to address barriers to attendance because children would miss school to go to the market. Therefore, he felt, community members who are vendors in the market should be invited so they are aware of the specific barrier:

"As I said, the chief of the village was present but if you could invite the pastor, the priest father and the chief of commodity sellers, it would be advantageous."[89]

To understand the extent to which focusing on academic achievement outcomes in the SIP process leads to specific improvements in learning, the study selected only schools that had selected academic achievement priorities and reviewed the projects impact on learning for these schools. This was done through the standard DiD model but with only schools with these priorities selected and compared to control first difference improvements.

[86] ibid

[87] ibid

[88] FGD with Stakeholders who Participated in the SIP Process 2

[89] ibid

Models using a binary variable for SIP having prioritized academic achievement as the independent variable, and first differences for English literacy, Kinyarwanda literacy, and Numeracy as dependent variables, were all insignificant.

By Midline, having a SIP prioritize academic achievement does not lead to learning improvements.

This may be because SIPs were developed in the last 12 months and schools have not conducted sufficient activities towards these priorities to date.

4.2 Subgroup Analysis of Learning Outcomes

In order to better understand changes in learning outcomes, and how various sub-groups were affected, the study reviewed 61 barriers and characteristics, and their influence on changes in English literacy, Kinyarwanda literacy, and numeracy overtime. The study also reviewed these barriers and characteristics against aggregate midline scores.

Table 26 and Table 27 display the characteristics for which mean differences between group members and non-group members were statistically significant for at least one learning outcome or mean change in learning outcome between periods ($p<0.05$). Table 28 & Table 29 display the barriers for which mean differences between those affected by the barrier and those unaffected were statistically significant.

For each of the variables where means were different at statistically significant levels, in order to understand the direction of the relationship, the EE conducted standard linear regressions using the barrier or characteristic as an independent variable to predict the given learning outcome.

The intervention was successful at supporting girls in households unable to meet their basic needs without charity to improve their English literacy between baseline and midline.

A linear regression finds that being in a household unable to meet basic needs without charity, was a statistically significant predictor of changes in English literacy between periods ($p<0.05$). The model was able to explain 3% of variance in the data ($R2=0.027$), with the intervention accounting for an average increase of 7.7% (Beta=7.7) on English literacy for households who were unable to meet their basic needs.

This finding suggests that the project was appropriately targeted at supporting girls in households facing heightened degrees of economic hardship to improve their English literacy between periods.

This is in stark contrast to the control group where living in a household unable to meet basic needs without charity had a negative effect at statistically significant levels on aggregate English literacy scores.

Moderate economic hardship is a barrier to aggregate English literacy levels for the treatment group.

A linear regression using a dummy for being in a household facing moderate degrees of hardship has a negative effect on English literacy levels at statistically significant levels ($p<0.05$). Being in a household affected by moderate degrees of hardship results in scoring 5.48% less on English literacy aggregate score on average (Beta=-5.48).

This finding supports a core assumption of the project's theory of change, namely that economic hardship results in reduced learning outcomes.

This finding was validated in qualitative sessions by a parent who summarized:

"Poverty is a problem. Girls need many materials compared to boys… even general clothes and materials that girls need are more compared than those of boys. For poor families, they cannot afford those clothes and other materials necessary for girl and decide to send boys to school as they do not cost a lot compared to girl. Some girls drop-out from school to search for jobs in order to satisfy their basic needs. In general poverty prevents a lot of girls from going to school"[90].

Having been pregnant results in reduced English literacy and Kinyarwanda literacy levels.

A linear regression finds that having been pregnant has a negative effect on English and Kinyarwanda literacy levels, at statistically significant levels ($p<0.05$). For English literacy this results in an average decrease of 18.78% (Beta=-18.78) in English literacy aggregate score and for Kinyarwanda literacy, this results in an average decrease of 19.98% (Beta=-19.98).

The project should better support girls who are pregnant, as pregnancy resulted in an average decrease in Kinyarwanda scores between baseline and midline, for girls in the treatment group.

A linear regression finds that the first difference in Kinyarwanda scores can be predicted by having been pregnant at statistically significant levels, with having been pregnant having a negative effect on learning in Kinyarwanda between periods ($p<0.05$). This finding suggests that the project needs to more fully support girls who have been pregnant to continue to learn in school. Additionally, there are statistically significant differences between girls who have been pregnant and those who have not with regards to their mean English literacy aggregate scores.

Girls who have been pregnant or who have been married sampled through the evaluation were not members of Community Study Groups and did not participate in remedial lessons.

[90] Force field exercise 1

Table 26. Characteristics and Learning Outcomes (Treatment Group)

Characteristics (Y= Member; N= Non-member)		Ave. English literacy score (aggregate)	Change in average English literacy score since baseline	Ave. numeracy score (aggregate)	Change in average numeracy score since baseline	Ave. Kinyarwanda literacy score (aggregate)	Change in average Kinyarwanda literacy score since baseline
Household unable to meet basic needs without charity	N	43.31%	**10.20%***	**0.55***	**0.53***	69.66%	-1.15%
	Y	40.74%	**17.86%***	**0.00***	**0.09***	65.19%	-1.71%
Household faces moderate hardship	N	**44.40%***	13.55%	0.45	0.48	**71.43%***	0.79%
	Y	**40.46%***	10.81%	0.33	0.32	**64.83%***	-3.96%
Head of household has no formal education	N	**43.20%***	11.89%	0.35	0.29	68.16%	-2.15%
	Y	**41.40%***	13.21%	0.51	0.65	68.90%	0.47%
Girl has been pregnant.	N	**42.93%***	12.51%	0.40	0.41	**68.81%***	**-0.93%***
	Y	**25.93%***	-1.33%	0.16	0.49	**51.00%***	**-30.17%***
Girl is a mother	N	42.79%	12.29%	0.40	0.41	**68.71%***	-1.14%
	Y	31.17%	15.00%	0.35	0.68	**53.36%***	-9.20%

Means are different at statistically significant levels (p<0.05)

Having no electricity in the control group, lead to an average decrease in Kinyarwanda learning between periods.

A linear regression found that having no electricity in a girl household led to her decreasing her Kinyarwanda scores between periods by an average of 6.3% (Beta=6.308; p<0.05). This may be due to the fact that electricity allows girls to do homework and therefore better practice what they learn in school.

Marriage is a barrier to girls learning in the control group.

Girls in the control group who were married had lower mean English literacy aggregate scores than girls who were not married. These mean differences were statistically significant, indicating that marriage remains a barrier to girls learning.

Table 27. Characteristics and Learning Outcomes (Control Group)

Characteristics (Y= Member; N= Non-member)		Ave. English literacy score (aggregate)	Change in average English literacy score since baseline	Ave. numeracy score (aggregate)	Change in average numeracy score since baseline	Ave. Kinyarwanda literacy score (aggregate)	Change in average Kinyarwanda literacy score since baseline
Household unable to meet basic needs without charity	N	39.89%	**9.26%***	0.39	0.37	68.45%	0.40%
	Y	37.12%	**4.10%***	0.06	0.06	67.63%	0.86%
Household has no electricity	N	41.42%	9.52%	0.36	0.20	70.70%	**4.75%***
	Y	38.10%	6.92%	0.26	0.30	67.26%	**-1.14%***
Head of household has no formal education	N	**39.59%***	6.42%	0.35	0.26	69.00%	-0.40%
	Y	**38.19%***	9.61%	0.19	0.29	66.98%	1.92%
Girl has been pregnant.	N	39.06%	7.72	0.30	0.28	68.28%	**0.92%***
	Y	37.39%	6.00	-0.15	-0.16	62.50%	**-27.00%***
Girl is married or living with man as if married	N	**38.81%***	7.47	0.29	0.27	67.92%	0.23%
	Y	**55.25%***	20.20	0.28	0.57	87.67%	17.80%

Means are different at statistically significant levels (p<0.05)

Chores had a statistically significant negative effect on English literacy learning in the control group but not in the treatment group: this suggest the project has mitigated the negative effect of a high chore burden in intervention areas.

A linear regression found that having a high chore burden (having to do chores for half a day or more on a typical day), leads to girls decreasing their English literacy levels between periods in the control group ($p<0.05$). This was however not true for the treatment group, suggesting the project has had a role in mitigating the negative effects of chores on girls learning.

Poor teaching quality leads to lower English literacy levels.

A linear regression found that when parents perceive the teaching quality of the school to be poor, this results in lower English literacy levels. This finding suggests that teaching quality (which is discussed in further detail in section 6) is a barrier to girls' learning, supporting a central assumption of the project's theory of change. This resulted in an average decrease of 20% on English literacy aggregate score ($p<0.05$; Beta=-20.02).

Table 28. Barriers and Learning Outcomes (Treatment Group)

Barriers (Y= affected by barrier; N= not affected by barrier)		Ave. English literacy score (aggregate)	Change in average English literacy score since baseline	Ave. numeracy score (aggregate)	Change in average numeracy score since baseline	Ave. Kinyarwanda literacy score (aggregate)	Change in average Kinyarwanda literacy score since baseline
Girl has high chore burden (half day or more)	N	43.08%	13.14%	0.44	0.45	68.69%	-1.33%
	Y	39.32%	7.33%	0.13	0.21	66.53%	-1.19%
Parents rate teaching quality at school as poor.	N	**42.84%***	12.48%	0.40	0.40	68.43%	-1.31%
	Y	**21.50%***	1.33%	0.53	0.86	62.75%	-1.75%
HH rates performance of the headteacher as poor	N	42.76%	12.46%	0.42	**0.44***	68.54%	-1.09%
	Y	38.42%	8.29%	-0.19	**-0.57***	64.05%	-11.10%
Girl does not have access computers at school that she can use	N	42.73%	12.20%	0.44	0.43	68.90%	**-0.06%***
	Y	41.46%	13.30%	0.11	0.30	64.17%	**-10.62%***

Means are different at statistically significant levels (p<0.05)

For the control group, when a parent is not informed about their child's learning in the past weeks, this results lower Kinyarwanda literacy.

A linear regression found that not having been informed about their girl's learning lead to a 6.5% decrease in Kinyarwanda aggregate score. This suggests that parental engagement in school plays a role in supporting girls' learning and, as this finding was insignificant in the treatment group and significant in the control group, the project has had a role in mitigating the negative effects of this in intervention areas.

Table 29. Barriers and Learning Outcomes (Control Group)

Barriers (Y= affected by barrier; N= not affected by barrier)		Ave. English literacy score (aggregate)	Change in average English literacy score since baseline	Ave. numeracy score (aggregate)	Change in average numeracy score since baseline	Ave. Kinyarwanda literacy score (aggregate)	Change in average Kinyarwanda literacy score since baseline
Girl has high chore burden (half day or more)	N	39.21%	**8.53%***	0.34	0.31	68.51%	0.76%
	Y	37.50%	**0.88%***	-0.07	0.02	65.72%	-1.13%
Girl works for cash/in kind	N	**37.55%***	7.65%	0.24	0.26	65.15%	-1.85%
	Y	**41.99%***	7.79%	0.38	0.29	74.35%	5.38%
Parents rate teaching quality at school as poor.	N	39.11%	7.69	0.30	0.28	**68.45%***	0.45%
	Y	34.50%	8.00	-0.40	0.06	**55.50%***	4.42%
Parents have not been informed about girls' progress at school in last 12 months	N	39.59%	8.14	0.29	0.24	**69.77%***	**2.56%***
	Y	37.47%	6.47	0.29	0.35	**63.85%***	**-4.82%***

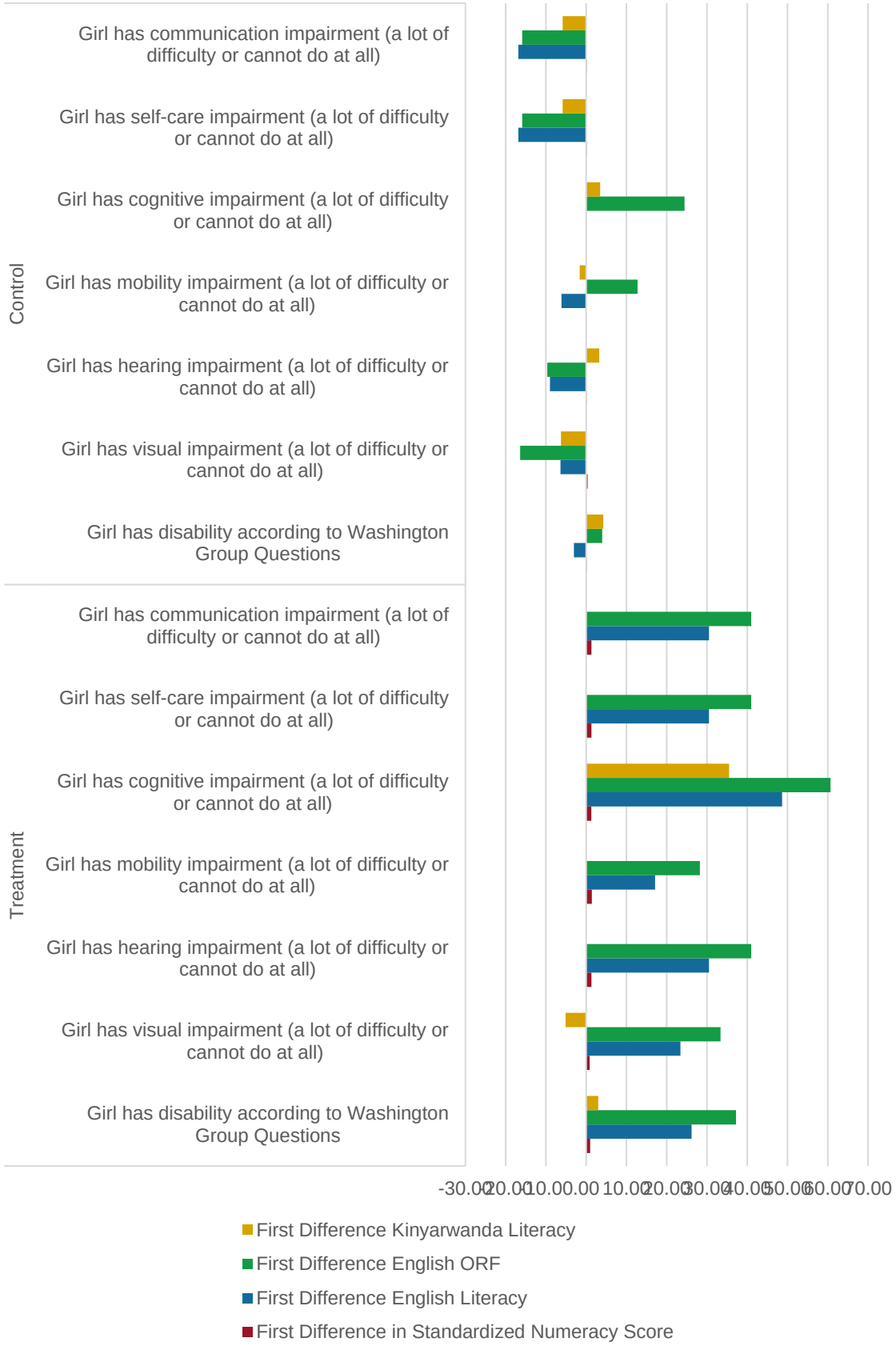
Means are different at statistically significant levels (p<0.05)

To understand how the learning changed for children with disabilities in the treatment group, the figure following displays the average learning experienced across impairment types.

A review of learning between periods by impairment type suggests that girls with disabilities on average performed better in treatment schools than in control schools.

Girls with disabilities in control schools, across impairment types, tended to regress in learning between baseline and midline. This finding suggests that treatment schools may be more conducive to learning for girls with disabilities than control schools.

Figure 24. Learning Performance by Impairment



The project had an impact on numeracy and English literacy outcomes at statistically significant levels for girls with disabilities between baseline and midline.

To assess the extent to which the project had an impact on the learning improvements of girls with disabilities, we conducted the DiD regression, only including girls with functional difficulty based on the Washington Group Short set in the model.

Results are summarized in the table following.

Table 30. Impact Results for Girls with Disabilities

	Numeracy	English Literacy	Kinyarwanda Literacy
Impact Result	**Significant**	**Significant**	**Non. Significant**
p-value and Beta	P=0.034; Beta=0.118	P=0.015 Beta=29.229	P=0.897 Beta=-1.243

The project has specific components of teacher training focused on inclusion and has recently recruited an inclusion expert to mainstream inclusion across all activities.

Interviews with Girls with disabilities conducted as part of the study suggest that program components on inclusion have had some influence on teachers' behaviours.

When girls were asked what has changed in the past year in terms of how their teacher supports them to learn, several mentioned that the teacher now pays more attention to them. Generally, this focused on providing them with support to revise key concepts that they missed when they were absent from class due to their disability:

"It has happened that I was away…. When back, the teacher explained what other students learnt during my absence."[91]

"They support us, I has arrived that I missed school due to sickness, when I come back, the teacher explained me what they learnt during my absence."[92]

A girl also reported that the headteacher had taken a special interest in supporting them in school in the last year:

"The head teacher come to us, call children with disabilities and tells us to stay strong and comfortable that we will be supported."[93].

The study will assess the extent to which inclusive education practices covered in teacher training have been adopted by teachers in the section on Teaching Quality.

[91] FGD with Girls with Disabilities 1

[92] ibid

[93] ibid

Although the study did not take a sample of boys to assess project impact on their learning, due to resource constraints, we aimed to capture the views of boys through qualitative sessions.

Boys interviewed as part of the study in treatment schools highlighted the role of government policies on drop-out and improved infrastructure, in supporting their learning over the past year.

Boys were generally unaware of project activities and focused on explaining improvements in learning they had experienced or witnessed through improved actions on the part of the government. As several boys stated:

"For me, the way we were studying has changed, because the number of rooms has increased, and the number of dropouts has reduced due to the government policy in place."[94]

"There are some awareness activities that the government has been putting in place, including the meeting with the students who dropped out to mobilize them to go back in school. The government has played its role."[95]

"The government has put more emphasize. It has mobilized people in charge of going house to house to tell them about the Importance of education and to tell them that the students who dropped out of school, please go back to school, in this way our country will have the vision just in case everyone knows where he/she entered and exit."[96]

Several boys believed that they had experienced learning improvements due to the child-centred aspect of the competency-based curriculum. Boys felt this provided them with more autonomy to explore topics they found interesting, further promoting their on-going learning.

Boys in focus groups stated:

"For me the other thing I think is the way of CBC that the government puts in place where the students put more involvement in their learning and try to search additional skills that the teachers were not able to deliver to him. The teachers give tasks to children to search on the topic that they are going to learn."[97]

"Before teachers were not giving assignment to students to go and search on some topics and after supplement them on the already identified skills as it is being done now. So those changes are very good."[98]

This suggests that boys, and likely girls, are more engaged when their learning has elements that are self-directed in which they can exert their own autonomy and express their interests.

[94] FGD with Boys on Changes in the last year 1
[95] ibid
[96] FGD with Boys on Changes in the last year 2
[97] ibid
[98] ibid

5 Transition Outcomes

This outcome studies how successful are girls of the project in transitioning through different stages of life, such as completing primary and secondary school, acquiring income-generating skills through vocational training, or otherwise receiving income from employment or self-employment when they reach the legal age of 15 years old. This outcome also explores how successful are girls across different transition pathways, what they aspire to do, and how this is mediated by individual and social factors such as the family, the community and the school. Qualitative data provides a similar picture for boys.

Figure 25. Assumptions of the Transitions Outcome

TOC Assumptions (Impact Mechanisms)	
1	Improved learning leads to improved transition outcomes in project schools.
2	Extended learning opportunities (STWT, WR, MDC's IGAs, CSGs, saving groups, or remedial lessons) will contribute to girls' success across multiple transition pathways.
3	Girls in a savings' group or placed in internships have higher transition rates into income generations than others.
4	Celebrating successful in-school transitions will improve the self-efficacy and self-esteem of girls and, in turn, improve their transition rates.
5	Life skill acquisition in school or project activities improves transitions.
6	Schools show commitments that aim to improve transitions as reflected by SIPs and KIIs.
7	Alumni networks provide key funding for scholarships

5.1 Transitions in REAP's Theory of Change

The REAP project supports girls to transition through all the key points in the educational cycle. The project considers transitions to be closely linked to learning, as girls who are progressing in literacy and numeracy will tend to transition unless socio-economic barriers prevent them.

HPA trains teachers at school to provide School-to-Work Training (STWT) and Work Readiness (WR) for boys and girls transitioning to TVET.. According to project data, 48 including 38 girls and 10 boys have joined TVET from the formal schooling and a specific set of 306 girls were also offered training in internship-related skills [99]. Girls moving into TVET, employment and income generation have been grouped by HPA into savings groups and given basic financial literacy skills. Since 2018, 2,167 girls joined saving groups. HPA also offers internship placements to girls in private businesses to help prepare them for the workplace. Girls are also expected to improve their work-related skills through practical experience through REAP1's school businesses and Mother-Daughter Clubs'(MDCs) income generation activities (IGAs)[100]. The project reports that 11 out-of-school girls re-enrolled back to school and 69 have are currently employed.

Complementary learning opportunities, such as ADRA's remedial lessons and LCD's Community Study Groups, are expected to positively influence transitions because they extend the reach of school to the community where out-of-school children are found and

[99] HPA (2019) Project Monitoring Data

[100] Op cit., **Error! Bookmark not defined.Error! Bookmark not defined.**

provide learning opportunities for girls who have dropped out to catch-up and go back to school.

Teenage pregnancy, identified at baseline to be a leading cause of drop-out for girls and an obstacle for re-enrolment [101], to have been further reduced in project schools through behaviour change communications, youth friendly sexual health service corners, and Community Health Workers (CHW) trained on family planning, HIV/STIs case management.

Teacher training provided by ADRA and the School Improvement Plan (SIP) process in school aims to create positive learning environments in school, which may encourage girls to stay in school. Through the SIP process, public financial management will be developed in the target schools with mandatory budget lines for school costs of most vulnerable girls to continue their learning and transition to the next level.

HPA has also organized graduation ceremonies for girls and boys progressing from primary school to secondary schools; from lower secondary to upper secondary or TVET and from secondary school to university, or the labour market.

Future First Global (FFG) has also set up alumni networks which will aim to fund scholarships after the end of the project to cover fees for girls transitioning to secondary and post-secondary education. By midline, through alumni networks, a total of RWF 416,400 has been raised by alumni and donated to their respective schools. 160 alumni have participated in these donations across all schools and 353 students at treatment schools are also helped by 52 mentors [102]. Alumni also offer talks in schools, to which 1,734 students have been exposed.

294 out-of-school girls, who remained out-of-school after the first phase (REAP1), were offered a special package of interventions so that they may enrol back into school, attend vocational training opportunities, and eventually generate their own incomes through informal or formal employment or self-employment[103].

5.2 Measuring Transitions in the REAP Project

A transition may be categorized into groups, (1) **school-based transitions,** (such as from grade to grade, or from primary to secondary school), (2) **work-based transitions**, such as transitions into vocational skill training, employment or self-employment for girls aged 9-19[104].

As mentioned earlier, two midline points were observed since the baseline. This is because the baseline study took place in December 2017 and the midline in February 2019 and the academic year in Rwanda begins in January and ends in November. While the midline occurred (1) year and one (1) month after the baseline in absolute terms, transitions could be observed for two academic year periods:

1. **Baseline:** Transitions in the 2017 academic year (from 2016 to 2017).

[101] Navarrete-Berges, A., Omarshah. T., (2017) REAP Baseline GEC-T Report.

[102] FFG Monitoring data.

[103] KII with Project Staff

[104] GEC-T MEL Guidance Part 2 p.p. 44-45.

2. **Midline Point 1:** Transitions in the 2018 academic year (from 2017 to 2018).
3. **Midline Point 2:** Transitions in in the 2019 academic year (from 2018 to 2019).

Table 31 shows the expected transition pathways (by grade level). Rows with grey denote work-based transitions. The project expects girls to complete either P6 or S3 to be able to opt for professional training, or if they are out of school.

Table 31 Expected Transition Pathways 2017-2020 in the Original Tracked Cohort for Transitions

Baseline Grade (November 2017)	Midline Point 1 (November 2018)	Midline Point 2 (February 2019)	Endline (February 2020)
Primary P4	P5	P6	S1
P5	P6	S1	S2
P6	S1	S2	S3
Secondary S1	S2	S3	S4
S2	S3	S4	S5
S3	S4	S5	S6
S3	TVET or Work	TVET, or Work	TVET, or Work
S4	S5	S6	TVET, Work, or University
Out-of-school	School (any grade), TVET or Work	School (any grade), TVET or Work	School (any grade), TVET or Work

To measure whether girls could successfully transition, transition stages were recorded through the household survey and girls' survey by asking participants what they or their child were doing in 2017, 2018, and 2019105, and triangulating across multiple surveys to correct inconsistencies (stemming from participants' inability to recall specific information accurately). Girls were given a score of one (1) if they transitioned successfully or zero (0) if they did not by transition pathway and in an overall transition score. This final score is treated as the equivalent to the first difference in the DID model.

Table 32 provides an overview of the expected transitions of girls enrolled in the programme between these two evaluation periods and what is considered a successful or unsuccessful transition.

Table 32: Transition pathways

Group	Baseline and Midline Point 1 or 2	Successful Transition	Unsuccessful Transition
Upper primary School	Enrolled in Grade 4, 5, 6	✓ In-school progression ✓ Moves into secondary school	× Drops out of school × Moves into work, but is below legal age of 16
Lower Secondary School	Enrolled in Grades S1, S2, S3	✓ In-school progression ✓ Enrols into or continues technical & vocational education & training (TVET[106]),	× Drops out of school × Moves into work, but is below legal age of

[105] Specifically, from February to November, corresponding to the months of the academic year in Rwanda.

[106]The Technical, Vocational Education and Training (TVET) is composed of Vocational Training Centers, Technical Secondary Schools, and Polytechnics (awarding Diploma and Advanced Diploma).

Group	Baseline and Midline Point 1 or 2	Successful Transition	Unsuccessful Transition
		Work Readiness (WR), or School-to-work-transition training (STWT), Age 14+[107] ✓ Work, internship, or employment, Age 16+ Moving from lower to upper secondary school is not counted as an in-school progression.	16 or is paid below minimum wage[108] × Is inactive (neither employed nor unemployed)
Upper Secondary school	Enrolled in S4, S5, S6	✓ In-school progression ✓ Enrols into or continues technical & vocational education & training (TVET), Work Readiness (WR), or School-to-work-transition training (STWT), Age 14+[109] ✓ Work, internship, or employment, Age 16+ ✓ Enrols into University or Further Education Programmes	× Drops out of school × Moves into employment, but is paid below minimum wage × Is inactive (neither employed nor unemployed)
Out of school (age 11-19)	Dropped out	✓ Re-enrol in appropriate grade level in basic education Age 9-19 ✓ Enrols into or continues technical & vocational education & training (TVET), Work Readiness (WR), or School-to-work-transition training (STWT), Age 14+[110] ✓ Work, internship, or employment, Age 16+	× Remains out of school or paid below minimum wage × Is inactive (neither employed nor unemployed)
Income Generation (Employment or Self-employment)	Work, internship, or employment	✓ Enrols into or continues technical & vocational education & training (TVET), Work Readiness (WR), or School-to-work-transition training (STWT), Age 14+ [111] to further professional development ✓ Continues Work, internship, or employment, Age 16+	× Becomes inactive or unemployed × Drops-out TVET training before completion
TVET or Other Professional Training	TVET or Other Professional Training	✓ Work, internship, or employment, Age 16+ ✓ Further vocational training	× Stays or Becomes inactive or unemployed × Drops-out TVET training before completion
Inactive (out-of-school)	Inactive (out-of-school)	✓ Returns to school ✓ Enrols into or continues technical & vocational education & training (TVET), Work Readiness (WR), or School-to-work-transition training (STWT), Age 14+[112] ✓ Work, internship, or employment, Age 16+	× Drops-out from school × Becomes inactive or unemployed × Drops-out TVET training before completion

[107] The Law of 1999 containing the Labour Code provides that children under the age of 16 may in no case work in an enterprise, even as apprentices.

[108] Baseline benchmarks do not distinguish between paid or unpaid work as internship schemes will be in most part be unpaid as they are focused on skills acquisition. Future studies will consider different types of "work" pathways.

[109] Ibid, 11.

[110] Ibid, 11.

[111] Op cit., 11.

[112] Ibid, 11.

5.3 Transition Findings

5.3.1 Overall Results

Successful transitions rates were calculated for the outcome spreadsheet in a separate analysis. This is because the outcome spreadsheet only allows for the inclusion of cases tracked since the baseline and not for newly sampled cases.

At baseline, 81% of girls had been able to successfully transition in both treatment and control schools.

By 2018 there was a 1% increase in the number of girls successfully transitioning in treatment areas and a 7% decrease in control areas. While the intervention was 7% short in the proportion of girls expected to succeed at transitioning (8% increase target), the change was greater in treatment than in control areas by 6%.

By 2019, 92% of girls from both treatment and control schools had successfully transitioned. This was 2% than the agreed target of 90% (+8%). Girls in control areas improved 60 more relative to treatment from 2017 to 2019.

Considering tracked cases only, 90.4% of treatment cases successfully transitioned, compared to 90.5% of control cases.

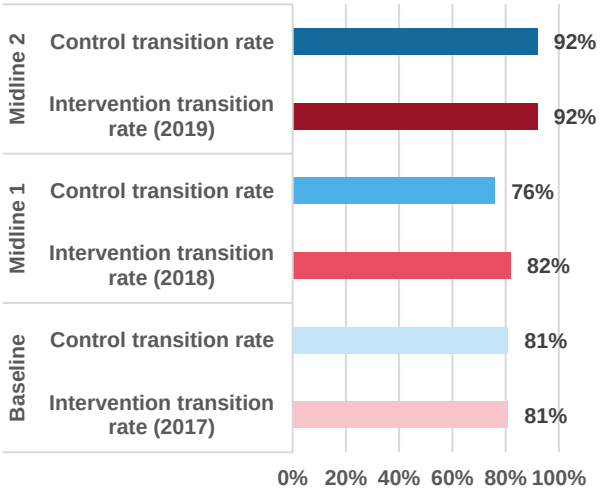
However, these differences are not significant, as see in the binary logistic regression models below.

Table 33 shows the proportion of girls who had a successful transition since the year before.

Table 33. Proportion of Girls with a Successful Transition (Transition Success Rates) by Evaluation Status and Time Period

Period	Transition Rate	Success Rate	n
	Difference over and above control[113]	6	
2019	*Treatment*	92	259
	Control	92	310
Achievement	*Target*	90	
	of target achieved	+2	
	Difference over and above control (since 2017)	0%	

Figure 27. Proportion of Girls with a Successful Transition (Transition Success Rates) by Evaluation Status and Time Period



[113] Refers to T2-T1-C2-C1 where T and C are treatment and control respectively and 2 and 1 are midline and baseline scores.

To estimate the project's impact on the transitions of marginalized girls in areas of the intervention (the equivalent to the second difference in the DID model), we used three *binary logistic regression* models to calculate whether being in a treatment or control school affects the odds of being classified as a '*successful transition'* or an '*unsuccessful transition'*[114].

These models, one for each transition point, are treated as the equivalent to the second difference in the DID model. See Annex 3 for more details on the approach to measure impact for transitions.

Results show that being in a treatment school does not significantly alter the odds of being classified as a successful or unsuccessful transition, neither from 2016 to 2017, nor from 2017 to 2018, or from 2018 to 2019. Regression results are summarized in the table following:

Table 34. Binary Logistic Regression Model Results for Transitions

Model	Chi-square	df	N	p-value	Treatment Variable Results
Model 1: *2016 to 2017 (baseline)*	0.409	1	602	**0.522**	B= 0.134 (0.210), Wald = .001, C.I. (95)) (0.617, 1.629), **p=0.523**
Model 2: *2017 to 2018*	1.795	1	602	**0.180**	B= 0.260 (0.248), Wald = 1.780, C.I. (95)) = (0.885, 1.901), **p=0.182**
Model 3: *2018 to 2019*	0.0001	1	828	**0.991**	B= 0.003 (0.195), Wald = 1.780, C.I. (95)) = (0.885, 1.901), **p=0.991**

According to project staff, explanations crediting this change in transitions from baseline to endline can include:

1. Strong campaign put in place by the government in order to improve attendance and retention (see Section 1.2.5 for an overview of the recent policy context);
2. The start of two integrated school feeding programmes from the Rwandan government and from WFP contributed to increase attendance and retention;
3. Support provided by alumni networks in treatment to marginalised girls have also contributed to increase attendance and transitions;
4. Government law prohibiting girls in school age to be employed (mostly as house workers) has started to be applied more rigidly thus contributing to an increase in attendance and retention in school.

5.3.2 Transition Pathway Results

School-based transitions remained the most popular pathway for girls in treatment areas, with 95% of the sample set into a school-based transition pathway. Work-based transitions make

[114] Treatment status changes between baseline and midline, depending on whether girls progressed into schools outside the project areas.

about 1% of the treatment sample, with 0.5 in vocational training at the time of the survey and none yet in paid or unpaid employment.

See table below:

Table 35 Proportion of Girls in the Sample by Transition Pathway

Pathway		Control		Treatment		Total	
		n		n		n	
Pathway of Girl in 2019	*Primary School*	112	25	115	30	227	27
	Secondary School	306	67	248	65	554	66
	Vocational Training	6	1	2	1	8	1
	Employment (paid or unpaid)	1	0	0	0	1	0
	Inactive / Domestic	29	6	18	5	47	6
Pathway of Girl in 2018	*Primary School*	209	47	198	52	407	49
	Secondary School	215	48	169	44	384	46
	Vocational Training	1	0	1	0	2	0
	Employment (paid or unpaid)	0	0	0	0	0	0
	Inactive / Domestic	23	5	12	3	35	4

The fact that the original sample was taken in schools and not in communities can explain why few girls choose to quit school in search of vocational training, employment or self-employment.

The interview data shows that girls aspire to transition into employment within the labour market, as well as transition through the various levels of the school system: "*I have come to school to learn and do the exam in a successful way, win and get result then after getting job*."[115]

Another girl in the FGD with vocational training attendees noted that girls find skills in financial literacy taught by the project to be useful: "*Some are inspired by those who went in town before and have started some income generating activities at home*,"[116] such as "find[ing] what to sell in the centre."[117] However, it is not clear whether these activities are sustainable, as another girl notes that lack of material means to work can prevent income generation: "*I had dream to have my our sewing machine but I didn't reach it*."[118]

In FGDs with girls who transitioned to TVET, most agreed that TVET allows them to get skills that they would otherwise would not get in school and would therefore become more employable.

[115] Ibid

[116] FGD OOS Girls Vocational Training 1

[117] Ibid

[118] Ibid

"We decided to come to TVET because people don't get employed after finishing normal studies"

Another girl mentioned:

"I came to learn handicrafts because they are on top and very important in these days, rather than studding six years in normal schools… And you are likely to have no employment after finishing the normal studies. Apart from this, I did not have enough money to afford them."

Girls also compared TVET to be to be more affordable than school, involving a registration fee of RWF 10,000, materials and additional fees for an internship and the final certificate:

"We decided to learn this type of handicraft because it didn't require much money like the school fees."

"I decided to learn this profession because it required little money, while it is also important."

Girls also mentioned that other girls in their village inspired them to make these choices:

"In our village there is a mother called Grace. She learnt tailoring and got the chance of having the working equipment. She has started saving. She has bought electric working machinery and has joined a saving cooperative. She really developed herself and has started other different projects. We took example from her and decided to undertake tailoring because it will be important for ever."

Many out-of-school girls interviewed also regretted their decision of dropping out from school to pursue other activities, suggesting that enrolling back to school is the most recent aspiration:

"It was a bad thing to leave school. When I see others from school, and I feel want to go back".

"I did not change my thoughts about school, and I can advise who is going to leave it. I left for 3 years, so I waste my time… that's why I cannot go back, and I would not encourage anyone to drop-out from school".

"Before I was not able to see its importance, but now, I realize that school is helpful".

"When you meet your classmates speaking English better than you, you find that you are different from them".

Another girl mentioned that they do not have identity cards, which are required to enrol in TVET. The project mentioned that there is no need to present any ID cards to be able to enrol in TVET courses. Furthermore, ID cards are completely free and could be obtained at sector offices.

> *"We missed the opportunity to enrol in vocational training as it was targeting only teen mothers with National Identity Cards, no one enrolled because at that time, no one had an identity card"*[119]

The project may therefore clarify with girls TVET enrolment requirements, in particular with regards to the need of presenting national identity card to enrol in TVET.

At baseline, however, the project targeted 294 out-of-school girls which represented 4% of the sample. These girls did not go back to school because many were interested to pursue opportunities to generate incomes to support their livelihoods and gain independence. The baseline study found that these girls may face different transition alternatives to girls in the transition groups and may thus choose a different pathway.

Girls mention barriers to accessing training, due to lack of financial means and access to hygienic material: "*Unless we get supported for vocational training, we have no vision. For example, even if I get 1000010000 RWf and attend vocational training, how can I find a sewing machine for example? ... If I get washing soap, it can be enough.*" Girls also highlighted that attendance to vocational training is limited by lack of identification documents: "*no one enrolled because at that time, no one had an identity card.*[120]"

Table 36 shows the proportion of girls who were out-of-school at baseline by transition pathway. The table shows that, in 2018, 25% of treatment girls went back to secondary school and 53% of control girls went back to either primary or secondary school. However, 75% of treatment and 47% of control remained inactive or in domestic activity. In 2019, 25% of treatment girls were still in secondary school though none were found to have completed vocational training or in employment.

Table 36. Proportion of Girls who were out-of-school at Baseline by Transition Pathway in 2018 and 2018 (treatment and control)

Pathway		Control		Treatment		Total	
		n	%	n	%	n	%
Pathway of Girl in 2019	*Primary School*	1	7	0	0	1	4
	Secondary School	5	33	2	25	7	30
	Vocational Training	2	13	0	0	2	9
	Employment (paid or unpaid)	1	7	0	0	1	4
	Inactive / Domestic	6	40	6	75	12	52
Pathway of Girl in 2018	*Primary School*	3	20	0	0	3	13
	Secondary School	5	33	2	25	7	30
	Vocational Training	0	0	0	0	0	0
	Employment (paid or unpaid)	0	0	0	0	0	0
	Inactive / Domestic	7	47	6	75	13	57

[119] FGD with girls in Vocational Training 1

[120] FGD OOS Girls Vocational Training 1

The tables below show the differences over and above control in average rates of success per transition pathway.

By 2019, successful in-school transitions in treatment schools for both tracked and new cases went from 75% to 92% in treatment groups (17 increase) and in control groups from 67% to 92% (27% increase). This is a 10% greater number of girls successfully transitioning in control when compared to treatment areas. Similar results occur for secondary school transitions, vocational training and employment.

Table 37a Aggregate Rates for Successful Transitions by Transition Pathway (tracked and new cases)

Transition Pathway	T1: 2017 to 2018				T2: 2018 to 2019				Aggregate Diff (T2-T1) - (C2-C1)
	Treatment		Control		Treatment		Control		
	% of Total	Total n	% of Total	Total n	% of Total	Total n	of Total	Total n	
In-school	75%	376	67%	420	92%	402	94%	459	**-10.0**
Secondary School	89%	106	87%	148	98%	99	97%	138	**-1.0**
Vocational Training	17%	7	11%	10	20%	12	29%	22	**-15.0**
Employment (paid)	N/A	0	N/A	0	0%	8	8%	12	**N/A**
Employment (unpaid)	N/A	0	N/A	0	0%	8	0%	11	**N/A**
Re-Enrolments	100%	4	100%	14	0%	5	0%	279	**0.0**
Totals	77.0	279	71.0	279	84.0	279	83.0	459	-5.0

For the tracked cohort (table 37b), similar results were obtained. By 2019, successful transitions for in-school cases went from 78% to 92% for treatment cases and from 70% to 94% for control cases (the increase was greater in control cases by 8%). There was also a greater proportion of successful transitions between periods for all other pathways.

When comparing the entire cohort to the tracked cohort only, we find that the tracked cohort was more successful transitioning into vocational opportunities. 50% of girls eligible to transition into vocational opportunities did so, 20% when new cases are considered. This shows that a longer exposure to the intervention is related to improved transitions into vocational opportunities.

There was also an overall decrease in the proportion of girls repeating a grade level, going from 11% to 6% in treatment schools, and from 12% to 4% in control schools.

Table 38b Aggregate Rates for Successful Transitions by Transition Pathway (tracked cases only)

Transition Pathway	T1: 2017 to 2018				T2: 2018 to 2019				Aggregate Diff (T2-T1) - (C2-C1)
	Treatment		Control		Treatment		Control		
	% of Total	Total n	% of Total	Total n	% of Total	Total n	% of Total	Total n	
In-school	78%	160	70%	164	92%	188	94%	214	**-9.7%**
Secondary School	89%	49	87%	69	98%	49	97%	67	**-0.8%**
Vocational Training	33%	1	17%	1	50%	2	44%	4	**-10.7%**
Employment (paid)	N/A	0	N/A	0	N/A	0	17%	1	**N/A**
Employment (unpaid)	N/A	0	N/A	0	N/A	0	N/A	0	**N/A**
Re-Enrolments	100%	1	100%	7	N/A	0	N/A	0	**N/A**
Repeated Previous Grade	11%	29	12%	38	6%	14	4%	13	**3.00%**

5.3.3 Sub-group analysis of the Transition Outcome

This section disaggregates transitions' findings by barriers and characteristics known to affect transition pathways in treatment areas. Through chi-square tests, we highlight which characteristic- or barrier-group has a significantly higher proportion of girls with successful or unsuccessful transitions. Through these analyses, only those at-risk children and the most salient barriers identified to be relevant by chi-square tests are presented.

Results show that 88% girls who were out of school at baseline had unsuccessful transitions by 2019, and 75% by 2018. At baseline 86% of them had dropped-out from school the year before without returning.

By 2019, 67% of girls who have been pregnant had an unsuccessful transition, though this is less than the 71% of 2018. Similarly, 50% of girls who are mothers failed at transitioning in 2019, though less than 71% that failed to transition in 2018.

This validates the project's efforts to improve SRH education through Sexual Health Youth Corners, as pregnancy is shown to be a leading cause for failure in transitions. This was noted in FGDs with caregivers, where girls were said to face barriers to transition both within, and from, school when they lack appropriate SRH information: "*It depends on one or another mind. Some of them go to town targeting money to support, others left at home, others chose to misbehave and are induced in sexual acts thus getting pregnant and increasing the problem at home".*

Low income families find it difficult to support transitions: "*all have is the willingness to study, but I am missing the capacity to afford basic necessities, notebooks, pens, soap to wash her body… and she drops out if she is not resilient enough to stick to her goals.* "[121] Having access to such materials, therefore, allows girls to build up skills of resilience: "*And there is a situation*

[121] FGD Girls Parental Engagement

when she endures these difficulties and stay, remains in school. When she shares, then we advise each other in time of difficulties."[122]

A significant improvement can be seen in the transitions of girls whose are unable to meet basic needs without charity, who by 2019 have similar rates of successful transitions to those that are able (11% and 8% respectively). This stands in contrast to the baseline (25%), and Midline (32%), where almost double the number of unsuccessful transitions were found in the category of households who could not meet basic needs without charity. While girls supported by specific financial packages were not found be significantly more successful at transitioning, this nonetheless highlights that an important barrier to transitions has been mitigated in project schools.

Among the most salient barriers to successful transitions is the number of hours a girl spends doing house chores. In 2018, 26% girls who spend half a day or more doing chores failed at transitioning (compared to 6% of those who did not), a trend that has been sustained since baseline.

Participants in the Mothers group appreciate the importance of an equitable division of domestic labour: "*the same girls and boys do home chores and revise their lessons… home chores are not for girls only, they are for both boys and girls,*"[123]. This re-emphasizes the point that caregiver's relationship with their children has an impact on their educational outcomes, in particular

Similarly, when a girl reports that she does not get support she needs from family to stay in and perform well in school, she is less likely to succeed. 29% of girls who perceive to get little support from their families failed at transitioning compared to 7% of girls who get support. This is a new trend that is only significant in 2019 but not in previous periods. Furthermore, when an adult does not frequently ask about homework, girls are less likely to transition in school. 20% of girls with a failed transition have parents who are not engaged with their child's learning (compared to 6% of those who are). This resonates earlier findings on why girls drop out from school. Activities that are dedicated to directly or indirectly work with parents to increase their engagement with their children's learning could therefore promote successful transitions in project school.

As a related matter, girls with more autonomy at home are also better able to transition. 13% of girls who could not choose whether to attend or stay in school or not failed at transitioning (compared to 7% of those who can). Likewise, some girls may face internal barriers to transition such as low self-esteem, as exemplified by a girl who mentioned to have different expectations to the rest: *"As we are here at the school we don't think the same way because there are some who think they can be an entrepreneur, a nurse".*

Qualitative evidence suggests that girls' home learning environment, specifically their relationship with their caregivers contributes to transitions in school. In the FGD on Parental Engagement 1, girls mentioned their caregivers can "*help us reach far as they did*

[122] Ibid

[123] Ibid

themselves"[124] and that parents encourage their daughters to: "*change the bad behaviours to become good students*"[125]. This suggests that parents can set children examples for children for improving self-esteem in the name of achievements, and further implies girls need to use skills of behavioural change to transition through their education and into employment.

At baseline, 44% of girls who did not have access to reading materials and books could not transition successfully. By 2019, this access became less important, due perhaps to the increased access that girls had to materials through the CSGs and material provisions.

When caregivers rate the performance of the head teacher as poor, children transition less in school. 30% of children whose head teachers are poorly rated failed at transitioning. This highlights the importance of reinforcing school leadership capacity to create protocols that improve retention and prevent dropouts. KIIs with CSG tutors highlight school leadership capacity as a potential room for improvement in the project. One CSG member notes that school authorities could play a more active role: "*there are some difficulties for a tutor to get the children while the school authorities are not helping*."[126]

In FGDs, children with disability mentioned their aspirations are uncertain because they fall ill frequently and therefore miss school for many days. A girl with a disability mentioned:

> *"Due to my disability, I am sometimes well and sick another time so, I have no plan this year because I am not sure if I will be stable in my life… sometimes I am sick or I am normal, but I do not know how it will be in the future so as to make a plan."*[127]

Children with disabilities may also find schools to be a complex environment to navigate through, as they might feel different to- or discriminated by other non-disabled persons:

> "*I used to help my parents in daily life before I got disabled but, nowadays, I have no hope. I get a complex when I am with others."*[128]

5.4 Target setting for the transition outcome

The ***targets*** for the next evaluation points was set by the outcome spreadsheet and seen in the table below:

Table 39: Target setting

Targets	Evaluation point 3
Target generated by the outcome spreadsheet	**8%**
Alternative target proposed by project (if applicable)	**3% (TBC by endline)**

[124] FDG In School Girls Attendance and Parental Engagement 1

[125] ibid

[126] FGD with CSG Members 3

[127] FGD OOS on Vocational Training

[128] Ibid.

6 Sustainability Outcome

REAP aims to enhance activities and approaches, by working with sustainable school and community structures, such as School General Assembly Committees, communities and SEOs and DEOs in School Improvement Plans (SIP) as well as engaging policy makers to replicate REAP2 best practices in the longer term.

The project aims to achieve the sustainability of its outcomes based on outputs that are self-financing, subsidies from alumni to sustain initiatives beyond the project, and the design of activities that last beyond the project period without funding.

REAP has largely focused on setting up sustainable finance-generating structures, systems and practices and ensuring schools have profit-generating school businesses and supplementary feeding through school gardens (HPA), MDCs (HPA) and). It has also aimed to establish alumni networks to support fundraising for girls' education and scholarships and offer vocational or life advice through the mentorship programme and school talks, and alumni-funded scholarships (Future First Global – FFG) for years to come. This model is inspired by project evidence of numerous school businesses that are still operating profitably 10+ years after withdrawal of support[129].

Through REAP 1 and GEC-1 funding, the project also invested in sustainable infrastructure in 14% of its 28 schools, which included the ecological-sanitation (ECOSAN) toilets[130], the Girls' Changing Room, as well as water harvesting tanks and compost gathering units, found to be used and operational and cost-effective by the project's Endline evaluation and a major driver of the project's sustainability[131].

6.1 Measuring Sustainability

To measure sustainability, we use the GEC-T Sustainability Scorecard[132] at each evaluation point. Through the scorecard, we aim to determine if learning and transition outcomes will be sustained by groups and institutions overtime and whether the project has set up the right conditions for doing so.

The changes are observed at the school, community- and system-levels through a set of indicators chosen together with project staff and the fund manager[133].

These indicators reveal whether changes are:

(0) **Negligible**, denoting null or negative changes in sustainability factors.

[129] HPA (2017) Project Proposal c.f. Teach a Man to Fish (p.21)

[130] Morgan, P. (2007). *Toilets That Make Compost - Low-cost, sanitary toilets that produce valuable compost for crops in an African context*. Stockholm Environment Institute [Available at: http://www.susana.org/en/resources/library/details/195]

[131] Navarrete-Berges, A. & T. Omarshah (2017) REAP1 Endline Report (unpublished)

[132] GEC-T (2017) GEC-T MEL Guidance

[133] Indicators for sustainability were reviewed and adapted after the baseline study.

(1) **Latent**, indicating a long-lasting change in attitudes relating to programme components

(2) **Emerging**, denoting changes in behaviours

(3) **Becoming Established**, denoting changes in behaviours of a critical mass of persons or the formal or informal institutionalization of practices

6.2 Sustainability Findings

Overall findings are shown in the table following and validated in the sections following.

Table 40: Sustainability indicators

Indicator	Community	School	System
Indicator 1:	% of operational saving groups – **B: 0% M: 100% (Target met)**	% of school businesses who are profitable and sustainable – **B: 45% M:61% (target not met)**	# of REAP 2 approaches adopted by the government, per year – **B: 0 M: 3 (target not met)**
Indicator 2:	% marginalised girls with school costs reduced / covered by other sources (ex. SB, MDC, scholarships) by year – **B: 18% M: 43% (Target met)**	% of target teachers who state their intention to continue teaching using child centred gender inclusive, responsive pedagogy after the project has ended, disaggregated by female and male teachers – **B: 0% M: 89% (Target met)**	Number of incidences where REAP2 best practices are scaled up by other stakeholders or government, per year – **B: 0 M: 7 (Target met)**
Indicator 3:	% of Community Study Groups meeting regularly, by year – **B: 0% M:100% (Target met)**	% of teachers holding remedial learning sessions without direct financial transfers from REAP2 – **B: 0% M:100% (Target met)**	
/Baseline Sustainability Score (0-4)	**0** – Null	**1** - Latent	**0**- Null
Overall Sustainability Score (0-4, average of the three level scores)	**1**		
Midline sustainability Target (0-4)	**2 - Emerging**	**2 - Emerging**	**1 - Latent**
Midline score (0-4)	**2 - Emerging**	**2 - Emerging**	**1 - Latent**
Overall sustainability Score (0-4, average of the three level scores)	**2**		

Table 41. Sustainability Indicator Results

Level	Indicator	Baseline	Midline
Community	of operational saving groups	0%	100%
	marginalised girls with school costs reduced / covered by other sources (ex. SB, MDC, scholarships) by year	18%	100%
	of Community Study Groups meeting regularly, by year	0	100%
School	of school businesses who are profitable and sustainable	45%	61%
	of target teachers who state their intention to continue teaching using child cantered gender inclusive, responsive pedagogy after the project has ended, disaggregated by female and male teachers	0%	89%
	of teachers holding remedial learning sessions without direct financial transfers from REAP2	0%	100%
System	# of REAP 2 approaches adopted by the government, per year	0%	2%
	Number of incidences where REAP2 best practices are scaled up by other stakeholders or government, per year	0%	7%

6.2.1 School-level Findings

Field observations during country-visits confirm these findings with most schools visited having operational ECOSAN units, girls' rooms and school gardens. Water harvesting units were also working in most places, though in one school visited, the unit was broken and left unrepaired. In this school, the school garden was also not productive. After following up with school authorities, they mentioned that the school had suffered from a leadership change and they were still looking for a head teacher that would allow them to procure services and new materials.

According to project data, by midline, 61% of school businesses are operating profitably compared to 45 that did so at baseline.

This is 20 higher than what is observed with HHS survey data, where only 44% of caregivers who are involved in their PTA claimed that their school business was fully operational. In this indicator, there was a decrease since baseline, where 68% of PTA parents mentioned school business was operational.

School businesses are developed and maintained by school authorities and profits are used to improve educational services. When asked what changes could be observed since the year before, a headteacher mentioned:

> *"Yes, there are many improvements, on the infrastructure side, before we had very few schools and the roofs were in tiles, while now they are all in iron sheets, the toilets were not good and we now have ECOSAN… we did not have a nursery school here but now we have a well-equipped nursery school, we did not have Income generating activities and we now have school business, and a banana plantation".*

A member of the School General Assembly Committee (SGAC) mentioned that these changes have also been tailored to girls' education specifically:

> *The school is planning to equip the [girls'] rooms with the minimum girl needs for hygiene such as soap, pads and other small needs to allow girl hygiene running at school when it comes on needs. "With the school business, we can help the girls with needs*[134]*.*

And this is often linked by head teachers to an improvement in educational outcomes:

> *"The business has made tremendous change at school level because we no long have the girls with dropouts, and the school performance increased because the students are learning with efforts and goals".*

School businesses aim also to target the most vulnerable, such as students from low-income households and children with disabilities:

> *"We have also what is called school business. In the school business, we have started by a banana plantation and we are breeding some goats. The businesses are growing, and they support children with family issues. These mainly support girls, but they sometimes support boys with difficulties too*[135].

Some members of the Schools could obtain further guidance on how to include and make investments towards the education of children with disabilities with school businesses:

> *We have also the school business such as milling machines and apiculture that are targeting the girls and a few cases targeting also the boys in case they have special needs* [136]

At midline, 56% of PTA parents at baseline claimed that their school has a plan of action to make their school more girl friendly (2 increase since baseline) and a greater proportion of parents claimed their school had made girl-friendly improvements to their school (51 compared to 21). Of these, 25 mentioned the school invested into improvements towards girls education in the form of girls' changing rooms, 25 into school feeding programmes, 19 into buying books or materials, 13 into recruiting new teachers, 12 building new classrooms and 6 helping the most vulnerable such as by giving them "*a domestic animal… in order to improve themselves*".

These results are shown in Table 42:

[134] FGD with Members of the School General Assembly Committee

[135] KII with Headteacher 2

[136] FGD with Members of the School General Assembly Committee

Table 42 Caregivers in PTC Perspectives on School Investments and Infrastructure

Dimension	Item	Period	Answer	n	N
School Business	*Is the School Business Operational at your school?*	**Midline**	*No*	7	44
			Yes	**7**	**44**
			Don't Know	2	13
		Baseline	***Yes***	**15**	**68**
			No	7	32
Planning for Girls' Education	*Does the school have a plan of action to make school more 'girl-friendly?'*	**Midline**	*No*	2	13
			Yes	**9**	**56**
			Don't Know	5	31
		Baseline	***Yes***	**13**	**54**
			No	4	17
			Don't Know	7	29
Investments into Girl Education	*In the past three years, have schools spent on girl-friendly improvements to the school?*	**Midline**	*No*	6	38
			Yes	**8**	**50**
			Don't Know	2	13
		Baseline	***Yes***	**5**	**21**
			No	9	38
			Don't Know	10	42

Challenges managing school business exist, and these often relate to the procurement of services (and risky providers):

> *"Before we were managing the business with a little income because the operator used to hide and steal the income from our business; so if we have business that can be allocated near our school, we can manage it effectively with good income generation, including having good start-up tools with good quality*." [137]

Similar problems in choosing the right location existed for other businesses, which did not take into consideration potential risks pertaining to key inputs to the business. In this example, the input missing was electricity:

> *"Our focus was selling school materials and printing services. We have faced a problem of electricity in this location as the school business was located on the main road, and due to lack of electricity, it was not operating well. We had to change our business because we were paying the rent of the house and the security for nothing. However, we are now planning to resume the business, to find a new house and start again".*[138]

REAP may therefore work with school authorities to select school business types based on a closer assessment of risk factors associated with business inputs. When these inputs are difficult to change (such as the electricity), the project can advise on how to set up alternative income-generating business lines to cover for income lost due to printing services (such as selling different types of goods or services).

[137] FGD with Members of the School General Assembly Committee

[138] KII with Headteacher 2

At times, the market where school business operate may have barriers to entries that bigger suppliers are better able to cover. This creates competition that is difficult to overcome, and business adaptability might be required:

> *"Nowadays, providing services is difficult because schools must face open competition to purchase the materials and it is difficult for us to compete with other businessmen (sic) in this location. Our main clients were schools located in this location. The school business was good, it has helped us to buy some uniforms for some students from poor families and to find them school materials… we will resume it"*[139].

HPA may therefore work with school businesses to review business strategy and support them to adapt to other income-generating lines whenever possible. This may involve an appraisal of the current management of project risk, which may be better considered one year after the intervention starts.

This process may be boosted if a common platform of communication between school businesses is provided, allowing for schools to share information on challenges and risk-mitigation strategies with other schools with similar income-generating strategies.

89% of target teachers who state their intention to continue teaching using child-centred gender inclusive, responsive pedagogy after the project has ended.

This is triangulated with teacher survey data, where 89% of teachers agreed or strongly agreed that they "*will apply what I learned from training in my classes*." 70% of the teachers trained agreed or strongly agreed that the training received was sufficient to prepare them to integrate new approaches in my classroom.

However, only 31% agreed that the training was sufficient to prepare them to integrate lessons in the classroom. In this regard, only 19% agreed that the training was sufficient for the themes covered and 89% understand how the themes apply to their everyday work. Overall, 72% of those trained liked the training.

Rwanda has changed its curriculum from a topic-based to a competence-based curriculum, though many in-service teachers have yet to contextualise this change into their teaching without further training.

Teachers report that ADRA's training has helped them adapt to this change, which can make for a long-lasting change since these type of curriculum changes are not frequent in the Rwandan education system:

> *"Sincerely speaking, the trainings from ADRA were very important for the teaching profession because we couldn't understand this competence-based curriculum, but they put us together, explained it and we understood it. We decide to start using it in our normal lives."*

[139] KII with Headteacher 2

Key to this was the understanding of competencies as cross-cutting aspects of their subjects, which they are now more familiarised on how to incorporate them into the planning of their lessons:

> *"Before none could comprehend what was meant by a cross-cutting issue, its role in the lesson plan… we could not comprehend generic competences but during the training we knew how they are linked in our profession and how they are helpful and important to students in all ways, like holistic education, evaluation, attitude values and knowledge. We were trained by ADRA on all these concerns.".*

Another teacher on this issue mentioned:

> *"For instance, when you could look at our lesson plans, you could find that they are very different and even during evaluation, the objectives could not match the evaluations. But now we prepare clear and helpful lesson plans and can correctly evaluate the objectives."*

Teachers also mentioned that telling children the objectives of the lessons in advance, improves the lesson:

> *"So, there has been a change and it is very good if a child learns with a set objective that he or she has to achieve at the end of the lesson."*

Teacher training has also helped teachers to create more open classroom cultures:

> *"During the training from ADRA, we were trained that a teacher must create friendship with students so that a student becomes a friend of his or her teacher as someone he or she is working together with to promote education."*

Another teacher mentioned:

> *"Now after the trainings, children much participate in every lesson and it's the child who gives the ideas and the teacher helps him or her so that the child can participate in all ideas written on the black board before the teacher provides corresponding notes."*

Creating materials to assist teaching has also been perceived to be particularly useful:

> *"What I can add is that I knew from the training how someone can himself/herself develop didactical materials. Maybe they are few things knew before, but I acquired new knowledge so that I can myself develop them in a different way. That is something which improved.*

Among areas teachers recognize they would require refresher training, they mentioned training on how to use information and communication technologies (ICTs) in their lessons. This is particularly relevant within Rwanda's Vision 2020, which envisions that all schools should have access to a working computer lab:

> *"if it is about teaching ICT, everyone says he/she doesn't understand, and it would be advantageous to be trained in it."*

ADRA's English-speaking clubs made for teachers to improve their English are also likely to be a key driver of sustainability. This is because many teachers admit that instruction in English is still limited in schools:

> *"What I see is that even if teachers make improvement in languages, teacher's English level is weak because it is our second language, so trainings in English should always be provided… and it is the instruction language so if you don't understand it very well, you can't teach very well".*

English teachers also struggle when students do not speak the language:

> *"For example, when I'm teaching "story telling unit" in senior two, I wish I could be trained on how I can teach this lesson to children who can't express himself/herself and finds basics from which he/she can start with or at least speak something. So, I feel that if trainings in English lesson are provided, it would be helpful"*

In Rwandan schools, Subject Leaders are senior teachers able to provide topical guidance to teachers in their schools and in-service training. The project may work with subject leaders to support English-language use across all subjects, and special reading comprehension sessions in English with English teachers.

While teachers mentioned that most teachers they know could be trained, some female teachers mentioned to be unable to attend training because of childcare at home:

> *"On my behalf it was so difficult. Because of course I attend during school-leave time, there was enough time, but I found difficulties to leave my baby and spend the whole four days. It was difficult, four days are so many and even the transport and mission fees provided couldn't cover the time spent. Thank you."*

Others mentioned that the money given for transport was not enough to complement the income lost to the days in the field, and that is why some of their colleagues could not participate:

> *"Some people refused to attend because they were thinking about little transport money provided by ADRA. For instance, they could give you only ten thousand after spending a whole week in trainings. When you come back and compare yourself to those who stayed home cultivating, you found yourself lost and do not feel motivated. Only the lessons provided could motivate us."*

Teachers also mentioned to struggle with managing large classroom sizes, which affects the time they can spend with each student or individualize the teacher experience. For some teachers, teaching practice is at times an experience when:

> *"The teacher doesn't figure out all the children."*

Fulfilling the objectives of the lesson in a short space of time is something teacher could require extra support.

> *"It is difficult to manage lesson time because we told you each lesson has 40 minutes, and to teach a lesson in these 40 minutes so that you can say children*

have attained a given level of understanding, it is difficult. And you have to leave for the next coming teacher so that he/she can teach his/her lesson. It means that the allowed lesson time is not sufficient. It is difficult for children to comprehend very well."

This problem is exacerbated when they have children with learning difficulties in their lessons, who require a slower pace in the lesson and time is scarce:

"Sometimes teaching becomes difficult because of a big number of students, crowded classrooms, and the allowed lesson teaching-time length becomes insufficient. Even if the teacher tries, the time elapses so suddenly and you can't assist those children with low comprehension capacity."

Another teacher recommended that teacher trainings should be scheduled in advance, potentially taking into consideration trainings provided by other NGOs:

"Furthermore, on another surprise, you may see ADRA coming for trainings while you didn't plan for it, and so on. They finally disturb the teachers planned programs and the yearly scheme of work is disturbed."

ADRA and partners may therefore coordinate with other actors in the Rwandan education system to provide teacher trainings that complement each other and are offered at a time when teachers are most able to attend.

Teachers also mentioned that many parents are presently very disengaged from the education of their children and they should share the responsibility of learning:

"All responsibilities fall to the teacher, we knew parents played a very big responsibility in the child's education, the child also has a very big responsibility in his/her education supporting the teacher and government's responsibility. And of course, today the government has a big responsibility but when you analyse this, the child and parents' responsibility in children's education, you find it doesn't exist. An example I can give is that when you are teaching in a class of 60 children, and they have all come from their families with dirty clothes, you won't teach dirty children, you will go to look for ways to at least improve their hygiene. If children have come without learning materials it will be a disadvantage for the teacher and so in our set objectives we encounter challenges and when it is the evaluation time, no one wants to hear about them. They throw the responsibility to the teacher while [the teacher] might have tried everything."

Teachers mentioned that they also lack specialized teaching materials, which prevents them from fulfilling certain CBC competencies such as student research:

The other reason teaching becomes difficult is because of the number of children we have, we have only a few books to dispose. For example, the new teaching program stipulates that a child must do research and he/she will be able to research only if there is a book in front of him and he/she is consulting a page you gave him/her. But books are few and children have to struggle and some of them participate and others don't.

According to project data the availability of books has increased in the project intervention schools where the book to child ratio has decreased from 1:7 to 1:4.

At midline 100% of teachers holding remedial learning sessions without direct financial transfers from REAP2

Teachers did not mention issues running remedial lessons, but they referred to high workloads, which might work as a disincentive towards providing remedial lessons independently. As the teacher mentioned before: "*All responsibilities fall to the teacher".* Some teachers travel from far to school and may thus be able to free less time for lessons.

These lessons are valued by teachers and students alike. Teachers mentioned that a child who needs these lessons is one "*who attended rarely*", "*came late and missed parts of lessons teaching*", as well as those that need supplementary learning due to learning difficulties. Teachers "*look for those who do not perform very well*", but "*if they have full attended, they no longer fail for next examinations*."

Remedial lessons are a place to go back to the basics:

> *"We don't provide difficult lessons; we offer simple lessons such numeracy and literacy."*

However, this can be a problem when lessons are not within the appropriate zone for pedagogical development, which might not be challenging enough for students who advanced in the lesson. Teachers could therefore be better prepared on how to hold remedial lessons for different children, through group work and other pedagogical methods. This is because children, once they understand the concepts of the lesson, stop attending:

> *"Because we order them to attend but after understanding these lessons, they no longer come all. They start boycotting one by one".*

Teachers also require better preparedness to cater to children with learning difficulties and learn a glossary of terms of inclusive language. Currently they use various names for children with disabilities and it is not clear whether they know how to address their learning needs in remedial lessons.

Teachers also mentioned that REAP's provision of school materials to the most vulnerable, encouraged them to attend remedial lessons:

> *"Link Community Development provides the motivation for the regularly attendance such as pens, books, those encourage the students. They need motivation to encourage the remedial classes."*

In terms of enhancing the sustainability of lessons, teacher mentioned that they need to learn how to make materials to deliver remedial lessons more effectively:

> *"The teachers' materials should be multiplied and motivation to encourage the teachers and learners".*

Others mentioned the need to work on their English skills more, so as to be able to return to school. This is well targeted by the project:

> *"When you met your classmate speaking well English than you, you find that you are different from them."*[140]

In some FGD's teachers mentioned that other NGOs offer some form of incentive to take part on activities and this motivates those teachers to join them.

> *"There should be incentives from both sides. For example, we don't find some of our beneficiaries when World Vision calls them because they receive many incentives."*[141]*"There several things which must be improved but I can highlight one important thing, you see on the side of teachers, the constraint I can site is that the teachers who are supporting children in these remedial classes must have motivation as they are working extra hours for them to improve their way of working. In addition, children also need those motivations we were talking above, in case they are available to them it would help them to improve their attendance because they are barriers related to someone's participation in these remedial classes without materials like notebooks, pens and other different materials."*[142]

Teachers also mentioned the need to develop materials for the remedial lessons, as children often lack notebooks and pencils to make notes:

> *"…it seems we are using different approach for the existing one we are using in formal classes, so the specific teaching materials are needed for example providing books related to those remedial classes because the children who are participating in these remedial classes do have different challenges for example those who have various disabilities like those who have mental disability i.e. don't think in normal way something like that."*[143]

6.2.2 Community-Level Findings

According to project data, 100% of saving groups are operational

The project has established student saving groups in each of the 28 project schools, supporting the formation of groups both at school and community level, that are monitored by the STWT coaches and supported through the provision of saving materials such as boxes and booklets[144];

Mother Daughter Clubs, a community structure created under REAP1 and supported through REAP2, help girls establish saving clubs. Girls who are in savings clubs also save

[140] FGD with OOS on Vocational Training 1

[141] FGD with Teachers on Teaching Quality and Remedial Learning

[142] FGD with Teachers on Teaching Quality and Remedial Learning

[143] Ibid.

[144] HPA (2018) Quarterly Report 5

more than other girls. Currently, 78% of girls who are in a savings club mentioned that they can save, compared to 22% of those who are not.

Saving group money is perceived to have the potential for income generation:

> *We gain a lot as we do savings, money is collected and later being shared for a viable Income Generation Activities.*

And also, to bring up the aspirations of participants, which changed since their participation in the savings' group began:

> *I used to observe how our live would be as we were in poor family but now days I realized that everything is possible to be to another level of living as everyone has a chance to be reach.it is up to change mind and keep saving a little money I get and work hard at school.*

Saving groups also help girls deal with day-to-day shortages of cash:

> *"There has been a change if you save one hundred every Friday and you get a problem to buy a soap you can borrow money and pay for it and reimburse it later."*

It is unclear, however, if girls will be able to transform savings into income generation, so that this supplementary income support transition. A girl in an FGD mentioned:

> *"Unless we get supported for vocational training, we have no vision, example even if I get 10000RWf and attend vocational training, how can I find a sewing machine for example? There are some do agriculture, I have never seen someone who was developed form agriculture, I cannot try it because it is not productive"*[145]

43% of marginalised girls have school costs reduced / covered by other sources (ex. SB, MDC, scholarships) by year

43% of girls who are part of a REAP activity such as the SB, MDC, or has been supported through scholarships or other forms of support also had school costs reduced in the past year. According to chi-square tests, girls in these groups did not necessarily saw a reduction in costs compared to non-members.

According to project monitoring data, 100% of girls have had their school costs reduced by these sources. It would be important to study if the methodology used in monitoring tools could allow for more differentiation in the data, so as to be able to better triangulate with this indicator.

Table 43 shows differences between treatment and control in the reduction of school costs. In treatment areas, 44% of caregivers mentioned it was cheaper to send girls to school compared to the previous year, compared to 18% of caregivers who thought so at baseline. There was also a similar increase in the number of caregivers in control areas

[145] FGD with OOS on Vocational Training

who thought it was cheaper to send their girl to school compared to the previous year; going from 6% at baseline to 41% at midline.

Of those treatment caregivers that said to have the costs reduced, 19 mentioned this was by 30% or more and 82% mentioned that the reduction was of less than 30%. 7% mentioned their costs were reduced a great deal by midline. Presently, 3% of caregivers have their girls' school costs supported by the school.

While there was an increase in the number of persons who thought it became cheaper to send their girls to school, they sustain that their ability to finance these costs have generally worsened. In treatment areas, this is indeed the case, as the level of hardship has increased for a portion of the population relative to control. See Section 2 for a discussion of changes in hardship as a barrier for school.

Table 43 Reduction in School Costs

Items		Midline				Baseline				Difference Since Baseline	Diff (over and Above control)
		Control		Treatment		Control		Treatment			
		n	%	n	%	n	%	n	%		
Has [GIRL'S] school covered some of [GIRL'S] expenses to go to school?		34	8.8	9	**2.7**	37	13.2	19	**7.4**	-4.6	-0.3
In the past year, has it become cheaper to send [GIRL] to school?	*It is more expensive*	219	58.7	184	**55.6**	250	94.3	190	**81.5**	26.0	-9.7
	It is Cheaper	154	41.3	147	**44.4**	15	5.7	43	**18.5**		
In the past year, has your ability to finance these costs improved, decreased or is about the same? (Midline) (RWF)	*Improved/ easier*	19	5.1	10	**3.1**	4	1.5	9	**3.4**	-0.4	-4.0
	Remained the same	120	32.4	96	**29.4**	62	23.4	62	**23.7**	5.7	-3.3
	Decreased/ harder	231	62.4	221	**67.6**	199	75.1	191	**72.9**	-5.3	7.3
Could you estimate how much was the reduction of school costs since last year?	*Cost Reduced (by 30% or more)*	61	22.3	41	**18.5**	17	29.8	42	**48.8**	-30.4	-22.9
	Cost Not Much Reduced (by 0 to 30%)	212	77.7	181	**81.5**	40	70.2	44	**51.2**		

3% of caregivers at both baseline and midline perceive that their ability to finance the costs of school for girl has improved. In treatment areas, there was a 5% increase in the number of caregivers who thought their ability remained the same, compared to a 9% increase in control areas.

There were also fewer caregivers whose ability to finance school costs was reduced at midline, compared to a year ago at baseline. At midline, 68% of caregivers mentioned their ability to finance school costs was reduced, compared to 73% at baseline.

This is contradictory to findings from project data, which mentioned that most caregivers have had the school costs reduced as a result of the intervention.

See below for the average school costs in RWF:

Table 44 Average Yearly Costs Per Child

Cost	Mean Cost (RWF) per Child Per Annum
School Fee (Midline) (RWF)	3993.5
Teacher Incentive (Midline) (RWF)	505.5
Transport Costs (Midline) (RWF)	93.9
Meal Costs (Midline) (RWF)	76.3
Cost to Reallocate (Midline) (RWF)	1286.5
Cost for Tutorials (Midline) (RWF)	598.9

According to project data, 100% of Community Study Groups meeting regularly.

According to FGDs, Community Study Group (CSGs) tutors usually meet once a week. They use it as a time "*to consider the lessons in which the students wish to bridge the gaps on their own choices and their given homework in three lessons: Kinyarwanda, English and Mathematics".*

Parents and girls perceive that students could meet more frequently. Ehen the 39 parents whose children are part of CSGs were asked the question *'How regularly do Community Study Groups meet?*', 28% mentioned their CSGs met rarely or very rarely, 23% mentioned they meet occasionally, and 44% mentioned that they met frequently or very frequently. Of the girls who mentioned to be part of a community study group (n=21), 38% of them mentioned that the club met regularly or very regularly, 24% mentioned they met occasionally and 29% mentioned that they met rarely.

While these measures do not specify whether they are meeting regularly (as control checks at the monitoring level would), they describe the different perceptions that exist among caregivers and girls of whether CSGs are meeting regularly enough. In this case, about a third to a half of participants mentioned CSGs meet regularly enough. Presently, CSG mentors monitor each other and CSG attendance is shared on a weekly basis.

6.2.3 System-Level Changes

Advocating to policy makers for commitment for replication of best practices is another key means securing sustainability.

Since the baseline, three of REAP 2 approaches adopted by the government

In March 2018, the2018, the SIP and School Performance Reviews (SPR) that are being used in schools was validated during a meeting with the projects' stakeholders including MINEDUC and REB representatives. It has been decided to scale up the implementation of the activity at national level. Analysis and discussions on the best way to proceed have started taken

place in Y2 of project implementation[146]. By now, the District has validated and asked the project to train other SEOs out of the project implementation area so that they can scale up SIPSIPs in those areas (sectors).

In February 2019, communities also showed increased commitments towards school businesses. During the project stakeholders' meeting, the District's local leaders asked SEOs to make sure that school businesses are successfully managed by the school management committee (SMC).

In February 2019, the REB has asked the project to send the tools for teachers' performance appraisals that are being used by the project so that they can be matched with the one that are currently being used by the government.

The project had targeted 4 uptakes of approaches, and yet only three were accounted for. The target for this indicator was thus 1 approach short of being met.

Seven incidences where REAP2 best practices are scaled up by other stakeholders or government, per year

In March 2019, a request was sent to the project to organise a training for SEO in additional sectors other than the project implementation area for SPR in schools. AA proposal was also sent to the project through Link from UNICEF for the development of a school inspection framework. Furthermore, in June 2019, the District local leaders invited the project to share about the success of CSGs and how they can be created in other sectors.

A meeting with International NGOs operating in Nyaruguru District on girls' education was organised on 8th February 2019 at Nyaruguru District office and chaired by the district vice mayor in charge of social affairs. The main objectives of the meeting were: increasing networking and sharing experiences among INGOs working with adolescent girls; increase the visibility of the programmes implemented in Nyaruguru District; update local authorities and partners of REAP2 activities and accomplishments.

District partners have appreciated REAP II activities and how HPA has involved the community in planning and implementation phases. According to project staff, this shows a good level of ownership that will support a long-term sustainability of the activities.

While there is interest in the project, only at endline we can measure if these actions will translate in the effective scale up of best practices. At midline, targets were met for this indicator.

6.2.4 Overall Results

6.2.5 Changes Needed for Sustainability

Sustainability crosscuts across the project's other two outcomes Learning and Transition as well as most of REAP's activities and approaches, by working with sustainable school and

[146] C.f. Policy Intake Log Meeting Minutes (18/03/2018)

community structures, by engaging PTA, communities and SEOs and DEOs in School Improvement Plans (SIP) as well as engaging policy makers to replicate REAP2 best practices in the longer term. Sustainable funding is one key component of this. By setting up sustainable finance-generating structures, systems and practices, REAP is ensuring that not only the target students themselves benefit from improved life chances, but also future generations of students in these schools which will have profit-generating SBs, MDCs and alumni-funded scholarships for years to come. Advocating to policy makers for commitment for replication of best practices is another key means securing sustainability.

The main change that the project would like to achieve is that the activities implemented and supported throughout the three years of implementation will become self-sustained after the end of the project. Like this the project will achieve real sustainability and it will have tangible impact on the chances of marginalised girls.

The general improvement across all three levels between baseline and midline shows that the activities and support provided by the project is working and that good level of sustainability will be achieved by the end of the project. However, a few elements have hindered the sustainability progress and the project's management would need to carefully look at these issues to avoid comprising the successes reached until now.

6.2.5.1 Community-level Changes

At the **community level**, success will depend on the operation of saving groups so girls can build financial resilience, on the secular reduction of school costs as they year's progress and the independent organization of CSG clubs. To enhance this, the project has linked up saving groups with coaches and mentors for work readiness training, so they may put savings into use; a strategy that should be scaled up. While girls are increasingly able to save, sustainability will be achieved when girls' income are sustainable.

Most CSGs are meeting regularly without support, so this is sustainability objective already met at endline. However, the project notes that CSG mentors tend to offer lessons to large classes in communities and are now dependent on Teacher Focal Points and members of the community to support them. It is unclear whether this form of assistance will be required in the long term.

Despite a few challenges, the project is well placed in achieving full sustainability at community level as all the structures that have been established (Community Study Groups, SB, MDCs, Alumni Networks) are now effectively functioning. All these elements are usually discussed at stakeholders' meetings as well to further promote sustainable ways to support the continuation of the above activities beyond the project's end.

Following successful training, locally made learning materials can be produced sustainably by Community Study Group Mentors with minimal project support. As planned, IGAs have been provided to incentivise the volunteer Mentors and form a "team" dynamic in order to reduce Mentors dropping out after the project ends. However, the significant drop-out rate of Mentors demonstrates that this has not been effective as Mentors have left for full-time employment. The project is now exploring alternative sustainability options, including closer links with

schools and Mother-Daughter Clubs and recruiting Mentors with lower qualifications but deeper community ties. Furthermore, a link between the mentors' work and the one done by the teachers during remedial classes is under consideration, to promote synergy between the two initiatives (CSG focus on stronger students and remedial classes focusing on those who are struggling most).

The MDCs will be fully self-sustaining by the end of the project, with the skills to accept and support new members and the financial sustainability of their matured IGA. The project has continued supporting all 75 MDCs and 28 school businesses. The MDCs are all working at a profit while 7 SBs are experiencing some issues and are currently being closely monitored to support them in being completely independent and self-sustainable by the end of the project.

Alumni Networks have been supported in functioning as saving groups as well (all the members have been provided with training and with saving materials) like this their activity will continue as well after the end of the project.

The teenage pregnancy prevention interventions will achieve sustainable behaviour change beyond the project life. REAP2 is working with CHW and youth corners to offer family planning services, alongside behaviour change communication (radio, etc.) to create behaviour change among the target girls as well as boys in REAP2 catchment areas. The project will also create lasting behaviour / attitudinal change among communities and parents in terms of engaging collectively on girls' education. Parents and other community members will get involved in monitoring the quality of the education in their daughters' schools, and volunteering in the evenings to supervise Community Study Groups and walking girls in small groups home from the club activities to ensure their safety. This participation is sustained throughout the project life with minimal support from project staff, to ensure that it will continue sustainably after the project ends. The radio chats show contributed to sensitisation of the community, especially girls, to reduce/avoid early and unwanted pregnancy. Furthermore, they have helped MDCs members and sexual health corners to raise awareness about these issues.

6.2.5.2 School-level Changes

At the school level, the school management of a certain number of schools should be offered refresher training and guidance on the appropriate maintenance of school facilities invested upon during REAP1. School businesses are also finding challenges down the road, including more efficient market competition for the goods produced as well as electricity problems. Linking up school businesses through a common platform can encourage them to share strategies for profitability and risk management. These are by far the reasons why certain school business are not profitable so a more direct intervention by endline could be necessary.

There are about 81% of teachers who thought that the time allocated for training was not enough and they need further support with refresher trainings or coaching and mentoring support. Coaches can support in-service teachers with the implementation of changes in their instructional practices and ensure that knowledge is continuously improved during their profession.

Ensuring that activities and approaches are owned by school structures and communities is essential for the long-term sustainability of the project. Training for all 28 School Leaders, all 9 members of each School General Assembly Committee (SGAC), and all 7 SEOs means that there is a critical mass of people with the capacity to conduct evidence-based school improvement planning. The project will explore how new SGAC members can be trained by their peers / the district as they are replaced. Development and implementation of the plans over the last year shows that there is capacity and willingness to improve school quality. Active participation and positive feedback from SEOs and DEOs demonstrate that they see the value in supporting schools with SIPs.

The project is experiencing some challenges regarding the long-term sustainability of the remedial classes. This activity has proved very useful for the improved attendance and learning of students and a higher number of children than initially planned has been actively participating in these lessons though without the possibility of covering the transportation for teachers that run the courses, the activity could not continue after the end of the implementation. The project is currently exploring how to solve this issue.

6.2.5.3 System-level Changes

At the system-level, SEOs and DEOs should inherit from the project the necessary skills to provide coaching and mentoring support as well as oversee the implementation of SIPs. To do this, especially training should be offered to them as well as preparation on the use of REAP's monitoring tools. These later assessments may be mainstream into the tools DEOs and SEOs in their mandated monitoring support. Teachers trainings may be also be coordinated with other NGOs so that they mutually reinforce concepts obtained through the project.

The project is trying to achieve sustainability through influencing policy makers to commit to continuation and replication of the project approaches. Since the very beginning of the project, REB and MINEDUC have been directly involved on how to improve SIP. Through the Ministry of Education and the Rwanda Education Board, the central government is committed to engaging more actors, including NGOs and private sector organisations who are all likely to be part of a realistic and achievable strategy to sustain the positive impact of the project interventions. These actors are also committed to mobilising more resources, so that the project interventions can be replicated in the other schools. Three stakeholder meeting, attended by district officials, MINEDUC/REB representatives and other local and international partners, have been held since the start of the project. MINEDUC and REB have accepted to replicate School Improvement Plans outside the project implementation area and to further advocate for the replication of MDCs and health corners. Furthermore, the District Director of Education in Nyaruguru plans to adopt the School Performance Review process demonstrated in REAP to conduct the peer inspection usually organised by the District.

Through advocacy activities the project management is making sure that at the end of the project there will be a very high commitment from part of the government and local authorities to replicate project activities and good practices. The government is very supportive to the project. Furthermore, SBs have been managed by the schools, with the involvement of PTCs as well. The project is currently in process of integrating school business into the district

management and by the end of the project, the school businesses will be supervised by the district.

The table below summarizes the changes needed for sustainability.

Table 45: Changes needed for sustainability

Question	Community	School	System
Change: what change should happen by the end of the implementation period?	**EE**: 1. Link up girls in savings' clubs with vocational opportunities. 2. Define through which sources caregivers will find the costs of sending girls to school reduced and investigate the sustainability of these sources at endline. **Project**: 1. SB and MDC will fund their own activities and provide profit to cover girls'-school related costs after the project ends. 2. Positive parental attitude towards girls' education through proactive involvement of PTAs and MDCs and through awareness raising at School Performance Appraisal 3. Decrease of household chores that currently prevent girls from attending CSGs and remedial classes. 4. The afterschool reading clubs will be self-sustained through community management. 5. Saving groups will continue to exist and	**EE**: 1. Empower the schools to maintain facilities invested on REAP1 2. Work with school authorities to select school business types based on a closer assessment of risk factors associated with business inputs. **Project**: 3. Review business strategy and support them to adapt to other income-generating lines whenever possible 4. Create a platform where school businesses can share ideas and strategies for profitability (through WhatsApp or Facebook). 5. Organize a refresher training or a structure of coaching and mentoring support for teachers and expand the time taken for the original training. Topics may include managing large classroom sizes, use of positive discipline in the classroom, teaching for children with intellectual impairments such as remember and concentrating, and marking specialised learning materials. 6. Consider providing incentives during training, as this would encourage more teachers to come. 7. Coordinate teacher trainings with other NGOs to ensure	**EE**: 1. Train SEOs and DEOs in coaching and mentoring for the development and supervision of SIP, teacher instruction and school businesses. 2. Mainstream REAP2 output monitoring into SEO and DEO tools. 3. Coordinate teacher training with other NGOs, to complement rather than compete with skills. **Project**: 1. Increased commitment from part of the government and local authorities to replicate project activities and good practices. 2. By the end of the project, the management of those school business will be supervised by the district. 3. Project best practices are

Question	Community	School	System
	will be transformed into cooperatives. 6. Different services targeting the most vulnerable girls at the community level will replace those that are being provided by REAP. 7. MDCs will get a status of cooperatives, with formal statutes, and they will be registered under that Rwanda Cooperative Agency. 8. Custodians will be financially assisted by sector leadership and through the establishment if IGAs to maintain sexual health corners.	that they do not compete for the time of teachers can put into training and trainings are complementary. 8. Engage parents into their child's education, possibly through FFG's alumni network. **Project**: 1. Improvement in financial and management skills for PTAs to be able to manage school businesses autonomously. 2. PTA / SIP tracking of attendance will be sustained through local ownership and SEO/ DEO continued oversight. 3. Alumni networks will support most marginalised girls' school costs through the establishment of IGAs 4. Teachers will continue mentoring the after school remedial learning classes for girls who are behind in schools or those who have dropped out, including non-readers. 5. SIPs will be developed and integrated into the district plan to allow its implementation in all Nyaruguru district schools. 6. Teachers will continue using the child centred gender inclusive, responsive pedagogy 7. PFM frameworks and PTA's SIP will ensure that quality teaching will be continued and monitored. DEO & SEO will monitor this effort.	scaled up by the government or by other stakeholders by the end of the project.

Question	Community	School	System
		8. More inclusive approaches will be used towards children with special needs	
Activities: What activities are aimed at this change?	a) Follow up, mentorship to school businesses and MDC to become sustainable / self-managing. b) Community study groups where tutors organize reading / numeracy games and child-centred books are shared between students. c) IGA support and seed money for tutors. d) Start-up savings groups for girls. e) Establishment of youth friendly sexual health service corners. f) Training of Community Health Workers on family planning, HIV/STIs case management. g) Referrals to other existing services targeting most vulnerable girls. h) After school remedial learning / tutorial classes for girls who are behind in school or have dropped out, including non-readers. 4. i) Sensitisation of parents and caregivers through MDCs and awareness raising community meetings regarding the important of a more equal split of house chores	a) School leadership training. b) Establish PFM frameworks in schools with mandatory budget lines for school costs of most vulnerable girls. c) Development of School improvement plans (SIP). d) SIP audits conducted by each PTC with supervision by the SEOs. e) School budget reviews. f) SIP reports collated / shared with DEO. g) Teacher training in child-centred and gender responsive pedagogy. h) Teacher training in literacy and numeracy instruction. i) Teacher English discussion groups. j) Extra English, Kinyarwanda and maths readers topping up inadequate DFID/MoE-funded readers; and locally produced child friendly books. k) Community Health Workers trained on family planning, HIV/STIs case management. l) Set up alumni network for scholarships. 5. m) Roll out training to whole PTCs across 28 schools.	a) Training and involvement of Nyaruguru local authority and DEO to endorse and monitor SIP. b) Advocate for SIP to be integrated into the Nyaruguru plan. c) Advocate for replication of project best practices. 6. d) Quarterly newsletter publication.

Question	Community	School	System
	between girls and boys		
Stakeholders: Who are the relevant stakeholders?	a. Girls b. Parents c. Community members d. Potential employers e. Women's associations f. MDCs and PTAs g. Local leaders h. CSG i. Alumni networks j. After-school Community Study Clubs k. Community volunteer tutors	a. The Government and the District Authorities b. Ministry of Education and Rwanda Education Board c. Workforce Development Authority d. The key education partners Nyaruguru e. Other local and international NGO partners f. Associations for children rights g. Churches operating in Nyaruguru (most of schools are owned by churches) h. Women's associations i. MDCs and PTAs j. Local leaders k. SEOs and DEOs l. Head teachers and teachers	a. The Government and the District Authorities b. Ministry of Education and Rwanda Education Board c. Workforce Development Authority d. Associations for children rights e. Churches operating in Nyaruguru (most of schools are owned by churches) f. Women's associations g. The key education partners in Nyaruguru h. Other local and international NGO partners i. Associations for children rights j. Churches operating in Nyaruguru (most of schools are owned by churches) k. TVET institutions l. Public and private businesses
Factors: what factors are hindering or helping achieve changes? Think of people, systems, social norms etc.	**Hindering**: a) Economic hardship. b) Parents who have negative parental values towards girls' education. c) Volunteer retention of the tutors can be difficult without incentives.	**Hindering**: a) Majority of the schools in intervention areas are behind in implementing competence-based curriculum in English. b) Little culture of speaking English in schools. c) SB cover school related costs, but not fully. Economic barriers could still affect attendance to some degree after the project ends if SB	**Hindering**: a) Governments may not be responsive to advocacy. b) Lack of budgets to replicate all the project best practices nationally. c) Policies against physical

Question	Community	School	System
	d) Parents who put high chore requirements on their daughters. e) Girls' lack of awareness on TVET and its benefits. **Helping**: a) The commitment of parents to run school IGAs in their MDCs hoping to get some income. b) Community leadership and support for project activities. c) Inclusion of most marginalised girls into project activities. d) Community proactively supporting girls' education. e) Girls' self-esteem and confidence. f) Teenage pregnancy. g) Internships take a lot of work to coordinate. But some businesses may continue to offer them in a more informal way after the project ends.	profit cannot cover an adequate portion of school budgets. d) Some teachers might be transferred to other schools outside of the project implementation areas. e) SB, MDC and alumni networks could face issues of mismanagement of funds etc. after the project ends. f) Teachers' absenteeism and insufficient materials are important barriers to transition. g) Lack of seats in school to accommodate all pupils. h) Physical punishment of pupils. i) Delay in funding for construction of new classrooms all over the Country **Helping**: a) A safe and girl-friendly school environment, ex. separate girls' and boys' toilets. 2. b) Career aspirations and perception that there are good options for girls after school.	punishment are not enforced. **Helping**: d) REB and MINEDUC are interested in SIP development because the existing one seems to be inadequate. e) District leadership.

7 . Key Intermediate Outcome Findings

7.1 Increased Girls' Attendance

Project activities aim to improve the attendance of girls in schools by targeting barriers which reduce girls' access and by making learning environments girl friendly. The project argues that improved attendance will lead to improved ability of girls to successfully transition, and improved learning outcomes.

The project is continuing to provide technical support and mentorship to school businesses and IGAs established in REAP1. School business generate income to invest in girl-friendly improvements and IGAs provide funding to support girls who can't afford school materials.

FFG will also establish alumni networks in project schools to finance scholarships for girls in need. In addition to these activities, the project has set up youth friendly SRH corners in target schools aimed at preventing barriers caused by low sexual and reproductive health including poor menstrual management, early marriage and teenage pregnancy. Finally, the project has engaged school stakeholders through the School Improvement Plan (SIP) process to identify and outline areas of improvement for girls' access to school.

7.1.1 High-level findings

Logframe indicator achievements against targets are summarized in the table following.

Table 46: Intermediate outcome indicators as per the Log-frame

IO	IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will the IO indicator be used for next evaluation point? (Y/N)
Attendance	Percentage improvement in attendance rates: i.e. % Improvement in marginalised girls' average monthly attendance in schools throughout the life of the project (average percentage)	96.7%	97%	97.16%	Y	97.5%	Y
	Increased % of girls' attendance based on improved supportive environment within school and communities (i.e. increased parents' support; economic assistance; teaching methodology)	EE: It is unclear how this indicator was intended to be operationalized. The project has suggested the EE seek additional guidance from the FM on how and why this indicator was chosen.					
	% of most marginalised girls (moderate to extreme hardship) with school costs reduced / covered by other sources (ex. SB, MDC, scholarships) by at least 20%	13%	30%	50.9%	Y	45%	Y
Main qualitative findings							
▪ Barriers to girls attendance identified in qualitative sessions included sickness, having to stay home to help around the house or with other household duties, shame around menstruation, poor menstrual							

IO	IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will the IO indicator be used for next evaluation point? (Y/N)
	management, school safety due to bullying and corporal punishment, and the *perceived* desired of girls for sex with boys or benefits of having sex with boys. ▪ Stakeholders disagreed as to whether attendance rates differ between boys and girls. Some argued that boys face an additional barrier to attendance, namely temporary jobs or the prospect of income through employment.						

7.1.2 Interpretation

Mean attendance results per grade level and period are shown in the table following. Attendance represents the historical average percentage of time girls attended school for the month of September 2017 at Baseline and September 2018 at Midline. September was selected as a proxy for average attendance, as it is a month where no seasonal effects due to weather or harvesting would be expected to influence attendance levels.

In most grade levels, average attendance improvements in the control group exceeded average changes in the treatment group, suggesting the project did not have a strong influence on attendance outcomes.

With the exception for girls in P4 and girls in S1, changes experienced by the control group in attendance scores between periods exceeded changes experienced by the treatment group. In the treatment group, average attendance levels decreased for all grade levels except S3 between periods, while in the control group average attendance levels increased in most grade levels between periods, apart from girls originally in P4, S1, and S4.

Table 47. Attendance Changes over Time

Grade at Baseline	Control			Treatment			Diff in Diff
	Baseline	Midline	Diff.	Baseline	Midline	Diff.	
P4	98.12%	97.25%	-0.87%	97.45%	97.05%	-0.40%	+0.47%
P5	96.71%	97.37%	0.66%	98.56%	96.29%	-2.27%	-2.93%
P6	95.95%	97.71%	1.76%	97.82%	95.74%	-2.08%	-3.84%
S1	99.52%	96.49%	-3.03%	99.04%	98.25%	-0.79%	+2.24%
S2	95.23%	98.25%	3.02%	98.97%	98.87%	-0.10%	-3.12%
S3	98.81%	99.42%	0.61%	98.23%	98.25%	0.02%	-0.59%
S4	100.00%	98.50%	-1.50%	99.55%	97.89%	-1.66%	-0.16%

6.4% of parents in the treatment group and 7.8% of parents in the control reported that their girl had missed schools for two weeks or more, since she started school.

To understand attendance further, caregivers were asked whether the girl has ever missed more than two weeks of school. In the treatment group the most common reason for this was illness (38.1%) followed by death of a family member (14.3%), natural disaster (14.3%), and household chores (9.5%).

To better understand attendance at Midline, we reviewed aggregate attendance items against the 61 barriers and characteristics outlined in Annex. Sub-groups for which mean attendance results were different at statistically significant levels are reported in the table following. For each of these the study conducted a linear regression to assess whether sub-group membership can predict attendance outcomes at statistically significant levels.

Having a high chore burden is a barrier to attendance levels in control areas.

In control areas, doing chores for half a day or more on a typical day has a negative effect on attendance levels at statistically significant levels ($p<0.05$). This results in attending school 13.23% less time per month. Despite a t-test establishing that mean attendance levels are lower for girls with a high chore burden in treatment areas, the negative effect of a high chore burden on attendance levels is not significant, suggesting the project may have had a role in reducing the negative effects of a high chore burden on attendance levels.

Not feeling safe in school leads to reduced attendance outcomes in control areas.

A regression model finds that not feeling safe in school reduces average attendance by 31.12% in control areas. This effect was not found in treatment areas, despite t-tests finding that girls in schools who don't feel safe having lower attendance means at statistically significant levels. This suggests that the project has mitigated the effect of this barrier on attendance outcomes.

Table 48. Barriers & Characteristics and Attendance at Midline

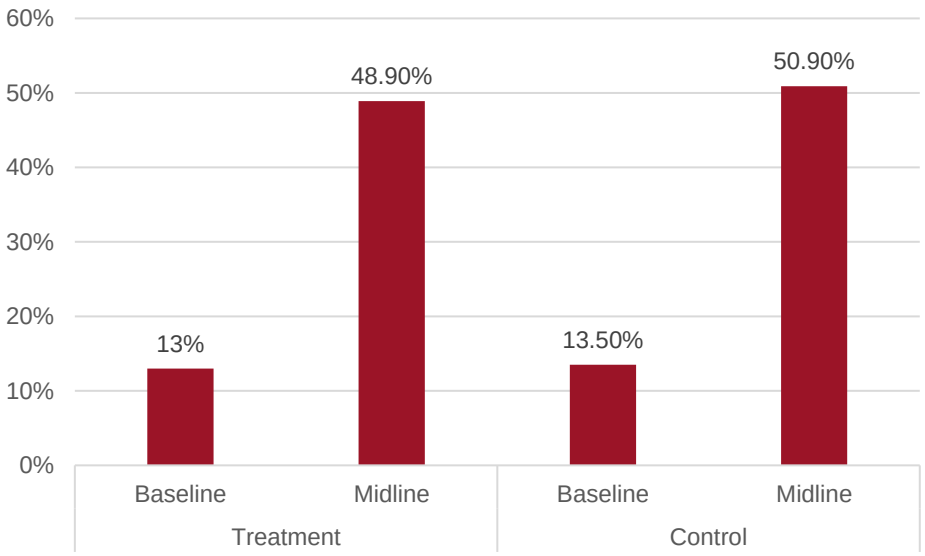
Sub-group (Y= Member; N= Non-member)		Average Attendance Score	T-test significant	Regression results in treatment group	Regression result in control group
Being in household affected by extreme hardship	N	97.18%	p<0.05	Not sig.	Not sig.
	Y	94.42%	p<0.05		
Having a high chore burden (half day or more)	N	97.41%	p<0.05	Not sig.	p<0.05; Beta= -13.239
	Y	91.56%	p<0.05		
Girl believes she does not get support she needs from family to stay in and perform well in school	N	97.38%	p<0.05	Not sig.	p<0.05; Beta= -10.122
	Y	91.66%	p<0.05		
Girl does not feel safe at school	N	97.05%	p<0.05	Not sig.	p<0.05; Beta= -31.121
	Y	82.46%	p<0.05		

The figure following displays results for the proportion of parents who report that the costs of schooling have decreased in the past year by 20% or more.

Although households reporting a reduction in costs between baseline and midline has increased for both the treatment and control groups, changes in the control group on this indicator exceed changes in the treatment group.

This suggests that the project had little effect on reducing costs of schooling between periods.

Table 49. Proportion of Households Reporting that costs of schooling have decreased by 20% or more



There is no statistically significant direct relationship between reduced costs of schooling in the past year and increases in attendance for either the treatment or control groups.

To understand if a reduction in costs leads to improvements in attendance, we conducted a linear regression for both the treatment and control group with aggregate attendance scores at Midline as the dependent variable and a dummy variable (0-1) for whether or not costs of schooling have been reduced in the past year. For neither the treatment or control groups, was there a statistically significant relationship between reporting a reduction in costs and attendance levels.

Project staff report that attendance improvements may be explained by a new campaign put in place by government to improve attendance. Additionally, the project reports that the government has begun enforcing a law prohibiting girls of school age to be employed and this may also have contributed to attendances increases.

The project has also suggested that two integrated school feeding programs organized by WFP and the Rwandan government have begun in the region which may explain attendance improvements.

Based on midline data, 10.9% of girls in the treatment group and 21.5% of girls in the control group receive a free meal at school. However, regression analyses using this binary variable to predict attendance at midline is insignificant for both the treatment and control groups.

Attendance is a statistically significant predictor of English literacy aggregate levels at midline, suggesting that the more frequent a child attends school the higher their English literacy levels.

The project expects that attending school more frequently will lead to improvements in learning. To assess this, we ran a regression model testing whether midline attendance

predicts midline literacy and numeracy improvements. The models could not predict the first difference in Kinyarwanda, English, or numeracy at statistically significant levels. However, attendance at Midline was able to predict midline English literacy at statistically significant levels, suggesting that attending school leads to higher levels of English literacy. As English literacy is the language of instruction, it may be that increased exposure to school has a more visible relationship on English literacy outcomes than numeracy outcomes. While one would expect increased attendance to lead to increases in numeracy and Kinyarwanda levels, this may be mediated by other variables.

Some project stakeholders report cases where children stay home from school to support with household chores and other duties.

As a teacher commented:

"*Children often don't attend school because their parents tell them to stay at home and perform household duties. The child reports that he/she didn't attend because he had household duties to fulfil or sometimes, they tell us they were sick but when you analyse, a child can't fall sick just one day before cure".*

Quantitatively, a linear regression found that having a high chore burden did not result in reduced attendance outcomes at Midline for girls in the treatment group. However, for girls in the control group, a high chore burden results in girls attending school 4.9% less of the time in a calendar month. This suggests that the project may have reduced this barrier for girls in the treatment group.

Other girls mentioned bullying and being hit by the teacher as reasons for missing school.

As girls commented:

"I dislike that there are teachers who abuse students, beating them for baseless reasons."

"I hate how children insult others by writing about them on the walls inside of the toilet."

"On the way from home to school, it happens that you have a conflict with your peer students. Then the student decides to beat you… in that case, you and those who are with you are not safe because bad student may throw stones at you on way back to home."

A teacher and a girl reported shame around menstruation and a lack as proper menstrual management as causing reduced attendance.

The teacher commented:

"In the case of girls, [they] need hygienic materials especially during their period/ menstruation. In the case their families are poor and know that at school they will have access to those materials, girls will not miss class. The girls will perform as they are attending class regularly. While in the case the school itself don't provide those materials, the girls will come to school without changing pads and as a result, when the colleagues see the girls, they will laugh at her. [Next time], the girl will not attend the class [when she is menstruating] or drop out."

A girl interviewed furthered this view by stating*:*

"It happened for some girls… their menstruation came which make them shy to come to school during situation…. being afraid from being laughed at by boys".

These findings suggest that the project is appropriately supporting girls with access to sanitary towels and changing rooms in treatment schools. 33.7% of girls in the treatment group and 34.9% of girls in the control group find it difficult to attend school due to menstruation.

Several teachers and girls mentioned that boys and sex can sometimes distract girls from attending school, and lead to drop-out.

A teacher mentioned that desires for "things" and peer pressure could lead to girls having sex for money:

"Peer pressure is the problem we face all the time. Girls always want to learn from their peers, if one girl comes to school with good shoes, many other girls in her class want to wear same shoes, regardless their capacity. This may force them to do all they can, including sex to have such shoes. This may lead to teen pregnancy, which can lead to drop-out. Of course, this affects girls' education".

Some girls supported this belief, reporting that others had been "tempted" to engage in sexual activities to get gifts and that this could lead to drop-out.

For both the teacher and the girls in these cases, blame for being tempted or engaging in other activities was placed on girls rather than on boys. It is implied by these comments that becoming pregnant, due to an absence of contraception, is the fault of girls rather than a joint responsibility of both girls and boys. This highlights the relevance of the project in aiming to improve sexual and reproductive health for children through SRH corners.

For boys, several participants highlighted that a barrier to attendance was the prospect of temporary jobs, and that this barrier affected boys more than girls.

One teacher commented:

"*For the class under my responsibility, boys don't attend compared to girls. They say that they come from poor families. When he comes today, tomorrow he won't come back. They seek part time jobs. If I compare boys and girls, I see that boys' school attendance is very low [because of this]*".

A boy agreed with this stating: "*temporary jobs are also the main reasons [for boys to miss school]".*

Other stakeholders argued that there were no major differences between the attendance rates of girls and boys.

As a teacher commented, to which there was agreement:

"Girls and boys have same level of poor attendance. Some said, girls stay at home looking after small children when their parents have gone for part time jobs. For boys, considering poverty and different problems in their families, sometimes parents decide for them to stay at home and look after a cow for example. Others go to market to help traders so that they can earn money…[to] feed their families. … all children have the same poor attendance levels [because of these reasons]".

7.1.3 Reflections and targets

On average children in treatment schools attended school 97.16% of the time in a given calendar month. The project was therefore able to meet its target of 97% attendance for target children by Midline.

Despite the project meeting its target for this indicator, aggregate changes in attendance in the control group, exceeded average changes in attendance in the treatment group. This suggests the project had little role in influencing attendance results.

The EE recommends the project adapt the aggregate attendance indicator to "% of girls who improve their attendance levels".

We would suggest that the project measure attendance at the individual level between Midline and Endline and set a target indicator as a percentage of girls who improve their individual attendance between periods.

This would allow the project to narrow its focus on improvements rather than aggregate attendance results. Results in individual level improvements could be compared to the proportion of girls in the control group who experienced increases in individual attendance levels between periods.

The indicator: "Increased % of girls' attendance based on improved supportive environment within school and communities (i.e. increased parents' support; economic assistance; teaching

methodology)" is not clearly operationalizable based on the data available. The EE would suggest dropping this indicator as it is not clear what or how it is meant to be measured.

7.2 Improved Teaching Quality in Literacy, Numeracy and Teaching Methodologies

With the support of ADRA the project will train 252 REAP2 teachers in gender-sensitive pedagogy, child-responsive teaching practices, and improved instructional approaches to teach literacy and numeracy.

7.2.1 High-level findings

Teaching quality indicator results are summarized in the table following.

Table 50: Intermediate outcome indicators as per the logframe

IO	IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will the IO indicator be used for next evaluation point? (Y/N)
Teaching Quality	% of girls who believe their teachers create a supportive climate	49.1%	75%	81.5%	Y	85%	Y
	% of girls who believe their lessons are engaging	42%	80%	73.6%	N	85%	Y
	% of girls who believe their lessons are well managed	39.2%	80%	79.9%	N	85%	Y

IO	IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will the IO indicator be used for next evaluation point? (Y/N)
	% of lessons adopting gender responsive pedagogy through a) group discussion and participation; or b) gender sensitive teaching and learning materials; or c) use of gender sensitive language	N/A	a) 50% b) 50% c) 50%	a) 25.6% b) 2.3% c) Unclear indicator	N	65%	Y
	Girls report that changes to teaching quality have improved their attendance, literacy or numeracy skills	N/A		Girls at Midline report that they like the way their teacher teaches, although they do not like corporal punishment administered for "baseless reasons" and this sometimes leads to them missing school.			

Main qualitative findings

- Qualitative findings illustrate that teacher training has supported teachers to improve their understanding of the competency-based curriculum (CBC). However, teachers report needing additional support with teaching English, with covering the content of a lesson in the short timeframe and with managing large class-sizes.

7.2.2 Interpretation

To understand teaching quality the study relied on both lesson observations, which provide an understanding of the extent to which teachers have adopted improved instructional practices, a teacher survey, to understand underlying knowledge and attitude changes, and perceptions of teaching quality items included in the girls' survey.

To assess children's views of teaching quality (TQ), the study adopted a three-dimensional model of TQ based on Kilieme et al. (2009). The three dimensions reviewed were: cognitive activation, supportive climate, and classroom management.

These dimensions are widely agreed to result in improved access to curriculum, learning, and achievement (Baumert et al., 2010; Mashburn et al., 2008; Assor, Kaplan, & Roth, 2002; Kanat-Maymon, & Kaplan, 2007).

Cognitive activation describes teaching practices that enhance students' engagement with curriculum content (Buttner et al., 2016). In cognitively activating lessons teachers encourage classroom discussion and participation, build on existing knowledge, and give students tasks within their zone of proximal development (Lipowsky et al., 2009).

A supportive climate is understood as an environment where teachers have caring interactions with students and provide individual assistance and constructive feedback (Pehmer, & Seidel 2015; Reeve & Jang, 2006). In some settings this has shown to strengthen autonomous motivation (Klieme et al., 2009), which with regards to self-determination theory means that students "experience themselves as competent, self-determined, and socially related" (Rieser et al 2016).

Classroom management is a core skill of teaching and can be understood to refer to teachers' ability to provide well-structured lessons, establish clear rules and routines, manage group behaviour and intervene quickly to prevent disruptions to teaching (Emmer & Stough, 2001; Kounin, 1970). Research has demonstrated that effective classroom management promotes student achievement (Fauth et al., 2014b).

Based on this review, the evaluation can hypothesize that increased adoption of gender-responsive and child-centred approaches and improved instructional practices in classrooms will lead to improvements in teachers' ability to:

Enhance student's engagement with curriculum content (*cognitive activation*);

Have caring interactions with students and provide constructive feedback *(supportive climate*);

Provide well-structured lessons, establish clear rules and routines, and manage group behaviour (*classroom management)*;

All three teaching quality domains were assessed in both periods, enabling the study to assess the project's impact on these domains through a DiD regression model. Classroom Management was assessed through a two-item scale ("*Students treat my teachers with respect"; "My class stays busy and we don't waste time").* Supportive climate was assessed through a three-item scale ("*My teachers care about me"; "My teachers really try to understand*

how students feel about things"; "The comments that I get on my work in class help me understand how to improve"). Cognitive activation was assessed through a three-item scale (*"In my class(es), we learn a lot almost every day"; "I like the ways we learn in this class", "My teachers make lessons interesting"*).

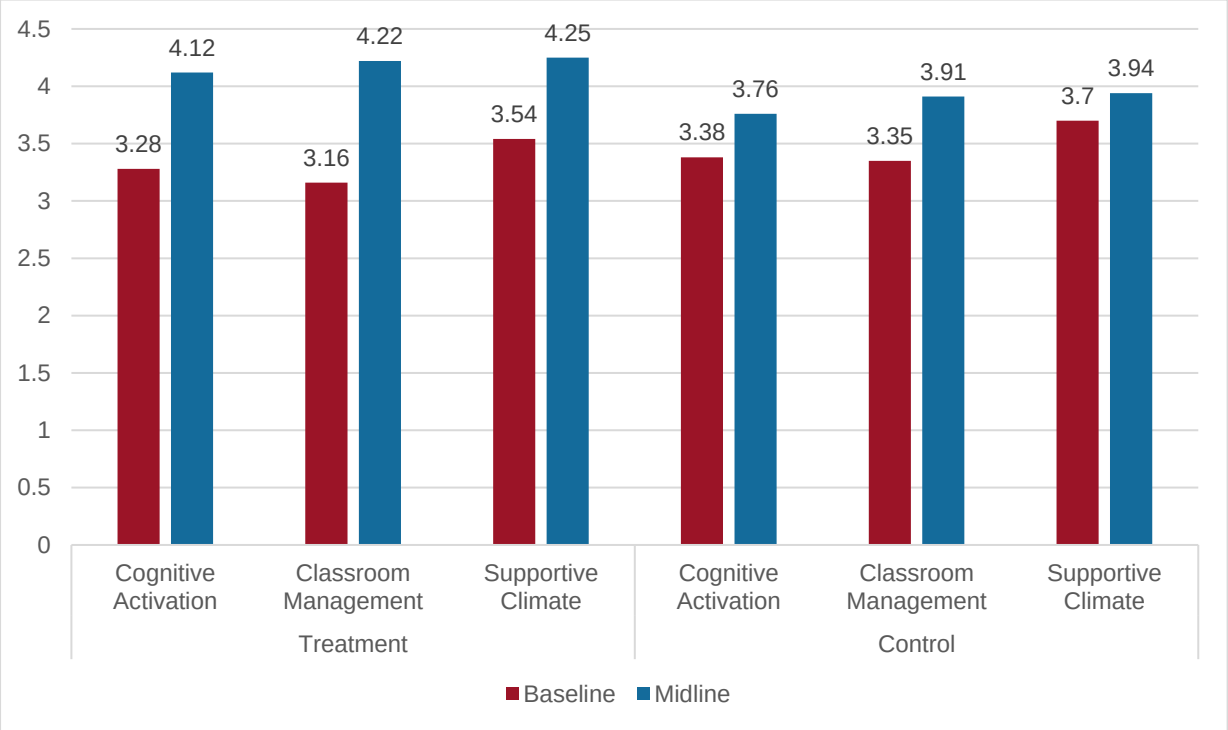
To set the three indicators associated with these domains, the study calculated a mean score across items and used a standard cut-off of 4 or higher as a qualifier to be included in the proportion of girls reported. This cut-off would only include girls who on average agreed with the statements within each domain.

By midline the project had met the target for supportive climate but not for cognitive activation or classroom management, although in both domains the project demonstrated strong improvements in girls' perceptions.

- By midline, 81.5% of girls believe their teachers create a supportive climate, compared to 49.1% at baseline.
- By midline, 73.6% of girls believe their lessons are engaging compared to 42% at baseline.
- By midline 79.9% of girls believe their lessons are well managed compared to 39.2% at baseline.

Mean changes across all three dimensions are shown in the figure follow. Although both the treatment group and the control group improved in perceptions of teaching quality across all three dimensions between periods, average improvements in the treatment group exceeded changes in the control group for all three dimensions.

Figure 28. Changes in TQ Dimensions Over Time



Impact analyses through a DiD model finds that the project had an impact on classroom management, supportive climate, and cognitive activation, at statistically significant levels.

The study ran three separate regression models using treatment status to predict the first difference in classroom management, supportive climate, and cognitive activation. In all three models, the project was able to successfully predict the first difference, indicating that the project had a positive impact on all three domains at statistically significant levels ($p<0.05$).

This suggests that the project was able to improve the way lessons are structured and student behaviour is managed (classroom management), student engagement with lesson content (cognitive activation), and the degree to which teachers have caring interactions with students (supportive climate).

To understand whether each of these dimensions lead to improvements in learning, we conducted additional regression analysis on each of the learning outcome first difference variables. Results are summarized in the table following.

Table 51. Linkages between TQ and Learning Outcomes Summary Results

TQ Dimension	English Literacy Changes over time (first difference)	Kinyarwanda Literacy Changes over time (first difference)	Numeracy standardized score changes over time (first difference)	English Literacy First Difference in Oral Reading Fluency (wpm)
Cognitive activation	Not significant	Not significant	Not significant	Significant (p=0.009; Beta=3.192)
Classroom Management	Not significant	Not significant	Not significant	Not significant
Supportive Climate	Not significant	Not significant	Not significant	Not significant

Despite the projects impact across teaching quality domains, classroom management and supportive climate improvements did not predict improvements in any learning outcomes.

However, differences in cognitive activation between periods successfully predicted improvements in English oral reading fluency between periods.

This suggests that increases in the extent to which lessons are engaging and interesting to girls led to increases in English oral reading fluency between baseline and midline.

Each unit increase in mean cognitive activation led to an increase of 3.19 words per minute in English oral reading fluency.

To further understand the role teaching quality plays in supporting learning, we examined the relationships between teaching quality and the degree to which girls feel confident asking questions in class.

Improvements in all three teaching quality dimensions successfully predicted the extent to which girls feel confident to ask questions in class at statistically significant levels ($p<0.05$). This suggests that supporting teachers to create a supportive climate, to manage their classes, and to make their lessons interesting and engaging, improves the extent to which girls feel confident participating in class.

To understand the adoption of specific practices in the classroom, the study conducted 43 lesson observations in treatment schools and 43 lesson observations in control schools. Lesson were selected randomly across target grade levels and were observed by trained lesson observers who had previous experiences working in education.

To assess the extent to which lessons have adopted gender-responsive practices and these have led to improved group discussion and participation, the study created three gender ratios based on the number teachers praised boys and girls, called on boys and girls by name, and called on boys and girls to answer questions. For each of these rations, we categorized gender-responsive lessons as being ones where girls were given equal or better treatment than boys (i.e. where the gender ratio was greater than 1).

Results across the three dimensions per evaluation group are shown in the figure following.

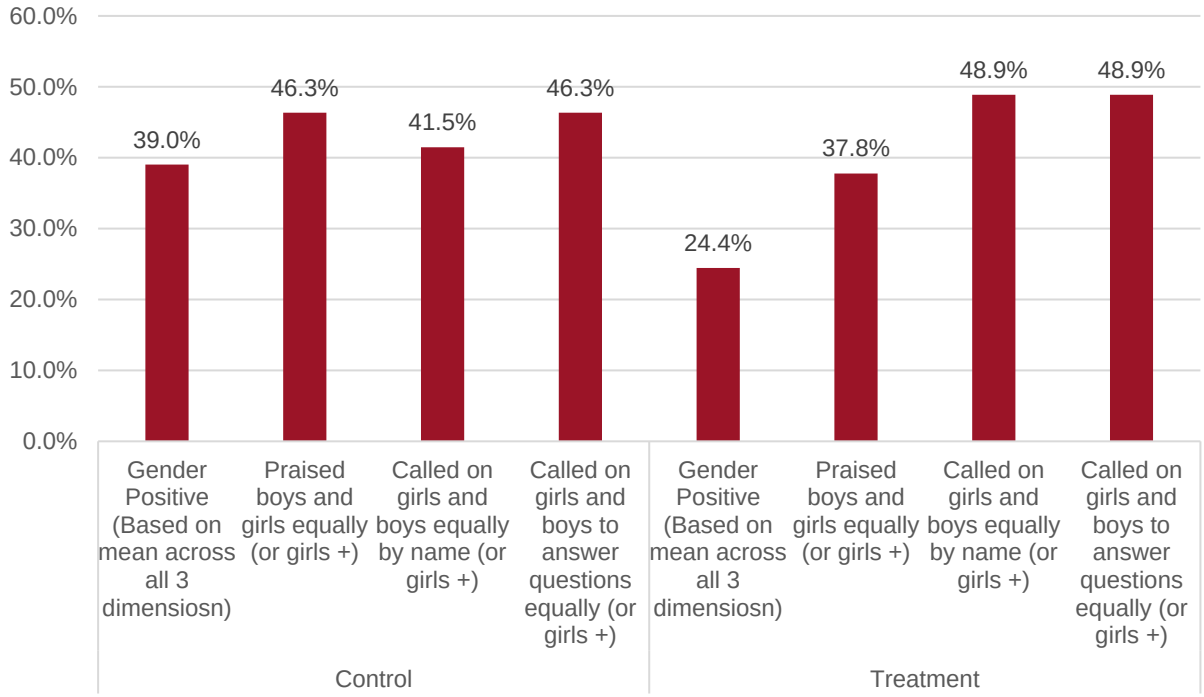
On the whole, lessons in control schools were more gender-responsive than lessons in treatment schools.

A higher proportion of lessons in control schools (39.0% vs 24.4%) had adopted gender-responsive practice than in treatment schools based on overall mean results across all three gender ratios reviewed.

Whilst a higher proportion of teachers called on girls and boys equally by name or called on girls and boys to answer questions in class in treatment schools than in control schools, a lower proportion of teachers praised boys and girls equally (or girls more) in treatment schools than in control schools.

In treatment schools, teachers were least likely to praise boys and girls equally, across all domains reviewed. Only 37.8% of teachers observed praised boys and girls equally or girls better than boys.

Figure 29. Gender-responsive Practices by Evaluation Group



In treatment schools an equal proportion of male and female teachers had adopted gender responsive teacher practices based on overall results (26.3% of female teachers and 25% of male teachers). In control schools a greater proportion of female teachers had adopted gender responsive teaching practices than male teachers: 44.4% compared to 32%.

On the weakest competency in treatment schools, praising girls and boys, a larger proportion of female teachers had gender positive behaviours than male teachers in treatment schools: 42.1% compared to 37.5%.

To understand the drivers of gender-responsive teaching practices, the study also conducted a teacher survey with all teachers whose lessons were observed. As part of this survey, we asked teachers to respond to a series of attitudinal items on girls' education. Teachers were asked the extent to which they agreed or disagreed with the following statements:

- A family has a son and a daughter but can only afford to send one of them to school. It would make more sense for them to send their son to school.
- Even when funds are limited it is worth investing in a Girl's' education
- A girl is just as likely to use her education as a boy
- Even if my daughter got married, I would still encourage her to continue with her education.
- The more education a girl has the more she will be able to find good work
- It is more important for a woman to be a good wife and mother than to be educated.

Using these items, we calculated an attitudinal scale to measure teachers' attitudes towards girls' education. The mean attitude towards girls' education was not a statistically significant predictor of adopting gender-responsive teaching based on the mean across gender ratios.

By Midline 73.8% of teachers observed in control schools had positive attitudes towards girls' education compared to 69% in treatment schools, based on average girls' education attitude scores.

To assess the second part of the indicator (the use of gender-sensitive teaching and learning materials), observers asked the teacher at the end of the lesson to show them the gender-sensitive teaching and learning materials used in the lesson.

2.3% of teachers in the treatment group were able to show the lesson observer material that had been adapted to be gender sensitive. Most teachers (97.7%) were unaware if any gender sensitive teaching and learning materials were used in the lesson.

The external evaluator would suggest removing this indicator as it has been difficult to assess what gender-sensitive learning materials are in practice or the centrality of their use in the project's teacher training activities.

To further understand the use of best practices during the lesson, the figure following reviews several instructional best practices by evaluation group.

It was more common for teachers in control schools to make learning objectives clear at the start of the lesson, to have a lesson plan with clear learning objectives, to provide a summary of the previous lesson during the lesson, and to end the lesson with an opportunity for reflection and discussion, than in treatment schools.

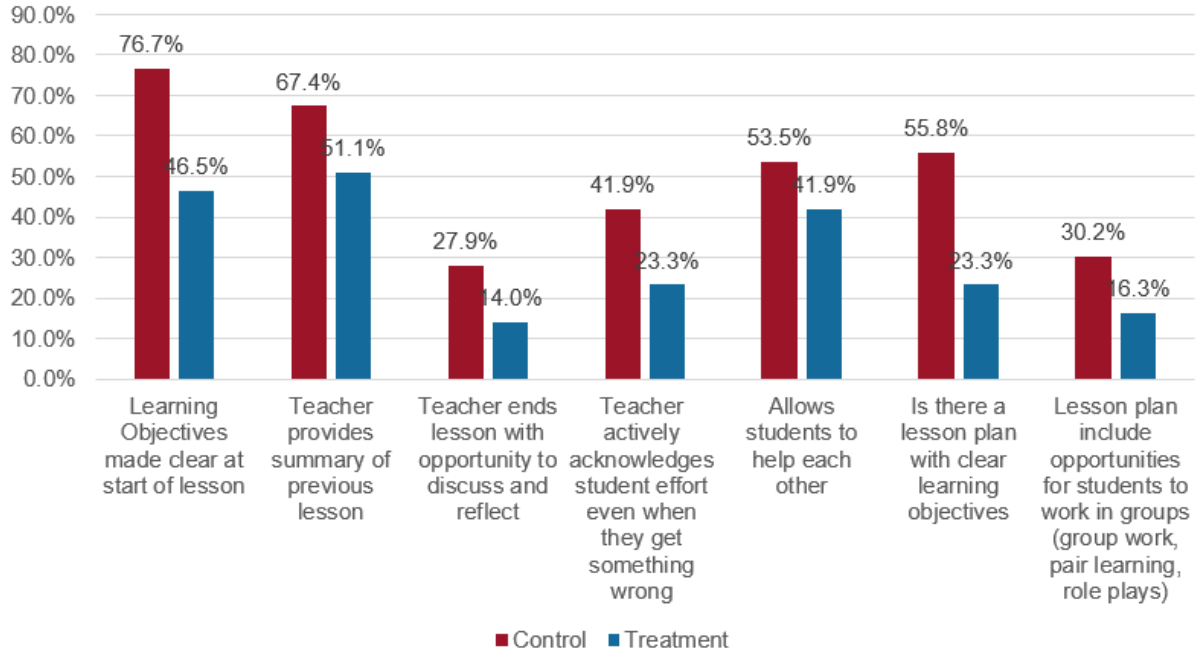
This suggests that lessons in control schools more explicitly address learning outcomes in a structured manner and provide more opportunities for students to reflect on their learning and their learning process than in treatment schools.

The project should consider integrating these best practices into teacher training, as the literature on teaching quality widely agrees that they lead to improved learning and access to the lesson.

It was also more common for teachers in control schools to allow students to help each other, and actively acknowledge student effort even when they got something wrong.

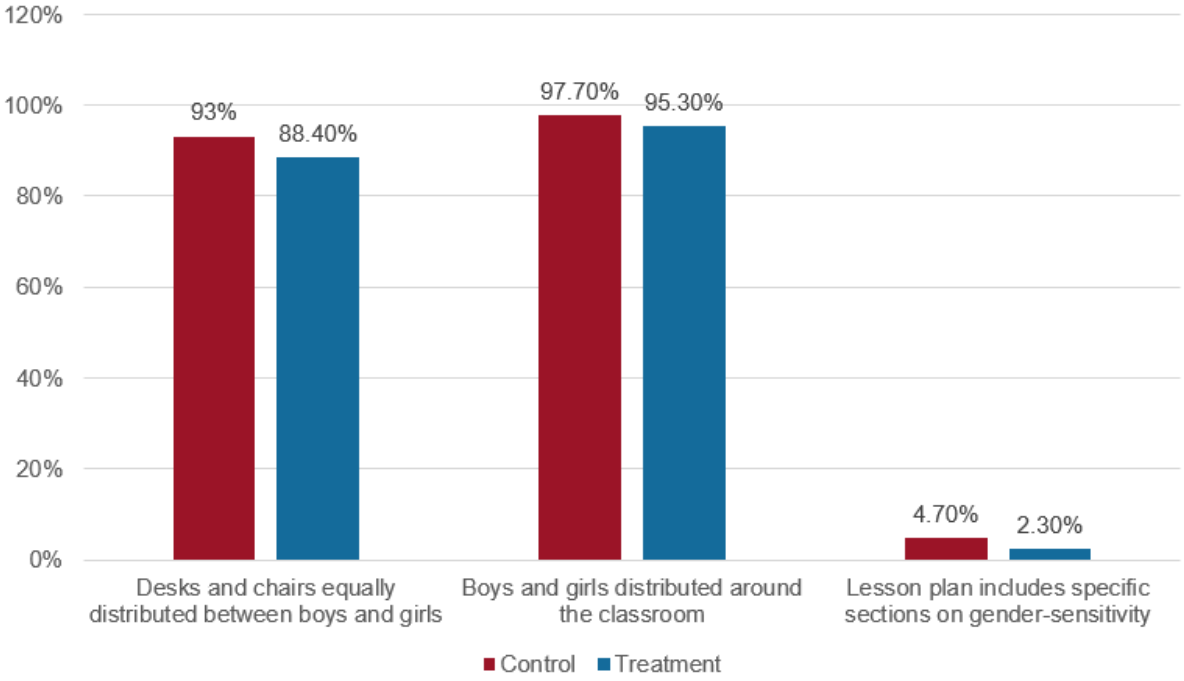
This suggests that lessons in control schools may provide a more supportive environment for student learning, where they feel comfortable making mistakes and can support each other more frequently.

Figure 30. Review of best practices from lesson observation by Evaluation Group



The figure following displays additional gender-related items observed during the lesson. Results on these items are largely comparable between the treatment and control groups, although the control group slightly outperforms the treatment group on each of the three items observed.

Figure 31. Additional items on Gender Observed during the Lesson Observation by Evaluation Group



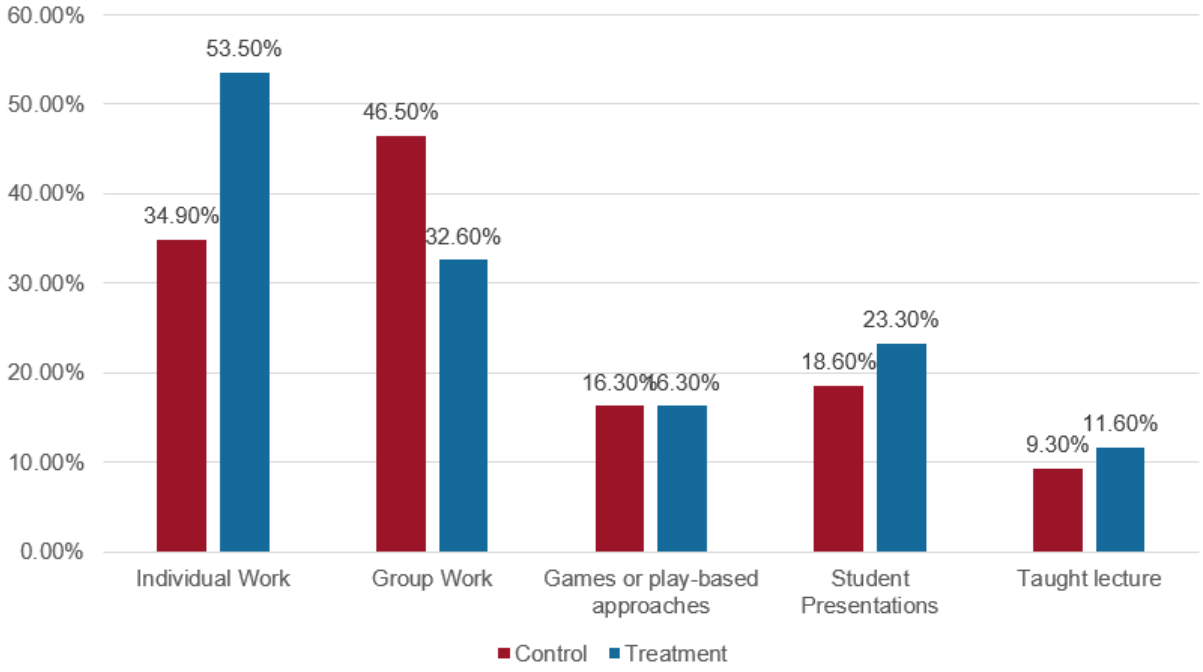
To understand the types of teaching approaches used by teachers, the next figure reports the proportion of instructional practices observed between treatment and control lessons.

The most common instructional practice used in treatment schools was individual work (53.5% of lessons observed) and the most common practice used in control schools was group work (46.5% of lessons observed).

Relatively few lessons in treatment and control schools relied on the traditional "chalk and talk", taught lecture: 9.3% in control schools and 11.6% in treatment schools.

Lessons in treatment schools were more likely to incorporate student presentations in the lessons (23.3% of lessons in treatment schools compared to 18.6% of lessons in control schools). Lessons in control schools were more likely to incorporate group work.

Figure 32. Instructional Practices by Evaluation Group



The teacher survey included several items to gather feedback on teacher training. Main results on these items are summarized in the figure following.

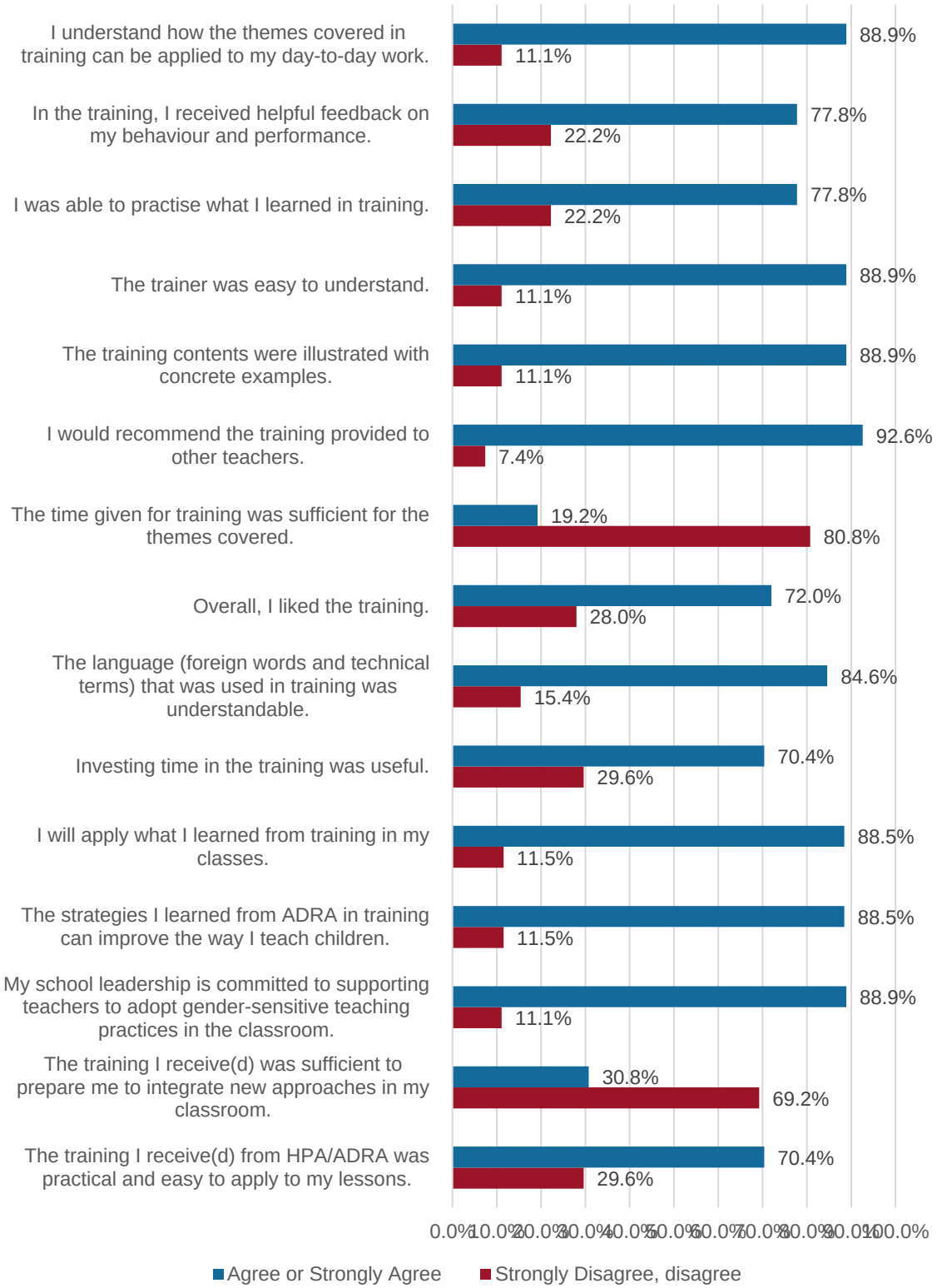
A majority of teachers report positive feedback on training, across domains reviewed: 88.9% of trained teachers understood how the themes covered in training could be applied to their work, that the trainer was easy to understand, and that the content of training was illustrated with concrete examples.

However, a majority of teachers report that the time for training was insufficient for the themes covered (80.8%), and that the training was insufficient to prepare them to integrate new approaches in their classroom (69.2%).

This suggests that additional training would be beneficial to support teachers to adopt improved practices and that the time allocated for training may not be sufficient. A large minority of teachers did not agree that the training was useful (29.6%) and did not agree that the training was practical and easy to apply to their lessons (29.6%).

To support the teacher training to remain contextually relevant and adaptable, the project should consider including pre- and post- tests. This would allow project staff to identify gaps in training and make adaptations to future trainings.

Figure 33. Feedback on Teacher Training



Qualitative sessions with teachers suggest that found the training provided by ADRA useful to further their understanding of the competency-based curriculum (CBC).

As one teacher summarized:

"The trainings from ADRA were very important for the teaching profession because we couldn't understand this CBC, but they put us together, explained it and we understood it. We decided to start using it in our normal lives. Before no one could comprehend what "cross-cutting issue" means or its role in a lesson plan. We could not comprehend generic competences but after the training we knew how they are linked in our profession and how they are helpful for a correct and complete lesson plan… [we also learned what was] important to students like holistic education, evaluation, attitude values and knowledge. We were trained by ADRA on all these concerns."

However, several teachers commented that they needed additional trainings to support them to deliver the English language curriculum which they find challenging. Teachers also requested additional training on how to manage large class sizes and how to deliver the content of the lesson in a short time period.

As a teacher commented, to which there was widespread agreement:

"Most of us feel a need of training in ICT because we don't have sufficient knowledge about it and the English language needs, on my wish, continuous trainings. For example when I'm teaching "story telling unit" in senior two, I wish I could be trained on how I can teach this lesson in senior two so that for child who can't express himself/herself finds basics from which he/she can start with or at least speak something. So, I feel that if trainings in English lesson are provided, it would be helpful."

Another teacher stated:

"Sometimes teaching becomes difficult because of a big number of students, crowded classrooms, and allowed lesson teaching time length becomes not sufficient. Even if the teacher tries, the time elapses so suddenly and you can't assist those children with low comprehension capacity. You see thing not going well and so it is difficult for you with non-sufficient allowed lesson teaching time length."

Conducting training while schools were in session posed a challenge to some teachers.

A teacher summarized:

"It was very difficult to attend during class time as we have lessons to deliver in time, this affect the quality of education as students will miss class sessions but if planned in holidays, this will work effectively if transportation increases because even if we are in holidays, we have things to be busy with that bring or improve our economy, so better to increase the per-diem fees to prevent the loss for participants attending the training."

7.2.3 Reflections and targets

The study conducted additional testing on scales used to assess the reliability of the three dimensions of teaching quality at baseline.

Based on internal consistency testing, the study would suggest adjusting the items included in several of the scales used to measure perceptions of teaching quality. Proposed revised scales could be used to measure changes in teaching quality between midline and endline and should be comprised of the items in the table following. These items were already included in the project's midline survey; however, some were phrased differently or not included in the project's baseline survey.

Table 52. Adjusted Measurement Strategy for TQ Domains

Dimension	Item	Notes on Sources
Classroom Management	Students in my class don't respect the teacher.	The first two items were adapted from the scale used in Tripod's Effective Teaching Framework. Adaptations focused on making them accessible to children aged as young as 7. Rieser et al used a classroom observation item adapted from König (2016): "transitions between activities are short and well organized". - A similar approach has been integrated in the proposed measurement of this construct in the classroom observation tool. As with all sub-domains the number of items will be reduced following internal consistency and construct validity testing.
	My class stays busy and we don't waste time.	
	My teacher tells us what we will do in class at the beginning of the day.	
Supportive Climate	My teacher cares about me.	Both K König (2016) and Rieser et al use a classroom observation item to assess the extent to which "the teacher shows interest in students' 'opinions" to assess this construct. Other measures have relied on reviewing the extent to which teachers' emotional support or care for their students. Three items have been adapted to assess these constructs.
	My teacher wants us to share our thoughts.	
	I like the way my teacher treats me when I need help.	
	I can tell my teachers about any problem if I had to.	
	My teacher doesn't listen to what children have to say.	
Cognitive Activation	My teacher lets us discuss what we learn each day.	One item was adapted from Rieser et al's (2016) classroom observation item (the teacher asks students how they reached a specific conclusion). This item aims to measure the reflective component of cognitive activation. Three additional items were adapted from the Tripod tool. These items aim to measure the extent to which classes are captivating, and teachers are able to build on foundational knowledge.
	I think what we learn in class is boring.	
	My teacher takes time to help us remember what we learn.	
	My teacher makes lessons interesting.	

The indicator '% of lessons adopting gender responsive pedagogy through a) group discussion and participation; or b) gender sensitive teaching and learning materials; or c) use of gender sensitive language" could not be operationalized in a meaningful way based on the current phrasing.

The EE would suggest adapting this indictor to ""% of lessons adopting gender-responsive pedagogy" This has been operationalized in the discussion above using several gender ratios collected through the lesson observation. It is difficult to measure the use of 'gender sensitive language' during observed lessons. Additionally, it is difficult to identify 'the use of gender sensitive teaching and learning materials.

Along with proposed changes to the indicator, which the study has calculated using our approach, we have suggested revised targets based on results at Midline.

7.3 Girls Applying Life Skills Learned in School to Transition through Key Stages of Training or Employment

The promotion and acquisition of life skills is an important element of equipping and preparing adolescent girls for their transition into adulthood, particularly in contexts where access to appropriate information, guidance and role models is limited.

REAP recognizes this and considers the intersections between cognitive and non-cognitive development as both involving the acquisition of knowledge (such as literacy and numeracy) and interpersonal, planning and self-esteem skills, and the application of these through specific perspectives and demonstrable behaviours, such as saving money.

Through this project, HPA delivers Work Readiness (WR) and School-to-Work Training (STWT) to girls and boys and ensures clear transition pathways are identified for all students participating in REAP by accessing jobs or internships, forming cooperatives and initiating income-generating projects. In addition to these activities, REAP2 will also engage the most vulnerable through the Mother-Daughter Clubs, where they learn saving though income-generation strategies in saving groups to increase their economic resilience.

7.3.1 High-level findings

Life skills targets were met and exceeded across the three dimensions studied. 67% of girls have self-esteem (8% above target), 75% had planning skills (17% above target) and 74% had interpersonal skills (13% above target).

High-level findings for this outcome are presented in the table following:

Table 53: Intermediate outcome indicators as per the logframe

IO	IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will the IO indicator be used for next evaluation point? (Y/N)
Life Skills	of girls who can give an example of using newly gained life skills in the process of transitioning to STWT, TVET or WR[147]	N/A	N/A	65%	Y	TBC	Y (upon confirmation SMART indicator options)
	of girls with improved like skills based on girls' self-assessment: a) planning skills; or b) interpersonal skills; or c) self-esteem skills	a) 57% b) 48% c) 52%	a) +8% b) +17% c) +13%	a) 67% b) 75% c) 74%	a) Y b) Y c) Y	a) +10% b) +10% c) +10%	Y
Main qualitative findings							
▪ Schools are perceived by girls to be the places to obtain relevant skills. ▪ Parents play a key role in girls' transition pathways and in the development of their aspirations. When girls lack role models or support at home, they tend to feel that they have lower chances and cannot plan for the future. ▪ Boys have greater support from parents to transition into vocational training. ▪ Boys tend to aspire to leadership roles and bigger things than girls. ▪ Sexual and Reproductive Health attitudes are considered important by parents and girls to be able to complete school.							

7.3.2 Interpretation

65% of girls in project areas interviewed can give an example of using newly gained life skills in the process of transitioning to STWT, TVET or WR.

Girls transitioned into TVET are motivated to keep on learning vocational skills as they are perceived as productive:

> *"I finished senior three in the secondary school and had chosen to learn the teaching profession, but I couldn't get enough financial means to afford it. So, my parents advised me to learn this profession because it takes very little time and the time spent on it becomes very productive."*

[147] New midline indicator for which no baseline data was gathered.

Girls relate school as a place where they obtain necessary skills to succeed in life and understand these skills to be of use in vocational life. In a free listing exercise, many participants mentioned they liked schools because that is the place where they get new skills:

> *"I like the school because before joining the school, I had now skills about the set, fortunately I have the new skills for the set ICT"*

Another mentioned:

> *"I like the school because the school is source of good value, skills and other new things"*

Out-of-school girls also mentioned that they would use their skills to generate their own incomes and "buy many things for myself"[148] , but they are yet to enrol into vocational training:

> *"If I get mean to learn how to use a sewing machine it can be better. "*

However, it is uncertain for them if this would lead them to success in the long term:

> *"We also cannot plan [ahead] as we do not have the basis on which our plan should be based."*

For this participant, this was due to poor parenting at home:

> *"As we discussed before, some parents drink more than others. Myself, I left school with an ambition to find something to do but I have a barrier to get it."*

Girls also mentioned they have fewer employment opportunities than boys:

> *"Boys are more favoured than girls. Because they can find jobs easily, for example, I went to work at Kigali town, and I get nothing there than boys."*

And also, that caregivers are more supportive to boys when they aspire to transition into Vocational training:

> *"A boy is more understood by parents… even if he fails at school, he is automatically transferred to vocational training compared to girls".*

The project has supported girls' aspirations by giving them a vision that breaks these norms:

> *"I used to observe how our live would be as we were in poor family but now days I realized that everything is possible to be to another level of living as everyone has a chance to be reach.it is up to change mind and keep saving a little money I get and work hard at school."*

FGD data with boys confirm that boys may aspire to different things thanks to these social advantages. They specifically mentioned how knowledge-based skills such as literacy and numeracy will help them obtain success:

[148] FDG with OOS Girls on Vocational Training

> "*We learn numeracy concepts that should help us to count money when we will have some businesses* and *will push me to become a leader*."[149]

Another mentioned:

"*I have come to school to learn and do the exam in a successful way, win, get the results, and after, get a job*."[150]

Unlike girls, boys speak more freely of their aspiration, and dream bigger:

> *"Because in my community it used to be the conflicts where the people ills each other...I can help those people to solve all the problems*."[151]

> *"We can study and lead our country, Rwanda*."[152]

Comparatively, while girls do bring up leadership skills, i.e. *"Mathematics can help me like to be a leader and plan for the population,"*[153] there is lesser emphasis on leadership among girls in the FGDs.

This could well suggest a gendered division of aspirations, with boys tending to aspire towards independent leadership roles, *to "lead countries and districts,"*[154] to be *"a soldier"* or a *"pilot" ,* girls reference gaining *"knowledge and skills would lead me to be a nurse"*[155] - that is, more normatively "feminine" supportive roles. Such a finding would fit social scientific literature, which argues that male self-esteem is rooted in action, while female self-esteem is rooted in relationships[156]. This highlights the importance of exposing girls to empowered female role models, that would help shape their aspirations.

SRH skills are considered important by girls and caregivers alike. Girls reported that the skills they learn in school assist towards a transition into adulthood in relationship to behaviour and self-esteem: "*If you have studied you cannot go to adultery manners, and be a robber or a drunk person because you have got a good discipline from the school"* Participants in the mothers' group mentioned that access to sexual health material and a supportive climate helps girls attend school and thus learn skills; menstruation "can affect" girls attendance and confidence, but this can be alleviated by "*a girl room at school where girls get help by a specified teacher."* The project's Girls' Room and Sexual Health Corners may therefore represent important mechanisms for impact.

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149 FGD CSG Members 1

150 Ibid

151 FGD with Boys Teaching Quality 1 (r)

152 FGD with Boys Teaching Quality 2

153 FGD Girls Literacy & Numeracy 1

154 FGD Boys Teaching Quality 4

155 FGD Girls Teaching Quality 1

156 see: Schwalbe, M.L. and Staples, C.L., 1991. Gender differences in sources of self-esteem. Social Psychology Quarterly, 54(2), pp.158-168.

By midline 67% of REAP girls had high planning skills (compared to 57 at baseline), 75% of them had high interpersonal skills (compared to 48 at baseline) and 74 had high self-esteem (compared to 52 at baseline).

Planning, interpersonal and self-esteem skills, along with literacy and numeracy, are considered by the project to be important factors to the success of girls in school and vocational life. In this section, we also provide results for SHR skills, financial skills (such as saving capacity), and agency (a girls' capacity to make choices independently).

To measure these scales, we relied on validated and scales tested for their reliability. All scales used have yielded a Cronbach-alpha of 0.7 or higher, denoting a high-level of internal consistency and supporting the use of the scales as a proxy for each of the life skills.

Results show that the project has met targets across all life skills identified to be relevant to this outcome by the project. All skill types show an increased proportion of girls with the skill present, except savings' capacity, which was reduced from baseline to midline by 41%. It should be mentioned that these are all girls. Girls who are in REAP saving groups save proportionally more.

These results are summarised in the table following:

Table 54 Overall Life Skill Results

Skill Category		Baseline		Midline	
		N	%	n	%
Has Interpersonal Skills		138	47.9	255	67.1
Has Planning Skills		160	55.6	257	74.7
Has Self-Esteem Skills		151	52.4	283	73.9
Has Agency		0	0.0	0	0.0
Can Save		70	69.4	91	28.3
Has Positive SRH Attitudes					
Level of Interpersonal Skills	Low	10	3.5	8	2.1
	Medium	140	48.6	117	30.8
	High	138	47.9	255	67.1
Level of Self-Esteem Skills	Low	9	3.1	8	2.3
	Medium	128	44.4	79	23.0
	High	151	52.4	257	74.7
Level of Planning Skills	Low	10	3.5	4	1.0
	Medium	118	41.0	96	25.1
	High	160	55.6	283	73.9
Level of Agency	Low	212	73.6	350	92.1
	Medium	76	26.4	30	7.9
	High	0	0.0	0	0.0

By measuring skills at the individual-level and across time, we can measure whether girls have progressed or not in terms of the three life skills of the project.

Results show that 63% of girls in treatment areas improved their self-esteem since baseline (compared to 64% of them in control areas), 62% improved their planning skills (compared to 58% in control areas), and 60% improved their interpersonal skills compared to 61% in control areas. Given that these differences are not significant according to chi-square tests, it suggests girls are improving on these skills across all areas in Nyaruguru. A regression analysis using a difference in scores between baseline and midline confirm these findings.

Results are shown in the table below:

Table 55 Proportion of Girls with a Positive Individual Progression in Life Skill Scores

Skill		Control		Treatment		Difference
		n	%	n	%	
Progressed in Agency	No	253	76.7	212	78.5	
	Yes	77	23.3	58	21.5	-1.9
Progressed in Self-Esteem	No	120	36.3	101	37.3	
	Yes	211	63.7	170	62.7%	-1.0
Progressed in Planning Skills	No	125	41.7	92	37.7	
	Yes	175	58.3	152	62.3	4.0
Progressed in Interpersonal Skills	No	130	39.4	110	40.7	
	Yes	200	60.6	160	59.3	-1.3

We also explored if receiving a free meal at school, participating in remedial lessons, being a member of the CSG, of an MDC, a School Business, Saving's Group or in an internship affected in any way the chances that a girl had a high skill.

Chi-square tests showed that participating in the school business increases the amount of control she has over her life, that is, improved her agency ($p<.05$).

Chi-square tests also show that girls who are better able to save are also likely to be part of Savings' Clubs ($p<.05$), remedial lessons ($p<.05$), Community Study Groups ($p<.001$) and School Businesses ($p<.05$). Findings show that these project activities could be important mechanisms through which girls acquire these skills in project areas.

When evaluating if improvements in skills go hand in hand with literacy or numeracy improvements, Pearson correlations did not show any significant relationships. However, improvements in one skill could mean improvements in another skills, as it is for planning skills, which correlate highly with interpersonal score equal to the magnitude of the correlation):

- Planning skills and self-esteem skills are moderately corelated ($B = 0.397$, $p<.001$)
- The level of planning skills at baseline is loosely correlated with having a higher English literacy score at both baseline ($B=0.142$, p.<001) and midline ($B=0.128$, p.<05).
- A higher self-esteem at midline is loosely correlated to higher English oral reading fluency at midline ($B=0.072$, p.<05) and planning skills (as mentioned before). A higher self-esteem at baseline related to a higher standardized numeracy score at baseline ($B=0.164$, p.<001)

- However, a higher self-esteem could be related to negative SRH attitudes (B=-0.247, p.<001).
- Having more agency at baseline, that is, greater freedom to make decisions, is related to a higher Kinyarwanda literacy score at midline (B=0.091, p.<05) and to a higher English (B=0.142, p.<001) and Kinyarwanda (B=0.142, p.<001) literacy at basline.
- Having positive SRH attitudes is related to higher English (B=0.105, p.<001) and Kinyarwanda literacy (B=0.086, p.<05), as well as numeracy (B=0.086, p.<05) at midline.
- According to binary logistic regressions that used all skills as a predictor, having a high-level self-esteem and a high level of planning skills affected the likelihood of being classified as a successful transition. It is not clear whether the other skills can affect the likelihood of a successful transition, as the factors discussed in Section 4 are likely to play a more important role.

In terms of improvements (using first-difference variables) that go hand in hand, it was found that:

- Improvements in interpersonal skills are related to improvements in planning and self-esteem at significant levels.
- Improvements in planning skills also are related to improvements in self-esteem.
- Improvements in literacy and numeracy go hand in hand, but no improvements in life skills was positively related to these learning skills.

The project may therefore need to closely review the packages of skills that can strengthen core outcome objectives and consider targeting those with demonstrable evidence that can affect learning outcomes.

In terms of barriers to life skills, girls whose parents have not been informed of their girls' progress tend to have lower interpersonal skills (p<.05), lower self-esteem and lower planning skills (p<.05). When girls report they do not get the support they need from parents to stay and perform well in school, they tend to also have negative SRH attitudes (p<.05), lower self-esteem, and lower inter-personal skills (p<.05). When girls do not get help from homework, they tend to have negative SRH attitudes (p<.05), lower interpersonal skills (p<.05), and lower self-esteem (p<.05).

Girls with low planning skills, tend have been out of school at baseline (p<.05), be a double orphan (p<.05), have been pregnant (p<.05), are currently a mother (p<.05) or it takes more than 3hrs to get to school (p<.05).

Girls with low self-esteem tend to come from households that cannot meet basic needs without charity (p<.05) or without electricity (p<.05). Many of them also feel they cannot choose whether to attend or stay in school (p<.001).

Girls who work for cash or kind, tend also to have lower self-esteem that those that do not (p<.05). This supports earlier findings that girls take going to school as a measure of success, and when work distracts them from it, they could be inclined to feel like a failure.

When they come from a household that faces extreme hardship (p<.05) and also without electricity (p<.05), girls tend to have lower inter-personal skills.

When a girl cannot choose whether to attend school or not, they tend to have negative SRH values (p<.05).

Girls who find it difficult to complete their homework also have negative SRH values, lower planning skills, lower inter-personal skills than their peers who can, and lower self-esteem (p<.05).

Girls in schools without computers have lower self-esteem than those girls with access to computers (p<.05). If they do not use play areas at school, she tends to have lower self-esteem (p<.05) and interpersonal skills (p<.05).

When girls do not feel safe at school they tend to have lower interpersonal skills and lower self-esteem (p<.05). Whey they witness corporal punishment at schools (p<.05) or they were physically punished themselves (p<.05), tend also to have lower inter-personal skills. When the teachers use physical methods such as caning (p<.05) or shouting (p<.05) or shaming (p<.05) as a form of discipline, girls tend also to have negative SRH attitudes. If their teacher shouts, they also may have lower planning skills (p<.05) and self-esteem (p<.05).

When the household reports the school is not well managed (p<.05) or the performance of the head teacher as poor (p<.05), girls tend to have lower self-esteem. This suggests that schools that are appropriately managed contribute to girls' appreciation of self-worth, either by providing a positive environment or by being engaged with parents, whose perception of the management may change if they are more involved.

7.3.3 Reflections and targets

In this section, we explored skills targeted by the project and some that are the logical consequence of the project activities (such as financial literacy and agency). Given that these skills were not related to learning, we recommend enhancing REAP's understanding of life skills and identify which specific skills could be strengthened to improve learning. The indicator *"# girls in project areas interviewed can give an example of using newly gained life skills in the process of transitioning to STWT, TVET or WR*" was expressed here as a percentage (%) rather than absolute number (#), to reveal a proportion of girls who can mention the example relative to those who can. Given that this is an indicator that is obtained through a question in the Girls' Survey where enumerators have to make a normative conclusion of whether the example given is suitable or not, the indicator may suffer from inter-rater reliability problems between evaluation periods. We recommend making the indicator more measurable, assignable and realistic.

7.4 Improved Economic Opportunities through Training, Jobs, IGAs, and Self-Employment

Four teachers per school have been trained by HPA on STWT and WR for girls transitioning to TVET. Furthermore, HPA will offer 100 girls per year internships in private businesses to

help prepare them for the workplace (4.6% of the sample have been placed in internships already). Girls moving into TVET, employment and income generation will be grouped by HPA into savings groups. Girls will also improve their work-related skills through practical experience in the SB and the MDC.

Mother Daughter Clubs are also considered to be a local forum were mother and daughters can easily discuss sexual and reproductive health issues and ways to make money through income generating activities that have been set up with the support of the project it has been possible to support school fees and materials for 320 girls so far. MDCs are becoming a model and other similar groups and organizations are being formed spontaneously in other communities and villages;

7.4.1 High-level findings

Presently none of the girls in the treatment sample had transitioned into paid employment or income generation. However, 30% of the girls in the treatment sample claimed to be working for either cash or kind. 0.5% of the sample is enrolled in TVET and none of the girls interviewed mentioned to be in either WR, STWT, or internships.

Internships usually take place during school brakes, so it is expected that they were not enrolled in an internship programme at the time of the survey. According to project data, 154 girls were placed in internships by the end of March 2019.

Project data indicates different findings. Of the original out-of-school cohort, 11 girls have returned in formal schooling and 69 girls have gotten jobs. It is unclear, however, whether these are employment or self-employment opportunities, if the conditions of employment are safe, or if the income allows them to secure a livelihood.

There are presently no girls receiving a regular income from a safe employer, and many out-of-school girls remained out of school. There is therefore room for improvement across this outcome for the project.

See high-level findings for this outcome below:

Table 56: Intermediate outcome indicators as per the logframe

IO	IO indicator	BL	ML Target	ML	Target achieved? (Y/N)	Target for next evaluation point	Will the IO indicator be used for next evaluation point? (Y/N)
Economic Opportunities	% of target girls (out of schoolgirls and upper secondary) who report having improved livelihood through securing jobs/livelihoods/income as a result of completing work readiness trainings, TVET curriculum and STWT	0	10%	0%	N		Y
Main qualitative findings							
▪ Most girls choose work-based tracks out of necessity, or thanks to the advice of those that are close to them such as a family member or a friend. The majority accepts this challenge though miss school. ▪ Administrative hurdles, such as not having an identity card, prevents girls from enrolling into vocational training. ID cards may be obtained freely though girls may not be aware of this. ▪ Boys might have more favourable employment opportunities and tend to be supported by parents to transition into income generation (contrary to girls).							

7.4.2 Interpretation

Securing employment or income generation is difficult for some girls without enrolling into vocational training.

Girls' motivation to join vocational training stems from their need to support themselves and their families. In the vocational group FGD, girls mentioned that: "*some are inspired by those who went in town before and have stared some income generating activities at home*,"[157] such as "find[ing] what to sell in the centre."[158] However, the majority would still prefer an in-school transition pathway: "*I did bad thing to leave school, when I see others from school and I feel want to go back to school"*[159].

[157] FGD OOS Girls Vocational Training 1

[158] Ibid

[159]

Furthermore, it is not clear whether these activities are sustainable, as another girl notes that lack of material means to work can prevent income generation: "*I had dream to have my own sewing machine, but I didn't reach it*."[160]

Girls also mentioned barriers to accessing training, due to lack of financial means and access to hygienic material: *"Unless we get supported for vocational training, we have no vision, example even if I get 10000RWf and attend vocational training, how can I find a sewing machine for example? ... If I get washing soap, it can be enough for now."*[161]

Girls also highlighted that attendance of training is limited by lack of identification documents: "*no one enrolled because at that time, no one had an identity card*."[162]

Girls also mentioned they have fewer employment opportunities than boys:

> *"Boys are more favoured than girls. Because they can find jobs easily, for example, I went to work at Kigali town, and I get nothing there than boys."*

And also, that caregivers are more supportive to boys when they aspire to transition into Vocational training:

> *"A boy is more understood by parents… even if he fails at school, he is automatically transferred to vocational training compared to girls".*

7.4.3 Reflections and targets

We recommend making this indicator more specific to girls in treatment areas who enrolled into vocational training as one indicator and girls who are able to secure safe and paid income generation as another indicator.

8 . Conclusion & Recommendations

Evidence largely confirms the profile of the beneficiary targeted by REAP and the various barriers to learning and transitions addressed by intervention activities. Over 50% of the sample faces some form of hardship and 34% of heads of households have no formal education. Households are also likely to engage children in housework or income generation in parallel to school. Boys also tend to have higher literacy skills than girls and 6% of the sample cannot speak the language of instruction (a reduction since baseline in both treatment and control areas).

The most prevalent barriers found by the study are addressed also by the intervention. These are: (1) Not being able to afford school-related costs; (2) Teenage pregnancy and poor sexual and reproductive health; (3) Not speaking LOI (prevalence reduced since basline) (4) Being too "embarrassed" to return to school; (5) Poor Teaching Quality and Use of Physical

[160] Ibid

[161] Ibid

[162] FGD OOS Girls Vocational Training 1

Punishment in schools, and (6) Lack of textbooks and school materials. The study also identified two additional barriers currently not addressed by the project:(1) Lack of parental support for girls to succeed in school and (2) students being hungry during school time -making it hard for them to focus whilst at school. In terms of key intersections, girls who are out of school have a higher chore burden and find it more difficult to attend school. Girls with disabilities tend to have less support than needed from parents and find it more difficult to afford schooling due to the associated cost of being disabled (e.g. assistive devices, transport, and medicines).

Although the project had a statistically significant impact on English literacy levels between baseline and midline, this was primarily driven by improvements experienced by in-school girls rather than out-of-school girls. Between grade levels, a review of performance against expected curriculum competencies demonstrates that teachers face difficulties delivering the English language curriculum in P5 and from S2 through S6. In P5 no girls meet the curriculum expectation of proficient competency in short passage reading or basic reading comprehension. P5 is the second year in which English is the language of instruction, and these poor results are likely due to the fact that children are not properly equipped to transition to an English medium environment by the end of P3. In S2, S3, S4, and S5 a minority of children meet the curriculum expectations for the written comprehension task. The project should review teacher training activities and assess the extent to which these areas are fully addressed, to ensure improvements can be sustained. On the whole, poor performance against expected curriculum competencies suggest that the Rwanda English language curriculum may not be closely aligned with current English literacy levels, and despite project impact on English literacy, the majority of children in these grade levels still fail to meet core expectations. There is likely a tension for teachers, between supporting children where they are, at their current English literacy levels, and bringing children to where they need to be, with regards to the curriculum. The project should further consider how best it can support teachers to navigate this.

The project did not have an impact on numeracy outcomes at statistically significant levels. Aggregate grade level results indicate that girls in the treatment group, on average, improved in numeracy between periods but that these improvements did not exceed changes experienced by the control group. Specific skills gaps were identified in girls' ability to identify patterns (missing number) and solve word problems, despite these being relatively lower order skills which do not form part of expected curriculum competencies in target grade levels. The project should ensure remedial lessons and Community Study Groups are able to address these foundational skills gaps.

With regards to Kinyarwanda, on average, children regressed in Kinyarwanda literacy between periods. This is likely because Kinyarwanda not the language of instruction in any target grade levels sampled at Midline and, despite being a taught subject, is less relevant to girls in these grade levels. This was true for both the control and treatment group. As Kinyarwanda is less relevant in these grade levels, the project should consider dropping it as the third learning outcome.

Binary logistic regression models show that that being in a treatment or control school did not significantly alter the chances of successful transition. However, both treatment and control

cases improved their rates of transition between Baseline and Midline. This is likely the result of government wide efforts to improve the attendance and feeding of girls and boys in school. Regression analyses show that school feeding, in addition to self-esteem and planning skills lead to higher transition rates. Most girls in the sample chose the in-school transition pathway over work-based pathways, but we expect this latter pathway to become more popular as more girls become aware of the increased utility in expanding vocational skills. However, 75% of out-of-school girls are inactive or in domestic activity by midline, meaning this particular group should be targeted specifically between midline and endline. FGD and survey data showed that failed transitions are likely the result of not being able to afford the cost of schooling, illnesses, pregnancy and lack of parental support to stay and succeed in school. All these barriers (except parental support) are mitigated by REAP activities. The project may therefore seek ways to engage caregivers to improve the transition rates of its beneficiaries.

In FGDs, some girls mentioned that they were tempted to engage in sexual activities through gifts and favours, and then drop-out from school. While these instances have never been explicitly reported in schools, the project has created structures for girls to report these incidences such as Health Corners and through a project-appointed teacher at each school who acts as a child-safeguarding focal point and works closely with community-level structures.

In terms of the sustainability of these outcomes, the study found that mechanisms for sustainability are emerging in schools, with the majority of school business operating under profit and making investments towards girls' education (though more guidance and closer monitoring to unprofitable businesses is needed), and most teachers stating their intentions to continue teaching using child-centred gender-inclusive teaching. Teachers admit that more coaching and mentoring and possibly a refresher training could be organized to cover knowledge gaps left by the original training. At midline most tutors hold remedial lessons without direct financial transfers, though in FGDs, some teachers mentioned that incentives could be necessary in the long-term to compensate for an increased workload. In communities, all saving groups are operational but fewer girls are able to save between baseline and midline (which goes in accordance with the midline finding that hardship increased for most the sample between periods). Community Study Groups meet regularly though tutors have admitted that they need to engage extra tutors to accommodate for the needs of the larger groups. The sustainability of CSGs will therefore depend on ensuring CSG group sizes are manageable and on ensuring tutors have access to learning forums. Changes at the system-level are latent because SEOs and DEOs are expected to monitor the SIP process, the quality of instruction and potentially offer coaching and mentoring support though they are only preparing to do so by midline. Meetings have been organized and results shared with a number of stakeholders, which could materialise at endline into an actual use of REAP principles and practices.

With regards to attendance, the project had little role in improving attendance outcomes between periods. However, attendance levels were already high to begin with. Regression analyses find that improved attendance leads to more successful transitions, indicating that that attending school is necessary to pass the grade. Additionally, attendance was a predictor of English aggregate literacy outcomes at Midline, suggesting tha the more girls attend school, the higher their English literacy proficiency levels. On the whole these findings indicate that

the project is correctly improving attendance outcomes as they lead to both improvements in learning and transition. With regards to the quality of instruction, the project had an influence on the three teaching quality dimensions reviewed, from the perspective of girls, namely, the extent to which girls feel their learning climate is supportive, the extent to which teachers are able to manage their lessons, and the extent to which lessons are interesting and engaging. Regression results suggest that improvements in the extent to which girls find lessons interesting and engaging led to improvements in English oral reading fluency. Furthermore, improvements in all three domains were shown to improve the extent to which girls feel confident participating in class. This suggests that these improvements will encourage girls to more actively participate in their lessons.

The project's impact on transitions was inconclusive. While improvements in the rates of transition existed between baseline and midline, these were not very different to rates of transition in control. The preferred transition pathway remains to be in-school, even for out-of-school girls who usually regret having dropped out from school. The project seems to be tackling the main barriers to transitions, which stem from lack of income to cover school costs. The emphasis on the project on SRH skills is also well placed. However, parents were found to be important facilitating agents in a girl's transition, and they are not currently being targeted by the project. Future versions of REAP should further consider how to engage parents more effectively.

Life skills targets were met and exceeded across the three dimensions studied. 67% of REAP girls have high self-esteem (8% above target), 75% have high planning skills (17% above target) and 74% have high interpersonal skills (13% above target). Girls who transitioned into TVET are motivated to keep on learning vocational skills as they are perceived as productive. Out-of-school girls also mentioned that they would use their skills to generate their own incomes and “buy many things for myself”, but they are yet to enrol into vocational training. However, it is uncertain for them if this would lead them to success in the long term because they lack information on how to obtain employment or turn their vocation into an income generating activity. Findings confirm the expectation that skills are interrelated though the relationship with learning outcomes and transitions is less clear. The project may therefore need to closely review the packages of skills that can strengthen core outcome objectives and consider targeting those with demonstrable evidence that can affect learning outcomes.

In terms of economic empowerment, none of the girls in the sample were generating their own income through employment and self-employment though various girls are looking to improve their skills to make this happen. Success will depend on their ability to find a safe and paid job or in their capacity to create their own business and sustain them. This will be reviewed further at Endline.

8.1 Recommendations

1. The project should consider dropping Kinyarwanda as its third learning outcome. Although it is a taught subject up to S3, it is not the language of instruction in target grade levels, and therefore is no longer relevant to access the wider curriculum. Girls in both the treatment and control group regressed in Kinyarwanda literacy

between periods and project staff report that after P4 Kinyarwanda is spoken more than written or read.

2. The project should consider how it can better support the learning of girls who have been pregnant, as this sub-group of girls regressed in Kinyarwanda and English literacy, on average, between periods. Project staff have reported that perhaps these girls are not interested in continuing their learning. However, the project should review its activities to ensure they remain accessible to this sub-group. Although the evaluation sample of girls who have been pregnant was small, none of the girls who had been pregnant were members of remedial lessons or child study groups. Furthermore, the project should ensure they provide specific supports to enable girls who have been pregnant to access learning opportunities, in line with the ethos of supporting the most marginalized.

3. The project should consider how to better support girls who are out of school, as girls who were out of school at Baseline regressed in both Kinyarwanda and English literacy. Additionally, most of these girls were inactive (not in TVET, not in school, and not employed) at the time of the midline, compared to a larger proportion of their peers in control schools who had re-enrolled in school.

4. The project should consider integrating pre- and post- tests into teacher training activities to monitor changes in capacity of teachers to adopt improved practices. This will allow the project to make adaptations to teacher training based on gaps identified. Feedback from teachers suggests that teacher training does not provide sufficient time to cover all of the content and does not effectively equip teachers to immediately adopt improved practices. While, teachers have suggested they have improved their knowledge of the CBC through the training activities, they report needing additional support with managing large class sizes and delivering the English language curriculum.

5. The project should review how to best support teachers to deliver the English language curriculum in P5, S2, S3, S4, an S5, as most children in these grade levels fail to meet expected curriculum competencies. For girls in P5, the project should consider supporting teachers in lower grade levels to ensure girls transitioning to an English medium of instruction in P4 are properly equipped to do so.

6. The project should review the CSG curriculum and the effectiveness of remedial lessons to ensure these activities are fit for purposes as they did not have a direct impact on learning improvements between periods. Additionally, the project should consider adapting these activities so that girls are divided by skill levels so as to ensure all girls can benefit from attending these sessions.

7. The project should review gender-responsive teaching training modules, as a higher proportion of lessons in control schools provide gender-responsive learning environments for girls (24% in treatment vs. 39% in control). Additionally, a higher proportion of teachers in control schools integrate gender-sensitive components into their lesson plans than teachers in treatment schools. At midline, 43 lessons

were observed in treatment schools and 43 lessons were observed in control schools. These lessons were selected randomly across target grade levels.

8. The project should consider streamlining and centralizing the monitoring of instructional practices in schools. Although lesson observations are conducted by the project, these are not stored electronically, or analysed in a centralized manner. Without doing this, it will be difficult to identify gaps and make adaptations in project implementation to ensure the adoption of these practices before Endline. Currently feedback on the degree of adoption of improved practices remains anecdotal, which limits the extent to which the project can learn from on-going implementation.

9. The project should adjust the gender-responsive sub-indicator for teaching quality which measures the use of gender-sensitive materials, to better reflect desired outcomes of teacher training. Originally the project intended part C of the indicator to measure the adoption of gender-responsive practices by reviewing the extent to which lessons use gender sensitive teaching and learning materials. At Midline only 2.3% of teachers could identify teaching and learning materials that had been adapted to be gender-sensitive in the lesson, suggesting this was not a central component covered in ADRA's training or not a good proxy to measure adoption.

10. Consider enrolling a life skills specialist into the project to devise a life skill strategy for REAP based on these findings.

11. Use project activities such as MDCs, CSGs and Alumni networks to increase parental engagement into child's education.

12. Review school business performance. In particular, review business strategy and support them to adapt to other income-generating lines whenever possible. This may involve an appraisal of the current management of project risk, which may be better considered one year after the intervention starts.

13. Consider establishing a network of coaches and mentors to improve teaching practice for in-service teachers. Many indicated that training was not enough to be able to implement a gender-sensitive, competence-based curriculum.

14. Support girls to obtain National Identity Cards or clarify the requirement of having it, so they may fulfil basin requirements to enrol into TVET.

15. Consider shifting the focus of transitions into TVET for OOS girls, as many manifested in FGD sessions that they regretted dropping out from school and wish to go back.

9 Annexes

9.1 Annex 1: Midline Evaluation Submission Process

Please submit all Midline reports and accompanying annexes via TeamSpace, an online file-sharing platform. Both the External Evaluator (EE) and Project should have access to their respective TeamSpace folders, however, please reach out to your EO if you do not.

Please note, Annexes can be uploaded to TeamSpace for FM review separately and before the midline report analysis is completed. We advise Projects and EEs to follow the sequence outlined below to speed up the review process and avoid unnecessary back and forth. Where possible, we also advise that projects and EEs do not begin their ML report analysis until Annex 13 is signed off by the FM.

Annexes to submit for FM review any time before the ML report is completed:

- Annex 2: Intervention roll-out dates.
- Annex 3: Evaluation approach and methodology.
- Annex 4: Characteristics and barriers.
- Annex 7: Project design and interventions.
- Annex 9: Beneficiaries tables.
- Annex 10: MEL Framework.
- Annex 11: External Evaluator's Inception Report (where applicable).
- Annex 12: Data collection tools used for midline.
- Annex 13: Datasets, codebooks and programs.
- Annex 14: Learning test pilot and calibration.
- Annex 15: Sampling Framework.
- Annex 16: External Evaluator declaration.
- Annex 17: Project Management Response (this can be revisited following feedback from the FM).

Annexes to finalise after Annex 11 "Datasets, codebooks and programs" is signed off by the FM:

- Annex 5: Logframe.
- Annex 6: Outcomes Spreadsheet.
- Annex 8: Key findings on Output Indicators.

9.2 Annex 2: Intervention roll-out dates

Please provide a timeline of roll-out of your interventions in the table below.

Table 57 Intervention roll-out dates

Intervention	Start	End
Teacher refresher training in child-centred and gender responsive pedagogy	December 2018	December 2018
Teacher refresher training in literacy and numeracy	December 2018	January 2019
Remedial classes	July 2018	Ongoing – end date March 2020
Community study groups	Last quarter of Year 1	Ongoing – end date March 2020
English discussion groups	Last quarter of Year 1	Ongoing – end date March 2020
Training in material production	June 2018	June 2018
Extra English, Kinyarwanda and maths readers topping up	April 2018	July 2018
Graduation ceremony for girls	January 2019	January 2019
School leadership training	July 2019	September 2019
School leadership training	July 2019	September 2019
Place girls in internships	October 2018	December 2018
Saving groups for girls	October 2018	Ongoing – end date March 2020
Alumni networks	October 2018	Ongoing – end date March 2020

9.3 Annex 3: Evaluation Approach and Methodology

These sections present further methodological details to the midline approach.

9.3.1 Outcomes and Intermediate Outcomes

See below for the outcomes and intermediate outcomes of the intervention.

Table 58 Outcomes for Measurement

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
Outcome 1: Learning *Number of marginalised girls supported by GEC with improved learning outcomes*						
Literacy indicator Average score improvement on EGRA/SeGRA literacy assessment	*School*	***Quant:*** *EGRA/SeGRA Kinyarwanda ;*	EGRA and SeGRA used in this evaluation were designed to align with	Per evaluation point	EE	No changes proposed

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
		EGRA/SeGRA English ***Qual:*** *FGDs*	the national curriculum and include all relevant literacy domains for this context.. Both tests include oral reading fluency, widely accepted to measure literacy acquisition.			
Numeracy indicator Average score improvement on EGMA/SeGMA numeracy assessment	*School*	***Quant:*** *EGMA/SeGMA* ***Qual:*** *FGDs*	EGMA and SeGMA used in this evaluation were designed to align with the national curriculum and include all relevant numeracy domains for this context.	Per evaluation point	EE	No changes proposed
Outcome 2: Marginalised transitioned through key stages of education, training or employment						
Transition indicator % improvement of girls' transition rates from one stage to another as compared to control group	School (random sample taken in target grade levels)	**Quant:** HHS (Q43, Q138, Q140, Q57, Q112, Q120); GS (GS10, GS11). **Qual:** KIIs, FGDs	We use the percentage here, to demonstrate what proportion of girls successfully transition versus those that do not.	Annually	EE	None
Outcome 3: Sustainability (system-level)						

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
1. # of REAP 2 approaches adopted by the government, per year **2. # of incidences where REAP2 best practices are scaled up by other stakeholders or government, per year**	REAP Partner's Staff	**Quant:** Policy Uptake Log **Qual:** KIIs, Policy Uptake Log	Policy uptakes in the form of formal and informal processes may result in system-level changes for sustainability.	Ongoing (policy uptakes are recorded by the project as they happen).	EE/Project	Policy Uptake Log introduced at midline but allows for information to be recorded retroactively. A more accurate measure of policy incidences is therefore provided at baseline.
Outcome 3: Sustainability (community-level)						
1. % of operational saving groups **2. % marginalised girls with school costs reduced / covered by other sources (ex. SB, MDC, scholarships) by year** **3. % of Community Study Groups meeting regularly, by year**	School / Project Activities' Data	Girls' Survey and HHS	The REAP project has set up community structures to support economic empowerment and learning in communities. CSGs are meant to meet without funding support, and if they do, it is assumed that outcomes will be sustained in communities' overtime.	Annually	EE/ Project	Reviewed after the baseline.
Outcome 3: Sustainability (school-level level)						

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
1. % of school businesses who are profitable and sustainable **2. % of target teachers who state their intention to continue teaching using child centred gender inclusive, responsive pedagogy after the project has ended, disaggregated by female and male teachers** **3. % of teachers holding remedial learning sessions without direct financial transfers from REAP2**	School / Project Data	Teacher Survey and Lesson Observation	School businesses are a core aspect of schools' capacity to self-fund and keep investing in girls' education. Teacher learning is seen as another mechanism of sustainability and it is measured through the other two indicators.	Annually	EE/ Project	Reviewed after the baseline.
Intermediate outcome 1: Increased Girls' Attendance						
% Improvement in marginalised girls' average monthly attendance in schools throughout the life of the project (average percentage)	School	Historical attendance register	Attendance represents the historical average percentage of time girls attended school for the month of September 2017 at Baseline and September 2018 at Midline. September	Per evaluation period	EE	There is an increase in the average attendance level between BL and ML based on this indicator.

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
			was selected as a proxy for average attendance, as it is a month where no seasonal effects due to weather or harvesting would be expected to influence attendance levels.			
Increased % of girls' attendance based on improved supportive environment within school and communities (i.e. increased parents' support; economic assistance; teaching methodology)	School	It is not clear how the project planned to operationalize this indicator.	It is not clear how the project planned to operationalize this indicator.	Intended to be measured per evaluation period	It is not clear how the project planned to operationalize this indicator.	This indicator is new.
% of most marginalised girls (moderate to extreme hardship) with school costs reduced / covered by other sources (ex. SB, MDC, scholarships) by at least 20%	Household	HHS	The project conducts several activities to reduce the costs associated with school and this measure aims to measure the extent to which this barrier is reduced	Per evaluation period	EE	There is an increase in the proportion of households who report a reduction in costs associated with schools (from 13% to 50.9%). However, these reductions in costs do

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
						not correlate with improvements in attendance.
Intermediate outcome 2: Improved Teaching Quality in Literacy, Numeracy and Teaching Methodologies						
% of girls who believe their teachers create a supportive climate	Girls Survey (School/ household)	Girls Survey	Supportive climate is measured through a multi-item scale. A supportive climate is understood as an environment where teachers have caring interactions with students and provide individual assistance and constructive feedback.	Per evaluation period	EE	Increased from 49.1% at Bl to 81.5% at ML.
% of girls who believe their lessons are engaging	Girls Survey (School/ household)	Girls Survey	Cognitive activation is measured through a multi-item scale. Cognitive activation describes teaching practices that enhance students' engagement with	Per evaluation period	EE	Increased from 42% at BL to 73.6% at ML.

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
			curriculum content			
% of girls who believe their lessons are well managed	Girls Survey (School/ household)	Girls Survey	Classroom management is measured through a multi-item scale. Classroom management is a core skill of teaching and can be understood to refer to teachers' ability to provide well-structured lessons, establish clear rules and routines, manage group behaviour and intervene quickly to prevent disruptions to teaching.	Per evaluation period	EE	Increased from 39.2% at BL to 79.9% at ML.
% of lessons adopting gender responsive pedagogy through a) group discussion and participation; or b) gender sensitive teaching and learning materials; or c) use of gender sensitive language	Lesson	Lesson Observation	Although the EE measured a) and b) it was unclear whether the use of gender sensitive teaching and learning materials	Per evaluation period	EE	New indicator

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
			could really be observed in a valid way as a minority of teachers could identify these (2.3%). This suggests it is a poor proxy. It was additionally unclear how to measure the use of gender sensitive language in classrooms.			
Girls report that changes to teaching quality have improved their attendance, literacy or numeracy skills	Qualitative sessions in communities and schools	Focus Group Discussions	Girls perceptions of what drove improvement to learning and attendance is captured by this indicator.	Per evaluation period	EE	New indicator
Intermediate outcome 3: Girls Applying Life Skills Learned in School to Transition through Key Stages of Training or Employment						
1. *% of girls who can give an example of using newly gained life skills in the process of transitioning to STWT, TVET or WR* **2.** *% of girls with improved like skills based on*	School	Girls' Survey	The indicator measures the proportion of girls who have the set of life skills and measures whether girls can	Annually	EE	Reviewed after the baseline.

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
girls' self-assessment: a) planning skills; or b) interpersonal skills; or c) self-esteem skills			contextualize these skills into their capacity securing an income.			
Intermediate outcome 4: Improved Economic Opportunities through Training, Jobs, IGAs, and Self-Employment						
% of target girls (out of school girls and upper secondary) who report having improved livelihood through securing jobs/livelihoods/income as a result of completing work readiness trainings, TVET curriculum and STWT	School	Girls' Survey	Girls are better able to secure safe and paid jobs as a result of training and they will be able to retain these jobs due to the skills acquired	Annually	EE	Reviewed after the baseline.

9.3.2 Quantitative Approaches

9.3.2.1 Learning

To measure the change attributable to the project across learning and transition outcomes, we conduct a hypothesis-driven, empirical research through the establishment of a two-arm experimental, *difference-in-differences* technique. This is because REAP does not enable a randomized selection of participants into the programme, but rather has chosen to intervene in the schools with the highest proportion of marginalized girls.

To find impact, we applied this technique to measure the changes on the dependent variables (learning and transitions) between treatment and control across two evaluation periods, namely from baseline-to-midline, and then midline-to-endline at the individual level. A single cohort has been tracked for both learning and transition.

The DID technique defines the project's "additionality" as the difference in outcomes between treatment and control groups over time. This assumes that the average change in the

comparison group represents the counterfactual change in the treatment group if there were no treatment (parallel trend assumption). This is calculated in the following way:

1. First, the *first difference* is calculated by measuring change over time within each experimental group. The difference across two-time periods is taken within each group: change in the treatment group (Treatment $_{\text{Period 2}}$ – Treatment $_{\text{Period 1}}$) and change in the control group (Control $_{\text{Period 2}}$ – Control $_{\text{Period 1}}$). This step aims to capture within group changes across a given GEC outcome.

2. Second, without group differences are measured. That is, the difference over and above the control group experienced by the treatment group (Treatment $_{\text{First Difference}}$ – Control $_{\text{First Difference}}$). This step will calculate the project's achievement and eliminate time trends in findings due to the parallel trend assumption.

Through DiD, the project's additionality is measured. The significance of this difference is calculated using a standard (OLS) regression[163]:

$$yi = \alpha + \beta * Ti + ui$$

Where yi are the changes in the learning scores or transition difference scores for each cohort girl between two evaluation periods, α is an intercept, β is the achievement, and Ti is a 'dummy' variable taking value 0 for girls in the control group and taking value 1 for girls in the intervention group.

For this evaluation, the quantitative approach will predominantly aim to provide a numerical measurement of the change that may be caused by the project and provide key social demographics. The qualitative approach will aim to build a clear and nuanced picture of what change is or is not taking place and why and document the context in which the intervention takes place during the baseline phase.

Research strategies has also been integrated across outcomes and intermediate outcomes to be able to statistically link outcome indicators[164]. For this evaluation, we conducted a review of REAP's theory of change depicting the key impact pathways of the project[165], i.e. the theoretical connections between project activities and the impact they generate. This enables a more thorough identification of REAP's assumptions, risks and performance measures evaluated in this report.

The table below provides an overview of the expected transitions of girls currently enrolled in lower secondary over the years of the evaluation. When the row turns grey in the table, a transition between schools or employment is expected to occur.

[163] For transitions, a logistic regression is used to predict changes in the transition status of the girl.

[164] Source: MEL Guidance Part Two

[165] C.f. Mayne, J. (2015). Useful theory of change models. *Canadian Journal of Program Evaluation*, 2, 119-42. Available at https://www.evaluationcanada.ca/system/files/cjpe-entries/30-2-119_0.pdf

9.3.2.2 Transitions Methodology

For this study, two midline points were observed since the baseline. This is because the baseline study took place in December 2017 and the midline in February 2019 and the academic year in Rwanda begins in January and ends in November. While the midline occurred (1) year and one (1) month after the baseline in absolute terms, transitions could be observed for two academic year periods:

1. **Baseline:** Transitions in the 2017 academic year (from 2016 to 2017).
2. **Midline Point 1:** Transitions in the 2018 academic year (from 2017 to 2018).
3. **Midline Point 2:** Transitions in in the 2019 academic year (from 2018 to 2019).

The table following shows the expected transition pathways (by grade level). Rows with grey denote work-based transitions. The project expects girls to complete either P6 or S3 to be able to opt for professional training, or if they are out of school.

Table 59 Expected Transition Pathways 2017-2020 in the Original Tracked Cohort for Transitions

baseline Grade (November 2017)	Midline Point 1 (November 2018)	Midline Point 2 (February 2019)	Endline (October 2020)
Primary	P5	P6	S1
P5	P6	S1	S2
P6	S1	S2	S3
Secondary S1	S2	S3	S4
S2	S3	S4	S5
S3	S4	S5	S6
S3	TVETTVET or Work	TVETTVET, or Work	TVETTVET, or Work
S4	S5	S6	TVETTVET, Work, or University
Out-of-school	School (any grade), TVET or Work	School (any grade), TVET or Work	School (any grade), TVET or Work

To estimate the project's additionality in the transitions of marginalized girls of project areas (the equivalent to the second difference in the DID model), we calculated the probability of being classified as a '*successful transition'* or an '*unsuccessful transition'* across the different pathways using three *binary logistic regression* models that have treatment status as a predictor[166]. One for the baseline, one for the midline point 1 and another for the midline in point 2. This final score is treated as the equivalent to the second difference in the DID model.

Table 32 provide in Section 4 provided an overview of the expected transitions of girls enrolled in the programme between these two evaluation periods and what is considered an unsuccessful or unsuccessful transition.

To estimate the project's additionality in the transitions of marginalized girls of project areas, we calculate the probability of being classified as a 'successful transition' or an 'unsuccessful

[166] Treatment status changes between baseline and midline, depending on whether girls progressed into schools outside the project areas.

transition' in school using three binary logistic regression functions of one predictor. One for the baseline, one for the midline point 1 and another for the midline in point 2.

To calculate 2016 to 2017 transitions (baseline), we used the treatment variable at baseline as a predictor. For 2017-2018 transitions, we had two binary logistic regression models, one for each transition point, using Treatment Status at Midline as a predictor. This is because many girls transitioned into non-project schools at midline, and therefore they would not be exposed to the intervention in a similar way. We used overall successful transition dummies as dependent variables.

The model follows the logit equation:

$$p(Y) = \frac{e^{\beta + \omega * \mathrm{Ui} + \mathrm{vi}}}{1 + e^{\beta + \omega * \mathrm{Ui} + \mathrm{vi}}}$$

Where $\mathrm{p(Y)}$ is the probability that a given case is classified as a 'successful transition' or an 'unsuccessful transition', β is an intercept, γ is the achievement, Ui is a treatment dummy variable taking value 0 for girls in the control group and 1 for girls in the treatment group and vi is a standard residual term.

Successful transitions rates were calculated for the outcome spreadsheet in a separate analysis. This is because the outcome spreadsheet only allows for the inclusion of cases tracked since the baseline and not for newly sampled cases.

Table 60. Transition Sample Sizes in the Outcome Spreadsheet

Age	2017		2018		2019	
	Treatment	Control	Treatment	Control	Treatment	Control
9	2	4	2	4	2	4
10	19	14	16	13	16	13
11	35	39	32	33	32	33
12	64	54	44	43	44	43
13	60	70	47	54	47	54
14	57	68	31	53	31	53
15	62	49	37	36	37	36
16	30	34	14	26	14	26
17	50	44	21	23	21	23
18	26	21	11	15	11	15
19	10	17	4	10	4	10
All	**415**	**414**	**259**	**310**	**259**	**310**

During the data collection exercise, no child safeguarding issues were raised through research activities. Additionally, there were no reported breaches of HPA's child protection policy involving HPA staff, HPA representatives, or REAP intervention activities.

9.3.2.3 Outcomes and Intermediate Outcomes

Table 61 presents and articulates the project's Outcomes, Intermediate Outcomes, and their respective indicators. These definitions match the project logframe.

Table 61 Outcomes for Measurement

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
Outcome 1: ***Number of marginalised girls supported by GEC with improved learning outcomes***						
Literacy indicator (*specify wording*)	*(e.g. School/study clubs)*	***Quant:*** *(e.g. EGRA)* ***Qual:*** *(e.g. KIIs)*	(e.g. EGRA is predetermined by the FM)	(e.g. annually)	(e.g. External evaluator)	(e.g. additional questions added to learning tests)
Numeracy indicator (*specify wording*)						
Outcome 2: Marginalised transitioned through key stages of education, training or employment						
% improvement of girls' transition rates from one stage to another as compared to control group	School (random sample taken in target grade levels)	**Quant:** HHS[167] **Qual:** KIIs, FGDs	We use the percentage here, to demonstrate what proportion of girls successfully transition versus those that do not.	Annually	EE	None
Outcome 3: Sustainability (system-level)						
3. # of REAP 2 approaches adopted by the government, per year **4. # of incidences where REAP2 best practices are scaled up by other stakeholders or government, per year**	REAP Partner's Staff	**Quant:** Policy Uptake Log **Qual:** KIIs, Policy Uptake Log	Policy uptakes in the form of formal and informal processes may result in system-level changes for sustainability.	Ongoing (policy uptakes are recorded by the project as they happen).	EE/Project	Policy Uptake Log introduced at midline but allows for information to be recorded retroactively. A more accurate measure of policy incidences is therefore provided at baseline.

[167] C.f. HHS (Q43, Q138, Q140, Q57, Q112, Q120); GS (GS10, GS11).

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
Outcome 3: Sustainability (community-level)						
4. % of operational saving groups **5. % marginalised girls with school costs reduced / covered by other sources (ex. SB, MDC, scholarships) by year** **6. % of Community Study Groups meeting regularly, by year**	School / Project Activities' Data	Girls' Survey and HHS	The REAP project has set up community structures to support economic empowerment and learning in communities. CSGs are meant to meet without funding support, and if they do, it is assumed that outcomes will be sustained in communities' overtime.	Annually	EE/ Project	Reviewed after the baseline.
Outcome 3: Sustainability (school-level level)						
4. % of school businesses who are profitable and sustainable **5. % of target teachers who state their intention to continue teaching using child centred gender inclusive, responsive pedagogy after the project has ended, disaggregated by female and male teachers** **6. % of teachers holding remedial learning sessions without direct financial transfers from REAP2**	School / Project Data	Teacher Survey and Lesson Observation	School businesses are a core aspect of schools' capacity to self-fund and keep investing in girls' education. Teacher learning is seen as another mechanism of sustainability and it is measured through the other two indicators.	Annually	EE/ Project	Reviewed after the baseline.
Intermediate outcome 1: Increased Girls' Attendance						

Outcome	Level at which measurement will take place, *e.g. household, school, study club etc.*	Tool and mode of data collection (please specify both the quantitative and qualitative tool used)	Rationale, *i.e. why is this the most appropriate approach for this outcome*	Frequency of data collection, *i.e. per evaluation point, annually, per term*	Who collected the data?	Discuss any changes from BL (including whether this indicator is new)
Intermediate outcome 1 indicator (specify wording - add a row for each individual indicator)						
Intermediate outcome 2: Improved Teaching Quality in Literacy, Numeracy and Teaching Methodologies						
Intermediate outcome 2 indicator (specify wording - add a row for each individual indicator)						
Intermediate outcome 3: Girls Applying Life Skills Learned in School to Transition through Key Stages of Training or Employment						
3. % of girls who can give an example of using newly gained life skills in the process of transitioning to STWT, TVET or WR **4.** *% of girls with improved like skills based on girls' self-assessment: a) planning skills; or b) interpersonal skills; or c) self-esteem skills*	School	Girls' Survey	The indicator measures the proportion of girls who have the set of life skills and measures whether girls can contextualize these skills into their capacity securing an income.	Annually	EE	Reviewed after the baseline.
Intermediate outcome 4: Improved Economic Opportunities through Training, Jobs, IGAs, and Self-Employment						
% of target girls (out-of school girls and upper secondary) who report having improved livelihood through securing jobs/livelihoods/income as a result of completing work readiness trainings, TVET curriculum and STWT	School	Girls' Survey	Girls are better able to secure safe and paid jobs as a result of training and they will be able to retain these jobs due to the skills acquired	Annually	EE	Reviewed after the baseline.

Histograms for learning are included in the embedded file below:


Microsoft Word Document

9.3.3 Qualitative Approaches

Whenever possible dimensions are explored using quantitative or qualitative sources of data and are triangulated through a mixed-methods approach. The qualitative approaches employed aimed to build a clear and nuanced picture of the intervention's context and underlying dimensions.

Sampling for qualitative sessions was heterogeneous and aimed to capture the diversity of intervention settings. Sessions conducted as part of the study's qualitative work are shown and summarized in the table following Sessions were conducted with participants until the QRAs in consultation with the field team, felt they had reached data saturation of given research areas.

Table 62 Qualitative Sample Achieved

Session Type	Total Number of Sessions	Total Number of Sessions Achieved
FGD with School General Assembly Committee (SGAC) Members	3	3
Free-listing Exercise with in-school Boys	3	3
Free-listing Exercise with in-School Girls	3	3
Free-listing Exercise with out-of-school Girls (including girls in skill training)	3	0 (to find out of school girls to make a group was not possible
FGD with in-school Boys Teaching Quality	5	5
FGD with in-school Girls on Teaching Quality	5	5
FGD with Girls (Literacy & Numeracy)	3	3
FGD with Out of School Girls on Vocational Training, Employment and Aspirations	5	2 others were KII as to find more OOS girls was not easy
FGD with Girls (Attendance & Parental Engagement)	2	2
In-depth Interview with Head teacher	5	5
Force Field Exercise	2	2
FGD with Mothers and Female Caregivers on School Engagement & SRH	3	3
Interview with District/Sector Education Officer	5	2 (we have appointment for the remaining SEOs on 26-27 March 2019)
Interview with District Gender Officer	1	0
FGD with Community Study Group (CSG) Members	3	3
FGD with Community Study Group (CSG) Tutors	4	2
FGD with Teachers on Teaching Quality & Remedial Learning Opportunities	5	5
FGD with Girls who Transitioned to TVET x2	2	2
FGD with Girls who Transitioned to Employment x 2	2	2
FGD with Girls who Transitioned to Secondary School x 1	1	1
FGD with Boys on Changes due to Project x 1	1	1
FGD with Girls who have disabilities x 1	1	1
FGD with Girls on Attendance Changes x 1	1	1
FGD with Girls supported by project in WR or STWT x 1	1	1
FGD with stakeholders who participated in SIP process x 1	1	1
Total Sessions	**70**	**56**

9.3.3.1 School Plans

All 24 treatment schools have provided the school improvement plans. These were coded into a separate dataset, to evaluate their content and quality.

9.3.4 Baseline data collection process

In this section, outline the process to collect baseline data (both quantitative and qualitative). Provide details on the following areas.

9.3.4.1 Pre-data collection

Prior to the country visit, the evaluation developed both quantitative and qualitative frameworks and instruments.

The project selected to track a single cohort for both learning and transition using a multi-stage sampling technique. In the first stage, treatment and control schools are selected through hierarchical cluster analysis using school-level district data. At the second stage, we use stratified random sampling to select girls based on their school enrolment status and target grade-level. The qualitative sampling framework was derived from the MEL plan and from the performance measures generated through review of the project's TOC.

Random sampling occurred prior to the country visit of the international consultants and was overseen by the local consultant. To ensure the right sample composition, girls were sampled from school registries using a random lottery method. Once sampled, girls were interviewed to obtain contact information and all participants were given a unique ID matched to their personal information. During this exercise, historical attendance data was also gathered for those girls sampled and a spot-check was conducted in all schools.

Quantitative and qualitative research instruments were designed in close collaboration with HPA and the FM and were largely based on the MEL plan and the review of the TOC. Learning tools were piloted in three non-intervention schools in November 2017 and calibrated for the baseline, midline and Endline periods (see Annex 9 for details). All instruments were translated into Kinyarwanda and instructions were delivered to participants in Kinyarwanda to ensure the equal participation of marginalized girls in the study, improve validity, and ensure inter-rater reliability.

This information was contained an access-restricted Cohort Tracking Dataset that enumerators used to locate households, gather informed parental consent, and administer the surveys during the school holidays. This cohort tracking dataset was updated to track participants at future evaluation periods.

Training exercises were conducted separately for quantitative enumerators and qualitative research assistants. All field workers have been selected through a formal application process advertised online, and through professional networks and newspapers. The application process consists in an application form and a phone interview. A 5-day enumerator training was conducted in Kigali and provided detailed instructions on the administration of research

tools, interview techniques, the sampling processes, the evaluation design, research ethics, and child protection (including training on identifying different forms of abuse).

9.3.4.2 During data collection

Data for the baseline study was collected through household visits and occurred between December 6th – December 22th, 2017, corresponding to the school holidays. Qualitative data collection was divided in two phases: phase one occurring at the same time of the data collection exercise and phase II occurring in January 2018. The quantitative data collection exercise for the midline ran from 18th February to 13th March 2019. The 1st round of qualitative data collection just took place from 18th March 2019 to 30th March 2019. For the additional sessions, we conducted qualitative data for 3 additional days from the 26th to 27th June and again on 15th July (to further the enquiry and topics were data saturation was not achieved).

Learning test data was collected through paper surveys and answers were later transferred to electronic form using mobile phone technology. This is because administering learning tests are specifically designed to be carried out in paper form, due to the expected manipulation of the clipboard, use of the stopwatch, and administering the test itself.

To reach sites, enumerators followed the cohort tracking dataset and the guidance of the HPA team at the Huye office. Teams of five enumerators were distributed in 4x4 vehicles, departing to sampling sites at dawn. Targets were tracked daily by the Field Manager and reported to the consultants. The local operational staff reported all developments using weekly field reports and supervised the quality of the test administration procedure by observing enumerator practices and completing individual enumerator reports. Interviews where arranged through local leaders and scheduled within a three-days of the visit whenever possible.

Enumerators were tasked to report any suspected breach to child protection following child protection training.

9.3.5 Replacement rules

Whenever girls could not be tracked, the enumerator randomly selected a new girl in the would-be grade level of the girl and of similar age and school than the lost girl (using a lottery method). Girls that changed schools or dropped out were tracked and also replaced by an in-school girl in the original school.

Participants for qualitative data collection were recruited in separate, looking for a deeper expertise in the topics of the intervention. They were given a target of two sessions a day and asked to record all sessions, which were later transcribed and translated. Recordings were labelled using a coding system and given to transcribers during data collection. Training was organized for 2 days for QRAs and feedback sessions during the data collection ensured that the discussion was focused and steered in the right directions. 3 qualitative research assistants (QRAs) recruited participants based on the sampling protocol provided and support was given from HPA Huye Office to locate participants for purposive-sample sessions.

Sessions were carried by a moderator and reflected upon through post-session notes in essays. Enumerators struggled to complete these essays and we recommend extending training to include notetaking and transfer of notes into electronic versions. QRAs were trained and tasked to recruit using snowball sampling (for specific cases) and purposive samples to ensure research topics were well covered.

Once received, qualitative data was coded descriptively by analysts to extract all the quotes pertaining to the major themes of the intervention. A qualitative dataset was produced and used in the evaluation in parallel to the transcripts themselves. Field researchers were not involved in the analysis.

All SIPs were also coded for consistency checks and content checks through an online coding survey filled by analysts. A SIP evaluation dataset was produced for the midline. \

The following are the tools used for the analysis:

Table 63 Tool Details

Tool (used for which outcome and IO indicator)	Beneficiary group	Sample size agreed in MEL framework for treatment and (control group) - if appropriate	Actual sample size treatment and (control group) - if appropriate	Remarks: 1) Attrition rate from baseline to midline 2) Re-contacted sample vs replaced sample 3) Major changes to tools or differences between anticipated and actual sample sizes
SeGRA and EGRA (Kinyarwanda and English respectively)	Secondary assessments: Girls who have transitioned to secondary schools (S1-S6 at Midline) Primary assessments: Girls in primary school at Midline (P5-P6)	All tools have the same sample size as they were entered collectively as a "single case". **Treatment: 402** **Control: 402**	**Treatment: 383 (including both resampled and re-contacted)** **Control: 454 (including both resampled and re-contacted)**	Treatment: 323 cases matched between periods (19.65% attrition); Control: 270 cases matched between periods (32.83% attrition) Please see the Field Narrative report where a full and detailed account is provided. REAP-T Midline Narrative Field Repor
SeGMA and EGMA	Secondary assessments: Girls who have transitioned to secondary schools (S1-S6 at Midline) Primary assessments: Girls			

Tool (used for which outcome and IO indicator)	Beneficiary group	Sample size agreed in MEL framework for treatment and (control group) - if appropriate	Actual sample size treatment and (control group) - if appropriate	Remarks: 1) Attrition rate from baseline to midline 2) Re-contacted sample vs replaced sample 3) Major changes to tools or differences between anticipated and actual sample sizes
	in primary school at Midline (P5-P6)			
Household Survey	All girls in learning and transition cohort (joint cohort)			
Girls' Survey	All girls in learning and transition cohort (joint cohort)			
Lesson Observation	Lessons P1-S3	N/A	43 Lessons in Treatment and 43 Lessons in control	N/A

9.3.5.1 Midline Sample Composition

The total number of successfully tracked and merged cases is of 72% (602) and of new cases (attrition) is 28% (235) for a total of 837 cases collected at midline.

A total of 55 cases switched status from baseline to midline by shifting schools. This makes for 9% of the tracked sample. Of the 55 that switched, 36 switched from treatment to control schools and 19 from control to treatment schools. We assume girls changing into treatment schools have been exposed by at least one year to the intervention when they came from control (for transitions is 2 academic years observed). Girls in control schools have been one year without it.

See tables following for the midline sample composition:

Table 64 Midline Sample Composition (Stage at Midline 2019) Treatment and Control

Stage	Control		Treatment		Total	
	n	%	n	%	n	%
P1	0	0.0%	0	0.0%	0	0.0%
P2	0	0.0%	0	0.0%	0	0.0%
P3	0	0.0%	0	0.0%	0	0.0%
P4	3	.7%	1	.3%	4	.5%
P5	16	3.5%	14	3.7%	30	3.6%
P6	93	20.5%	100	26.1%	193	23.1%
S1	97	21.4%	83	21.7%	180	21.5%
S2	102	22.5%	74	19.3%	176	21.0%
S3	37	8.1%	31	8.1%	68	8.1%
S4	32	7.0%	28	7.3%	60	7.2%
S5	24	5.3%	19	5.0%	43	5.1%
S6	14	3.1%	13	3.4%	27	3.2%
Subtotal In-School Girls	**418**	**92.1%**	**363**	**94.8%**	**781**	**93.3%**
Vocational Training	6	1.3%	2	.5%	8	1.0%
Employed (paid)	1	.2%	0	0.0%	1	.1%
Employed (unpaid)	0	0.0%	0	0.0%	0	0.0%
Subtotal TVET/Work	**7**	**1.5%**	**2**	**.5%**	**9**	**1.1%**
Inactive	7	1.5%	7	1.8%	14	1.7%
Pregnant/Nursing Child	2	.4%	2	.5%	4	.5%
Domestic Activity	20	4.4%	9	2.3%	29	3.5%
Subtotal Out-of-School	**29**	**6.4%**	**18**	**4.7%**	**47**	**5.6%**
Total	**454**	**100.0%**	**383**	**100.0%**	**837**	**100.0%**

The following table shows the representation of these beneficiaries in the sample:

Table 65 Sample representation of (tracked) beneficiaries by Grade and Age

Grades or Age		Midline				Baseline			
		Control		Treatment		Control		Treatment	
		N	%	N	%	N	%	N	%
Grade Level at Baseline	*P4*	75	22.7%	83	30.6%	96	20.7%	104	23.2%
	P5	70	21.1%	65	24.0%	93	20.1%	103	23.0%
	P6	80	24.2%	59	21.8%	96	20.7%	100	22.3%
	S1	27	8.2%	24	8.9%	36	7.8%	28	6.3%
	S2	22	6.6%	14	5.2%	28	6.0%	36	8.0%
	S3	26	7.9%	14	5.2%	34	7.3%	36	8.0%
	S4	10	3.0%	5	1.8%	15	3.2%	11	2.5%
	S5	2	.6%	0	0.0%	19	4.1%	6	1.3%
	S6	5	1.5%	0	0.0%	19	4.1%	7	1.6%
	OOS	14	4.2%	7	2.6%	27	5.8%	17	3.8%
	TVET	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	SWTW	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	WR	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Total	331	100.0%	271	100.0%	463	100.0%	448	100.0%
Age at Baseline	*7*	0	0.0%	1	.4%	0	0.0%	1	.2%
	9	4	1.2%	2	.7%	4	.9%	2	.4%
	10	13	3.9%	16	5.9%	14	3.0%	19	4.2%
	11	33	10.0%	32	11.8%	39	8.4%	36	8.0%
	12	43	13.0%	44	16.2%	54	11.7%	64	14.3%
	13	55	16.6%	47	17.3%	70	15.1%	60	13.4%
	14	53	16.0%	31	11.4%	68	14.7%	59	13.2%
	15	36	10.9%	38	14.0%	50	10.8%	63	14.1%
	16	27	8.2%	14	5.2%	34	7.3%	30	6.7%
	17	24	7.3%	21	7.7%	45	9.7%	50	11.2%
	18	15	4.5%	11	4.1%	21	4.5%	26	5.8%
	19	10	3.0%	4	1.5%	18	3.9%	10	2.2%
	20	7	2.1%	6	2.2%	17	3.7%	10	2.2%
	21	8	2.4%	2	.7%	18	3.9%	12	2.7%
	22	1	.3%	1	.4%	5	1.1%	2	.4%
	23	1	.3%	0	0.0%	4	.9%	2	.4%
	24	1	.3%	1	.4%	2	.4%	2	.4%
	Total	331	100.0%	271	100.0%	463	100.0%	448	100.0%

If a girl was not found at school, the evaluation team looked in school registries and spoke to teachers to see if the was still enrolled in that school. If she missed school that day, the evaluation team would organize her interviews at the household or re-schedule them to the next day if possible. If the girl was not in the attendance registry, the team contacted the household to arrange for her interview at home or at her place of residence. We found and interviewed girls who had dropped out from school this way. In parallel, we worked with the school management to find out if she changed to a different school.

We also adopted strategies to ensure the sample had the correct power at endline by following the new guidelines on replacing girls. When a girl dropped out from school, we interviewed her and randomly resample another girl in the would-be grade of the girl that dropped out from school. When she switched to another treatment school, we did not resample but tracked at her new school. When she switched to a control school, we interviewed her at the new control school and randomly resampled another girl of the same grade in her old treatment school. When she switched to schools outside the project or evaluation area that were too far to track,

we did not track her but replaced her with a girl randomly sampled in the grade at which she would have been.

We attempted to recontact girls three to four times at multiple stages. Using the cohort tracking dataset, the enumerator attempted to contact caregivers prior to the visit to schedule the interview, to obtain consent and schedule it. Interviews were scheduled 2-3 days in advance. If the girl was not found through this first call, we would then try and locate at school during the visit. If she was not found, we confirm the contact information we had with school authorities, teachers and classmates and would call her household up to three times. Sometimes girls were there and were interviewed. Often, they had switched schools outside project areas and this would be confirmed by the caregiver during the call or by school authorities.

Table 66 Midline sample and attrition

Cohort group	Baseline sample (treatment)	Re-contacted (treatment)	Attrition (treatment)	Baseline sample (control)	Recontacted (control)	Attrition (control)
P4	103	83	19.4%	96	75	21.9%
P5	103	65	36.9%	93	70	24.7%
P6	97	58	40.2%	95	79	16.8%
S1	28	24	14.3%	35	27	22.9%
S2	36	14	61.1%	28	22	21.4%
S3	36	14	61.1%	33	26	21.2%
S4	11	5	54.5%	15	10	33.3%
OOS	17	7	58.8%	27	14	48.1%
Total	431	270	37.4%	422	323	23.5%

The primary reason for attrition identified was that girls switched to schools outside the project and evaluation scope that were unfeasible to visit. In Rwanda, children could be assigned to schools based on her performance or place of residence and it is not uncommon that a girl would switch to a new secondary school even when her old school would also have secondary school levels. For example, using government sponsorship, top performers go to boarding schools in the nearby Huye and elsewhere in the country.

In other instances, there was no-one at the household or the household at the time of the visit and the household did not have a phone number. Whenever possible, the team would revisit the location at another time, typically when it was close by to visits that remained on schedule. However, this was also dependent on the enumerator's time, which was limited by the assignments that they had to complete (losing a girl would require both tracking and resampling) and there was little room for contingency in terms of time or resources.

Three weeks after data collection, **the team went back to the field to track 65 other participants where rescheduling became possible.** Schools and our local team remained active to help us find girls previously thought lost and we went back to the field for 3 extra days to boost the sample.

Generally, given that enumerators had to replace and track lost girls, it meant that their targets per day remained the same though more time had to be spent by the enumerator to track the girls. While team leaders, the local consultants and HPA staff would help us track girls from schools and with teachers, the responsibility of physically visiting the household of the 'lost'

girl would fall on the enumerator. This meant that the workload of the enumerator increased in the event of attrition and therefore more days for data collection should be allocated at the end of the period to visit those households. While we managed to go back to the field for 3 more days, there was not enough time for physical household visits during data collection nor more resources to continue tracking.

At Midline we operated on a target of each enumerator sampling 3+ girls per day based on these factors. During the budget review pre-midline this was raised as an area of risk but due to a lack of funds available, the target could not be altered. For a cohort tracking design and, based on the package of instruments administered, we would typically recommend working with a target of sampling 2 girls per enumerator per day to allow more time tracking participants and budget for extra data collection days.

At endline, we plan to alleviate targets per day for enumerators and offer them more time to always track participants at their household location.

Table 67 Evaluation sample breakdown (by grade)

Grade	Intervention (recontacted)	Control (recontacted)
Sample breakdown (Girls)		
P4	83	75
P5	65	70
P6	58	79
S1	24	27
S2	14	22
S3	14	26
S4	5	10
OOS	7	14
All	270	323

Table 68 Evaluation sample breakdown (by age)

	Intervention (recontacted)	Control (recontacted)
Sample breakdown (Girls)		
Aged 9-11 (% aged 9-11)	9	8
Aged 12-13 (% aged 12-13)	69	54
Aged 14-15 (% aged 14-15)	82	111
Aged 16-17 (%aged 16-17)	62	80
Aged 18-19 (%aged 18-19)	30	45
Aged 20+ (% aged 20 and over)	18	25
Girls (sample size)	270	323

9.3.5.2 Post data collection

To ensure all tools were completed successfully and correctly prior to data entry, we conducted a two-stage quality check on paper surveys.

For each enumerator, 8 full cases are selected randomly from the paper copies from each enumerator. In stage 1 these cases are checked for completeness and correctness. This involves a check that all responses were filled in correctly across all surveys, including a check on the manual addition of totals for the learning subtask scores. Enumerators were then being given the opportunity to make corrections prior to data entry.

In stage 2, the 8 cases were checked against the final endline dataset produced by the electronic data entry, with adaptations made to the dataset for data entry mistakes. If 2 copies had consistent errors in stage 1 and 2, an additional 8 paper copies will be checked from the same enumerator until no mistakes are found.

Once the data is entered, we perform extensive data quality checks as part of the verification and validation process. These included range, skip, consistency, typographical and label checks to ensure that all variables in the data can be used in standard form.

Based on a unique ID code system, data was be merged horizontally to baseline data. The merging was again checked for consistency across a number of variables and validated accordingly.

9.3.6 Ethical Protocols and Child Protection

Given the vulnerable status of target beneficiaries and possible conditions of hardship it is crucial to pay close attention to the potential to do harm by conducting research. The REAP partners and we as external evaluators have made sure that all research parties commit to the following ethical protocols. These protocols are designed to protect vulnerable persons from potential harm resulting directly or indirectly from MEL activities, build capacity, and to promote wellbeing. In doing so, One South we are guided by of the British Sociological Association for Ethical Practice in Research[168].

Special attention has been given to the fact that children belonging to vulnerable groups and their caregivers will be participating in the study. Of these children, the majority will be girls in the ages of 9-20 (boys will take part in qualitative sessions). Based on these standards and the wellbeing of participants, One South will ensure that the entire evaluation team withhold the following guiding principles for ethical research:

1. **Autonomy:** It is a moral requirement that individual participants should (1) be treated as autonomous agents and (2) that persons with diminished autonomy are entitled to protection. One South will respect the autonomy of participants by giving weight to autonomous persons' considered opinions and choices while refraining from obstructing their actions unless it is detrimental to others. One South will aim to select a location for interviews that is accessible to all participants, and that appropriate adaptations are made to data collection processes to reasonably accommodate the needs of participants with impairments.

2. **Competence:** All field personnel and project staff will abide by the principles set out in this ethical framework. Given the sensitivities arising from research of vulnerable populations, particularly of marginalized children, all enumerators will be female and fluent in the language of the survey instrument being administered. An incident response protocol will be created for review ahead of the start of fieldwork, and its implementation will be monitored during fieldwork.

[168] BSA (2017) Statement of Ethical Practice. Available at: https://www.britsoc.co.uk/media/24310/bsa_statement_of_ethical_practice.pdf

3. **Understanding, Consent and Voluntariness:** All participants are expected to provide oral or written consent before research takes place. Participation in research activities will be voluntary. Participants will be given the information that they need to make an autonomous and informed decision about taking part in the study with consideration given to age-appropriate assent processes.

4. **Beneficence and non-maleficence:** The principle of beneficence asserts the duty to help others further their important and legitimate interests. One South is aware of the possible consequences of MEL work. Wherever possible the project will attempt to anticipate, and to guard against, consequences for research participants that can be predicted harmful. This is important where research gives rise to intrusive conversations, uncalled-for self-knowledge, or unnecessary anxiety. Where possible, proxies in survey indicators will be used to provide sensitive item formulations.

5. **Justice:** The selection of subject participants for the study follow project participation status, which ensures that the sample data was meaningfully chosen for reasons directly related to the problems being studied. One South understands that the assessment carried out throughout the study will help the wider public understand issues of risks and vulnerability and how these affect the life of marginalized children and their education. One South understands justice as the ability to provide advantages to these groups outside the present study. Participants will be given information on how to access research results and we recommend that results are disseminated through REAP partner planned activities.

6. **Anonymity and Disclosure:** One South will ensure the anonymity of responses using pseudonyms in any narratives as well as a unique ID to each participant for all assessments. A separate file containing ID numbers attached to personal information will be kept separate, password protected file and in restricted access. One South will put in place HPA's own child protection mechanisms at the suspicion of abuse or harm done to research participants

9.3.6.1 Child Safeguarding Issues Noted in the Study

The conclusion states: "*In FGDs, some girls mentioned that they were tempted to engage in sexual activities through gifts and favours, and then drop-out from school. While these instances have never been explicitly reported in schools, the project has created structures for girls to report these incidences such as Health Corners and through a project-appointed teacher at each school who acts as a child-safeguarding focal point and works closely with community-level structures.*"

An ethical issue arises as we cannot confirm who has dropped out in such a manner and the study cannot immediately protect them. We have identified the school associated with the population interviewed and checked that justice may be served when open channels for reporting abuse are created. At endline, we plan to explore the issue further and whether it has been mitigated.

9.4 Annex 4: Characteristics and Barriers

9.4.1 Characteristics

A breakdown of the sample by characteristics can be seen in the table following:

Table 69 Prevalence of Sub-groups in the Midline Sample

Sub-group		Control		Treatment		Diff
		N	N %	N	N %	
Enrolment Status						
Enrolment Status at Baseline	*Out-of-School*	15	4.5%	8	3.0%	
	In-School	316	95.5%	263	97.0%	
Enrolled 2019	*No*	34	7.6%	23	6.1%	
	Yes	413	92.4%	355	93.9%	
Orphan Status						
Single Orphan	*Not*	162	35.7%	123	32.1%	
	Single Orphan	292	64.3%	260	67.9%	
Double Orphan	*Not*	450	99.1%	376	98.2%	
	Double Orphan	4	.9%	7	1.8%	
SRH Status						
Girl married or living with a man as if married	*No*	446	98.2%	378	98.7%	
	Yes	8	1.8%	5	1.3%	
Girl has been pregnant	*No*	446	98.2%	374	97.7%	
	Yes	8	1.8%	9	2.3%	
Girl is a mother	*No*	446	98.2%	375	97.9%	
	Yes	8	1.8%	8	2.1%	
School Access Status						
Girl does not speak language of instruction	*No*	410	90.3%	359	93.7%	
	Yes	44	9.7%	24	6.3%	
Takes girl more than 1 hour to get to school	*No*	399	87.9%	334	87.2%	
	Yes	55	12.1%	49	12.8%	
Takes girl more than 3 hours to get to school	*No*	452	99.6%	379	99.0%	
	Yes	2	.4%	4	1.0%	
Household Characteristics						
Female-headed household	*No*	339	74.7%	287	74.9%	
	Yes	115	25.3%	96	25.1%	
Household unable to meet basic needs without charity	*No*	315	69.4%	277	72.3%	
	Yes	139	30.6%	106	27.7%	
Household faces extreme hardship (dummy)	*No*	408	89.9%	337	88.0%	
	Yes	46	10.1%	46	12.0%	
Household faces moderate hardship (dummy)	*No*	223	49.1%	209	54.6%	
	Yes	231	50.9%	174	45.4%	
Household has no electricity	*No*	127	28.0%	136	35.5%	**p.<05**
	Yes	327	72.0%	247	64.5%	
HH reports difficult to afford schooling for girl	*No*	251	55.3%	223	58.2%	
	Yes	203	44.7%	160	41.8%	
Head of household has no formal education	*No*	274	60.4%	253	66.1%	
	Yes	180	39.6%	130	33.9%	
Head of household has no formal education or only some years of primary school but not completed	*No*	152	33.5%	138	36.0%	
	Yes	302	66.5%	245	64.0%	
Girls' Working Status						
Girl works for cash/in kind	*No*	299	65.9%	270	70.5%	
	Yes	155	34.1%	113	29.5%	
Girl does household chores	*No*	18	4.0%	14	3.7%	
	Yes	436	96.0%	369	96.3%	
Girls Disability Status						
	No	437	96.3%	371	96.9%	

Sub-group		Control		Treatment		Diff
		N	N %	N	N %	
Girl has disability according to Washington Group Questions[169]	*Yes*	17	3.7%	12	3.1%	
Visual Impairment	*No*	446	98.2%	375	97.9%	
	Yes	8	1.8%	8	2.1%	
Hearing Impairment	*No*	448	98.7%	381	99.5%	
	Yes	6	1.3%	2	.5%	
Mobility Impairment	*No*	448	98.7%	379	99.0%	
	Yes	6	1.3%	4	1.0%	
Cognitive Impairment	*No*	446	98.2%	380	99.2%	
	Yes	8	1.8%	3	.8%	
Self-Care Impairment	*No*	448	98.7%	381	99.5%	
	Yes	6	1.3%	2	.5%	
Communication Impairment	*No*	449	98.9%	380	99.2%	
	Yes	5	1.1%	3	.8%	

9.4.2 Barriers

See these and other results in the table following:

Table 70 Prevalence of Barriers in the Midline Sample (treatment and control)

Barrier		Control		Treatment	
		N	%	N	%
Economic					
HH reports difficult to afford schooling for girl	No	251	55.3%	223	58.2%
	Yes	203	44.7%	160	41.8%
Girls' Attitudinal Barriers					
Girl believes going to school not important for want they want to do in future	Important, Don't know, or refused	449	98.9%	380	99.2%
	Not important	5	1.1%	3	.8%
Girl believes it is not important for children to go to school	No	453	99.8%	383	100.0%
	Yes	1	.2%	0	0.0%
Girl believes girls do not have a right to go to school	Believes it's a right, Don't know, or refused	451	99.3%	383	100.0%
	Does not believe girls have right to school	3	.7%	0	0.0%
Girl believes boys do not have a right to go to school	Believes it's a right, Don't know, or refused	453	99.8%	381	99.5%
	Does not believe boys have right to school	1	.2%	2	.5%
Girl cannot choose whether to attend or stay in school	Girl can choose or neither agrees nor disagrees with the statement	282	62.1%	250	65.3%
	Girl cannot choose whether to attend or stay in school	172	37.9%	133	34.7%
Girl believes CWDs do not have a right to go to school	Believes it's a right, Don't know, or refused	445	98.0%	382	99.7%
	Does not believe CWDs have right to school	9	2.0%	1	.3%
Parental Support					
Girl reports that she does not get support she needs from family to stay in and perform well in school	Girl agrees or neither agrees nor disagrees with the statement	390	85.9%	346	90.3%
	Girl does not get support she needs from family to stay in and perform well in school	64	14.1%	37	9.7%

[169] Coded as a disability those that expressed a lot of difficulty performing a given task or cannot do at all.

Barrier		Control		Treatment	
		N	%	N	%
Girl reports that an adult at home does not frequently ask about homework	Girl agrees or neither agrees nor disagrees with the statement	309	68.1%	304	79.4%
	Adult does not frequently ask about homework	145	31.9%	79	20.6%
Girl reports that an adult at home does not help homework	Girl agrees or neither agrees nor disagrees with the statement	251	55.3%	265	69.2%
	Adult does not help with homework	203	44.7%	118	30.8%
Girl has high chore burden (half day or more)	No	401	88.3%	331	86.4%
	Yes	53	11.7%	52	13.6%
Girl reports chores make it difficult to complete school/other work	No	375	82.6%	327	85.4%
	Yes	79	17.4%	56	14.6%
Access to School Facilities and Materials					
Girl does not have access to needed books and learning materials at school	No	432	95.2%	370	96.6%
	Yes (no access)	22	4.8%	13	3.4%
Girl does not have access computers at school that she can use	No	378	83.3%	343	89.6%
	Yes (no computers)	76	16.7%	40	10.4%
Not enough seats for every student in girl's class	No	426	93.8%	362	94.5%
	Yes (not enough)	28	6.2%	21	5.5%
Girl cannot move around school easily	No	426	93.8%	362	94.5%
	Yes (cannot)	28	6.2%	21	5.5%
Girl does not use drinking facilities at school	No	409	90.1%	357	93.2%
	Yes (does not)	45	9.9%	26	6.8%
Girl does not use toilet facilities at school	No	453	99.8%	383	100.0%
	Yes (does not)	1	.2%	0	0.0%
Girl does not use play areas at school	No	435	95.8%	372	97.1%
	Yes (does not)	19	4.2%	11	2.9%
Girl does not free meal at school	Does not Receive a meal	407	89.6%	296	77.3%
	Yes (girl receives)	47	10.4%	87	22.7%
School Safety					
Girl does not feel safe traveling to and from school	No	437	96.3%	377	98.4%
	Yes (does not)	17	3.7%	6	1.6%
Girl does not feel safe at school	No	448	98.7%	378	98.7%
	Yes (does not)	6	1.3%	5	1.3%
Head of household believes that it is unsafe for girls to travel to schools in this area	No	452	99.6%	381	99.5%
	Yes	2	.4%	2	.5%
Head of household believes that it is unsafe for boys to travel to schools in this area	No	452	99.6%	381	99.5%
	Yes	2	.4%	2	.5%
Teaching Quality					
Teacher often absent from class	No	427	94.1%	353	92.2%
	Yes	27	5.9%	30	7.8%
Girls' witnessed corporal punishment in the last week	No	266	58.6%	254	66.3%
	Yes	188	41.4%	129	33.7%
Girls' was physically punished by teacher in the last week	No	356	78.4%	317	82.8%
	Yes	98	21.6%	66	17.2%
Girls' teacher uses physical punishments such as hitting or caning	No	188	41.4%	148	38.6%
	Yes	266	58.6%	235	61.4%
Girls' teacher disciplines by shouting	No	368	81.1%	322	84.1%
	Yes	86	18.9%	61	15.9%
Girls' teacher disciplines by shaming (kneeling or calling names)	No	415	91.4%	364	95.0%
	Yes	39	8.6%	19	5.0%
Girls' teacher disciplines with detention	No	435	95.8%	374	97.7%
	Yes	19	4.2%	9	2.3%
	No	391	86.1%	315	82.2%

Barrier		Control		Treatment	
		N	%	N	%
Teacher treats boys and girls differently in the classroom	Yes	63	13.9%	68	17.8%
School Management					
HH reports school not well managed	No	434	95.6%	373	97.4%
	Yes	20	4.4%	10	2.6%
HH rates performance of the HT as poor	No	435	95.8%	369	96.3%
	Yes	19	4.2%	14	3.7%
Parent says not usual to send girls in village to school	No	454	100.0%	380	99.2%
	Yes	0	0.0%	3	.8%
Parents have not been informed about girls' progress at school in last 12 months	No	338	74.4%	260	67.9%
	Yes	116	25.6%	123	32.1%
Parents rates teaching quality at school as poor	No	446	98.2%	379	99.0%
	Yes	8	1.8%	4	1.0%

9.4.3 Intersection between barriers and characteristics

The table following shows the incidence of barriers among the three main sub-groups being targeted by the project:

Table 71 Intersection of Barriers and Characteristics for Selected Groups

Barrier	Type	Enrolment Status				Household Faces Moderate or Extreme Hardship				Girl has been pregnant			
		Out-of-school		In-School		None to Low Hardship		Moderate to Extreme Hardship		No		Yes	
		N	%	N	%	N	%	N	%	N	%	N	%
HH reports difficult to afford schooling for girl	No	20	87.0	198	55.8	105	67.3	114	51.8	218	58.3	5	55.6
	Yes	3	13.0	157	44.2	51	32.7	106	48.2	156	41.7	4	44.4
Girl has high chore burden (half day or more)	No	12	52.2	315	88.7	141	90.4	184	83.6	327	87.4	4	44.4
	Yes	11	47.8	40	11.3	15	9.6	36	16.4	47	12.6	5	55.6
Girl believes going to school not important for want they want to do in future	Important, Don't know, or refused	22	95.7	353	99.4	154	98.7	219	99.5	371	99.2	9	100.0
	Not important	1	4.3	2	.6	2	1.3	1	.5	3	.8	0	0.0
Girl believes it is not important for children to go to school	No	23	100.0	355	100.0	156	100.0	220	100.0	374	100.0	9	100.0
	Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Girl believes girls do not have a right to go to school	Believes it's a right, Don't know, or refused	23	100.0	355	100.0	156	100.0	220	100.0	374	100.0	9	100.0
	Does not believe girls have right to school	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Girl believes boys do not	Believes it's a right, Don't	23	100.0	353	99.4	155	99.4	219	99.5	372	99.5	9	100.0

Barrier	Type	Enrolment Status				Household Faces Moderate or Extreme Hardship				Girl has been pregnant			
		Out-of-school		In-School		None to Low Hardship		Moderate to Extreme Hardship		No		Yes	
		N	%	N	%	N	%	N	%	N	%	N	%
have a right to go to school	know, or refused												
	Does not believe boys have right to school	0	0.0	2	.6	1	.6	1	.5	2	.5	0	0.0
Girl cannot choose whether to attend or stay in school	Girl can choose or neither agrees nor disagrees with the statement	11	47.8	235	66.2	102	65.4	143	65.0	246	65.8	4	44.4
	Girl cannot choose whether to attend or stay in school	12	52.2	120	33.8	54	34.6	77	35.0	128	34.2	5	55.6
Girl reports that she does not get support she needs from family to stay in and perform well in school	Girl agrees or neither agrees nor disagrees with the statement	14	60.9	328	92.4	142	91.0	197	89.5	341	91.2	5	55.6
	Girl does not get support she needs from family to stay in and perform well in school	9	39.1	27	7.6	14	9.0	23	10.5	33	8.8	4	44.4
Girl reports that an adult at home does not frequently ask about homework	Girl agrees or neither agrees nor disagrees with the statement	14	60.9	287	80.8	130	83.3	169	76.8	301	80.5	3	33.3
	Adult does not frequently ask about homework	9	39.1	68	19.2	26	16.7	51	23.2	73	19.5	6	66.7
Girl reports that an adult at home does not help homework	Girl agrees or neither agrees nor disagrees with the statement	10	43.5	253	71.3	122	78.2	138	62.7	262	70.1	3	33.3
	Adult does not help with homework	13	56.5	102	28.7	34	21.8	82	37.3	112	29.9	6	66.7
Girl reports chores make it difficult to complete school/other work	No	20	87.0	303	85.4	135	86.5	187	85.0	319	85.3	8	88.9
	Yes	3	13.0	52	14.6	21	13.5	33	15.0	55	14.7	1	11.1
Girl does not have access to needed books and learning	No	22	95.7	343	96.6	153	98.1	210	95.5	361	96.5	9	100.0
	Yes (no access)	1	4.3	12	3.4	3	1.9	10	4.5	13	3.5	0	0.0

Barrier	Type	Enrolment Status				Household Faces Moderate or Extreme Hardship				Girl has been pregnant			
		Out-of-school		In-School		None to Low Hardship		Moderate to Extreme Hardship		No		Yes	
		N	%	N	%	N	%	N	%	N	%	N	%
materials at school													
Girl has access to computers at school	No	38	10.8	2	22.2	17	11.0	23	11.2	40	11.3	0	0.0
	Yes	312	88.9	3	33.3	137	88.4	178	86.8	311	88.1	4	57.1
	Don't know	1	.3	4	44.4	1	.6	4	2.0	2	.6	3	42.9
Not enough seats for every student in girl's class	No	22	95.7	336	94.6	146	93.6	209	95.0	353	94.4	9	100.0
	Yes (not enough)	1	4.3	19	5.4	10	6.4	11	5.0	21	5.6	0	0.0
Girl cannot move around school easily	No	22	95.7	336	94.6	146	93.6	209	95.0	353	94.4	9	100.0
	Yes (cannot)	1	4.3	19	5.4	10	6.4	11	5.0	21	5.6	0	0.0
Girl does not use drinking facilities at school	No	22	95.7	331	93.2	150	96.2	200	90.9	349	93.3	8	88.9
	Yes (does not)	1	4.3	24	6.8	6	3.8	20	9.1	25	6.7	1	11.1
Girl does not use toilet facilities at school	No			355	100.0	156	100.0	220	100.0	374	100.0	9	100.0
	Yes (does not)			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Girl does not use play areas at school	No			344	96.9	152	97.4	213	96.8	363	97.1	9	100.0
	Yes (does not)			11	3.1	4	2.6	7	3.2	11	2.9	0	0.0
Girl does not feel safe traveling to and from school	No			350	98.6	154	98.7	216	98.2	368	98.4	9	100.0
	Yes (does not)			5	1.4	2	1.3	4	1.8	6	1.6	0	0.0
Girl does not feel safe at school	No			350	98.6	152	97.4	219	99.5	369	98.7	9	100.0
	Yes (does not)			5	1.4	4	2.6	1	.5	5	1.3	0	0.0
Head of household believes that it is unsafe for girls to travel to schools in this area	No			353	99.4	156	100.0	218	99.1	372	99.5	9	100.0
	Yes			2	.6	0	0.0	2	.9	2	.5	0	0.0
Head of household believes that it is unsafe for boys to travel to schools in this area	No			353	99.4	156	100.0	218	99.1	372	99.5	9	100.0
	Yes			2	.6	0	0.0	2	.9	2	.5	0	0.0
Teacher often absent from class	No			325	91.5	143	91.7	204	92.7	345	92.2	8	88.9
	Yes			30	8.5	13	8.3	16	7.3	29	7.8	1	11.1
Girls' witnessed corporal punishment in the last week	No	20	87.0	232	65.4	111	71.2	139	63.2	246	65.8	8	88.9
	Yes	3	13.0	123	34.6	45	28.8	81	36.8	128	34.2	1	11.1
Girls' was physically punished by teacher in the last week	No			290	81.7	139	89.1	173	78.6	308	82.4	9	100.0
	Yes			65	18.3	17	10.9	47	21.4	66	17.6	0	0.0
Girls' teacher uses physical punishments such as hitting or caning	No	18	78.3	126	35.5	59	37.8	85	38.6	141	37.7	7	77.8
	Yes	5	21.7	229	64.5	97	62.2	135	61.4	233	62.3	2	22.2

Barrier	Type	Enrolment Status				Household Faces Moderate or Extreme Hardship				Girl has been pregnant			
		Out-of-school		In-School		None to Low Hardship		Moderate to Extreme Hardship		No		Yes	
		N	%	N	%	N	%	N	%	N	%	N	%
Girls' teacher disciplines by shouting	No			294	82.8	130	83.3	185	84.1	315	84.2	7	77.8
	Yes			61	17.2	26	16.7	35	15.9	59	15.8	2	22.2
Girls' teacher disciplines by shaming (kneeling or calling names)	No			337	94.9	150	96.2	208	94.5	355	94.9	9	100.0
	Yes			18	5.1	6	3.8	12	5.5	19	5.1	0	0.0
Girls' teacher disciplines with detention	No			347	97.7	153	98.1	214	97.3	365	97.6	9	100.0
	Yes			8	2.3	3	1.9	6	2.7	9	2.4	0	0.0
Teacher treats boys and girls differently in the classroom	No			288	81.1	126	80.8	183	83.2	307	82.1	8	88.9
	Yes			67	18.9	30	19.2	37	16.8	67	17.9	1	11.1
HH reports school not well managed	No			345	97.2	153	98.1	213	96.8	364	97.3	9	100.0
	Yes			10	2.8	3	1.9	7	3.2	10	2.7	0	0.0
HH rates performance of the HT as poor	No			341	96.1	151	96.8	211	95.9	360	96.3	9	100.0
	Yes			14	3.9	5	3.2	9	4.1	14	3.7	0	0.0
Parent says not usual to send girls in village to school	No			352	99.2	155	99.4	218	99.1	371	99.2	9	100.0
	Yes			3	.8	1	.6	2	.9	3	.8	0	0.0
Parents have not been informed about girls' progress at school in last 12 months	No			232	65.4	114	73.1	142	64.5	252	67.4	8	88.9
	Yes			123	34.6	42	26.9	78	35.5	122	32.6	1	11.1
Parents rates teaching quality at school as poor	No			351	98.9	155	99.4	217	98.6	370	98.9	9	100.0
	Yes			4	1.1	1	.6	3	1.4	4	1.1	0	0.0
Girl believes CWDs do not have a right to go to school	Believes it's a right, Don't know, or refused			354	99.7	156	100.0	219	99.5	373	99.7	9	100.0
	Does not believe CWDs have right to school			1	.3	0	0.0	1	.5	1	.3	0	0.0
Girl receives free meal at school	No	19	82.6	272	76.6	118	75.6	172	78.2	289	77.3	7	77.8
	Yes (girl receives)	4	17.4	83	23.4	38	24.4	48	21.8	85	22.7	2	22.2

9.5 Annex 7: Project design and intervention

A summary of how various intervention components will lead to the achievement of intermediate outcomes and final outcomes is shown in Table 3.

Table 72. Project Design and Intervention

Intervention types	What is the intervention?	What Intermediate Outcome will the intervention will contribute to and how?	How will the intervention contribute to achieving the learning, transition and sustainability outcomes?
Teacher Training	Teacher training in child-centred, gender responsive pedagogy, and improved instructional practices	Teachers adopting improved instructional practices, child-centred pedagogy and gender responsive practices will lead to improved teaching quality.	Improved teaching quality will result in girls being better able to access the curriculum and learn in school.
Teacher Support	Establishment of Teacher English Discussion Groups	Teacher English Discussion groups will improve the existing capacity of teachers to speak English, the accepted LOI, which will result in improved teaching quality.	Improved teaching quality will result in girls being better able to access the curriculum and learn in school.
Extended Learning Opportunities	Community after school reading clubs where community tutors with support from teachers' tutor, organise reading / numeracy games and child-centred books are shared between students; After school remedial learning opportunities	CSGs and remedial lessons will offer extended learning opportunities for girls resulting in improved motivation and subsequently improved attendance.	Extended learning opportunities will result in improved learning for marginalized girls.
Teaching and Learning Materials	Training in material production	Accessible teaching and learning materials will result in improved teaching quality.	Improved teaching quality will result in girls being better able to access the curriculum and learn in school.
Celebrating Successful Transition	Organization of graduation ceremonies for girls and boys who successfully transition	By celebrating successfully in-school transitions, girls will be motivated to succeed in school.	This will contribute to improved transitions.
School Governance	School leadership training; School Improvement Plans (SIPs); Review of School budgets; PFM Frameworks in schools with mandatory budget lines for schools' costs for most vulnerable girls	Improved school governance will result in a renewed emphasis on the part of schools to address the barriers preventing girls from accessing and learning.	This will result in improved learning outcomes and access to school.
Learning Events	Sector Conferences to share SIPs; SIP reports shared with relevant stakeholders	Sharing learning will promote replication of best practices.	This will result in improved sustainability of intervention activities and achievements.

Intervention types	What is the intervention?	What Intermediate Outcome will the intervention will contribute to and how?	How will the intervention contribute to achieving the learning, transition and sustainability outcomes?
Economic Opportunities	Place girls in internships; Establish savings groups for girls	By providing girls with improved access to jobs and job placements they will be provided with improved economic opportunities.	This will result in improvements in girls transitioning to work.
Life Skills	Referral to other existing vocational and technical training service providers	Improved referral mechanisms to TVET and other training service providers will result in improved economic opportunities.	This will result in improvements in girls transitioning to work and vocational training.
Mentorship to existing businesses and IGAs	Follow up, mentorship to school businesses and MDC to become sustainable / self-managing	School business will be better able to support vulnerable girls to enrol and access school, contributing to improved school attendance.	This will result in improved in-school transitions as well as improved learning.
Sexual and reproductive health	Youth friendly sexual health service corners, community health workers trained in family planning, HIV/STI case management	Improved sexual and reproductive health contributes to girls' life skills.	This will result in improved transitions within school and reduced cases of teenage pregnancy.
Alumni Scholarships	Set up alumni network and scholarships	By providing scholarships to girls, they will be better able to access school, resulting in improved attendance.	This will result in improved attendance, learning and sustainability.

9.6 Annex 8: Key findings on Output Indicators

The following are the output indicators and results for the midline study.

Table 73: Output indicators

Logframe Output Indicator	Means of verification/sources	Collection frequency
Number and Indicator wording	List all sources used.	E.g. monthly, quarterly, annually. NB: For indicators without data collection to date, please indicate when data collection will take place.
Output 1: Improved school and community capacity to support learning		
Output 1.1: # of teachers participating in teacher trainings and refresher trainings during Y2 and Y3	Monitoring tools being used include: Head teacher self-reporting format, Teacher self-reporting format, Classroom observation checklists, Teacher English discussion group monitoring form.	Quarterly
Output 1.2: % of trained teachers displaying skills covered in teacher training in observed lessons: a) Competence based approach; b) Facilitation of inclusive lessons; c) Encourage confidence among students.	Head teacher school reporting format, Teacher self-reporting format, Classroom observation checklists, Teacher English discussion group monitoring form. Other tools include literacy and numeracy monitoring tools, remedial class; internal assessment tools; head teacher school reporting format, teacher self-reporting format, classroom observation checklists, teacher English discussion group monitoring form.	Quarterly
Output 1.3: # of girls and boys attending the after-school Community Study Groups	CSGs' daily attendance lists and other tools are being used to capture the daily attendances for girls & boys in CSGs. LCD has a replacements list in place for any mentor who may quit and has continued to increase awareness raising in community for girls to continue and attend the CSG's. Additional support in monitoring of CSGs could be provided by MDCs as well as synergy with remedial classes could facilitate monitoring activities.	Weekly
Output 1.4: % of girls reporting satisfaction related to criteria to be determined such as relevance, quality, inclusivity, and safety of the CSGs	Monitoring tools being used include girls attendance tracking tool, an assessment tool on quality, inclusivity and safety; an assessment tool on girls reading capacity.	These data will be collected from the start of Year 3
Output 1.5: # of reading materials to pupil ratio for a) English b) Kinyarwanda c) math (includes both female and male students in the ratio with no disaggregation)	Textbook lists, student register, external evaluator's Baseline, Midline and endline survey	Every six months
Output 2: Improved school management and school budget use in support of girls' education		
Output 2.1: # of PTA members who are trained on School Improvement Plans and school budget use in support of girls' education (disaggregated by female and male PTA members)	Tools used include training attendance logs	Quarterly

Logframe Output Indicator	Means of verification/sources	Collection frequency
Output 2.2: # of schools with written SIP in place	Tools available and in use include Action plan template being used by the SGAC team to monitor and track of activities planned,	Quarterly
Output 2.3: % of schools that achieved more than a half of their SIP target	Monitoring and follow up tools are in place to track the SIP progress.	Quarterly
Output 2.4: # of SIP audits and budget reviews conducted with supervision by the SEOs	School Feedback Reports are provided to each school after the quality assessment by SEOs, and a copy is provided to Link. Budget reviews are carried out by the SIP Committee (comprising PTA and school staff) and form part of the School Improvement Planning process. This will be tracked by attendance at the training / meetings and the SIPs produced by schools.	Annually
Output 3: Girls who are behind in school or have dropped out supported to develop basic literacy and numeracy and transition back into school, skills training, or livelihoods activities		
Output 3.1: # of schools with SIP that have mandatory budget line of school cost for most vulnerable students	Monitoring tools include School Performance Review Checklists, SIP implementation template, classroom observation record and interview schedules	Quarterly
Output 3.2: 1) # of girls and boys attending remedial learning and 2) % of these girls and boys who enrolled in remedial learning lessons who regularly attend	Attendance tracking sheet, remedial classes internal assessment tool, class monthly test report, monitoring tool for social inclusion in sessions.	Quarterly
Output 3.3: # of target girls placed in an internship during the project	Monitoring tools include girl's internship tracking sheet; girl's internship database; attendance lists and feedback reports from the girls enrolled in placement opportunities.	Quarterly
Output 3.4: # of target girls and boys who are part of the saving groups established by the project	Attendance lists for saving groups, saving tracking tool, saving monthly updates etc. Furthermore, the project reviews the progress of savings on a daily basis tracking the attendances, savings, and recommending further actions.	Monthly
Output 4: Improved enabling environment (reduced teenage pregnancy and costs covered at HH and school level for girls' education)		
Output 4.1: # of girls and boys receiving support covered by 1) School Businesses profit 2) MDC profit at least once during the past 12 months **(Boys who benefit can be tracked as secondary beneficiaries)**	Weekly attendance tracking members of the SB and MDCs, monthly progress tool etc., for SBs' lists of supported beneficiaries, SBs' tracking tools.	Monthly
Output 4.2: # of visitors to youth friendly sexual and reproductive health corners, disaggregated by gender	Health corner custodians record the daily attendances of girls using register books, assessment tool for girls attending sessions on change of behaviours and attitudes to SRH.	Monthly
Output 4.3: % of target girls with improved attitude towards sexual reproductive health	Data have been collected through Qualitative interviews with girls and an assessment checklist tool for changed and improved attitudes towards SRH.	Semi annually
Output 5: Commitment for replication of best practices		
Output 5.1: # of government staff involved in School	Attendance lists and meeting minutes help to capture staff involved in SIP planning.	Annually

Logframe Output Indicator	Means of verification/sources	Collection frequency
Improvement Planning / review apart from teachers		
Output 5.2: # of meetings organised with District Staff to advocate project best practices for replication	Meeting minutes and reports.	Every six months
Output 5.3: 1) # of newsletter editions produced and disseminated **2) # of Facebook followers** **3) # of re-tweets directly related to the project**	Newsletter copy, Facebook and Twitter pages data	Semi-annually / daily

The following reports on the midline values/midline status of each Output Indicator in the table below. It reflects on the relevancy of the Output Indicator for REAP's Intermediate Outcomes and Outcomes and the wider Theory of Change based on the data collected so far.

Table 74: Midline status of output indicators

Logframe Output Indicator	Midline status/midline values Relevance of the indicator for the project ToC	Midline status/midline values
Number and Indicator wording	What is the contribution of this indicator for the project ToC, IOs, and Outcomes? What does the midline value/status mean for your activities? Is the indicator measuring the right things? Should a revision be considered? Provide short narrative.	What is the midline value/status of this indicator? Provide short narrative.
Output 1: Improved school and community capacity to support learning		
Output 1.1: # of teachers participating in teacher trainings and refresher trainings during Y2 and Y3	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status means that all teachers have been trained and participated in a refresher training and therefore the project is in line with its midline targets.	All 252 teachers (114 females and 138 males) have been trained in child -centred and gender pedagogy, literacy and numeracy instruction and English discussion groups. Over 358 teachers have been monitored and reached through class room observations and have received technical support.
Output 1.2: % of trained teachers displaying skills covered in teacher training in observed lessons: a) Competence based approach; b) Facilitation of inclusive lessons; c) Encourage confidence among students.	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status is over than set target (65%).	89% of teachers have demonstrated improved skills in the competence-based approach, facilitations of inclusive lessons and encouraging confidence students.
Output 1.3: # of girls and boys attending the after-school Community Study Groups	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status is over than set target (1,800).	1,904 are the number of students (1,865 girls and 39 boys) in CSGs. Its 105% against the target. More attendance figures are expected as the sensitizations are being made.
Output 1.4: % of girls reporting satisfaction related to criteria to be determined such as relevance, quality,	The indicator contributes to improved attendance and improved quality of teaching and consequently to the	Data for this indicator will be collected from the start of Year 3

Logframe Output Indicator	Midline status/midline values Relevance of the indicator for the project ToC	Midline status/midline values
inclusivity, and safety of the CSGs	outcomes of improved learning and transition.	
Output 1.5: # of reading materials to pupil ratio for a) English b) Kinyarwanda c) math (includes both female and male students in the ratio with no disaggregation)	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status means that the project has already reached the target for the endline as all the books have been distributed in one go, in order to save funds on distribution costs. That was done after approval from the FM.	3,152 books were distributed. The books were distributed in order that each classroom of around 60 students would receive 8 books in addition to the existing ones. The ratio book and students was reduced from 1: 7 to 1: 4.
Output 2: Improved school management and school budget use in support of girls' education		
Output 2.1: # of PTA members who are trained on School Improvement Plans and school budget use in support of girls' education (disaggregated by female and male PTA members)	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status is over the set target (130).	270 PTA members (102 females and 168 males), 90 from Y1 and 180 from Y2, have been trained on school improvement planning and budget use in support of girl's education (disaggregated by female and male PTA members).
Output 2.2: # of schools with written SIP in place	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status means that the project has already reached the target for the endline as all the 28 project schools have SIP in place.	All 28 schools so far have the written SIP in place.
Output 2.3: % of schools that achieved more than a half of their SIP target	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status means that the project has already reached the target for the endline as all the 28 schools have achieved more than half of their SIP target, while the target was 50%.	All 28 schools have achieved more than a half of their SIP target. The SIP target has been achieved at estimated level of 98%.
Output 2.4: # of SIP audits and budget reviews conducted with supervision by the SEOs	The indicator contributes to improved attendance and improved quality of teaching and consequently to the outcomes of improved learning and transition. Midline status means that the project has already reached the endline target as all the project schools have conducted SIP audit, while midline target was 18.	SIP audit was conducted in all 28 schools of project interventions.
Output 3: Girls who are behind in school or have dropped out supported to develop basic literacy and numeracy and transition back into school, skills training, or livelihoods activities		
Output 3.1: # of schools with SIP that have mandatory budget line of school cost for most vulnerable students	The indicator contributes to improved quality of teaching and improved job/livelihoods related skills and consequently to outcomes of improved learning and improved transition. Midline status is over the set target (14).	23 schools have included a specific budget line to support most vulnerable girls. From observation, many schools are supporting vulnerable learners, but this is not included in their SIPs.
Output 3.2: 1) # of girls and boys attending remedial	The indicator contributes to improved quality of teaching and improved	1,274 students are currently attending remedial learning

Logframe Output Indicator	Midline status/midline values Relevance of the indicator for the project ToC	Midline status/midline values
learning and 2) % of these girls and boys who enrolled in remedial learning lessons who regularly attend	job/livelihoods related skills and consequently to outcomes of improved learning and improved transition. Midline status is much over the set target (380; 20%)	sessions. This include 626 girls and 648 boys respectively. 78% of girls and 72% of boys attend regularly.
Output 3.3: # of target girls and boys placed in an internship during the project	The indicator contributes to improved quality of teaching and improved job/livelihoods related skills and consequently to outcomes of improved learning and improved transition. Midline status is in line with midline target (150).	A total of 154 girls were placed in internship during Year 2. An additional 152 girls have already been selected. They will participate in the Work Readiness training at the beginning of Year 3 and they will complete their internships in January 2020.
Output 3.4: # of target girls and boys who are part of the saving groups established by the project	The indicator contributes to improved quality of teaching and improved job/livelihoods related skills and consequently to outcomes of improved learning and improved transition. Midline status is in line with the set target (2,127).	A total of 2,215 participants (1,505 girls and 710 boys) are currently current part of the saving groups established by the project.
Output 4: Improved enabling environment (reduced teenage pregnancy and costs covered at HH and school level for girls' education)		
Output 4.1: # of girls and boys receiving support covered by 1) School Businesses profit 2) MDC profit at least once during the past 12 months **(Boys who benefit can be tracked as secondary beneficiaries)**	The indicator contributes to sustainable funding and to the outcomes of improved transition and sustainability. Midline status is over the set target (300; 100).	490 girls and 269 boys have been supported for the last 2 years of the project by SBs and 813 girls have been supported by the MDC's. The achieved figure exceeded the target indicated in the logical framework.
Output 4.2: # of visitors to youth friendly sexual and reproductive health corners, disaggregated by gender	The indicator contributes to sustainable funding and to the outcomes of improved transition and sustainability. Midline status is over the set target (100).	398 girls and 76 boys have attended the health corners for the last 2 years.
Output 4.3: % of target girls with improved attitude towards sexual reproductive health	The indicator contributes to sustainable funding and to the outcomes of improved transition and sustainability. Midline status is slightly below the set target (70%). However, the project is confident that it will reach the set target thanks to the additional raising awareness implemented in schools.	Findings from the latest assessment conducted in early January 2019 revealed that 67.4% of the girls have improved their attitudes towards SRH. The assessment was conducted in schools around surrounding the SRH Corners for Nyagisozi and Ngera sectors. Percentage is slightly below the target (70%).
Output 5: Commitment for replication of best practices		
Output 5.1: # of government staff involved in School Improvement Planning / review apart from teachers	The indicator contributes to sustainable funding and to the outcomes of improved transition and sustainability. The midline status is much the set target for midline (4).	37 government staff including 7 SEOs, 28 head teachers and 12 DDE, involved in SIP/review apart from teachers.
Output 5.2: # of meetings organised with District Staff to advocate project best practices for replication	The indicator contributes to sustainable funding and to the outcomes of improved transition and sustainability. The midline status is in line with the set target	3 meetings have been organized to advocate for the project best practices for replications.

Logframe Output Indicator	Midline status/midline values Relevance of the indicator for the project ToC	Midline status/midline values
Output 5.3: 1) # of newsletter editions produced and disseminated **2) # of Facebook followers** **3) # of re-tweets directly related to the project**	The indicator contributes to sustainable funding and to the outcomes of improved transition and sustainability.	The newsletter has been finalized and distributed. 2) 4,645 followers on Facebook 3) 2 tweets which got 2 likes, 1,542 impressions, and 11 engagements

The following are all the issues found and the means of verification/sources:

Table 75: Output indicator issues

Logframe Output Indicator	Issues with the means of verification/sources and the collection frequency, or the indicator in general?	Changes/additions
Number and Indicator wording	E.g. inappropriate wording, irrelevant sources, or wrong assumptions etc. Was data collection too frequent or too far between? Or no issues?	E.g. change wording, add or remove sources, increase/decrease frequency of data collection; or leave as is.
Output 1: Improved school and community capacity to support learning		
Output 1.1: # of teachers participating in teacher trainings and refresher trainings during Y2 and Y3	No issues identified	N/A
Output 1.2: % of trained teachers displaying skills covered in teacher training in observed lessons: a) Competence based approach; b) Facilitation of inclusive lessons; c) Encourage confidence among students.	No issues identified	N/A
Output 1.3: # of girls and boys attending the after-school Community Study Groups	No issues identified	N/A
Output 1.4: % of girls reporting satisfaction related to criteria to be determined such as relevance, quality, inclusivity, and safety of the CSGs	No issues identified	N/A
Output 1.5: # of reading materials to pupil ratio for a) English b) Kinyarwanda c) math (includes both female and male students in the ratio with no disaggregation)	No issues identified	N/A
Output 2: Improved school management and school budget use in support of girls' education		
Output 2.1: # of PTA members who are trained on School Improvement Plans and school budget use in support of girls' education (disaggregated by female and male PTA members)	No issues identified	N/A
Output 2.2: # of schools with written SIP in place	No issues identified	N/A
Output 2.3: % of schools that achieved more than a half of their SIP target	No issues identified	N/A
Output 2.4: # of SIP audits and budget reviews conducted with supervision by the SEOs	No issues identified	N/A

Logframe Output Indicator	Issues with the means of verification/sources and the collection frequency, or the indicator in general?	Changes/additions
Output 3: Girls who are behind in school or have dropped out supported to develop basic literacy and numeracy and transition back into school, skills training, or livelihoods activities		
Output 3.1: # of schools with SIP that have mandatory budget line of school cost for most vulnerable students	No issues identified	N/A
Output 3.2: 1) # of girls and boys attending remedial learning and 2) % of these girls and boys who enrolled in remedial learning lessons who regularly attend	No issues identified	N/A
Output 3.3: # of target girls and boys placed in an internship during the project	No issues identified	N/A
Output 3.4: # of target girls and boys who are part of the saving groups established by the project	No issues identified	N/A
Output 4: Improved enabling environment (reduced teenage pregnancy and costs covered at HH and school level for girls' education)		
Output 4.1: # of girls and boys receiving support covered by 1) School Businesses profit 2) MDC profit at least once during the past 12 months **(Boys who benefit can be tracked as secondary beneficiaries)**	No issues identified	N/A
Output 4.2: # of visitors to youth friendly sexual and reproductive health corners, disaggregated by gender	No issues identified	N/A
Output 4.3: % of target girls with improved attitude towards sexual reproductive health	No issues identified	N/A
Output 5: Commitment for replication of best practices		
Output 5.1: # of government staff involved in School Improvement Planning / review apart from teachers	No issues identified	N/A
Output 5.2: # of meetings organised with District Staff to advocate project best practices for replication	No issues identified	N/A
Output 5.3: 1) # of newsletter editions produced and disseminated **2) # of Facebook followers** **3) # of re-tweets directly related to the project**	No issues identified	N/A

9.7 Annex 9: Beneficiary Tables

The tables below contain information about direct beneficiaries of the project.

Table 76: Direct beneficiaries

Beneficiary type	Total project number	Total number of girls targeted for learning outcomes that the project has reached by Endline	Comments
Direct learning beneficiaries (girls) – girls in the intervention group who are specifically expected to achieve learning outcomes in line with targets. If relevant, please disaggregate girls with disabilities in this overall number.	7,975 **girls** in upper primary and secondary school.	**7,589 girls** in Upper Primary and Lower Secondary, who will receive the full learning intervention package by endline. **230 girls** experience a form of physical or intellectual disability. **7,589 girls** attending school and 293 **girls** are presently out of school.	Estimates are based on latest project data.

Table 77: Other beneficiaries

Beneficiary type	Number	Comments
Learning beneficiaries (boys) – as above, but specifically counting boys who will get the same exposure and therefore be expected to also achieve learning gains, if applicable.	7,138	Boys in target schools
Broader student beneficiaries (boys) – boys who will benefit from the interventions in a less direct way, and therefore may benefit from aspects such as attitudinal change, etc. but not necessarily achieve improvements in learning outcomes.	14,242	Boys in target schools
Broader student beneficiaries (girls) – girls who will benefit from the interventions in a less direct way, and therefore may benefit from aspects such as attitudinal change, etc. but not necessarily achieve improvements in learning outcomes.	14,594	Girls in target schools
Teacher beneficiaries – number of teachers who benefit from training or related interventions. If possible /applicable, please disaggregate by gender and type of training, with the comments box used to describe the type of training provided.	252	Teachers trained by the project (103 females and 149 males)
Broader community beneficiaries (adults)– adults who benefit from broader interventions, such as community messaging /dialogues, community advocacy, economic empowerment interventions, etc.	TBC	This is still being established by the project

The tables below provide further define the project's target groups. They each refer to the same total number of girls but use different definitions and categories. These are girls who can be counted and have regular involvement with project activities. Percentage proportions were obtained from the project's MEL plan.

Table 78: Target groups - by school

School Age	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Midline
Lower primary	×	0	0
Upper primary	✓	5,705	303
Lower secondary	✓	1,884	100
Upper secondary	✓	386	17
Out-of-school	✓	293	17
Total:		**8,268 Girls**	**437 Girls**

Table 79: Target groups - by age

Age Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Midline
Aged 9-11 (% aged 9-11)	✓	2,068	56
Aged 12-13 (% aged 12-13)	✓	2,742	124
Aged 14-15 (% aged 14-15)	✓	1,900	119
Aged 16-17 (%aged 16-17)	✓	713	80
Aged 18-19 (%aged 18-19)	✓	530	36
Aged 20+ (% aged 20 and over)	✓	220	28
Total:		**8,173 Girls**	**443 Girls**

Table 80: Target groups - by sub group

Social Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Midline
Home Characteristics			
3+ Children Per Adult		**615**	39
Moderate Hardship	✓	**3396**	216
Extreme Hardship	✓	**1069**	68
High Chore Burden		**2280**	**145**
Difficulty to Afford School	✓	**5482**	**329**
Child lives without either Biological Parent		**692**	**44**
Single Orphan		**975**	**62**
Double Orphan		**142**	**9**
SRH Groups			
Girls who have been pregnant	✓	**47**	**3**
Girl is Married or Living with a Man as if Married		**0**	**0**
Girls is a Mother		**31**	**2**
Educational Characteristics of HH			

Social Groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Midline
Girl has Parents with Negative Parental Values towards Girls' Education	✓	**204**	**13**
Girls does not speak the language of instruction used at school		**1698**	**108**
HoH with No Formal Schooling		**2484**	**158**
Disability Status			
Experiences some form of impairment		**230**	**14**
Visually Impaired		**67**	**10**
Hearing Impaired		**18**	**2**
Mobility Impairment		**30**	**4**
Cognitive Impairment		**82**	**6**
Self-care Impairment		**12**	**3**
Communication Impairment		**20**	**3**

Table 81: Target groups - by school status

Educational sub-groups	Project definition of target group (Tick where appropriate)	Number targeted through project interventions	Sample size of target group at Midline
Out-of-school girls: have never attended school	✖	**0**	**0**
Out-of-school girls: have attended school, but dropped out	✓	**293**	**17**
Girls in-school	✓	**7,975**	**420**
Total:		**8,268 Girls**	**437 Girls**

9.8 Annex 10: MEL Framework

Provide latest, FM-approved version of the MEL Framework as a separate document.

9.9 Annex 11: External Evaluator's Inception Report (where applicable)

Provide latest version of the External Evaluator's Inception Report as a separate document.

9.10 Annex 12: Data collection tools used for Midline

Provide all data collection tools as separate documents.

Provide 1-2 English language transcripts of qualitative sessions.

9.11 Annex 14: Learning test pilot and calibration

To select learning tests that can provide a reliable comparison of marginalized girls' performance in English literacy, Kinyarwanda literacy, and numeracy over time, One South undertook a piloting and calibration exercise prior to the baseline study. The aim of the pilot was to create and select the three (3) versions of the Early Grade English, Kinyarwanda, and Mathematics tests to be used across all evaluation periods and three (3) versions of the Secondary Grade English, Kinyarwanda and Mathematics assessments. The pilot also aimed to test the difficulty of each of the tested versions of the EGRA and SeGRA Kinyarwanda and English assessments, and the EGMA and SeGMA mathematics assessments and ensure these assessments were of comparable difficulty to tests used at Midline and Endline.

Marginalized girls in five primary and secondary schools will be administered four types of each assessment. All new versions of the test have been developed following the GEC-T MEL guidance and FM support, considering the new subtasks introduced across all GEC projects.

Methodology

1. At each school a total of 171 girls across different grade levels were randomly selected to sit 4 versions of each educational assessment (from P4 to S6). The schools selected will not form part of the baseline study or any of the following phases of the evaluation.
2. To prevent test fatigue, a single girl only did 4 assessments. This means that a girl did either EGRA or EGMA for example. This was to prevent test fatigue.
3. All types of the same assessments were administered with no order in particular and enumerators shuffled the order of types of assessments to prevent order effects.
4. Girls from P4 to P6 were administered the EGRA English, EGRA Kinyarwanda and EGMA (which include Task 1 from the SEGRA and SEGMA assessments).
5. Girls from S1 to S6 are administered the SEGRA English, SEGRA Kinyarwanda and SEGMA (all subtasks).
6. For the pilot study, each enumerator was given the following materials:
    a. 1 Clipboard
    b. 1 Stopwatch
    c. 3-5 pencils (1 pencil was given to the girl to do the written exercises).
    d. 1 Eraser

e. 1 pencil sharpener

f. 3 Boxes of matches (that girls may use to do counting for EGMA)

7. Instructions for each subtask of the tests were located within the tool itself closely followed.

8. An assessment has three parts: An assessor's sheet (containing answers and scores), a stimuli sheet, and an answer sheet, which is presented to the student for written subtasks. Only the stimuli and answer sheet were given to the student.

9. The following sampling table was used to accommodate for the desired grade distributions.

Table 82 Intended Sampling for Pilot Assessment

Grade	Assessment	Number of Girls Per School		
		Mwoya	St Paul Kibeho	St Laurent Cyahinda
P4	EGMA	9	9	9
	EGRA Engl.	9	9	9
	EGRA Kiny.	9	9	9
P5	EGMA	9	9	9
	EGRA Engl.	9	9	9
	EGRA Kiny.	9	9	9
P6	EGMA	9	9	9
	EGRA Engl.	9	9	9
	EGRA Kiny.	9	9	9
S1	SEGMA	5	5	5
	SEGRA Engl.	5	5	5
	SEGRA Kiny.	5	5	5
S2	SEGMA	5	5	5
	SEGRA Engl.	5	5	5
	SEGRA Kiny.	5	5	5
S3	SEGMA	5	5	5
	SEGRA Engl.	5	5	5
	SEGRA Kiny.	5	5	5
S4	SEGMA	5	5	5
	SEGRA Engl.	5	5	5
	SEGRA Kiny.	5	5	5
S5	SEGMA	5	5	5
	SEGRA Engl.	5	5	5
	SEGRA Kiny.	5	5	5
S6	SEGMA	5	5	5
	SEGRA Engl.	5	5	5
	SEGRA Kiny.	5	5	5
Total Per School		171	171	171

Table 83 Achieved Sample Sizes for the Pilot Study

	EGRA English	EGRA Kinyarwanda	EGMA	SEGRA English	SEGRA Kinyarwanda	SEGMA
P4	20	26	24	-	-	-
P5	21	28	18	-	-	-
P6	19	29	28	-	-	-
S1	-	-	-	19	9	18
S2	-	-	-	11	5	9
S3	-	-	-	7	2	16
S4	-	-	-	25	21	10
S5	-	-	-	12	10	13
S6	-	-	-	8	9	16
Total	60	83	70	82	56	82

9.11.1 Limitations of the pilot study

A significant proportion of girls did not consent to do all four versions of the SEGRA or SEGMA. This is because the pilot occurred in the middle of final year exams and girls needed the time to either prepare for such exams or sit the exams. We have thus included the results for those tests that were completed. Enumerators re-scheduled many of these girls, though head teachers in pilot schools offered only 2hrs per day as a window of opportunity to administer the tests. Given these are not project schools, it was difficult to achieve the desired sample size of 75 for two of the tests, namely EGRA English and SEGRA Kinyarwanda.

9.12 Annex 15: Sampling Framework

Provide updated and final excel file. The final selection of the schools/communities for the evaluation should be clear.

9.13 Annex 16: External Evaluator declaration

Name of Project: Rwandan Education Advancement Programme 2 (REAP)

Name of External Evaluator: One South, LLC

Contact Information for External Evaluator:

1521 Concord Pike #301
Wilmington, DE 19806
United States of America

+1 703 584 4081
management@one-south.org

www.one-south.org

Names of all members of the evaluation team:

Andrés Navarrete Berges and Tariq T. Omarshah certify that the independent evaluation has been conducted in line with the Terms of Reference and other requirements received.

Specifically:

All of the quantitative data was collected independently (Initials: ANB)

All data analysis was conducted independently and provides a fair and consistent representation of progress (Initials: ANB)

Data quality assurance and verification mechanisms agreed in the terms of reference with the project have been soundly followed (Initials: ANB)

The recipient has not fundamentally altered or misrepresented the nature of the analysis originally provided by One South, LLC (Company) (Initials: ANB)

All child protection protocols, and guidance have been followed (initials: ANB)

Data has been anonymised, treated confidentially and stored safely, in line with the GEC data protection and ethics protocols (Initials: ANB)

Andrés Navarrete Berges

One South, LLC

12/08/2019

9.14 Annex 17: Project Management Response

Note: The following section has been drafted by REAP project staff as a response to the present baseline report findings and recommendations.

Project management response

The key evaluation findings have confirmed, adding new details, to what was already know, while in other cases they have challenged the existing understanding providing interesting points for discussion to the consortium partners and potential adaptations to the project activities.

Learning

The project has designed its learning intervention on the fact that despite the increased retention of girls in school, the quality of education in the marginalised target schools was relatively low. Girls across all grades had low EGRA and EGMA scores compared to international standards, pointing to a teaching / learning quality issue and also reflecting the fact that the older girls had started their education in French and were older when the language of instruction switched to English, leaving 13% of them completely illiterate in English. REAP2 project's vision is therefore to improve the quality of primary and secondary education so that EGRA and EGMA scores will show a marked improvement in learning as girls move up the grades. The project expects to achieve this through improved teaching quality, enhanced community support for learning, extended learning opportunities, increased access to gender-sensitive teaching and learning materials, and a reduction in barriers to attendance and enrolment. According to midline report data, the project has been able to show an impact in English literacy, while it has not been able to positively address Kinyarwanda literacy and numeracy thus outlining a few questions on the project intervention's and/or the potential necessity to drop Kinyarwanda testing from the endline evaluation, as suggested by external evaluators.

English literacy

As pointed out within the midline report, the difference-in-difference model determined that the project had a statistically significant impact on English literacy outcomes. The project accounted for an improvement of 4.16% in English literacy, on average, between baseline and midline. The above data are in line with the project's internal monitoring data and with the great emphasis and efforts put in place since the start of the project to support English literacy through specific teacher's training; distribution of English books to supplement the textbooks kept at school at reduce the student-reader ratio; the setting up of teacher English discussion groups as well as English learners clubs with the organisations of competitions to encourage learning; support provided to students through CSGs and remedial classes.

Kinyarwanda

As reported in the midline report, the project did not have a visible impact on Kinyarwanda literacy results between baseline and midline. The project was not expecting these findings, however this does not come as a complete surprise as since P4 Kinyarwanda is just a

subject studied at school, though the language of instruction (LOI) is English. Even national exams are carried out in English, therefore there is a lot of emphasis from teachers and schools on English, hence the possible reason for regression in Kinyarwanda (spoken every day but not written). Kinyarwanda language is given much attention only in lower primary where students are requested to examine on the 4 micro language skills: listening, speaking, reading and writing in mother tongue. Therefore, the project agrees with EE suggestion to drop Kinyarwanda from the endline evaluation.

Numeracy

As reported in the midline report, the project did not have a visible impact on numeracy results between baseline and midline. Aggregate grade level results indicate that girls in the treatment group, on average, improved in numeracy between periods but that these improvements did not exceed changes experienced by the control group. Specific skills gaps were identified in girls' ability to identify patterns (missing number) and solve word problems, despite these being relatively lower order skills which do not form part of expected curriculum competencies in target grade levels. The project will ensure remedial lessons and Community Study Groups are able to address these foundational skills gaps.

The midline report has identified general poor learning performances for secondary schools' students and in particular for those enrolled in S2, S3, S4, and S5. The project has identified the below reasons as possible explanations:

- Change to competency-based curriculum introduced in 2015, though it has been practically applied from the start of the following school year in 2016. This might explain why girls currently enrolled in secondary schools are facing additional difficulties than girls enrolled in primary schools;

- Best performing students are transferred to other schools outside of the project area at the end of primary schools, thus explaining lower level of performances in secondary schools;

- Secondary schools overcrowding (the number of secondary schools in the project area is much lower than primary schools thus leading to overcrowded classes – average number of students per class is 60, in some cases up to 80-90 students per class, making it difficult for the students to follow the lesson and for the teacher to appropriately support students);

- Automatic promotion policy (a maximum of 5% in primary schools and 10% in secondary schools can repeat the same grade). The purpose of this policy should be to reduce overcrowding and allow students that are not excelling in school, or are not willing to continue studying, to obtain a lower secondary degree to be able to enrol in TVET courses. The downside of this is that students without the necessary knowledge and skills proceed in school facing increasing issues every year. This policy has been in place for years, but schools have started to apply it only recently;

- Tests provided during midline evaluation were too difficult (in particular for English literacy) thus leading to floor effects. This issue was discussed with EE before the

start of the data collection. Tests were simplified but not as much as field staff had requested. A significant number of enumerators themselves were not clear on the texts themselves. Furthermore, enumerators were testing 5 students every 2 days. It was observed by the field team that often they had to rush to keep covering the planned number of girls per day. If this is understandable given the number of girls to interview and the geographical area to cover, on the other side, it is arguable the quality and the capacity to capture details, giving necessary time to each individual student. Data collection and data system filling did not take place contemporarily (this methodology is recommended in the future, to avoid filling at later stage with higher risk of mistakes). This could also be a possible explanation for the low performances in secondary schools.

In order to try to improve learning in secondary school in general, and in particular in those grades, the project will propose the following adaptations:

- Improving reading culture among students through additional distribution of reading materials at community level and additional encouragement during CSGs and remedial classes;
- Setting up peer support groups, where best performing students will support their peers that are facing issues. This would ensure also a higher level of sustainability to remedial classes and CSGs;
- Providing specific support to students in those grades through CSGs and remedial classes thanks to re-organisation of these activities as per grade levels.
- Improve, beyond current means (PTAs, MDCs) the involvement of parents, caretakers of students, for a stronger awareness and support of school participation and support of teachers' work. Stakeholders meetings, SIP and other opportunities will be used to enhance this.

Transition

The project aims at improving girls' successful transition through different stages of life, such as completing primary and secondary school, acquiring income-generating skills through vocational training, or otherwise perceiving income from employment or self-employment. The above outcome should be reached through different cross-cutting activities such as training teachers at school to provide School-to-Work Training (STWT) and Work Readiness (WR) for boys and girls transitioning to TVET; CSGs and remedial classes; radio chat shows and support provided through health corners to increase awareness regarding SRH; teachers' trainings to improve teaching quality; alumni networks. However, data collected show that even though transition has increased between baseline and midline, this increase isn't attributable to the project, as the same level of increase has taken place in control schools as well.

The fact that there has been no impact on transition could be partially explained considering that automatic promotion policy has been in place for years, but it has been actually applied only recently thus contributing to an improvement in successful transition rates both in

treatment and control schools. In-school transition should probably be measured only considering transition from lower to upper grades (S3 to S4) when automatic promotion is not applied. Another reason that could explain the fact that there has been no impact on transition could be that most of the girls that participated in the internship programme have not started their own business yet, thus not being considered as successful transitions. This is expected to take place within the next few months and therefore it is anticipated that transition rate would increase ahead of the endline evaluation.

The project has seen positively the EE's suggestion to further involve girls' parents in project's activities as this could support transition. Parents could be directly involved in the upcoming School Performance Appraisal meeting as well as in CSGs, remedial classes and alumni networks. MDCs could also represent an important way to raise awareness within the community on the importance of an increased follow up and involvement of the parents in their daughters' school life and studies.

Transition pathways

The project does not feel that transition pathways have changed, therefore it is not believed necessary to update them. However, it has been noted that according to midline report most of the OOS girls expressed the will to go back to school. This seems a bit surprising as most of the OOS girls are older than their peers in schools, which would mean attending lessons where most of the other students are younger than them (in some cases they would be in the same class with their younger brothers/sisters), and therefore feeling ashamed; or are teen moms making it difficult to attend classes regularly. It might be that girls' regret for having left school has been misinterpreted with actual will of being re-enrolled into school. However, the project is committed to continue supporting the OOS girls, therefore whenever the girls will express the will to be re-enrolled into school, they will be provided with the adequate support (participation in CSGs and remedial lessons to catch up with their peers; financial support etc.); otherwise they will be supported in participating in TVET courses or in setting up their own IGA.

Sustainability

As per project's design, sustainability will be achieved through the success of outputs that are self-financing or use subsidies from alumni to sustain initiatives beyond the project term; the influence of the project on government and other stakeholders to ensure changes brought about by the project last beyond the project period; the continuation of school and community owned free or low cost activities and the use of sustainable resources to ensure the longevity of outputs. As per the midline report, the project has been rated as "emerging" on sustainability thus suggesting that the activities the system and activities put in place have started having an impact and will probably result in full sustainability by the project's ends.

However, a few interventions might need to be reviewed / adapted as discrepancies have arisen between the evaluation data and the project internal monitoring data:

- The project would need to revise internal data regarding the percentage of girls that had their school costs reduced. The discrepancy between project data (100%) and

evaluation data (43%) is due to a misinterpretation of the indicator as the project monitoring has been monitoring the number of marginalised girls that are currently being supported though project activities (SBs; MDCs; Alumni networks etc.) which is actually the totality of the marginalised girls. However, this support does not necessarily mean that also school costs are reduced. Therefore, the project would need to update its internal data regarding this indicator, and it will try to understand as well why not all the girls that are being supported actually have their school costs reduced. This additional analysis will be done in the next few months;

- There is a discrepancy as well regarding the number of teachers that are willing to continue running remedial classes after the end of the intervention. Project quantitative data actual refer that 100% of the teachers are willing to do so, but qualitative data collected from the EE and ADRA team, report a different situation. The issue is due to the lack of motivation from the teachers, having additional work without any reimbursement (not even for transportation) of their costs. The project has been discussing with schools and district authorities regarding the possibility of using part of the school capitation grant to support remedial classes teachers. Hopefully this will result in increased teachers' motivation thus supporting the sustainability of the activity beyond the project's life;

- Link has been struggling for monitoring CSGs as one field officer has to supervise 75 groups that meet mostly during the weekend in different locations. HPA field staff has been supporting on this, though difficulties remain. However, Link has introduced peer monitoring (mentors monitor each other and provide summaries of each gathering via SMS) and from this it appears that groups are meeting on a weekly basis, in contrast with what inserted in the report. Therefore, it would be great to have additional details from the EE on this has been monitored as evaluation data appear to be in contrast with internal monitoring data.

Intermediate outcomes

Main comments and recommendations from EEs on intermediate outcomes are referring to proposed changes to indicators in order to provide more reliable and realistic data on the impact of the project interventions. These will be discussed in detail with the FM M&E team before proposing any changes.

Below the project's comments on a couple of interesting intermediate outcomes data identified by the midline report:

- However, attendance has improved since the start of the project, there does not seem to be direct relationship between reduced costs of schooling in the past year and the increased attendance. Below a few possible explanations on external elements that could have contributed to increased attendance: strong campaign put in place by the government in order to improve attendance; the start of two integrated school feeding programmes from the Rwandan government and from WFP; support provided by alumni networks to marginalised girls have also contributed to increase attendance; government law prohibiting girls in school age to be employed (mostly as

house workers) has started to be applied more rigidly thus contributing to an increase in attendance.

- Teaching quality findings show that the use of gender responsive pedagogy/approaches seem to be higher in control rather than in treatment schools. This finding has considerably surprised the field team. They have highlighted that these changes might take time to produce impact as they require a change in attitude and behaviour, however they were very surprised as they noted the distinction in performance and quality of teaching/learning between treatment and control schools, underlying that control schools are not applying all the tools that are in place in treatment schools. This has been noted by the District Education Officer as well during a meeting summarizing midline findings. Therefore, the project team would appreciate having additional elements on how these data have been collected (i.e. how much the EEs have spent observing lessons; how many lessons have they observed; how many teachers were involved) as these could provide useful details to inform changes and adaptations.

Safeguarding concern

The project acknowledges the concern outlined by the EEs regarding the potential risk of girls engaging in sexual activities to get gifts, such as new shoes or clothes, thus leading to early pregnancies and drop-out from school. The project management has never been informed of actual cases, though it is well aware of the risk. Therefore, since Q9 the project has started promoting Health Corners custodians visits to all the project schools in order to raise awareness on SRH/SGBV and inform girls/students about the services provided by the health corners. Furthermore, the project has appointed a teacher at each school working as safeguarding focal point and has trained them. These teachers have been linked with pre-existing structures operating at village level, the “Friends of Families” groups, with a widespread presence in every village and strict contacts with cell and sector authorities, that can support in prompt incidents reports and escalate the issue if needed.

Response to recommendations

Dropping Kinyarwanda as learning outcome

As previously mentioned, since P4 Kinyarwanda is just a subject studied at school, though the language of instruction (LOI) is English. Even national exams are carried out in English, therefore there is a lot of emphasis from teachers and schools on English, hence the possible reason for regression in Kinyarwanda (spoken every day but not written). Kinyarwanda language is given much attention only in lower primary. Therefore, the project agrees with EEs’ suggestion to drop Kinyarwanda from the endline evaluation as learning outcome.

Better support OOS / pregnant girls

The project will ensure to individually contact all the OOS girls and provide them the needed support to be enrolled into school or TVET courses or set up income generating activities depending on the will and the needs of each of them.

Currently no pregnant girls are enrolled in any of the project school or participating in CSGs and remedial classes. Pregnant girls, which constitute quite a limited number among OOS girls, will be provided with the adequate support (participation in CSGs and remedial lessons to catch up with their peers; financial support etc.) in case they express the intention to be re-enrolled into schools, otherwise they will be supported in participating in TVET courses or in setting up their own IGA. Specific support will be provided to the youngest girls.

Pre and post teacher training tests

The project would be interested in taking on board this suggestion as it could strengthen the quality of the teacher trainings and therefore provide a better support to students. However, the project would require the support of the EEs and the FM to set up appropriate pre and post teacher training tests.

Review how to support teachers in delivering English curriculum (P5, S2, S3, S4, S5)

Additional support will be provided to learners in these specific grades thanks to split of CSGs and remedial classes based on attendees' grades. The project will also try to further support teachers in delivering English curriculum, however it has been pointed out by the field staff that actual students English levels are too low compared to those identified within the Rwandan English curriculum and it would be quite difficult over the course of one year to bridge that gap. The project would therefore propose to advocate with national authorities to decrease the levels of the national English curriculum to more realistic and reachable targets.

Review CSG and remedial classes

On CSGs and remedial classes, internal monitoring shows that improvement in learning is quite visible (i.e. students that were not able to read or write when the activity started are now able to do so) though these could be individual examples and the improvements are not significant at a statistical level. However, it would be good to get additional details from the EE on how these data have been collected and why there is a difference between qualitative and quantitative data, as evident from the midline report as well. ADRA has been advocating with head teachers to involve a higher number of teachers per school in running remedial classes (and not just two as done initially) in order to limit the teachers' burden and improve their motivation. Furthermore, discussions have been ongoing with schools and district authorities to use part of the schools' capitation grant to reimburse teachers that support the remedial classes.

Both Link and ADRA agreed that a closer collaboration between CSGs and remedial classes could benefit girls' learning, facilitate monitoring and alleviate teachers' burden. Having CSGs and remedial classes running side by side would facilitate development of tools and students' follow-up and integration of approaches. Furthermore, this would also allow dividing classes by grade (by skills it would be more complicated as it would entail carrying out a detailed assessment of the girls that the project does not have the time and resources to implement). Finally, if Kinyarwanda is dropped, this could free up time in CSGs and remedial classes to further focus on improvement in English and numeracy.

In addition to the above the project will also promote a closer collaboration with Alumni networks as well in order to further support teachers and mentors during remedial lessons and CSGs and more specifically regarding the teaching of English language. The project management will explore a more holistic involvement of the alumni in other aspects of the project and concurrently adjust the M&E systems to capture this information.

Gender responsive training modules

As discussed above, the project's team has been quite surprised by low results on the use of gender responsive pedagogy. Therefore, it would prefer to obtain additional details on the data collection process for this specific activity, before proposing any changes or adaptations.

Supporting the girls in obtaining national ID cards to enrol in TVET courses

This might have been a misinterpretation of girls' statements or maybe there is lack of clarity from the girls of the documentation needed to enrol in TVET courses as there is no need to present any ID cards to be able to enrol in TVET courses. ID cards are completely free and could be obtained at sector offices. In any case, the project will clearly communicate this to all the girls interested in enrolling in TVET courses and will support them during the enrolment process to avoid any potential issue or misunderstanding.

Streamlining and centralising monitoring procedure in schools

Going forward the project will make sure that monitoring procedures for school activities, such as classroom observations, are analysed in a centralised manner by increasing the communication between field staff carrying out the monitoring activities and the M&E Officer. Reports from field visits and classroom observations will be scanned to facilitate the analysis of the data and the identification of gaps.

Change the gender-responsive indicator

The project acknowledges the EEs' comment regarding the difficulty in measuring the gender responsive indicator, specifically regarding how to measure gender sensitive teaching and learning materials and the use of gender sensitive language. The project will discuss internally, and with the EEs and the FM, how to better update the indicator to make sure that change is easily measurable and that it captures the actual improvements in the use of gender responsive pedagogy, as the field team has been quite surprised by the findings as they were expecting a more substantial change considering the feedback received by the teachers after the training.

Enrolling a life skill specialist

The project would be glad to have additional support in taking forward an updated life skill strategy based on the findings form the midline report. However, it does not seem feasible to hire a life skill specialist due to budget constraints. The project will explore different ways to update its life skill strategy and would be glad to obtain additional support from the EE and the FM on this particular issue.

Increase parents' engagement in children's education

The project agrees with the EEs' recommendation to increase parent's involvement in their children education to support increased attendance and learning. The project will improve, beyond current means (PTAs, MDCs) the involvement of parents, caretakers of students, for a stronger awareness and support of school participation and support of teachers' work. Stakeholders meetings, SIP and other opportunities will be used to enhance this.

Review school business performance

The review of School Businesses performance and the additional support provided to those at risk of collapsing has been done since the start of the project. A total of 13 School Businesses have been experiencing issues during the second year of project's implementation and were not operating at a profit. The project staff has been closely following them up and supporting them to make sure that these will be completely self-sustainable by the end of the project. The issue has been discussed with school management, local authorities and other actors during the latest stakeholder meeting and it has been proposed to re-structure SBs committees to ensure efficiency and commitment. The project will continue to closely follow-up SBs performance over the next few months and will provide additional support to those not operating at a profit or at risk of collapsing.

Establish a network of coaches and mentors to further support teachers

As mentioned above, the project is looking at the possibility of a closer collaboration between remedial classes and CSGs to further support girls' learning and alleviate teachers' burden. Hopefully this would free up some time for the teachers to further focus on preparing lessons applying the skills learned during the trainings and will also create additional spaces for teachers' cross sharing experiences and peer support.

Shift OOS girls focus from TVET to re-enrol into school

As mentioned above, the project will ensure to individually contact all the OOS girls and provide them the needed support to be enrolled into school or TVET courses or set up income generating activities depending on the will and the needs of each of them without any specific focus on TVET courses.

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